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SUMMER 2020 • VOLUME 11 • NUMBER 2

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Michigan's MISS DIG 811'S

MARINE DIG TICKET PLATFORM

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EXCLUSIVE

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THANK YOU ESSENTIAL WORKERS!

Honoring those who have kept our Essential Services going during the COVID-19 Pandemic.

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BY MONICA WOFFORD, CSP

Leading When Everything Sucks

Uncertainty. Instability. Discomfort. All circumstances that could be described as the times in which everything sucks. Yet, in each, leadership is still needed. And while the “sucks” described in this headline is common for vacuum excavation, it’s also both a common and a provocative term to describe the climate for leaders in recent months. What do you do in that environment? Or better yet, what have you done to sustain your team and leadership during such times all too often described as “unprecedented?”

We’re thankfully recovering and adjusting, but tough times will come again. They may not be of the same magnitude, but there will be times when things suck again. The next time you see a sizable dip in revenue. The next time you are forced to terminate team members. The next time you have to share bad news with employees and separate how much you like them from reality. No leader likes to live there for long, or very often, and yet, in spite of their difficulty, the tough times can also bring out great strength if you’re willing to let them. During the times you wish someone else were the leader or owner or chief in charge of the project, here are some guidelines that, even when you don’t feel like leading, will help you make the most of your own leadership.

Establish an Anchor

When you’re overwhelmed and feel like you’ve gotten caught near the drain of a water treatment system, it’s hard to find your footing. Time doesn’t move at a speed that feels normal. Panic and fear change our perspective on nearly everything and planning can feel pointless. When everything seems to suck, a little or a lot, or your situation simply sucks the wind out of your ability to sail through a normal day, find an anchor that’s permanent. For some, this is personal: a belief in themselves, a faith, or family member. For others, this can be foundational to the reason they began this business, or entered this line of work, or started helping people who later became valued customers. What is it that you lean on in the times when you need support, versus the times when you’re the giver of support to others? Whether your tough time is a family member with a serious illness, an economic downturn, or a worldwide pandemic, even the best, brightest and strongest leaders need a foundation on which to stand, a wall on which to occasionally lean, and an anchor to keep them grounded when everything around them seems to be changing. Identify your anchor and if you’re an overachiever, yes, find more than one.

Use Empathy, Not Sympathy

Over-achieving leaders tend to struggle with empathy and sympathy. They’d never dream of sympathizing with an employee about to be terminated. After all, the belief is if the employee wanted to keep their job, he or she would make the requested changes. Even so, sympathizing would mean a leader literally shares the emotions of the employee

in question. If she cries, the leader would, too. If she’s scared, the leader would express fear, as well. Both seem preposterous options in this situation. Both serve as an emotional vacuum sucking in the leader and causing him or her to retract the previously stated consequence. Sympathy is not a solution to leading sucky conversations. Empathy, however, will make them easier, if it’s well managed. Empathy is conveying an understanding of how it must feel to be in another person’s shoes. It’s found in phrases like, “if I were in your position, I would feel the same” or “I can truly imagine how hard this must be and I feel for you.” And while over-achievers are those who can barely spell empathy, much less provide it, it is they who need to use this skill the most in tough times and difficult conversations.

Leave You on Your List

When an excavator runs out of gas, the engine sputters and jars to a stop. The vacuum stops sucking, and the wheels quit moving, grinding to a halt. Similar outcomes occur when a part goes bad, oil runs low, or there’s a broken hose. If only there were a “check engine” dashboard on humans. When leading in prolonged tough situations or with employees who seem gifted at sharing their attitude or resistance, the drain on a leader is palpable, but most just keep going. When everything seems to suck, you continuing to lead is imperative. This also means you stay on your own list of priorities, much like you must perform regular truck maintenance if you want them to keep running. Take a break after that painful budget meeting. Go through the drive-through and stop checking email for 10 minutes following your CFO’s next quarter revenue projections. Leave the office earlier than usual and kick the ball around with the pups or the kiddos after you’ve had to release great people from your workforce. The goal is not to ignore your feelings, nor to stick them in some box or compartment and spin that box to the back as if your brain were a lazy Susan. The goal is to recognize that these times for leaders are a strain and drain, too, and that if no one is going to lift you back up, you’ve got to be the one to do it. The challenge is often permission. So, as of this moment, in reading this article, consider yourself having been granted permission to leave YOU on your list of what needs to get done and rewarded and given a break when things start particularly sucking. **DP**

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

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NEWS

Alberta One-Call and Alberta Common Ground Alliance to Merge

The Board of Directors representing Alberta One Call (AOC) and Alberta Common Ground Alliance (ABCGA) have agreed to a merger by acquisition. AOC will acquire ABCGA and over the next seven months a new structure will be formed that will result in joint operations on January 1, 2021.

"I look forward to the opportunities that this decision provides damage prevention stakeholders. Working together eliminates duplication and will assist us in our pursuit for legislation," said Darcy Hurlock, Chair of the ABCGA.

"Based on the influences of today's economy, consolidating services from organizations with similar interests allows our collective objectives to continue, grow and improve," added Fraser Peterson, Chair of AOC.

Utah Earthquake Causes Power Outage during Pandemic

A 5.7 magnitude earthquake shook the Salt Lake City, Utah area in mid-March, cutting off power to tens of thousands of residents and suspending work at Utah's public health lab in the midst of the coronavirus pandemic.

The quake was the state's most powerful since 1992. Operations at the public health laboratory were halted while the building was assessed for damage. The state's coronavirus hotline was also down after the quake, although the health department said a temporary information line was available. People were asked to stay away from the downtown area while crews assessed the damage and to telework unless they worked in public safety or were essential employees.

Rocky Mountain Power indicated that about 73,000 customers lost power immediately following the quake.

CENTURYLINK TO PAY \$2.25 MILLION FOR VIOLATING STATE LAW

CenturyLink has agreed to pay \$2.25 million as part of a settlement for violating Minnesota State Law regarding underground utility lines. The payment will be made to the Minnesota Office of Pipeline Safety (MNOPS) after the company was charged with "repeatedly violating a state law" in 2019 that requires it to mark the location of its underground telecommunications lines.

The MNOPS said it started investigating complaints that CenturyLink wasn't responding to marking requests from excavation and construction companies in April 2019. The complaint stated that in some cases, work crews were forced to abandon jobs because the lines were not marked.

As part of the settlement, along with the fine, CenturyLink must comply with additional stipulations, including responding to 90 percent of utility locate requests on time over the next two years.

CenturyLink Response

"We value our relationship with the excavator community, the Office of Pipeline Safety, and our Minnesota customers. We originally changed our locate vendor to improve service. Unfortunately, despite CenturyLink's significant investments throughout the summer, including deploying over 150 of our own technicians to perform these locates, those changes were not successful. This settlement agreement will ensure that our focus will be on the future rather than rehashing the problems of 2019, and on providing excellent service in 2020 and beyond." 



EXCERPTED FROM THE 2018 DIRT ANNUAL REPORT

EVENT SOURCE

WANT TO KNOW MORE? ACCESS THE ENTIRE REPORT AT CGA-DIRT.COM.

Event Source	Percentage
Locator	64%
Natural Gas	17%
Telecommunications	8%
Excavator	8%
Other	3%



NO industry has been left unscathed by the far-reaching effects of COVID-19, and that includes the many facets of the damage prevention industry. One critical industry group, One Call centers, has had an especially challenging road adapting to the many, constantly evolving range of difficulties that have come with this global pandemic.

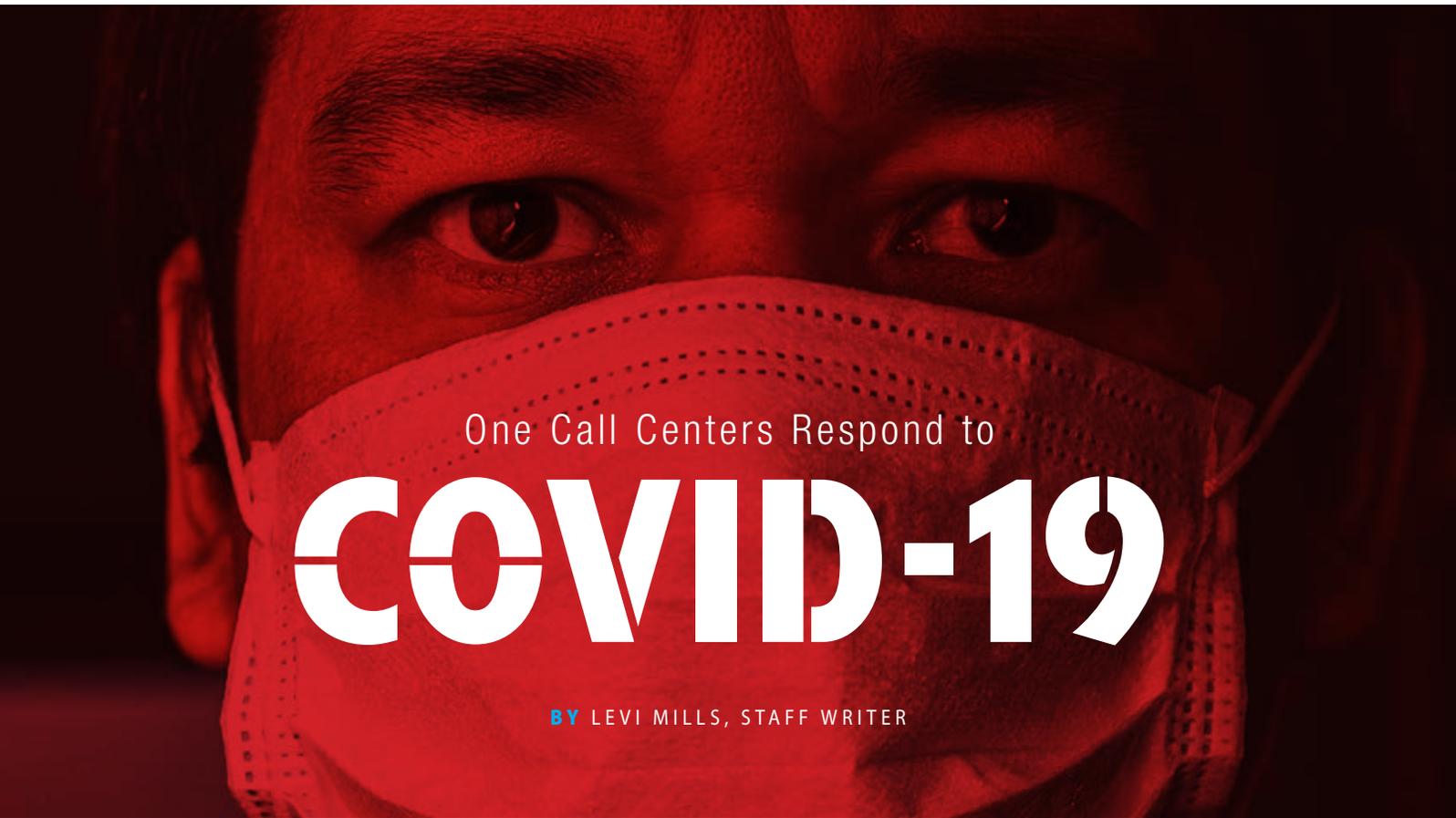
As recent as the beginning of March, the magnitude of the virus and its long-term effect on workplaces was still unclear. As positive cases around the country grew and state governments took actions to limit its spread, One Call centers took actions to both protect their employees and ensure that tickets could be processed safely. Many construction and utility operations were deemed an “essential business” meaning digging would continue and One Call centers had the responsibility to process requests.

The first order of business for most One Call centers was allowing employees who were able to process tickets from home to work from home. The next step was to communicate

ability of locators and excavation workers due to either the virus itself or distancing objectives affecting their ability to work. That concern also led to pleas to the public to avoid doing non-essential home projects that required contacting 811.

MISS DIG released a statement on April 7 discouraging homeowner projects if possible, “Delaying digging until after the Governor’s executive order is lifted is best, but if it can’t be put off, it’s important to call 811 no matter how small the project.”

The predicted strain on locators quickly became a reality and One Call centers added an additional request to excavators to make the job



One Call Centers Respond to **COVID-19**

BY LEVI MILLS, STAFF WRITER

their continued ability to process tickets to excavators.

On March 13, 2020, Okie811 released a statement to reinforce the center’s ability to process tickets, “OKIE811 is classified as an Essential Service and is continuing to process all locate requests, 24x7. Excavators MUST continue to abide by Section 63-142 of the Oklahoma Underground Damage Prevention Act and ensure all underground lines in the excavation area have been located and marked before beginning any excavation project. Excavators are not to use mechanized equipment within 24 inches either side of the marked line but instead expose underground lines by hand digging.”

Chris Stovall, President and CEO of Texas811, released a similar statement on March 16, “...we have the ability to continue operating. Our call center is taking and processing calls, our web portal is operational and our entire staff is available to answer any questions and to address any concerns.”

Louisiana 811 released a more cautious statement a few days later, on March 19, “... please note some of our industry partners may experience interruptions in resource availability. These interruptions may result in delays in providing field services such as responses to locate requests, performance of excavation activities and other related services.”

The concern expressed by Louisiana 811 was founded on a forecasted decrease in avail-

safer – white lining. It was recommended that excavators white line the worksite prior to locators arriving onsite. According to Texas811, dig sites that are white lined have half the damages of worksites that are not.

As of this writing, many One Call center workers continue to work remotely. They are still successfully processing ticket requests despite the challenges brought by the virus. The importance of the work they do, alongside locators and responsible excavators, cannot be understated. Our buried infrastructure is being leaned on harder than ever and their work is allowing many people to remain living and working safely from home. The agility the process has shown in response to an unprecedented situation is both noteworthy and impressive. **DP**

Express Plumbing @PlumbersBayArea · 1m
 We want to give a shout out to our technicians who continue to provide #essentialservices in the #BayArea while maintaining #socialdistance as set by CDC. #slowthespread



Ray the Photog @WWMTsPhotogRay · Mar 24
 Big thank you to all the utility workers working hard to keep the lights on, the internet streaming, and the phones ringing during the stay at home order! #essentialservices



Veolia Middle East @VeoliaME · 11h
 Guaranteeing public health and environment conservation is mandatory to face his unprecedented crisis. To ensure the connection to sanitation in the region, you can count on our #EverydayHeroes and their involvement. #EssentialServices.

NOW MORE THAN EVER
 Our employees are mobilized across the Middle East to provide you with #EssentialServices.

WASTEWATER MANAGEMENT
 We ensure the connection to sanitation for 2.8 million people to guarantee public health and environment conservation.

#EverydayHeroes are on duty so that you can #StayHome



Joe Solimeno @JoeStatMan64 · 34m
 #EssentialWorkers #essentialservices



Veolia Ireland @VeoliaIr · 12h
 Veolia continues to provide essential services to our customers. Our teams are working every day to provide secure supplies of energy and other utilities to keep pharmaceutical and food & beverage manufacturers operational. #EssentialServices #BusinessResponselr #Covid19



Thank you

to those who keep our **#EssentialServices** going ^{DP}

League of Cities @FLCities · Aug 15, 2017
Thank you for your service & dedication in keeping cities running smoothly!
#essentialservices #cityhallselfie

City of Sarasota @CityofSarasota · Aug 15, 2017
Look @ those smiles! Dennis, Tony & Leo getting their #CityHallSelfie early this a.m. @ our Lift Station Shop @ the Utilities Dept.



Mack Story, Blue Collar Leadership @MackStory · 1h
#hope #vision #leadership #frontlines #CarryTheLoad #ThankALineman #thankafarmer #frontlineworkers #thankatrucker #thankadriver #thankadoctor #thankanurse #essentialworkers #essentialservices #essentialbusiness #everybodymatters #construction #foodindustry #constructionindustry

THANK YOU to those on the front lines who are CARRYING THE LOAD!

"A leader is a dealer in hope."
- Napoleon Bonaparte

Canadian Gas Association @cga_acg · Mar 27
Canada's #NaturalGas industry is grateful for healthcare professionals & others (including gas & electric utility workers) providing an #EssentialServices during the #COVID19 pandemic. Thank you for keeping our communities healthy & safe! #FuelingCommunities #FlattenTheCurve



LA Sanitation & Environment @LACitySAN · 2h
Last Thursday, @mayorofla - Eric Garcetti, thanked #sanitationworkers & #cityworkers for consistently providing #essentialservices to our communities day in and day out.
He also mentioned that starting today, the City will be #doublingdown on black & blue bin collections.



A Year in the Life of a Liaison: My First Year at NC811

Part 2

BY BRIAN MOREHOUSE



I spent roughly 25 years in the utility business before joining NC811 in February 2018. After taking on other roles over the previous few years, it was nice to be back in the business. Sometimes people think they want a change and look for other opportunities in life, stepping outside their comfort zone. It's interesting how fortunate you feel when you get back to what you have spent over half your life doing.

811 "Call Before You Dig" was nothing new to me. I had 25 years dealing with locates and finding the underground lines or pipes before doing any type of excavating. It was familiar because I had conducted field work on the part of not only the Dominion Energy Electrical Construction Team but also the Design Team. What I didn't know was all the information and data recovered behind the scenes. 811 does so much more than just transmitting locate requests and sharing positive response to the callers to let them know that it is safe to perform digging operations as marked.

Most don't consider all the data gathered when a line is hit: Was it a first-time caller? Was the locate performed properly? Was the ticket valid or out-of-date?

NC811 is the second largest call center in the country in terms of incoming locate requests; only Texas takes more requests. In 2019, NC811 received over 2.2 million locate requests. Those numbers have been rising each year. 2019 reflects a 10.5% increase in requests over 2018. 2020 was on course for another record-breaking year for our organization, but with the COVID 19 pandemic, we are seeing a decrease of 8% in ticket volume.

When I walked through the doors of NC811 in Greensboro on my first day, I was prepared to create slides and give presentations. I quickly realized there is so much more to the job. I didn't anticipate the number of calls I would receive each week about how locates are being done in the field or the variety of issues that arise from week to week. Even though I had been in the business to some degree, it was more than I had expected. But, with my mindset and

determination, I was ready and up for the challenge.

Some may think Education is a great division to work in. I am here to say it is a WONDERFUL division and like no other. Our purpose is to get the message out to contact 811 before you dig and know what's below. As a department, we all take great pride in what we do. We strive to make sure everyone knows what is needed to perform their work safely. We never want to see anyone get hurt, facilities damaged, or outages due to poor judgement.

As my journey to 811 continues, I'd like to share what I learned and how I am trying to help do my part in making improvements to our system as a team.

Education Liaisons speak at different Utility Coordinating Committee (UCC) meetings within our designated areas, to bring them the message of damage prevention. We provide them much needed information from monthly and yearly locates within their area to the types of excavations performed. We deliver safety information and discuss hot topics of concern and upcoming events of interest. We always open the floor up to



talk about issues they may be having within the area that they represent. Stakeholders get to hear problems or complaints firsthand and this gives everyone the time and space to address them. I always tell my UCC members, if I don't hear from you about certain issues, I feel like everything is going well. If there are challenges, I ask members to reach out to me so we can handle them as soon as possible. Finding resolutions are our goal in every one of our UCC meetings.

Being an Education Liaison is not a normal eight to five job; we spend many hours on the road. Personally, I cover the western region of NC, which includes mountainous terrain. However, not as busy as other areas of the state, the travel can be harder to navigate. Many mornings I am on the road at 5:00 am to get to my destination so to be prepared to present; sometimes I travel the night before. Nevertheless, while on the road, my Bluetooth is working overtime as I talk to stakeholders about things that have come up. We realize time is money and I hate to see crews waiting for a locate to be performed.

When I worked in the field processes were a little different and, over time, things have changed. I visit some organizations and share that I am with NC811, people look puzzled. As soon as I say, "You know, Call Before You Dig," the lights come on and they say, "Oh yeah, I know who you guys are!" NC811 is trying to make everyone aware of who we are. You now see 811 on billboards, radio and TV commercials, sporting events, modified racing and yes, even water tanks here in NC. 811 is seemingly everywhere, but why? Because growth is happening across the country and North Carolina is no exception. We are blessed to work and live in a state that weather allows for excavating twelve months out of the year.

In my year here, I have taken the time to learn about all facets of NC811 including handling member concerns, making sure our mapping system is up-to-date, receiving and auditing the requests for locates, getting positive responses back to excavators, and showing

what has and hasn't been marked in the three-day time period. Plus, we are always here to receive those emergency calls 24/7, 365 days a year. I was not kidding when I said this is no eight to five job! We are always ready to take information to ensure a proper locate is conducted.

I was once asked, "what have you learned in your first year with NC811?" I learned I do not have a job, I have a passion. In summary, the message I deliver is straightforward and simple:

811 is your free number to contact when you dig no matter where you live in the U.S. Don't take a chance on thinking you know where the utilities are located. This is a service at no charge to the excavator. Not many things are free these days, so take advantage of the 811 notification system to protect what lies below. Call or click 811 before you dig, wait the required time, check positive response, respect the marks and dig with care. **DP**

This is the second article within a series exploring a year in the life of a liaison. To read part one, visit dp-PRO.com. The final installment will be available in the dp-PRO Fall 2020 issue.

ON-TIME LOCATES: WHAT'S THE PROBLEM?

BY CHUCK MULLER

AS METRONET BUILDS OUT ITS 100% FIBER NETWORK in communities near you, we see the damage prevention world from every angle. This article focuses on the perspective of our contractors and the challenges they encounter. Subsequent articles will look at the process from the perspective of locators, utilities, One Call, as well as the community in general.

Part 1: An Excavator's View

Contractors know unmarked or mismarked locates can lead to:

- Harmful and possibly deadly consequences to their employees and the community
- Costly repairs, fines, and downtime
- Disruption of work, leaving crews with nothing to do, while still receiving wages
- Loss of financial incentives for on-time completion
- Loss of future business and harm to their reputation
- Higher insurance costs
- Disrupted construction schedules
- Abandoned/not abandoned facilities

Contractors submit locate requests expecting their work areas will be located and marked within the time allotted by the law in the state where they are working. Unfortunately, that does not always occur. In general, contractors want to do the right thing and are willing to work with the locators to stay ahead of them. New tools like Positive Response and project tickets help; however, opportunities for improvement do exist. The key to improvement is communication.

When MetroNet enters a new market, we proactively reach out to all players involved. We submit locates online on behalf of our contractors in order to reduce One Call traffic. We also share our construction schedule with all affected parties. Our OSP engineers visit each jobsite daily, ensuring our contractors have adequate paint on the ground in front of them. We also look for reroutes in heavily congested areas. We hold weekly, sometimes daily, calls with locators to address any issues, and monthly roundtable meetings for contractors and locators. In addition to training our contractors thoroughly on proper safety procedures, we also conduct weekly safety audits of our contractors to ensure compliance.



What are the Contractor's Options?

Workarounds should never be an option. They overload the locating world forcing the locators to be further ahead, or jump around consuming valuable resources and increasing job extensions from One Call. Also, when an area is left uncompleted it reduces residents' confidence in us. Some ideas to keep things manageable:

- Understand the other partner's position. They share many of the same issues with workload and staffing.
- Collaborative planning, before and during the project.
- Constant communications and schedule updates.
- Seek out mutual solutions and work together to achieve them.
- Break up locate requests into a manageable size, allowing the locators to stay one step ahead of you.
- White line the proposed bore path. This simple act goes a long way with building the relationships needed for a successful project buildout.

As excavators, we also need to realize that we are not the only people who are out there digging. With a growing economy and record low unemployment, the entire construction industry is struggling to keep up with the demand. Only by working together can we complete our projects safely and on time. **DP**



Practical Stress Reduction:

Go From Worrier to Warrior!

BY DR. KATHY GRUVER

STRESS. We all know it. We've all felt it, especially these past few weeks. But, what can we really do to help colleagues, our family and ourselves during times of stress? By the end of this article, you'll have a few practical tools and maybe a new view of how stress really acts in our lives.

First off, what is stress? Stress is a perception that demands are going to exceed our resources. It's a feeling that we aren't going to be able to handle what is coming. Or, it's a threat... real or imagined. Now, when we're walking down a dark street and someone jumps out at us, that is a real threat (perhaps) and we should absolutely have that "fight or flight" response. But we've all had a situation where we've freaked out about the snake just to find out it was a garden hose. The fight or flight response is incredibly helpful in ensuring our survival.

But today, much of our stress is that perception of danger. The boss says, "I want to see you first thing Monday morning." Ack! There goes your weekend and you make up stories as to what she wants. Are you in trouble? Are you getting fired? Did she find out you've been taking post-it notes and pens home? Sure, this situation may lead to something negative (or not, we don't know) but is it fight or flight worthy? Not really. As you find yourself having a strong reaction to something ask yourself, "is it fight or flight worthy?" Often, it is not. It's about training ourselves to recognize our reactions, responses and behavior and making a conscious choice and effort to make changes.

Now, right now, I want you to stop reading this article. Well, in a second. Right now, I want you to take a deep inhale and exhale and then come back to reading... I'll wait. Great, that might have been the first conscious breath you took today. What that breath does is anchor us back in our body, signal to our brain that we are okay so it stops the stress response and triggers a relaxation.

It also allows us to take a pause. And in that pause, there is power. It allows us to decide whether we are going to respond to something or react to something. And isn't it the reactions that get us in trouble? That pause is power and it's one of the most important things you can do. Now, I want you to do that breath again, but this time really observe the breath. See if you can notice where the inhale starts and stops, and there's a little pause before the exhale starts and stops. You'll notice when you do that, you slow down. Go ahead and take a second to close your eyes and do that slower, more focused breath. The breath is more intentional and, again, it stops that flight or fight feeling. If you have no time to do anything else during

a stressful situation, this will be enough to help you relax and regain control.

Let's talk about the here and now for a second before the next technique. So, the key to this stress reduction thing is that stress isn't the problem. WHAT!? I know, it sounds crazy, but it's really not the problem. The reason it's not the problem is that you can't control the stress. It's some outside thing. We only have control over our thoughts and responses to that thing. This is where the breath work and the other techniques help. It gives the power back to us to make a different choice about how we respond to the things that are thrown at us.

The other technique is the mini meditation. This is one of my favorite techniques and I've taught it around the world. So, do that breath again and this time on the inhale think, "I am." And on the exhale think, "at peace." Repeat over and over. If other thoughts intrude, dismiss them without judgment and return to the breath and the mantra. This can be done anytime, anywhere, by anybody! Including you. And as "Type A" as I am, if I can do it, I know YOU can. 

Kathy Gruver, PhD, LMT, CHT invites readers to reach out for assistance for their organization or team or to obtain a copy of one of her books. In this incredibly stressful time she is offering discounted coaching and hypnosis sessions. Visit KathyGruver.com or KathyGruver.coach.

BY JASON KOUBA SPECIAL REPORT

REPORT

Locator Spotlight: The Lifecycle of a Locate Request

What happens to your locate request in the three working days after it's submitted? Many contractors don't realize how many things go into getting your job marked so it's ready for you to begin excavation when your ticket becomes valid. Here is a glimpse at the life of a ticket through the eyes of a utility locator.

You've submitted your ticket to the One Call center and have been informed the utilities have 72 hours (excluding weekends and holidays) to respond. How many tickets are called in on average? TN811 received an average of nearly 2,500 locate requests per day across the state in 2019.

The first step in getting the ticket processed is for the One Call center to transmit all ticket information provided to the different utilities who may have facilities in conflict with the dig area. An average of 5.33 utilities were notified for each incoming locate request in 2019.

At this point, your ticket will go one of two ways. If the utility receiving your ticket information does their utility locates "in house," meaning an employee of that utility performs the locate, your ticket is distributed to the locator and falls into their workflow to complete. If the utility receiving your locate request uses a subcontractor to perform their locates, your ticket is routed to the contract locating company. It always helps to know if the utilities were marked by the utility or a subcontractor, so you know who to contact if you have questions about the markings.

Once your ticket is in the hands of the locator, specifically a contract locator, the next step starts. Most utility locate companies use a ticket management software which allows tickets to be routed to varying grids; each grid has a specific locate technician assigned and responsible for



the area. The territory could encompass an area anywhere from a couple of grids, if the service area and ticket volume is low, to hundreds of grids for larger service areas and higher ticket volumes.

Once the locator has received his workload for the day he must make a game plan to get the tickets completed by their due date. For a contract locator, the first 24 hours of a locate ticket's life is often spent in the internal routing phase, meaning by the time the locator receives the ticket in their workflow they only have 48 hours to get it done. On any given day, utility locators could have between 10 and 50 tickets in their workflow depending on the workload for their specific territory.

The next step to maximize efficiency is to eliminate as much drive time between locates as possible. The less windshield time, the more time spent in the field marking utilities. A commonly used approach involves routing yourself in a circle so you end back near where you started. The starting point may

be the locator's office, home, or first ticket of the day.

Locators must consider the type of tickets in their workload and the size and location of the projects. This is important as they may have tickets in their workload that require traffic control, are in areas accessible only during certain hours, or they may have to hold off based on weather conditions as some hard surfaces won't allow the paint to stick if wet.

Now that the tickets are routed and we have a game plan for the day, we head to the location of the first ticket. Let's go with a single address ticket to get into the swing of our workday. As the locator pulls up to the first ticket, they are visually scanning the area for signs of buried utilities. The locator will look over the ticket to ensure a clear understanding

of the scope of the ticket and where digging will take place, looking at their prints for existing utilities and forming a plan of attack to get these utilities marked.

In a perfect world, the locator will be able to walk up to the job site, know exactly where the hook up point is for each utility that needs to be marked and complete the locate with minimal issues. Unfortunately, this is not always the case; access points can be buried, hidden behind brush and debris, or difficult to reach because of a structure placed around access points by a home owner to give better curb appeal to their property (think shrubs or fences around utility boxes). Fences with locked gates can be a huge hindrance to utility locators. If a locator runs into this issue and the property owner is not on site, the locator can't complete the locate and needs to make phone calls to the contact on the ticket to make arrangements to gain access. This may mean that the locator now has to put this ticket on hold and move on to another ticket while these arrangements are being made.

Once the locator verifies where he needs to hook up to mark out the utility, the line can be located. Sounds easy enough, right? Well even though he knows where he needs to access the utility and where the line is supposed to run, he still must utilize his locate equipment to ensure he is staying on the target utility throughout the locate. Many factors can make a seemingly easy locate difficult to complete. A utility may not be grounded on the far end, making it difficult to complete the circuit. Shallow utilities can cause the return signal to bleed off and follow a different line, making it difficult to differentiate between the two signals. Nicks or breaks in the line can also cause a loss of signal and possibly cause bleed off onto other utilities in a congested area.

Now let's head to our next ticket, where we're marking at an intersection. Often, the easiest and most straightforward way for a contractor to call in a ticket at an intersection is to request a radius of the intersection to be marked. While this may seem simple enough to the caller, let's look at how this affects the locator. Once again, the locator is going to visually scan the area to look for signs of buried utilities, however this time the ticket calls for a 500-foot radius of an intersection. The locator is now going to have to go 500 feet in every direction of that intersection as well as possibly behind businesses and residences that sit at the corner of the intersection. Once the locator has determined what utilities need to be marked and has checked the utility prints for known existing utilities and access points, she will make her plan of attack for marking the utilities. The difference here from our previous example is that we now may have access points in the street at the intersection which causes the locator to have to close traffic lanes down to access these hookup points.

The locator also must be aware of her surroundings as vehicles driving by may not understand that the locator may be stepping out into the street to mark a utility. If it is a heavily travelled road, the locator may have to rely on the timing of traffic lights to gain access to the roadways to mark lines that are crossing the intersection. Unfortunately for the locators, it is not always possible to just close the roadway down to complete their locate. Locating in intersections can be a very time consuming and dangerous job for a locator. The same variables that may cause issues in locating a line at the previous single address ticket are in play for this intersection ticket. Bleed off, grounding issues, and other vari-

ables need to be taken into consideration when completing any locate. Depending on how many utilities are being marked, how heavily travelled the road is, and how many different access points need to be used to complete the locate, this locate could take a considerable amount of time, sometimes more than an hour. This is something to keep in mind, remembering what the locator's workload looked like at the beginning of the day.

Uh oh! What just popped up on the locator's computer? It's an emergency ticket. In Tennessee, the locator has two hours to respond to an immediate emergency ticket from the time the ticket was received by the One Call center. The locator now must decide: Do I have time to complete the rest of this lengthy locate and still have time to travel to the location of the emergency and complete that locate, or do I need to pack up my things and return to this locate after I've handled the emergency? Let's say the locator decides he won't be able to complete the current locate quickly enough to still have the emergency handled in time. That being the case, the locator must now put the current ticket on hold until the emergency is taken care of.

Fast forward through the emergency ticket, everything went smoothly and the locator was able to complete the locate on time. Now getting back in their truck, the locator must decide: Do I return to the locate I just came from when the emergency came in, or do I reroute myself from where I am now and catch the rest of that locate later on my way back? In this scenario, the locator determines that he has some smaller tickets close by to the emergency that he can go complete and reroutes his workload.

The last step in completing any locate request is documenting the work performed and sending a positive response notification back to the One Call center that allows the caller to see the status of their ticket as well as how it was closed out. This can include making drawings, taking pictures, and placing notes on the ticket. The locator has a large responsibility on each ticket completed and must have good documentation showing what work was performed and how the utilities were marked when he left the jobsite.

If you're following along, we've had a very busy day and we've only managed to complete one ticket. We've thrown several variables into our scenario to illustrate the challenges locators have to overcome on a daily basis, and this is not an unrealistic example. Now consider that everything we've managed to overcome in this example is repeated 10, 20, or 30 times every day as the locator works to complete two or three locates per hour.

Utility locators, thank you for what you do each day to keep our contractors, homeowners, and communities safe while protecting the vital assets that most people never even see in their daily life. Your dedication and commitment to damage prevention is an important part of the safe digging process. 

Jason Kouba is a Damage Prevention Liaison with TN811. Want to recognize a utility locator for their hard work? Email karin@emailir.com and they may be featured in an upcoming issue of dp-PRO.

Editor's Note: Ticket requirements referred to in this article are specific to the Tennessee Dig Law. Please visit ExcavationSafetyGuide.com or your state's One Call website for information specific to your state's Dig Law.

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"While Coral has truly expert knowledge in management systems, she is equally gifted in her ability to conduct outreach and consultations across an array of diverse stakeholders and guide them to **workable, logical solutions.**" **J. Donihee**, past COO Canadian Energy Pipeline Association

"Coral has a skill set that uniquely positions her to do what many others cannot: she truly can serve as a bridge between the more technical side of a topic, issue or challenge and the need to make it easy for others to understand and respond appropriately." **T. Larson**, Principal, Larson Communication & Consulting



SOCIAL INITIATIVE

#locatorsafety

The significance of locator safety underwent a transformation upon the arrival and rapid spread of COVID-19. Locators continued their work, now as essential workers, with an additional safety hurdle to overcome. Their continued dedication to the safety of the public and the infrastructure we all rely on has not been overlooked.



WHAT DO YOU THINK?

This issue's question:

Have shelter-in-place orders increased the amount of digging projects on your personal property?

- A) **Yes**, I have more time to do yard projects I've put off
- B) **No**, I've got my hands full with other things
- C) **No**, the call centers need help prioritizing infrastructure repair tickets

To answer click **HERE!**

Last issue's result:

Are you planning on celebrating LSAW (Locator Safety & Appreciation Week) In the last week of April?

- 100%** YES
- 0%** NO
- 0%** I celebrate LSAW EVERY week!



Trenchless Technology

Providing an opportunity for trenchless professionals to connect & network. With over 6000 trenchless professionals in this group, your trenchless industry "reach" on LinkedIn will expand significantly by joining. Many also find professionally useful information in the active discussion group. We encourage everyone to also get involved with the Virginia Tech WATERiD website.

FROM THE
PUBLISHER



BY SCOTT LANDES

Coping with the “New Normal”

C OVID-19 has left all of us looking for a way to balance our “new normal” with what “used to be.” Many of us look back over the upheaval of the past few months and long for a return to the way things were before. The truth is, that return is probably never going to happen. Much like rushing flood waters re-sculpt the path of a river, COVID-19 has rearranged the way many of us do business and live our lives.

The Infrastructure Resources team has been working from home since late March. Previously, remote work was never really a consideration for us, except occasionally if someone was expecting the cable repair guy or a child was home sick. We weren't really prepared to work from home full time for an extended period of time. But, as Plato said, “Necessity is the mother of invention.” We learned how to adapt. Much of that learning was in the deep end of the pool, but we learned. And frankly, we've come out the other side stronger than ever.

We've managed to publish two issues of *dp-PRO*, we've navigated the troubled waters of cancelling the largest event in our industry, we've held a series of 20+ virtual education sessions for Excavation Safety Conference attendees who were unable to meet this past March, we've begun building our educational tracks for 2021, we've engaged many in the LSAW initiative, promoted additional initiatives with industry partners to launch Damage Prevention Week, built a plan for a series of virtual industry summits for everyone, and so much more. Like many, we started not knowing how this thing was going to work long-term and ended knowing that we could accomplish most anything we set our minds to.

Now, don't get me wrong, my point isn't to sit here and pat us on the back (although my team deserves it). Rather, my point is that people are resourceful at finding ways to overcome and achieve success in the face of adversity. Change is hard, so often we do not embrace it as easily as we probably should. Once we've made the leap though, we suddenly discover whole new avenues to explore.

This is where we at Infrastructure Resources are right now. We know that realistically speaking, the world is never going to return to exactly what it was before COVID-19. Even once we are more comfortable gathering in large groups again, many people will be reluctant to do so. Therefore, we are actively looking for ways we can incorporate virtual learning into our event programming. We're excited to explore these new options and invite you to sign up for updates at GlobalExcavationSafetyConference.com to stay up-to-date on everything new we have to offer.

Our journey through the pandemic and all it entails isn't over yet, but things are slowly improving. I wish health and happiness to you and yours, and I sincerely hope you have found your silver lining during this difficult time. 



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PUBLISHER

Scott Landes • scott@emailir.com

EDITOR IN CHIEF

Michele Moe • michele@emailir.com

MANAGING EDITOR

(SUBSCRIPTIONS)
Karin Strub • karin@emailir.com

AD SALES

Vicki Husome • vicki@emailir.com
Erick Marklund • erick@emailir.com

CREATIVE DIRECTOR

Brett Link
Brett@MyHappyPlaceDesignStudio.com

PUBLISHING CONSULTANT

Dick Hendricks • jdhendricks@comcast.net

CONTRIBUTING AUTHORS

Jeanna Dean
Pat Goddard
Dr. Kathy Gruver
Chapman Hancock
Jason Kouba
Christopher Koch
Ed Landgraf
Cliff Meidl
Levi Mills
Brian Morehouse
Chuck Muller
Jennifer Parent
Brett Schimming
Stephen C. Tatum
Monica Wofford

Published Five Times a Year by
Infrastructure Resources, LLC
4200 W Old Shakopee Road,
Suite 103
Bloomington MN 55437
Phone: 866-279-7755
Fax: 952-703-7022

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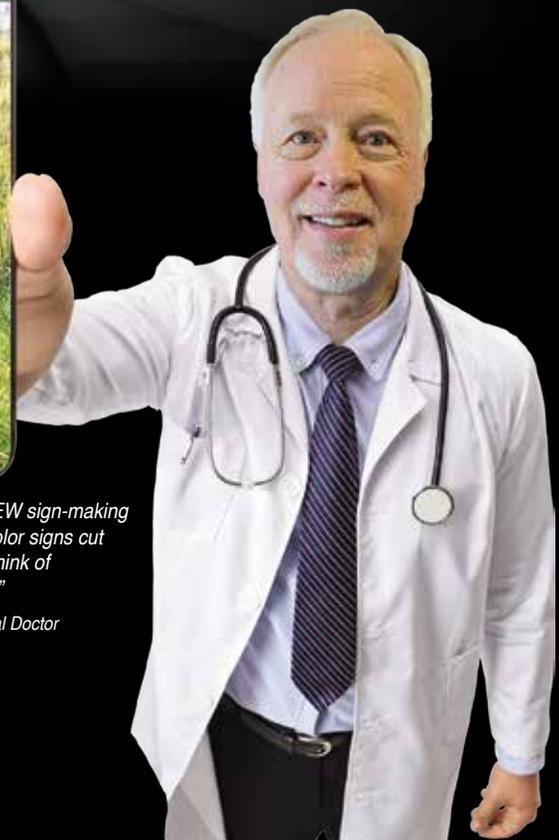
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-Tom Preston, Not a Real Doctor

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HOT #TAGS

UPI @UtilProInc · 32m
 It's Locator Safety + Appreciation Week 🧡 Even w/ less people + cars on the road, it's always important to wear #PPE + set up safety cones. Thank you to our team that continues to support the region's infrastructure during these uncertain times 🧡 #LSAW #safety #infrastructure

USIC @USICLLC · Apr 16
 Can you guess the Top Safety Hazards locators face while they're busy keeping the public safe? A few of them may surprise you. Join us in showing appreciation for their hard work during Locator Safety & Appreciation Week, April 20-26. #SafeLife #LSAW

Can you spot the hazards?

City of Salisbury @CitySalisburyNC · 55m
 It's Locator Safety and Appreciation Week (#LSAW)! Join us in celebrating the hard work and dedication to safety by our engineering department traffic signals technicians, #SalisburyNC-Rowan Utilities and public works maintenance division. #ThankYou

#LSAW

#LSAW

WHAT'S TRENDING



Follow these companies on Facebook

atmosenergy @atmosenergy · Apr 13
 As many start another #WFH week, keep this message from our friends at @texas811 in mind!

We urge everyone to postpone digging projects during the #COVID19 pandemic to ensure the safe & reliable delivery of natural gas & other utility services. If you must dig, #Call811 first.

Stay safe during social distancing by calling 811 before starting any new project, so you can stay connected to the internet and utility services you rely on.

Call 811 or go to your state 811 center's website before digging.

811

Call811.com/811-your-state

Enbridge Gas @enbridgegas · 2h
 I suggest placing an outdoor patio cushion on your chair, they tend to be thick and already 'chair shaped'. You'll then need extra foot support, boxes and books are often recommended, but my go-to is a rolled-up yoga mat. This should save your tailbone! #WFH #AskTheErgonomist

Ask an expert

Wendy, Enbridge Senior Advisor of Ergonomics

I don't have an adjustable chair at home, can you offer tips for chairs that aren't tall enough when working at the kitchen table?





• STAFF REPORT •

Ed Landgraf

Marine Protector

BRENT SALTZMAN, INTERIM EXECUTIVE DIRECTOR, LOUISIANA 811, CLAIMS HE CAN'T SAY ENOUGH POSITIVE THINGS ABOUT ED LANDGRAF. "HE'S ONE OF THE MOST KNOWLEDGEABLE, PASSIONATE AND DEDICATED FOLKS I KNOW WHEN IT COMES TO EDUCATING MARINERS ABOUT DIGGING SAFELY.



Without a doubt, he is passionate about damage prevention. Ed has created alliances with non-industry groups like the Lake Ponchartrain Basin Foundation and the National Estuary Program. He also worked tirelessly with the Dredging Association of America in educating and coordinating efforts nationwide.

Ed conducts monthly conference calls with all stakeholders to discuss near misses, accidents and

His commitment to damage prevention in the marine environment is unparalleled by anyone and I appreciate his willingness to bring all stakeholders together in the name of safety." Deanna Centurion, President & Chief Strategy Officer for Cyera Strategies, concurs, stating we made a "great choice picking Ed!!!" for this issue's Damage Prevention Hero.

Ed is the Chairman and Founder of CAMO (Coast and Marine Pipeline Operators). Founded in 2009, CAMO now has over 20 participating major oil and gas companies and agencies, all working to enhance damage prevention and marine safety initiatives.

Recently retired from Shell, Ed has worked in the oil and gas industry for 30 years. A native of Oklahoma and graduate of Oklahoma State University, his first assignment in the oil industry started in West Texas, where his first four years were spent

in various locations throughout Texas, New Mexico, and Colorado. The following years were dedicated to Shell's Gulf of Mexico and southern U.S. business. His assignments further developed and supported Shell's infrastructure protection, non-technical risk, public safety, process safety and coastal rehabilitation initiatives. Ed also participated on Shell's Wetlands Advisory Team.

Outside of Shell, Ed volunteered his service to the community in many current and past roles. Vice-Chairman of the Parish Coastal Zone Management, Chamber of Commerce Board of Directors, member of the National Estuary Program's Management Conference, and Coastal Conservation Association and Parish Education Board of Directors.

other outreach efforts. Additionally, he conducts an annual stakeholders meeting which brings marine excavators, government officials and pipeline owner/operators together to discuss issues. In 2021, this meeting will be held during Damage Prevention Week in conjunction with the Global Excavation Safety Conference (GlobalExcavationSafetyConference.com) in Tampa, FL, March 23, 2021.

Ed looks beyond the borders of Louisiana to spread his important message. He has promoted marine damage prevention around the country by exhibiting and speaking at events such as the Global Excavation Safety Conference and regional Pipeline Safety Conferences.

Ed recently compiled and published the Recommended Best Practices Guide & Checklist for Damage Prevention. It's extremely well-done and it is obvious a lot of time and effort went into putting it together. Read more about this initiative on page 32.

Persistent in pursuing new avenues to promote damage prevention in the marine environment, Ed thinks "outside the box" to explore ways of educating people on the "Call Before You Dig" message.

Despite minimal compensation for the hard work he does, Ed continues to go above and beyond to make our world a safer place. He is tireless in his efforts and is dedicated to the cause, making him a much-deserved Damage Prevention Hero! 

“Persistent in pursuing new avenues to promote damage prevention in the marine environment, Ed thinks ‘outside the box’ to explore ways of educating people on the ‘Call Before You Dig’ message.”

Damage Prevention Week: March 22-28, 2021

• BY LEVI MILLS •

THE 2021 GLOBAL Excavation Safety Conference Global ESC will mark the 18th annual assemblage of damage prevention and excavation safety professionals from around the world. In complement with the industry's premier damage prevention conference, we're proud to announce Infrastructure Resources' newest initiative: Damage Prevention Week™.

Taking place March 22-28, 2021, Damage Prevention Week (DPW) coincides with the Global Excavation Safety Conference and is the perfect setting to bring together major industry stakeholders to discuss new ideas face to face. Industry leaders will have the invaluable opportunity to discuss ways to prevent damage to both underground and overhead infrastructure and improve safety in the excavation community.

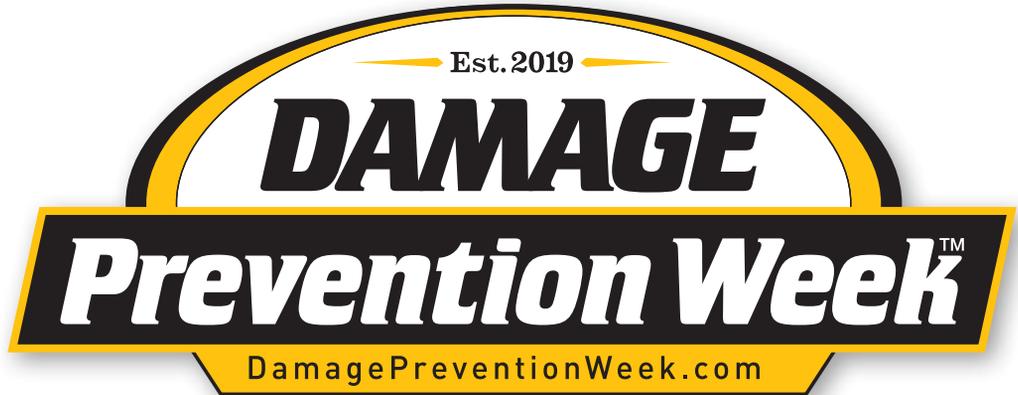
The global reach and influence of Global ESC makes it the ideal venue to debut Damage Prevention Week. While many delegates and speakers at Global ESC are based in North America, attendees from over 13 countries are expected to attend in 2021. The international diversity of the conference is unique and sparks valuable conversations, connections, and ideas from a variety of perspectives.

Damage Prevention Week has only one agenda - to create a yearly forum focused on reducing damages and improving excavation safety. All views and stakeholders are welcome and encouraged to participate. Damage Prevention Week is the opportunity for thoughtful, open discussions that lead to learning from one another. Ultimately, these are the discussions that result in reduced damages and lives saved.

Multiple organizations have already scheduled events in Tampa for 2021 Damage Prevention Week, from committee meetings to annual gatherings. Some notable examples include:

Cross Bore Safety Association (CBSA), an association dedicated to minimizing the occurrence of cross bore damages, injuries, and loss of life, is holding a Leading Practices for Cross Bore Risk Reduction course. This course was created to provide underground utility operators, contractors and service providers guidance for minimizing utility conflicts due to cross bore strikes. The course covers a wide range of cross bore safety topics, from the evaluation of existing cross bores to regulatory requirements.

The CBSA brings together locating services, manufacturers, utility owners, contractors, and industry consultants to create high quality standards, guidelines, and best practices for cross bore safety. The increased use of



trenchless excavation technologies has naturally increased the potential for accidental punctures to existing infrastructure. The CBSA is dedicated to creating education that leads to the minimizing of that potential. (crossboresafety.org)

Coastal and Marine Operators (CAMO), an organization of pipeline industry professionals who work closely with the Coast Guard and Marine excavators to prevent damage to pipelines in navigable waterways. CAMO is hosting their 2021 annual meeting and damage prevention workshop at the 2021 Global Excavation Safety Conference.

CAMO's core purpose is to explore and discuss issues and challenges in preventing spills, releases, and damages to coastal and marine pipelines that negatively impact the environment and personal safety. It implements effective solutions and creates objectives that sustain and enhance pipeline asset integrity, environmental protection, industry perception, and the right to operate. (camogroup.org)

Global GPR Congress, a joint venture between Bigman Geophysical and Infrastructure Resources, is convening for the first time at 2021 Global ESC. This brand-new event takes place over the course of two days, beginning March 22 and carrying through March 23, and has the goal of inviting new voices into ground penetrating radar discussions. While GPR topics are frequently discussed at industry specific events, this will be the first opportunity for all GPR users to congregate and learn from one another.

Bringing users together from a variety of industries and applications gives participants a pathway for accelerated learning opportunities and provides a forum for discussion on user-critical topics. A Global GPR event focused on bringing together new and experienced users from both the academic and private sector greatly benefits the industry by providing a forum for open discussion and continuous learning through shared ideas and experience. This fundamental concept of sharing ideas and learning from others' experience echoes the goal of Damage Prevention Week. (bigmangeo.com)



“Difficulties that occurred and have been overcome in one industry can be shared and applied with technicians and professionals working in other industries. There is much crossover in reasons for failure and success across disciplines, but too often professionals working in different spaces do not have meaningful conversations with each other - or even know that each other exist.” – Daniel Bigman, Bigman Geophysical

The **Distribution Public Awareness Council (DPAC)** is a member-driven, non-profit organization for natural gas distribution utility companies in the United States interested in working collaboratively with peers to address similar pipeline public awareness and community safety challenges and to share best practices for implementing and assessing the effectiveness of public awareness compliance programs required by 49 CFR 192.616.

DPAC represents 28 states, over 2.4 million miles of distribution pipe, and over 42 million natural gas customers. The council provides a collective voice with a view toward sharing best practices to improve public awareness and community safety across the country. (pacouncil.org)

Associations planning to meet at the Global Excavation Safety Conference during Damage Prevention Week as of this printing include:

- Pipeline Association for Public Awareness (PAPA)
- Utility Engineering and Surveying Institute (UESI)
- Geospatial Information and Technology Association (GITA)
- Pipeline AG Safety Alliance (PASA)
- Gold Shovel Association 

Learn more about Damage Prevention Week and ways your association can participate at DamagePreventionWeek.com.

SAFETY VIDEO

The video contains valuable information about Pipeline Safety:

- Damage Prevention
- Products Transported
- Pipeline Locations
- Signs of a Leak
- Hazards of a Release
- Emergency Response
- Much More!



An exceptional video covering the potential dangers and safety precautions related to living and working around buried infrastructure.

The video is accessible at vimeo.com/114175332, on YouTube or at the Pipeline Association's website: www.pipelineawareness.org

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NEWS

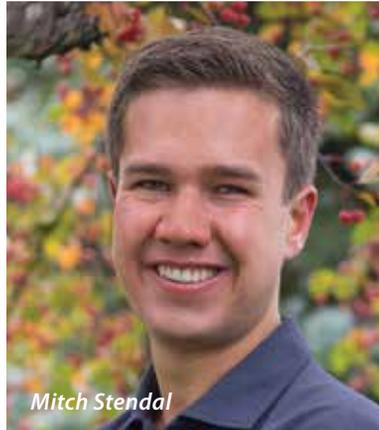
KorTerra Announces Key Executive Changes

KorTerra, Inc., a SaaS utility damage prevention software solutions provider located in Minneapolis, MN, announced in April the appointment of Mitch Stendal as President. Stendal previously held the title of Chief Strategist and championed several initiatives throughout his tenure with the company.

Don Lewis, former KorTerra President, will now serve as Chief Operating Officer. In his new role, Lewis will oversee critical operational functions.

"I am very excited for Mitch in his new role as president," said KorTerra's CEO, Chris Stendal. "His strategic approach to business and focus on innovation along with his technical abilities and leadership skills will be instrumental in positioning KorTerra for future growth."

For over 30 years, KorTerra has worked with stakeholders in gas distribution, pipeline operation, telecommunications, electric distribution, contact locating, as well as city, county, and state governments to improve their damage prevention solutions.



Mitch Stendal

Midwest Mole Wins Top NUCA AWARD

Midwest Mole, an Indiana-based trenchless construction contractor, was honored in April with NUCA's top 2019 trenchless construction job award and the top overall award for their part in an emergency project in downtown Louisville, Kentucky.

An existing 7-foot by 7-foot Ohio River Interceptor sewer directly underneath Main Street was in danger of collapsing. Louisville Metro Sewer District pulled together a team of experts to fix the problem, including Midwest Mole, Thompson Pumps, Ulliman Schutte Construction and Boyer, Inc.

Midwest Mole was awarded with NUCA's top award for their part in this project because of the unique challenges posed by the location, the timeline, and scope of work. Additionally, it included multiple types of trenchless construction from rehab to tunneling to bypassing.

TTC AND UESI PARTNERSHIP TO PROVIDE SUE TRAINING

(Underground Construction) – The Trenchless Technology Center (TTC) at Louisiana Tech University has partnered with the Utility Engineering and Surveying Institute (UESI) to offer a five-day Utility Investigation School (UIS).

The first 2020 UIS was held in early March and addressed the two performance goals of ASCE 38: How can a project be designed so as to have minimal utility issues during project development, and how can the professionals protect themselves against utility-related claims. The school curriculum was developed by Jim Anspach, Chair ASCE 38 and 2018 UESI President, and covered geophysics, utility systems construction and configuration, ASCE 38 risk-based presentations, and professional liability issues.

Dr. Samuel Ariaratnam Receives ISTT Gold Medal

(Trenchless Technology) – At ISTT's 2019 International No-Dig Conference, held in Florence, Dr. Samuel Ariaratnam was awarded the prestigious ISTT Gold Medal, the society's highest honor, presented to individuals who have made an outstanding and exceptional individual contribution to trenchless technology.

Dr. Ariaratnam becomes just the seventh recipient of the Gold Medal in the society's 34-year history. He got involved in the industry in 1966 as a faculty member in the Civil Engineering Department at the University of Alberta in Canada. He received his PhD in Civil Engineering from the University of Illinois-Urbana-Champaign and is currently a registered Professor at Arizona State University. Dr. Ariaratnam has published more than 200 technical papers in trenchless technology and sustainable urban infrastructure systems (including the *Horizontal Directional Drilling: Good Practices Guidelines* book he co-authored with Dr. David Bennett) and holds five patents.

Industry Icon Passes Away from COVID-19

(Underground Construction) – Michels Corporation, a national utility contractor with headquarters located in Brownsville, Wisconsin, announced the passing of industry icon Robert "Bob" Westphal on April 1st. Westphal, who spent 55 years with Michels, reportedly had contracted COVID-19.

During his career, Westphal filled many roles, including laborer, operator, foreman, superintendent, general superintendent, vice president, senior vice president and, at the time of his death, senior construction advisor. In 2019, he was inducted into the North American Society for Trenchless Technology Hall of Fame. He was also an active member of the Pipe Line Contractors Association, where he served on the Board of Directors for 13 years and as president in 2005.

NUCA Chapter Raises Money for Tornado Victims

The Middle Tennessee Chapter of NUCA (National Utility Contractors Association) raised \$24,250 in April to help families affected by a recent destructive tornado. A letter was sent to members of NUCA of Middle Tennessee by Chapter President Matt Mingus challenging each member to donate \$1,000 or any amount they felt appropriate to the Tornado Relief Fund. The effort was also supported by the Georgia Utility Contractors Association (GUCA).

Companies contributing to the effort (as of this writing) included Rock Solutions, Cleary Construction, Team Construction, Hawkins & Price, NUCA of Colorado, Portland Utilities, Vermeer Heartland and members of the Georgia Utility Contractors Association.

Mingus said the money raised will go to employees of member companies of NUCA of Middle Tennessee that were affected by the tornado.

The Middle Tennessee Chapter of NUCA is a non-profit trade association representing more than 43 contractors and affiliated firms in Middle Tennessee and Southern Kentucky. The association represents licensed utility contractors and companies who install and repair new and existing water, sewer, gas, electrical, telecommunications and other underground utility systems for the public and private sector.

BC 1 CALL URGES SAFE DIGGING DURING COVID-19 PANDEMIC

(CTV News) – The COVID-19 pandemic is keeping people at home and causing many to look for projects around the house to keep themselves busy. Many of these projects involve gardening or landscaping, and BC 1 Call is warning residents to “click or call” before taking on any home project.

“Taking the time to submit a locate request to BC 1 Call is critical to your safety, and the safety of your neighbors,” said Chris Hyland, BC 1 Call president. “Let’s remember that many more people are home right now relying on their gas, internet and water supplies. If a line is damaged and repairs are needed, most crews wouldn’t be able to maintain the mandated physical distancing protocols while fixing the problem.”

BC 1 Call reminds homeowners that they must submit a locate request three days prior to any digging or excavating and that they are not cleared to dig until all utility companies with potential buried infrastructure in the area have provided details on their underground systems. 



US Radar ground penetrating radar systems combine advanced triple-frequency range radar technology with rugged construction designed to travel even the most unforgiving terrains without breaking down or losing signal. Collect low, middle, and high-frequency radar data simultaneously without sacrificing depth, resolution, or the middle frequencies ideal for locating utilities.

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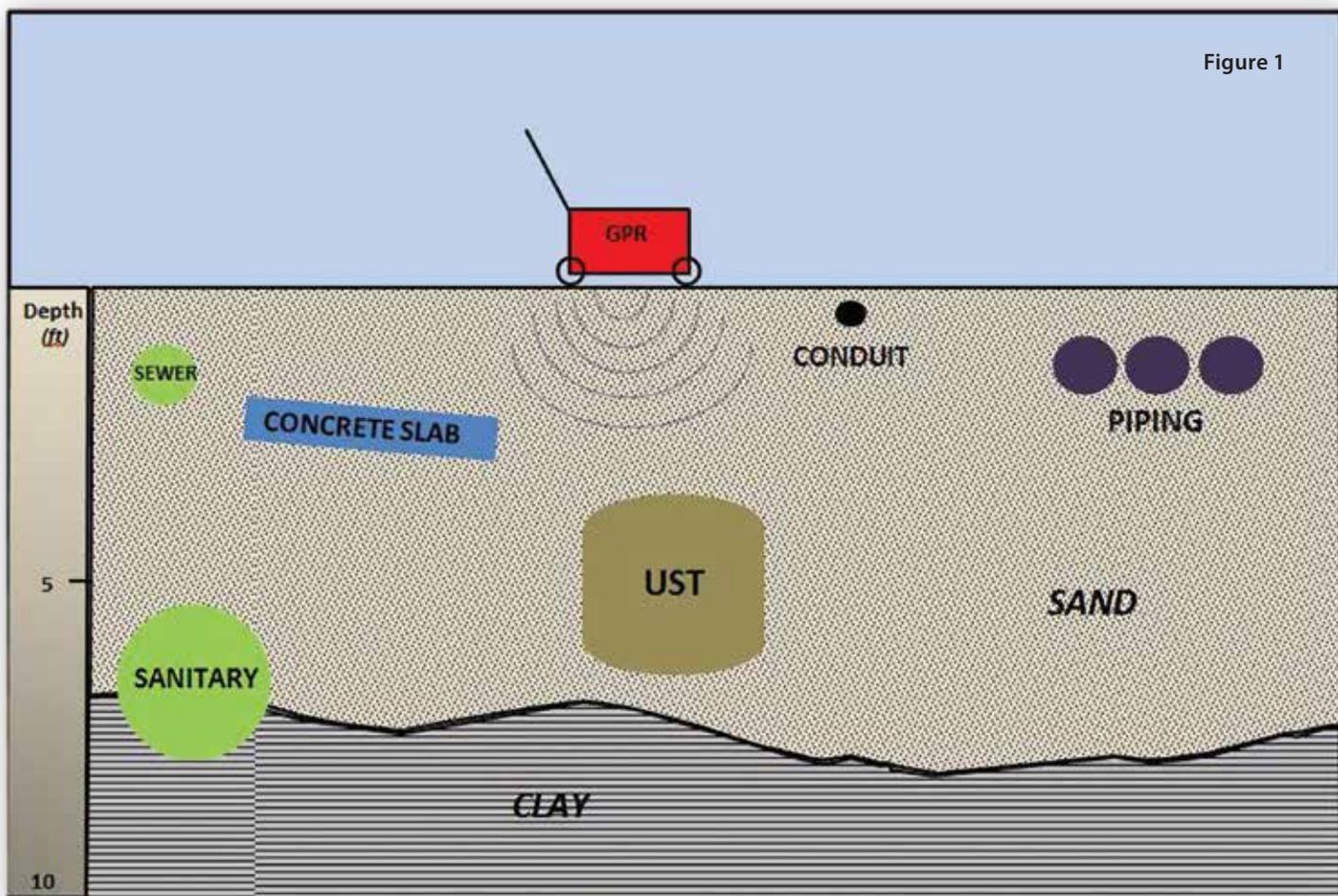
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Utilizing Ground Penetrating RADAR to Identify a Water Main Break

A success story of technology being used in the contracting world.

BY STEPHEN C. TATUM



With innovating technology, it is now possible to identify a break in a water main. Contractors in the industry have utilized many different tools to try and locate utilities underground. Ground Penetrating RADAR (GPR) is one of the best geophysical applications used to identify subsurface features. GPR uses an antenna of a certain frequency to transmit electromagnetic pulses into the ground, and based on the changes in physical properties of the subsurface materials, the waveform reflects back to the receiving end

of the GPR to be analyzed and interpreted by a geophysicist or a trained GPR technician.

Materials within the subsurface have distinct physical properties. The change in physical properties is what allows the waveform to “bounce” back to the GPR unit to be analyzed and interpreted. In this case, a cast iron water line within surrounding sand. Once a survey area on the surface is identified, the GPR is deployed in a grid pattern of transects. A transect

is the path the GPR is moving towards. Multiple transects are conducted in order to confirm the presence of any obstructions that may be in the underlying surface. This approach allows for objects consistent with utilities, underground storage tanks, void spaces, and the identification of buried objects to be located (Figure 1).

REAL WORLD EXAMPLE

In March of 2019, in Oakland County, Michigan, GPR was used on an emergency call from a con-

“By surveying in a grid pattern of multiple transects, the GPR technician was able to accurately locate the water main, as well as the electrical lines and gas lines in the area of the suspected break. Once all the utilities in the area were identified, the GPR technician was able to take a closer look at the water main and the amount of saturation in the subsurface.”

tractor in need of locating a water main with a suspected break. The contractor was tasked with locating the water line, locating all utilities in the surrounding area prior to excavation, identifying the location of the water main break (if pos-

sible), and fixing the water line. The problem was exacerbated by the amount of utilities that surrounded the area of the suspected water main rupture (Figure 2).



Figure 2

sible), and fixing the water line. The problem was exacerbated by the amount of utilities that surrounded the area of the suspected water main rupture (Figure 2).

The surface conditions of the survey area consisted of an accumulation of water over asphalt and grass. By surveying in a grid pattern of multiple transects, the GPR technician was able to accurately locate the water main, as

well as the electrical lines and gas lines in the area of the suspected break. Once all the utilities in the area were identified, the GPR technician was able to take a closer look at the water main and the amount of saturation in the subsurface. This allows the GPR and the operator to zone in on a more localized survey area in order to more accurately analyze subsurface

water line indicated an interface change between pipe, water, and soil which suggested a break in the water line. By utilizing all this information, the GPR technician was successful in determining the exact location and depth of the ruptured pipe. This allowed the contractors to address the issue, providing a great example of how using GPR can be an effective and efficient tool in the construction world. **DP**

Stephen Tatum is a geophysicist with Great Lakes GPR. He can be reached at steve@greatlakesgpr.com.



Global GPR Congress Launched

International GPR users from around the world will share experiences and ideas.

Tampa, Florida
March 22-23, 2021



Register at GPRcongress.com

Stay for the Global Excavation Safety Conference to attend additional GPR related sessions.

A joint venture of
Infrastructure Resources, LLC & Bigman Geophysical

Pandemic's Ripple Effect Hits Sewer Systems

BY LEVI MILLS



Photos Courtesy of MN Pollution Control Agency



THE BOTTOM LINE

Cities across the nation have resorted to public service announcements on social media to get the word out about proper and improper materials for flushing. The need for infrastructure education won't end when the coronavirus fades. What we can hope for is a more well-informed public and a further prepared municipal system.

"Please remember: Toilets are not trash cans," read a recent joint public service announcement by the Los Angeles County Sanitation Districts and Metropolitan Water District of Southern California. "Only the three Ps — pee, poo and (toilet) paper — belong in the toilet." **DP**

When the coronavirus pandemic began there was one news story that seemed to dominate headlines across the nation: Toilet paper shortages. By mid-March, as the seriousness of the virus became clear and potential quarantine timelines became less-so, finding a package of toilet paper on a grocery run became a noteworthy accomplishment. U.S. sales of toilet paper shot up 213% for the one-week period ending March 14 in comparison to the same week a year before, according to Nielsen market tracking. Seemingly trivial, the panic to purchase (and in some cases hoard) toilet paper has caused massive damages to sewer systems across the nation.

How does increased demand for toilet paper and the subsequent empty shelves cause sewer system damages? In the absence of toilet paper, people resort to using alternatives like paper towels, facial tissue, sanitary wipes, and even t-shirts to clean themselves. While these options appear to at least temporarily solve the problem, issues occur when it comes to disposal. Only toilet paper is designed to be flushed down the toilet.

BUILT TO FAIL

Toilet paper is uniquely engineered to quickly break down for the safety of sewage and septic systems. The paper used has shorter fibers than facial tissue or paper towel, speeding up decomposition to avoid compaction in the drain lines. On contact with water, toilet paper typically dissolves in anywhere from one to four minutes, allowing it to move swiftly through the wastewater infrastructure.

Paper towels, facial tissue, and sanitary wipes, on the other hand, break down at a significantly slower rate. These intact towels, tissues, and

wipes physically snag on any existing debris in the pipes, causing a pile-up and eventual clog. Even sanitary wipes labeled and advertised as "flushable" are not recommended for flushing. As they travel further down the sewer system, they gum up pumps designed to move millions of gallons of wastewater a day. Combining with fats, oils, and grease, wipes can create "fatbergs", congealed sewer system masses.

PERSONAL AND INFRASTRUCTURAL CONSEQUENCES

Water infrastructure is everyone's business. It's the only major utility required to live, and the quality and consistency of its service affects people's wellbeing. It is especially crucial to keep that in mind today as we all deal with the effects of COVID-19. On a more analytical level, sewage backups can cost homeowners tens of thousands of dollars. Clogs, backups, and pump maintenance cost cities and taxpayer money to repair. Furthermore, there are environmental consequences to flushing anything other than toilet paper. Equipment failure at wastewater treatment plants can impair the process of discharging clean water into the environment.



Reduce Cross Bores

Cross bores can have serious consequences. The Cross Bore Safety Association (CBSA) has created the Leading Practices for Cross Bore Rick Reduction.

The CBSA will conduct the first ever course on these Leading Practices March 23, 2021. If you are a gas distribution company, a utility contractor, or a sewer system operator this course can help you avoid serious safety problems.

A part of:



Held in conjunction with:



To register or learn more, visit GlobalExcavationSafetyConference.com/CrossBoreSafety

To learn more about CBSA and its initiatives, visit

CrossBoreSafety.org

Calendar of Events

Due to the COVID-19 pandemic, many events have rescheduled or transitioned to a virtual event. Be sure to verify the status of all events you are planning to attend.

June 2020

- 14-18 (Rescheduled) NACE Corrosion 2020 Conference & Expo (Houston, TX) <http://nacecorrosion.org/>
- 25-27 JJ Harrison – Crooked River Round-Up (Prineville, OR)
- 23-25 Safety 2020 <https://safety.assp.org/> Safety Summit 2020 <https://live.blr.com/event/safety-summit/>
- 30-July 4 JJ Harrison – St. Paul Rodeo (St. Paul, OR)

- 10-13 (Rescheduled) Broadband Communities Summit (Houston, TX) <https://www.bbcmag.com/events/summit-2020/home>
- 13-16 JJ Harrison – Omak Stampede (Omak, WA)
- 18-20 ISE Expo (Denver, CO) <https://iseexpo.com/>
- 18-22 JJ Harrison – Canby Rodeo (OR)
- 25-29 JJ Harrison – Horse Heaven Round-Up (Kennewick, WA)

July 2020

- 7, 8 (Rescheduled) Oklahoma Excavation Safety EXPO (Norman, OK) <https://okexcavationsafety.com/>
- 8-11 JJ Harrison – Sheridan WYO Rodeo (Sheridan, WY)
- 16-18 JJ Harrison – Burke Stampede Rodeo (Burke, SD)
- 19-22 APGA Annual Conference (Chicago, IL) <https://community.apga.org/annualconference/home>
- 20,21 JJ Harrison – Belt PRCA Rodeo (MT)
- 20-24 JJ Harrison – Fiesta Days Rodeo (Spanish Fork, UT)
- 22-24 (Rescheduled) NSC Southern Conference & Expo (New Orleans, LA) <https://ssce.nsc.org/SSCE2020/Public/enter.aspx>
- 30,31 JJ Harrison – The Famous Preston Night Rodeo (Preston, ID)

August 2020

- 5-7 Florida Utilities Coordinating Committee meeting (Melbourne Beach, FL) <http://www.fucc.org/events.html>
- 6-8 JJ Harrison – Cache County Fair & Rodeo (UT)
- 9-12 JJ Harrison – Lewiston Stampede (Lewiston, ID)

Rescheduled Events

- Sept 16,17 Texas Communication Expo (Belton, TX) <https://www.bellcountyexpo.com/events/2020/texas-communication-expo>
- Oct 6,7 CommTech West Show & Seminar <https://www.commttechshow.com/west/>
- Oct 19-21 NASTT No Dig is joining NASTT No Dig North (Vancouver, BC) <https://www.nodignorth.ca/>
- Nov 24-25 CommTech East Show & Seminar <https://www.commttechshow.com/east/>
- May 13, 2021 PA Safety Day Conference (Pittsburgh, PA)
- May 20, 2021 PA Safety Day Conference (Drexel Hill, PA)
- June 15, 2021 PA Safety Day Conference (Allentown, PA)
- June 17, 2021 PA Safety Day Conference (Harrisburg, PA)
- Sept 28, 2021 PA Safety Day Conference (Erie, PA) https://www.pa1call.org/pa811/Public/POCS_Content/Event/PA_Safety_Day/SafetyDays.aspx 

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



Call for Papers

Share your industry knowledge and be recognized as an expert in your field by telling an exceptional story, addressing a concern specific to one or more stakeholder group, providing distinctive training or education, and/or promoting the damage prevention message in a unique way.

“The knowledge sharing... is what it’s all about.”

– Neil Weatherly, APA Group

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Due to the uncertain nature of the COVID-19 pandemic, event dates/location are being re-evaluated. Visit our website for the most up-to-date information.

To submit an abstract, or to learn how to support the damage prevention industry in the Oceania region, visit our website

OceaniaDPC.com



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Back to Tam

The largest event in the damage prevention industry featuring education for all stakeholder groups, and opportunities to network with industry peers, learn safe practices, and lower costs associated with underground damages.

Over 23,500 industry professionals have attended since 2004

★ NEW!

- Plenary Education Sessions
- Global GPR Congress
- Cross Bore Safety Leading Practices Course
- CAMO Annual Meeting
- Distribution Public Awareness Council Annual Meeting
- Click Before You Dig Golf Scramble

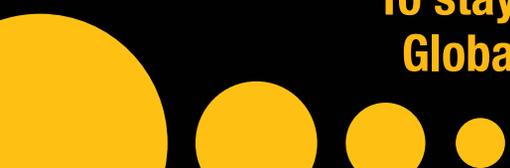
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89.8% of surveyed delegates stated information obtained here will help them implement change at work.

“This conference is awesome guys! If you are in this industry, either utility, locator, excavator and you are not here, then you are in the wrong place.”

– Jimmy Jennings, One Call Concepts

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**To stay up to date on this conference, visit
GlobalExcavationSafetyConference.com**





pa

Education at the Global ESC

With 80+ Conference Sessions presented by industry experts, it can sometimes be difficult to determine which ones best fit your educational needs. Our sessions are recommended based on industry; but we recognize the value in cross-discipline training and offer something for everyone. Over 1,030 education sessions led by professional speakers and industry experts have been offered since 2004.

Summits

Industry summits are open format sessions conducted by panels of business leaders within their respective industry. These educational opportunities provide attendees a venue to not only learn about the most pressing issues facing the industry, but to add their voice to the discussion on developing solutions.

★ Plenary Sessions

A chance for the entire industry to come together for vital education. As the only event during this time, all attendees can react and respond to the information communicated.

Workshops

A Workshop is a comprehensive (half day or full day) educational experience where you learn practical strategies from recognized industry experts.

“Education sessions are fantastic, there is something for everyone, from beginner to intermediate to experienced; you are going to get something and walk away with some real world tools once you walk away from the conference.”

– Wylie Davidson, DiVal Safety

Multiple industry events take place during Damage Prevention Week, in conjunction with the Global Excavation Safety Conference. Visit DamagePreventionWeek.com for more information.

Networking



Wednesday Night Networking

All Full Conference delegates are welcome at the biggest networking event in the industry. Join us at Splitsville for lots of great activities that will create an unforgettable night of connection and fun.

Ribbon Cutting and Welcome Reception

Come together and celebrate the the start of the largest damage prevention and excavation safety expo in the world! Taking place on the expo floor, this is the perfect opportunity to network with colleagues and explore solutions and new technologies with vendors who add value to your experience. Complimentary hors d'oeuvres and cash bar available.

Mentor/Mentee

Share your knowledge and expertise with an upcoming professional within the industry who has never had the opportunity to attend the Excavation Safety Conference and would benefit from the education and experiences that are only available here. Help them connect with other industry professionals and build their network; guide them as they expand their knowledge base and develop core skills and best practices; and learn new perspectives and ideas that add value to your experience.



Friday Golf

What could be better than spending a day on the links in Tampa surrounded by your peers in the industry? Enjoy some world-class golf while you spend extra time with your customers or grow your network with this fun event.

“This is a great opportunity to network with people from all backgrounds and experience types. It’s a time to get a lot of new information and see how others are enhancing their safety cultures.”

– Steve Cleaver, Pacific Gas & Electric Company



Education

Join industry leaders for these interactive events* as they address major issues within their respective industry and explore potential solutions.

80+ Education sessions are currently under construction on topics appropriate for all industry stakeholders. Our content is curated by delegate suggestions, advisory board recommendations and high-profile industry concerns. Presented by a mixture of subject matter experts, industry leaders, and professional speakers, we offer a broad range of topics that cannot be found at any other industry event.

Electric Safety Summit: What are the best practices for damage prevention after a disaster?

Moderated by
Cliff Meidl, Motivational Safety Speaker, 811 Spokesperson

Excavator Perspective Summit: What steps can be taken to improve communication?

Moderated by
Cheryl Ritter, National Marketing Director, Construction Angels

Fiber Optic Asset Protection Summit: Should we be looking up as well as looking down?

Moderated by
Chris McDermott, Director, Construction & Engineering, AT&T

Global One Call Summit: What is the role of a One Call Center in impacting legislation and education?

Moderated by
Mike Sullivan, President, Alberta One-Call Corporation

**Topics and/or moderators may change.*

Pipeline Safety & Awareness Summit: How can field data be used to drive actions across the company?

Moderated by
Tracey Bryant, Public Awareness Program Manager, CenterPoint Energy

Underground Safety Summit: What is the best approach for attracting and keeping good locators?

Moderated by
Ron Peterson, Executive Director, Nulca

Water & Sewer Infrastructure Protection Summit: What does responsible potholing look like?

Moderated by
Gil Rivas, Director of Distribution Systems, San Jose Water

It is not too late!

Submit your abstract of idea for consideration for the 2021 Global Excavation Safety Conference. Abstracts are being accepted through August 3, 2020.

Industry Meetings

This conference continues to be the place for the entire industry to come together for networking and education. Now, it is the main event of Damage Prevention Week, which draws together groups who are focused on the business of damage prevention and are committed to learning from each other.

- CAMO Annual Meeting
- GPR Congress
- Distribution Public Awareness Council Annual Meeting
- CBSA Cross Bore Safety Leading Practices Course
- Gold Shovel Association

★ Meeting Space

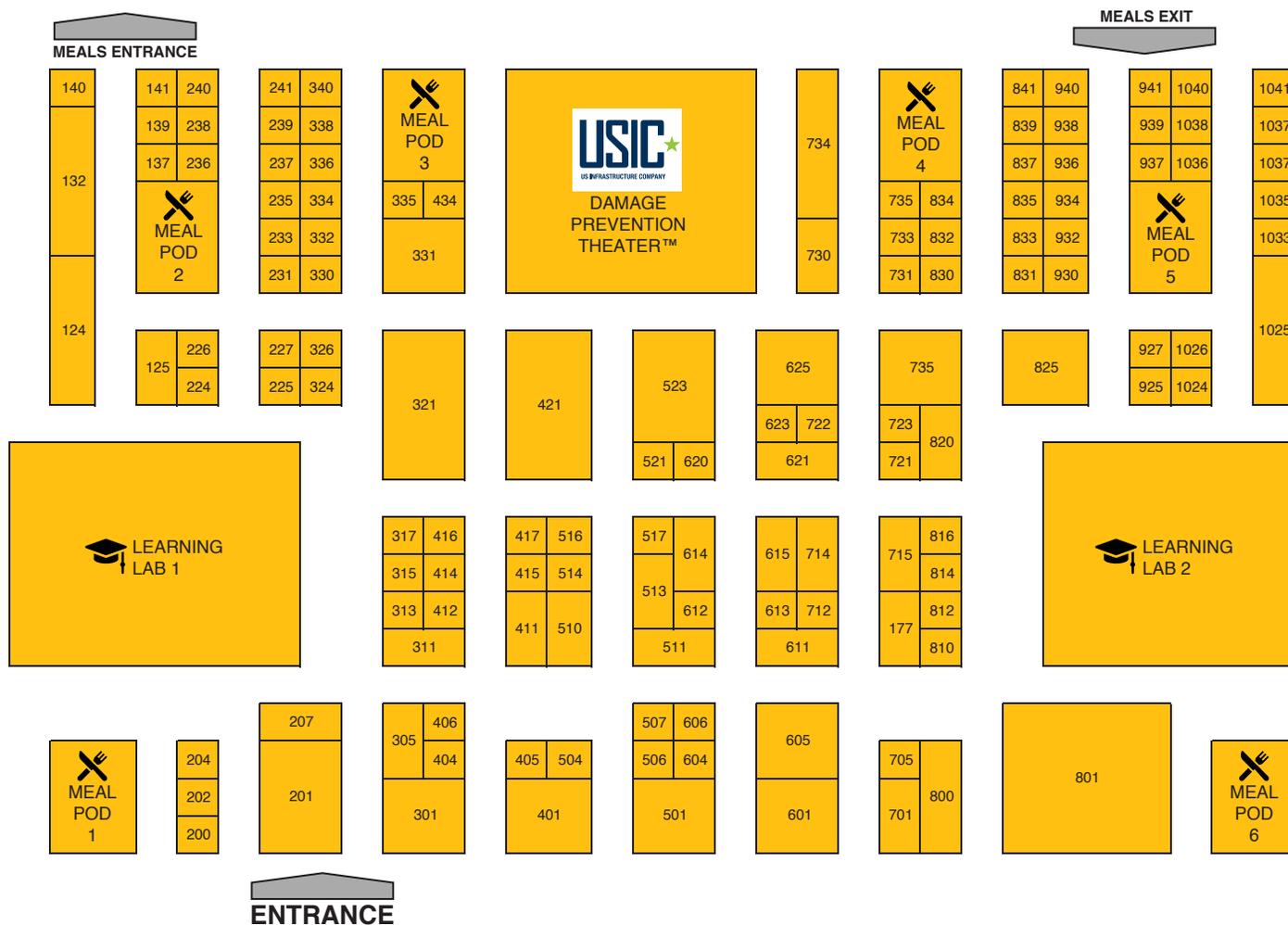
Take advantage of the opportunity to host your association meetings at the Global Excavation Safety Conference. Help your members save time and money by combining two trips in one and holding your meeting at the Global Excavation Safety Conference. Contact us for details.

PARTNER WITH US!

“There [are] just so many things to see, so many people to visit with, so many great sessions. I would totally recommend this conference to anybody.”

– Andrea Stainback, CenturyLink

Exhibit Hall



Learning Labs

Learning Labs provide educational opportunities and events when the exhibit floor is open, including summits, sessions and forums.

USIC* Damage Prevention Theatre™

The Damage Prevention Theater is a gathering place for educational opportunities and events including summits and forums.

Meal Pods

Meal Pods are located throughout the Exhibit Hall and offer places to sit, meet, and eat meals while never having to leave the exhibit floor.

Exhibit Hall Hours

- Tuesday, March 23: 3:00 pm – 6:00 pm
- Wednesday, March 24: 7:30 am – 2:00 pm
- Thursday, March 25: 7:30 am – 11:00 pm

Outdoor Demo Fair

- Thursday, March 25: 12:00 pm – 1:30 pm

“There is a variety of sessions, demos and trainings happening throughout the conference that are beneficial to every industry.”

– Robert Edwards, Supervisor - Water Operations, Citizens Energy Group

Event Schedule

Monday, March 22

Global GPR Congress*

Tuesday, March 23

CBSA Cross Bore Safety Leading Practices Course* • Global GPR Congress* • Damage Investigation & Claims Resolution Workshop* • Vendor Outreach Sessions • Education Sessions • Plenary Sessions • Welcome Reception

*Additional Fees apply

Wednesday, March 24

Exhibits • Plenary Session • Education Sessions • Splitsville Networking Event

Thursday, March 25

Exhibits • Education Sessions • Plenary Session • Outdoor Demo Fair

Friday, March 26

Click Before You Dig Golf Scramble

Endorsing Organizations



Media Partners



“Being a utility contractor from downunder, people ask why I travel 40 hours to attend the Excavation Safety Conference. The answer is simple. Where else do you get the opportunity to understand the issues facing our industry from both a utility owner and contractor perspective, view the latest innovations, and network with industry experts from around the world?”
 -Neil Costello, VAC Group

The Best Excavation Method: Hydro, Air or Both?

Today's vacuum excavators offer a range of versatility to meet new demands

BY CHAPMAN HANCOCK

In the old days, installing underground utilities usually began with open cutting along roadways. Those days are long gone. Especially in developed urban areas, today's underground rights-of-way are already congested with fiber, gas, electric, water and sewer lines and damaging one of these utilities can lead to costly fines and downtime.

This presents a challenge for horizontal directional drilling (HDD) projects to install new utilities and has led to an industrywide best practice of underground construction operators exposing all nearby utilities before boring.

The most effective and efficient way of doing this is through vacuum excavation. This process is quickly becoming the norm and, in many circumstances, required by contractors and municipalities. This is not a new process, but as vacuum excavators become more prevalent on jobsites, manufacturers are trying to meet the ever-changing needs of contractors and utility owners with the evolution of their machines.

Today, vacuum excavators can be customized with many debris and water tank combination options, utilizing either air or water, to fit the need of virtually any size job. With a range of options, it's important for contractors to understand the different offerings to determine which unit will deliver the most value to their projects.

When choosing between hydro or air excavation, contractors should consider many factors. Depending on the soil conditions, disposal requirements in the region and some other variables, one method may be more suitable than the other.

UNDERSTANDING DISPOSAL REQUIREMENTS

Before diving into excavation methods, it's im-

portant to understand whether the vacuum spoils will be classified as dry or wet. This is typically determined by the paint filter test, in which a tester places material in a paint filter and observes if any portion drops from the filter within five minutes. If material does fall and spoils fail the test, they're considered wet spoils, which can be more costly to dispose of.

Regulations and disposal requirements vary from region to region, so it is important that contractors understand local requirements before undertaking any vacuum excavation job.

HYDRO EXCAVATION

Hydro excavation uses pressurized water to do the dirty work. It is the most widely accepted form of soft excavation, because it can be used in a range of soil conditions, including tightly compacted and hard soil, cobble and clay.

Because hydro excavation requires operators to dispose of liquid spoils and replenish water sources while on a job, selecting the proper digging nozzle and following best practices for water conservation are of utmost importance. Contractors need to consider the distance to a spoils disposal site and associated costs.

However, pressurized water typically exposes utilities faster than air. Plus, the ability to conquer various soil conditions quickly and efficiently makes hydro excavation the preferred method for many contractors.



AIR EXCAVATION

Air excavation allows operators to break up soil with compressed air and vacuum dry spoils, which can be reused onsite as backfill. This method works best on softer soils, such as topsoil, loamy sand and some clay formations.

Unlike hydro excavation, which requires access to water, air excavation keeps machines running and operators on the jobsite without having to make trips to acquire water or dispose of liquid spoils. Additionally, many operators are turning to air excavation on jobsites as restrictions on liquid spoils disposal tighten and certified disposal sites become more difficult to find.

Operators need to keep in mind the soil conditions of the jobsite before deciding to use air excavation exclusively.

COMBINATION OF HYDRO AND AIR EXCAVATION

Operators don't have to choose between hydro

or air excavation; they can use a combination of methods on jobs. For example, they can start excavating the ground surface with air and switch to hydro once they reach harder soil formations. The water will cut through the clay and be sucked into the spoils tank to mix with the dry spoils from the air excavation. In most cases, this combination of spoils will pass a filter test and be permissible for backfill.

Today, most equipment manufacturers design vacuum excavators with both air and hydro excavation capabilities. This gives operators the flexibility to adapt to changing jobsite conditions and effectively perform in a full range of soils.

JOBSITE SAFETY AND PRODUCTIVITY

Using both air and hydro excavation in compliance with best practices will also provide the lowest chance of damaging a utility. Operators can apply these best practices to limit unanticipated costs and maintain productivity on all excavation jobs:

1) CONTINUOUS MOVEMENT OF THE NOZZLE

For both air and hydro excavation, operators should constantly move the nozzle around

within the excavation area. This prevents excessive pressure from consistently hitting a specific area, preventing damage and keeping excavation moving along. Hydro excavation operators should use a rotating nozzle, also known as an oscillating nozzle, to deliver a stream of circulating water rather than a direct spray.

2) REMAIN EIGHT INCHES FROM THE UTILITY AND OUT OF THE DIRT

Holding the nozzle too close to the utility increases the risk of damage. Operators should keep the nozzle six to eight inches from the utility. Additionally, the nozzle should never impact the soil or be used as a shovel or pry bar. While it may seem convenient, this can clog the nozzle and decrease efficiency. When using an air excavator, it's even more important to avoid putting the nozzle in the ground, as cleaning dirt out of the nozzle can be more challenging with air excavators. If you're struggling to expose utilities in hard soil or heavy clay, hot water heater packages are an option with most vacuum excavators. Using hot water can help break down clay without applying additional water pressure. However, operators should keep the tempera-

ture below 150 degrees Fahrenheit and reduce water pressure to avoid damaging utilities.

3) DON'T EXCEED 3,000 PSI

The recommended pressure for soft excavation is 3,000 psi. Although many vacuum excavators and nozzles offer higher psi capabilities, too much pressure can damage utilities. The pressure should be reduced even further if using heated water. Utility owners often have their own recommended water pressure, so operators should always check with owners for specific guidance.

Vacuum excavation can be a helpful asset on a range of underground construction projects. With new applications for vacuum excavation on the rise, the machines will only continue to grow in popularity. Understanding the different vacuum excavation methods and best practices will help operators ensure jobsite safety, improve efficiency and increase productivity on a variety of projects. **DP**

Chapman Hancock is Ditch Witch® product manager, vacuum excavation. For more information, visit ditchwitch.com/vacuum-excavators.

- 3 days of exhibit hall operating hours for maximum opportunities to connect with event delegates
- Largest international conference drawing excavation safety and damage prevention professionals from around the world.
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93.2% of surveyed attendees stated there is an excellent or very good chance they will explore products/services found at the expo

Visit GlobalExcavationSafetyConference.com/Exhibit to learn more



WORKING SAFE AND STAYING HEALTHY

BY CLIFF MEIDL

I am excited to partner once again with Infrastructure Resources and the Global Excavation Safety Conference to continue promoting the important message of safe digging across the damage prevention industry. Our number one priority, digging and working safe, requires personal dedication in both accountability and a shared responsibility. Our families truly depend on us and they deserve it.

Unfortunately, this year our opportunity to get this critical message out was postponed due to the global challenge of COVID-19. I hope this will soon pass and everyone and their families stay healthy and safe in the meantime.

As we look ahead to next year's Electrical Safety Summit, we have an expert group of panelists from around the world. We look forward to this opportunity to address Best Practices for Damage Prevention After a Disaster. Panelists will provide expertise on how to prepare for disasters by "digging" into various policies and examples of best practices adopted by some utilities and damage prevention organizations.

"When it comes to best practices for disaster recovery, the best defense is a good offense," says panelist Kelley Heinz, Damage Prevention Manager, ComEd. When disaster strikes, will your team be ready? Will your customers, constituents and employees be prepared? The recent coronavirus pandemic has shown us that preparation for disaster and how we respond to the crisis matters. Readiness and response will determine the severity and outcome of the catastrophe and how we approach the recovery process can mean the difference between restoration and another disaster. Has a business continuity or crisis management plan been designed? Has it been implemented? Has it been tested? What mitigation steps have been taken so that when that cataclysmic event happens, damage can be minimized? What does the response look like and are your crews trained to understand the processes, procedures and laws that need to be followed during the recovery process, especially in instances of mutual aid?

When a tragedy occurs, the main priorities are to get the damage repaired, customers re-



stored and our lives returned to normal. Whether during a crisis or while performing day-to-day tasks, safety should always be first on our minds. Ready, Respond, Recover helps to create awareness of the possibilities

and provides education on the shared responsibility of damage prevention following a disaster. Have you implemented a "Ready, Respond, Recover" platform in your program?

We look forward to collaborating more at the 2021 Electrical Safety Summit and offering your members a solution they can bring back to your organizations for handling damage prevention after a disaster.

My passion is to make a difference in someone's life, especially when it comes to working safe. If I can inspire others to believe in themselves and be the best that they can be, I have fulfilled and accomplished my goal. I enjoy moderating the Summit because it provides a great opportunity to get our message out to our members on topics critical in damage prevention. We emphasize topics that are tangible and can lead to solution-based conclusions.

Cliff Meidl will be sharing his inspiring motivational safety presentation at the Conference. Register to attend and hear Cliff's message at GlobalExcavationSafetyConference.com.



IT'S ABOUT ME & MY FAMILY - ZERO INJURIES

MOTIVATIONAL SAFETY SPEAKER CLIFF MEIDL IS A DAMAGE PREVENTION AMBASSADOR WHO HAS SERVED AS MODERATOR OF THE ELECTRICAL SAFETY SUMMIT FOR SEVERAL YEARS. HE HAS INSPIRED AUDIENCES AT MANY CONFERENCES AND DAMAGE PREVENTION SUMMITS ACROSS THE NATION.



AT THE AGE OF 20, CLIFF EXPERIENCED A TRAGIC CONSTRUCTION ACCIDENT WHICH RESULTED IN SEVERE ELECTRICAL BURNS AND THE NEAR LOSS OF BOTH LEGS. CLIFF AND HIS FAMILY BATTLED AGAINST ALL ODDS AND STAGED AN INCREDIBLE COMEBACK. ULTIMATELY, CLIFF WAS ABLE TO REALIZE HIS CHILDHOOD DREAM OF BECOMING AN OLYMPIAN AND WENT ON TO COMPETE IN BOTH THE 1996 AND 2000 OLYMPIC GAMES IN THE SPORT OF SPRINT KAYAKING. AT THE 2000 OLYMPIC GAMES IN SYDNEY, CLIFF'S FELLOW ATHLETES ELECTED HIM TO RECEIVE ONE OF THE HIGHEST HONORS, FLAG BEARER FOR TEAM USA - CARRYING THE U.S. FLAG INTO THE OPENING CEREMONY. 



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ORCGA

2019

DIRT REPORT

BY JENNIFER PARENT

Vast networks of conduits and cables lie underground, delivering products and services to Ontario communities: telecommunication and electrical cables, gas conduits, sewers, water lines, drainage systems, oil pipelines, etc. Many of these underground infrastructures are buried not far from the ground's surface, which increases the risk of damages during excavation or rehabilitation work.

Despite all efforts made to increase awareness on the importance of exercising vigilance during excavation work, damages occur too often. This has an impact on the environment and on the integrity of services, but more importantly, it puts the safety of workers and citizens at risk.

Preservation of this infrastructure is paramount and the mission of the Ontario Regional Common Ground Alliance (ORCGA).

Representing over 500 members of Ontario's damage prevention industry, including municipalities, utility companies, construction companies and safety organizations, the ORCGA was created as the voice of utility infrastructure damage prevention and is committed to maintaining the highest standards of safety for the public, construction workers and public infrastructure.

The primary objective of the ORCGA is to raise utility damage prevention awareness and produce practical damage prevention tools and services for use in the field. Most notably, tools such as the CCGA Underground Infrastructure Damage Prevention Best Practices 3.0, training such as the Damage Prevention Technician courses that are designed to train students on achieving competence in locating buried utilities, and the annual Damage Information Reporting Tool (DIRT Report).

The Reporting and Evaluation Committee, via the DIRT Report database, gathers meaningful data regarding the occurrence of facility events and performs analysis of the root causes of damage to underground infrastructure.



This analysis forms the content of the DIRT Report which identifies the root causes of events, the type of equipment used, when they occurred, and the type of work performed.

The DIRT Report also details an economic assessment of disruptions, in both Direct Costs (cost of repairs) and Indirect Costs (societal costs). The consequences of severing a natural gas line, an underground power line, a fiber optic cable, or damaging a vital water main can be costly. Utility damage prevention has high economic importance when direct costs such as repair labor and materials are considered, but especially when societal costs are factored in, such as worker injuries, emergency services interventions, work and traffic delays and legal costs.

Did You Know?

There were
4940 reported
damages in
2019?



Ontario Regional Common Ground Alliance (2020) 2019 DIRT Report, Version 13.0
For more information, please visit <https://orcga.com/publications/dirt-report/>



Did You Know?



There were
20
damages per
working day
in Ontario?

Ontario Regional Common Ground Alliance (2020) 2019 DIRT Report, Version 13.0
For more information, please visit <https://orcga.com/publications/dirt-report/>

Did You Know?



The cost of damages is
estimated to be over
\$1B
per year in Ontario?

Ontario Regional Common Ground Alliance (2020) 2019 DIRT Report, Version 13.0
For more information, please visit <https://orcga.com/publications/dirt-report/>

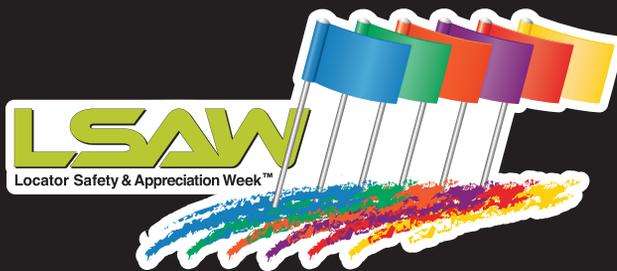
Indeed, in 2019, the socioeconomic costs for the province of Ontario totaled more than \$670M, and the average cost per incident totaled \$136K. However, that reflects only the “reported” damages. The committee estimates that unreported damages in Ontario total over \$330M, bringing the cost of damages to a staggering \$1B per year.

The Reporting and Evaluation Committee also recommends what actions industry and stakeholders can take to help reduce future incidents, such as outreach and educational information to reduce *Excavation Practices Not Sufficient* (lack of careful excavation practices) and *No Notification to One Call Centre*, both significant causes of damages in Ontario.

The analysis included in the DIRT Report, in conjunction with the use of CCGA Underground Infrastructure Damage Prevention Best Practices 3.0, provides stakeholders with the

tools needed to educate stakeholders, prepare targeted damage prevention programs and to develop effective communication campaigns. Because of this, the ORCGA and its members know that their efforts have made, and will continue to make, communities and infrastructure assets across Ontario safer. **DP**

For additional information on the ORCGA and the 2019 DIRT Report, visit orcga.com/publications/dirt-report/.



ARTWORK CONTEST

Locators are the backbone of the underground infrastructure industry. In 2021, Locator Safety Appreciation and Awareness Week (LSAW) will focus on the Top 10 Locator Hazards encountered.

Winning submission will be featured as the 2021 LSAW promotional poster and be featured on the cover of the dp-PRO special Locate issue. Submissions for the Artwork contest should focus on one (or all) of the Top 10 Locator Hazards and must be original artwork in any artistic format.

1. Confined Space
2. Threats to the Eye
3. Climate & Weather
4. Dog Bites
5. Punctures & Foot Trauma
6. Poison Ivy & Other Skin Threats
7. Insect Bites and Stings
8. Walking, Lifting, Bending and Squatting
9. Slips, Trips & Falls
10. Time on the Road



Visit LocatorSafety.com for additional details or to submit your artwork

Closing Gaps in Damage Prevention with New

Best Practices and First- Ever Online Training

BY ED LANDGRAF, COASTAL AND MARINE
OPERATORS CHAIRMAN

The United States has a wealth of natural resources; everything from habitat to petroleum reserves is unequalled. Many U.S. citizens work in fishing, marine, waterways and energy-related industries. Pipelines safely convey an array of liquids and gases within, and well beyond, our coastlines. Dredging and many other types of marine construction and excavation activities occur daily. Land building and navigation all are vital to the U.S. economy. Altogether, these riches of natural resources, economic activity, and restoration efforts pose special challenges with pipeline safety in marine environments.

New pipelines and utilities are being installed or updated every day, combined with increasing dredging and marine construction activity in the same waters. The chance of a marine vessel contacting underwater infrastructure continues to grow. Accidental interactions and incidents have caused spills, outages, gas releases, injuries, and loss of human life. Closing the safety and damage prevention gaps within lakes, bays, rivers, bayous, inlets, oceans and gulfs is the primary focus of Coastal and Marine Operators (CAMO). “Marine Damage Prevention” and calling 811 for underwater locates are not equally understood as they are on land.

Best Practices

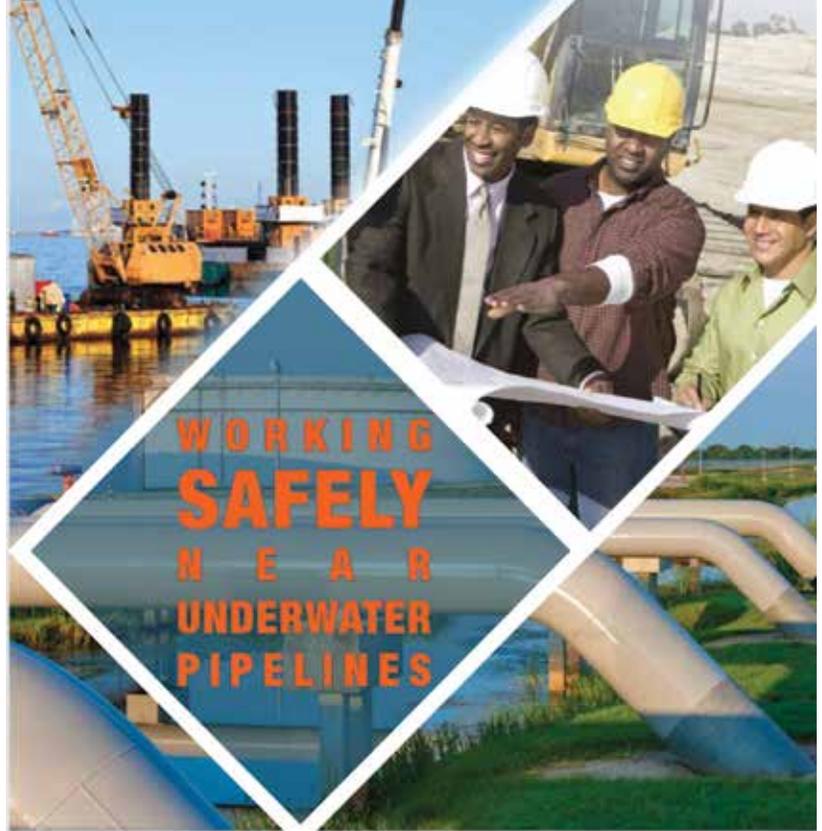
Oil and gas pipelines, along with a wide array of utilities, crisscross U.S. waterways in record number. Therefore, a new recommended best practices guide titled “*Working Safely Near Underwater Pipelines*” was released in 2019 along with a corresponding “*Safety and Emergency Tip Card*” for jobsite use. Both documents help to ensure the continued safety and environmental protection that we all strive to maintain and enhance.

The two new publications were distributed at the annual Coastal and Marine Safety Emergency Response Workshop on November 6, 2019 in New Orleans, LA. The meeting was co-hosted by the organizations who prepared these new tools: CAMO and Lake Pontchartrain Basin Foundation (LPBF). It should be noted that support and funding from multiple partners and agencies also made this project possible.

The picture-packed, best practices guide leads personnel involved in underwater or marine projects through long-term and short-term project planning steps. It also includes guidance during construction. The new pocket-sized, waterproof safety and emergency tip card also serves as a checklist or safety meeting topic at the jobsite.

Nationwide Online Training

In summer of 2020, the first-ever national online and interactive pipeline safety training program was released. The online training program complements the recommended best practices and tip card highlighted above. This online training has something for everyone no matter what their role entails, even if it is land based. Although designed for mariners, underwater construction and the pipeline industry, it addresses general safety and damage prevention that can apply



Recommended Best Practices Guide
& Checklist for Damage Prevention



to all facilities. Telecommunications, electric, water and other utility lines often traverse some type of waterway.

This one-hour online training has seven training sections that can be completed at different intervals from a desktop, laptop, phone or even a tablet, whichever fits your lifestyle. The training covers One Call, project planning, personnel roles, communication, timing, marking, tolerance zones and emergency response. The training is FREE for the first 500 users with a small one-time admin fee of \$5 afterwards. All contractors and pipeline personnel engaged in marine construction, pipeline safety, or related activities should consider this online training as a valuable resource when working near underwater pipelines. Closing gaps in all aspects of damage prevention gets everyone closer to zero accidents!

You can download “*Working Safely Near Underwater Pipelines*” best practices and the “*Safety and Emergency Tip Card*” for FREE at camogroup.org. Register for the online training at pages.dpa.training/camo-reg/ or through the online training link at camogroup.org.

CAMO invites you to join us for our annual meeting held during Damage Prevention Week in conjunction with with the Global Excavation Safety Conference (GlobalExcavationSafetyConference.com) in Tampa, FL, March 23, 2021. 

For more information on joining CAMO or questions on this article, contact Ed Landgraf at ed@camogroup.org.



Facility Owner/Operator Research Survey



In its pursuit to Save Lives through Education, *dp-PRO* is collecting industry data through research surveys and results. Our goal is to provide valuable data that informs the entire industry regarding successes, challenges and opportunities. Your input is important to developing inclusive results to help direct the overall focus of the research.

Results for this survey will be published in the summer issue of *dp-PRO* along with the next survey in the series. Both the survey and the results (once available) will be made available on *dp-PRO.com*. Completing one survey does not obligate you to participate in the entire series, but for each unique survey you complete, you will

be entered in a drawing to receive a FREE Yeti mug.

THANK YOU in advance for participating in this survey. The research will contribute to the development of our education, live events, magazine content and, ideally, challenge all stakeholders to expand their knowledge base and increase efforts to save lives.

Our thanks to PelicanCorp for helping to underwrite the cost of this research. Individual responses are not shared with the underwriter or sold in any way. Infrastructure Resources employees assisting with research will have access to responses as needed.

Visit dp-PRO.com/surveys to complete this or other available surveys.

1. How do you inspect your assets?

- a. Paper forms
- b. Asset inspection software
- c. Custom internal software
- d. Other _____

2. At what frequency do you inspect your assets?

- a. 1 year or less
- b. 2-3 years
- c. 4-5 years
- d. More than 5 years
- e. Only when conditions indicate

3. What is the biggest difficulty you face with asset inspection?

- a. Accessing historical data
- b. Reporting required repairs
- c. Downtime/disruption of normal operations
- d. Inspection costs

4. What is the most common reason for asset failure?

- a. Irregular inspections
- b. Failure to perform preventive maintenance
- c. Poor quality preventive maintenance
- d. Operate to failure mentality
- e. Other _____

5. What factors most contribute to poor decision making for asset maintenance?

- a. Incorrect information
- b. Limited access to information
- c. Lack of field experience
- d. Bureaucracy
- e. Budget constraints

6. Which part of asset management most needs to improve?

- a. Communication and sharing of location, description and historical data
- b. Field inspection processes
- c. Budgeting
- d. Accurate mapping

7. What is the best way to reduce asset inspection/maintenance costs?

- a. Better real time decisions
- b. Better planning
- c. Increased spending/budget

8. What is your primary focus in protection of the utility infrastructure?

- a. Efficient field inspection procedures
- b. Easily accessible transparent data
- c. Updated GIS to the field
- d. Regular maintenance
- e. Education and training

9. What are the best ways to increase safety in asset maintenance? Choose all that apply

- a. Identify all assets within scope of the management system
- b. Identify all relevant information and documentation in relation to the assets
- c. Have a means of retaining and maintaining all information
- d. Determine required compliance requirements
- e. Ensure all roles and responsibilities are identified and communicated
- f. Ensure a system is in place to rectify safety issues identified through maintenance
- g. Have an audit system to ensure effective management of asset safety risks
- h. Other _____

10. Job Function

- a. Executive (Owner, CEO, COO, CFO, President)
- b. Upper Management (Director, Manager)
- c. Middle Management (Supervisor, Foremen)
- d. Field Operations (Technician, Locator, Operator)

11. Which category best describes the type work you do?

- a. Electrical
- b. Engineering
- c. Excavating
- d. Gas & Oil
- e. GIS Mapping
- f. Government / Regulatory
- g. Other _____
- h. One Call
- i. Public Works
- j. Communications
- k. Trenchless Technology
- l. Water & Sewer
- m. Locating

12. Where do you work?

- a. USA
- b. Canada
- c. Other _____

After completing this survey, **snap a pic and email it to info@emailir.com**



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ImpulseRadar

ImpulseRadar AB known as a global innovator of ground penetrating radar (GPR) introduced the PinPointR utility GPR in 2019 with an essential goal of providing a system that specifically offers the best performance with the most features of any system for the utility locate professional.

Checking the boxes to achieve these goals started with introducing the first real-time digital dual frequency wireless system that produces unmatched resolution and depth penetration compared to older GPR technology. The advantages of the dual f system are clear. The higher 800 MHz frequency can detect service connections from water to small conduits of any material type. The lower frequency 400 MHz antenna provides maximum depth coverage for deeper targets.

ImpulseRadar introduces a major addition to the simple to use but powerful, intuitive ViewPoint Android App. Using the touch screen marker functionality conforming to the APWA utility standard all marks are simultaneously displayed on a Google Map. The Google Map field sketches can be emailed immediately from the Android device after completion of the project to either a client as an automatic field sketch or sent to the SUE project manager as a field sketch for reference to support information gathered from the professional surveyors. Markers can also be exported as KMZ/KML into Google Earth. For those that want survey grade mapping capability the PinPointR can connect to an RTK GPS system seamlessly.

All ImpulseRadar systems come standard with a two-year limited warranty.

HIT Kit+2™

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Rhino Marking & Protection Systems

Conducting a thorough damage investigation requires several steps including filling out damage forms, creating sketches of the scene, interviewing witnesses, and assessing damages. Photos of the scene will often determine who is liable for the damage, so it is imperative to utilize the best damage investigation tool to document the damage and help prove your case.

The Rhino HIT Kit+2 is the recognized industry-standard damage investigation tool. It provides posts that are legible from 360° and includes a rigid ruler with numbers that can be clearly read from a distance.

"One of the biggest problems with damage pictures is the lack of perspective and measurements. The Hit Kit+2 provides the best tools to solve these problems. This kit should be mandatory for all damage investigators."

Ron Peterson

Director, National Utility Contractors Association (Nulca)





irsales@emailir.com

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“Had a minute and perused your Excavation Safety Guide. One word: EXCELLENT!!!” - Lou Werbe, JED Construction

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dp-PRO

dp-PRO reaches tens of thousands of dedicated, engaged damage prevention and excavation safety professionals 5 time per year, through our quarterly magazine, and our yearly Special Locate issue. You can place your product in front of your target market in the Product Showcase section of this magazine.

Each issue focuses on an industry spotlight, which means reaching an even more targeted audience with each issue. Not only can you highlight your product in the magazine, but on dp-PRO.com and the dp-PRO monthly digital newsletter as well.

To take advantage of this opportunity, or to see other ways that Infrastructure Resources can help you reach the damage prevention and excavation safety industry, contact dp-PRO at sales@emailir.com.

Laurie Mariner: Mayo Clinic Hospice Volunteer

• STAFF REPORT •

LAURIE MARINER drove past a sign for hospice care during her lunch break. That's all it took. She called Mayo Clinic Hospice later that day to ask about volunteer requirements. That simple choice, the decision to act, transformed a routine drive into an extraordinary opportunity to be a positive force in the community.

Hospice care is a fundamentally unique branch of medical care. The focus of hospice workers is to provide the best quality of life possible for those with terminal illnesses and their families. They provide emotional comfort, ease physical pain, and help guide patients through their last stages of life with grace.

A helper at heart, Laurie has worked in the damage prevention industry for a year and a half. She works in procurement for Rhino Marking & Protection Systems and has a long history of volunteering in her free time. We interviewed Laurie about her experiences volunteering for Mayo Clinic Hospice. She shared a bit about the volunteer process, the value of hospice care, and what drives her to help those most in need.

What drew you to hospice care?

I had been with another nonprofit organization called Beds for Kids for four years as a board member. I decided I wanted to try something different and was thinking about hospice but didn't know if I could do it. I saw the sign at lunch one day, googled the local Mayo Hospice, and called them. I let them know I had zero medical background and was not fond of blood. The coordinator I spoke to explained that I didn't need a medical background and that there are hospice nurses and doctors to take care of medical issues. After talking with her, I said I'd be interested. When she asked where I lived, she was excited, "Wow, excellent, we need volunteers badly in your area. Could you start training right away?" I said yes.

You said you wanted to try something new when you began volunteering in hospice care. Was there anything else that drove you in that direction?

I have always volunteered with my daughter's school, our church, and our community. Since my daughter graduated, I have more time. I thought, "Why not see if I can help someone?" I love people and love to help if I can. It makes my heart full when I can be there for someone. If I can make them smile, talk about their memories of family/childhood, or hold their hand and say nothing... if it takes their mind off being sick, it is worth it.

You mentioned being impressed with a patient's positivity despite dealing with a terminal illness. That must be a powerful experience.

All the material things we have mean nothing. Having great memories to share with others and being grateful for what you have is what life is all about.



What can you say about the importance of the work Mayo Clinic Hospice does?

Mayo Clinic Hospice is so giving. They truly make the family priority and work with the family to know what each patient's needs are. During my training I met other Mayo Clinic volunteers in the community. Many have done this for years because it's so rewarding. I don't want praise or recognition; I do it for the patients. I do it because they say it is nice to have someone visit or help. That means the world to me. Death is scary for some, but to be able to talk and help someone through their last days makes it a little easier.

What would you say is the cornerstone reason you've volunteered for multiple organizations throughout the years?

Faith makes me want to volunteer. Also, I don't always have a lot extra financially, so why not give my time to help others become fulfilled mentally and spiritually? **DP**

Thanks to selfless volunteers like Laurie, along with doctors and nurses, the Mayo Clinic Hospice provides comfort and peace to those in their last stage of life. To learn more about Mayo Hospice and how to volunteer, please visit: <https://www.mayoclinic.org/patient-visitor-guide/minnesota/hospice>.

Florida Utility Coordinating Committee

• JEANNA DEAN •

THE FLORIDA UTILITY Coordinating Committee (FUCC) was established in 1932 as a confederation of all public and private utilities, transportation engineers, utility coordinators, contractors, state, city and county agencies. Our mission is “to improve the safety and efficiency of operation, maintenance, and construction of utility and transportation infrastructure through coordination, communication, education, and facilitating cooperative relationships.”

Through the chairperson and the executive committee, we continue the vision of our organization. Sunshine 811, the One Call center for Florida, maintains a strong connection to the FUCC as an Emeritus sponsor and holds a permanent position on the executive committee. Sunshine 811 staff gives presentations to the group at every meeting to update the group on changes to the One Call system as well as to seek comments and concerns from the group to take back to Sunshine 811 management. Their staff has held officer and committee chairman positions for several decades. They provide safety workshops and partner with other safety agencies to provide the most up-to-date information. They recently held a “technology safety workshop” where several safety companies came in and demonstrated their products. This afforded many UAOs to address safety concerns they had experienced.

The FUCC is utilized by all local governments and the Florida Department of Transportation (FDOT) as a way to meet with the entire utility industry



UAM committee that we enact as changes are needed to this vital piece of legislation. Education is key and we host an education workshop at each meeting that is developed by a specific utility committee (Power Interest, Telecom, Underground, and Joint Use). These committees provide utility agencies the opportunity to discuss with their peers any transportation concerns while working in the right of way. It allows everyone the opportunity to bring those concerns to the forefront so as a unit with all stakeholder represented, we can focus on a resolution. Sunshine 811 is part of the Underground committee to help remind us that safety is our priority and responsibility. We create task teams based on the need of the industry.

“We have a UAM committee that we enact as changes are needed to this vital piece of legislation. Education is key and we host an education workshop at each meeting that is developed by a specific utility committee (Power Interest, Telecom, Underground, and Joint Use). These committees provide utility agencies the opportunity to discuss with their peers any transportation concerns while working in the right of way.”

As chair, I am proud to say we have assisted many other states in their coordination efforts. If you are dealing with industry issues in your state, or would like to come and visit, I invite you to attend one of our annual meetings. We may appear as a casual group with a funny acronym, but the years of networking, building relationships and being passionate about safety and our industry has created a family environment. When you are in the field, in need of assistance and the pressure is on, it helps to know that help is as close as a phone call or two away. Please visit our website www.fucc.org. 

three times a year and bring forth any new policies or work together on issues affecting the industry. The FDOT partners with us and utilizes our group for input as part of the review process of the FDOT Utility Accommodation Manual, a legislated document governing the state rights of way. We have a

Jeanna Dean has over 23 years of utility coordination experience and has been recognized for excellence in utility coordination by the State of Florida. She has provided utility coordination services for various small and large transportation and design/build projects within the United States and other countries.

BY PAT GODDARD

SPECIAL REPORT

MISS DIG 811 Marine Tickets

The State of Michigan is a unique place, with vast waterways that are used for many purposes. From tourism to recreation, transportation to industry, our waterways serve a multitude of functions by keeping the economy flowing, tourists visiting, and wildlife flourishing. Michiganders are never more than six miles from some sort of body of water and never more than 85 miles from one of the Great Lakes. We can visit one of 11,000 inland lakes, 76,000 miles of rivers and streams, and 3,288 miles of Great Lakes shoreline. With the largest freshwater coastline in the United States, Michigan has 80 public harbors and 400 private marinas that never leave a boater more than 30 miles from a safe port.

Michigan is the Great Lakes State.

With all its industries and immense ecosystems, there is a delicate balance between manufacturing and nature. There are many facilities that cross our bodies of water, which include ponds and wetlands. Michigan's distinctive geographical position puts it in a position to help both the environment and industry.

MISS DIG 811, Michigan's One Call Notification Center, has developed a platform to achieve just that: the Marine Ticket.

The Marine Ticket was developed to protect facilities and infrastructures that run through, or lie in, bodies of water. It creates a line of communication between the excavator, facility owner/operator, and locator, in which the goal is damage prevention of facilities, infrastructure, and the aquatic ecosystems.

MISS DIG 811 was developed in order to provide excavators and the general public the ability to inform multiple owners of underground facilities of excavation with an online request or single call. Michigan's statute, Public Act 174 of 2013, requires anyone who engages in, or is responsible for, the planning or performance of any type of excavation to provide advance notice of at least three full working days to MISS DIG 811. This is a free service.

Dig notices (tickets) are placed by using the online platform or calling



the notification center. Several different types of tickets can be placed with MISS DIG 811 and the Marine Ticket is one of the newest. MISS DIG 811 is committed to the protection of our waterways and the aquatic ecosystems by preventing damages to submerged facilities and infrastructures.

The Marine Ticket is optional for excavators to place, but mandatory for the facility owner/operator, MISS DIG 811 members, to respond to per Public Act 174. There are two ways an excavator may place a Marine Ticket - by calling MISS DIG 811 and speaking directly with a Notification System Representative or online.

Communication between the excavator, facility owner/operator, and locator is initiated through the MISS DIG 811 system by the excavator placing the Marine Ticket. During placement, a meeting time is set for all parties involved in the submerged facility excavation project. This communication is crucial throughout the entire process and continues until the end of the project.

The locating of submerged facilities can be difficult due to many critical factors: directional waves, wave induced water velocity, steady current





boundary, wave induced bottom velocities, hydrodynamic forces, soil resistance, and pipe weight. Because of these forces and their effects on the facility location, the Caution Zone and/or Tolerance Zone is much larger than on-land excavation. These zones will vary from state to state in accordance to individual laws. Other important factors are anchor spread and drag, which can have devastating effects upon submerged facilities.

The technology used to locate and mark the submerged facility is dependent upon the size of the facility, material of the facility, depth of water, material composition of the underwater floor, and the depth the facility is positioned within or on the floor of the body of water. Temporary markers such as buoys, poles, or PVC markers should be used by underwater facility owner/operators to indicate the presence of a submerged facility in an area of excavation. During certain situations, these markers may be supplemented with mapping, GPS coordinates, and/or fixed high-bank markers. Markers should include the following information:

- Facility type
- Facility owner/operator name
- Contact number of the facility owner/operator
- Applicable warning language: **DO NOT ANCHOR OR DREDGE**

Permanent markers are placed as close as practically possible at the entrance and exit points of submerged facilities where they are at risk of being damaged. For natural and other gas and hazardous liquid pipelines, these affected bodies of waters are “commercially navigable waterways” that have been defined in 49 CFR 195.450 for hazardous liquid pipelines as “waterways where a substantial likeli-

hood of commercial navigation exists.”

In conjunction with the Marine Ticket, MISS DIG 811 offers the Design Marine Ticket. The Design Marine Ticket is a communication to the notification system in which a request is placed to facility owner/operators for information regarding underwater facilities for predesign, design, or advance planning purposes only. The obligation of the facility owner/operator is to first determine whether they have facilities in the design area, and then to provide drawings or records for the areas described by the requestor. In Michigan, the facility owner/operator is required to reply to a design request within ten business days per Public Act 174.

Michigan’s central geographical position to the Great Lakes region creates an opportunity for MISS DIG 811 to take a primary stance in the stewardship of our natural resources and water ways. The vision of the Marine Ticket is to protect our infrastructures and facilities from damage, which in turn secures the well-being of the environment and aquatic ecosystems. MISS DIG 811 will take that lead role and create a coalition of Safe Great Lake States and the facility owner/operators that excavate in and around our waterways. **DP**

For more information about the Marine Ticket or to become a member of the Safe Great Lakes States, please contact Pat Goddard, MISS DIG 811 Education Specialist at pgoddard@missdig811.org or (906) 553-0033.



March 23, 2021, Tampa

Join CAMO (Coastal and Marine Operators) as we explore the issues and address challenges in preventing spills, releases and damage to coastal and marine pipelines which negatively impact the environment and public safety.

A part of:



Held in conjunction with:



To register or learn more, visit GlobalExcavationSafetyConference.com/CAMO

To learn more about CAMO and its initiatives, visit

CamoGroup.org

Digital Skills in Construction

• BRETT SCHIMMING •

LITHIUM-ION BATTERIES and the pneumatic nail gun are arguably the biggest changes the construction industry has seen in living memory. These technologies helped tradespeople do what they do a little faster and a little more easily. Innovative for sure, but hardly revolutionary.

Then consider our training model – the apprenticeship system. At its core, it hasn't changed much since it was invented in the Middle Ages. Apprentices work under the tutelage of a master for four years, then spend the next four decades mastering the trade themselves.

So, it is with some good reason that many in the industry are bearish about the scale of change the coming decades could hold. But there are some strong signals that the next few decades could be very different from the last few. Experts tell us that up to three-quarters of construction jobs could be automated before the first half of this century is out. If they are even half-right, there are some seismic shifts coming.

Our own research in Australia has identified a range of forces lining up to reshape the construction industry as we know it. Chief among these is the aging population, which doesn't just mean an older workforce, but also a smaller one as the population swells with retirees. This has one inescapable consequence: any business model that relies upon a plentiful supply of fit young people is unsustainable. It means that the ever-growing demands for buildings and infrastructure will soon outrun our capacity to meet those demands.

The only path forward is to innovate. The construction industry must find ways to produce more with less labor. Economists call this productivity improvement. And it is something our industry does not do very well. There are many ways to skin the productivity cat. The industry can, and is, moving the work off the construction site and into factories. With the help of labor-saving technologies, offsite construction enables more efficient task designs.

Yet, the reality of building means that there will always be some activity onsite. The construction site is a highly unstructured and variable thing. This makes it particularly resistant to autonomous machines and robots.

Digital technologies, however, hold great potential for enhancing pro-



ductivity in construction. It has been estimated that 20-40% of construction costs are waste – wasteful spending, wasteful delays and wasteful communication. Information breakdowns are often the root cause. Herein lies the promise of digital construction.

Digital construction is about more than just Building Information Modelling (BIM). The emerging general purpose digital technologies are finding a home in construction: machine learning and artificial intelligence, the Internet of Things (IoT), geographic information systems, augmented/virtual/extended reality, as well as laser and other 3D scanners.

One example is the solution offered by Australian company, Ynomia, who is injecting IoT technology into the construction value chain. By embedding small sensors on all manner of plant, material and people, Ynomia's



These changes bring an enormous skilling, reskilling and upskilling challenge. This is a difficult task because we just don't know what those skills will be – just as 50 years ago we had no idea we would be paying people to manage our “IT systems” and handle our “social media.”

It seems inevitable, though, that digital literacy needs to be much more prominent in our thinking. In the future, there will be greater emphasis on cognitive and digital capabilities than on the raw physical attributes of strength, endurance and coordination. The challenge will be to create a workforce that is comfortable

process generates an ocean of data about a project, which is then analysed with advanced machine learning algorithms. The result is an incredibly rich picture of the job that empowers builders to drive efficiencies, raise productivity and make better decisions.

These digital technologies promise not only to iron out the information breakdowns that add up to the industry's habitual cost overruns, but also have the potential to prevent injury by weaving smart technology into standard equipment.

working with digital technology and embodies a spirit of continuous learning. Our current training paradigm, which delivers generic and stable skills that are highly manual, will be severely challenged by digital transformation.

It is critical that we get ahead of this change. The impact of these technologies will be well within the career spans of many of us. And they will certainly affect the next generation of apprentices. **DP**

Brett Schimming is Chief Executive Officer for Construction Skills Queensland. He can be reached at brett.schimming@csq.org.au.



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LOCATING



BY CHRISTOPHER KOCH

Let Me Give You SOME SPACE

For Valentine's Day, I went on a weekend getaway to Wisconsin. Snowshoeing with my fiancé at a quiet resort, I reveled in the chance to relax ahead of what was sure to be another busy spring locating season in Minnesota. By the third week in March, I was wondering if my business would survive 2020 and sketching out economic doomsday scenarios in the "Notes" function on my iPhone.

As I write this in the last week of April, I'm enjoying my fourth week in a row of increasing work volume. My small business is back to full staff and I'm scheduled for a job at 7:00 am tomorrow because there was no place else to wedge it into the schedule.

As I've said in this space before, I am very grateful for everything that locating has allowed me to do. I located through September 11th and its aftermath, I located through the Great Recession, and now I'm locating through the COVID-19 pandemic. I'm grateful for the opportunity to still be working and also to all the men and women out there whose work is even more essential than my own. It's good to be able to leave the house every day and practice my trade, and it's good to be able to serve my neighbors by protecting the underground infrastructure that they still rely on every day.

Locating is often a thankless task, and I was very moved by the "Thank You 811 Essential Workers" YouTube video that was circulated among the damage prevention community. A day or so after watching it, I passed a contract locator parked beside the road and doubled back to tell them "thank you" from the window of my truck.

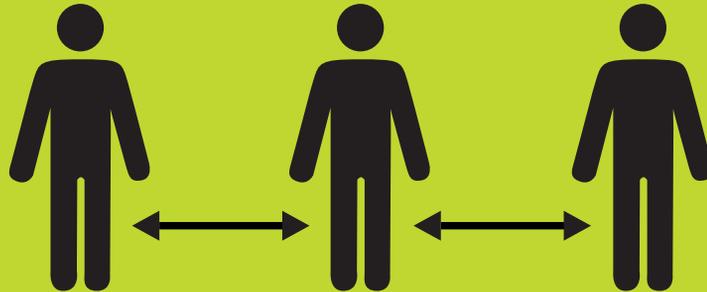
I'm grateful to be part of the damage prevention family, and as we go about our jobs in something resembling normalcy, I'd like to offer a single tip - don't sacrifice your personal space in the name of getting your work done.

As I go about my job task every day, I'm sanitizing my hands, wiping down commonly touched surfaces (including my phone) at regular intervals, and wearing a mask as a courtesy to others when I have to enter a customer's home or business. Yet, I continually interact with people on jobsites who, out of ignorance, bravado, friendliness or forgetfulness,

get too close for comfort. They look over my shoulder, try to show me plans on their iPads, or just plain stand too close while talking.

As someone who takes both safety and customer service seriously, I have started using the phrase "let me give you some space" whenever this happens. I say, "Let me give you some space" and then back up as if I've just noticed that it was me rather than them who was getting too close. That's usually enough. If I have to repeat it, I'll add, "My company is enforcing physical distancing due to COVID." That way

MAINTAIN SOCIAL DISTANCING



Maintain at least 6 feet (2 meters) distance from other people

it's not me personally calling them out. I'm just adhering to my company policy. You absolutely don't have to sacrifice safety to be a good customer servant.

Thank you so much for all you do. I'm proud and grateful to be a part of this community. Now... let me give you some space. 

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.

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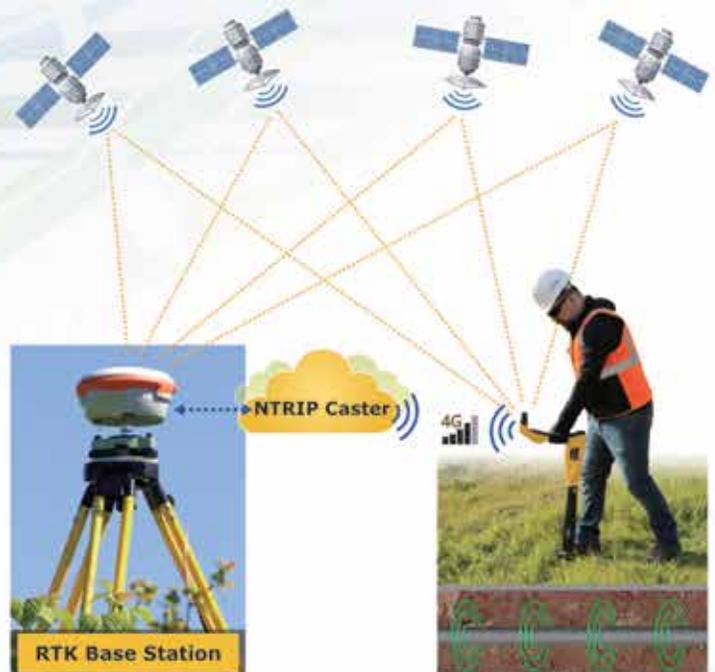
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