

Mitigating Damages

Underground Damage Prevention Initiatives Moving Forward



By Khrysanne Kerr

Chances are, you have recently driven through an area of town that was congested with construction work. In between the excavators, dump trucks and a few unsightly new holes in the ground, you probably saw a vivid collage of different colored flags covering many of the front yards and tree lawns, along with just as colorful markings spray-painted on the sidewalks and spreading into the middle of the street.

These particular combinations of reds, oranges, yellows and blues probably wouldn't make you the next Rembrandt, but they are a telltale sign of the traffic jam going on below your city streets — the virtual throng of utilities lurking under the ground any time a contractor even thinks of breaking out their excavator to begin a new project.

It has been reported that excavations cause millions of dollars in damages to underground facilities every year, resulting in property damage, injuries and sometimes even fatalities. Many of these incidents are a result of excavations performed without prior notification to the underground facility operator, or from inaccurate or untimely marking of the underground facilities by facility owners prior to excavation.

Through combined efforts with stakeholder groups including the utility owners and organizations such as the National Utility Contractors Association (NUCA), the Common Ground Alliance (CGA) has dedicated its efforts to addressing some of the key issues on the damage prevention issues. Many of these programs and ini-

tiatives continue to witness positive growth throughout the industry.

Call 811 Before You Dig

May 1, 2007 was the springboard date to launch the public awareness campaign for the new national three digit number to call before you dig, 811. This number will connect callers directly to their respective state One Call Center. Present at the launch event in Washington D.C. were key dignitaries including U.S. Secretary of the Department of Transportation, the Honorable Mary Peters.

Peters stated "I am putting those folks who cannot be bothered to dial three simple numbers on notice: You will face stiff



Launched on May 1, 811 is a national three-digit number to call before you dig.

penalties.” Those tough words are meant to combat an even tougher problem — damage to buried utilities.

Data extrapolated from the CGA’s 2005 Damage Information Reporting Tool, DIRT, estimates that there are more than 680,000 utility damages annually. This ultimately equates to one utility damage every minute. Of these damages, almost 40 percent are the result of not calling before digging.

“Americans understand the purpose of telephone numbers like 911 and 411,” stated Bob Kipp, CGA President. “It is the desire that 811 become as ingrained in society as the number to call before digging. One Call Centers receive between 15 to 20 million calls annually from professional excavators, homeowners and others who intend to dig.”

The potential impact of call volume growth could be significant from the promotion of 811. “The Notification Center has experienced a significant increase in homeowner locate requests and incoming telephone calls from 811 over the past six months compared to the same period last year,” stated Gary W. Hansen, Executive Director, Blue Stakes of Utah.

“The percentage of homeowner related locate requests this year averaged 17 percent of the Center’s overall ticket volume during the past six months (March 2007-August 2007) compared to 11 percent for the same period in 2006,” added Hansen.

In addition, 21 percent of the overall ticket volume in May 2007 came from homeowners. “A call itself will not reduce utility damages,” stated Kipp. “However, the call is the first step in the process to dig safely.”

- Call 811 Before You Dig
- Wait the Required Amount of Time
- Respect the Marks
- Locate Accurately
- Dig With Care

Additional information regarding 811 can be found by visiting www.call811.com. Visitors to the site can download all campaign promotional and educational materials in both print and electronic formats.

Incorporating GPS to Enhance Damage Prevention

A Virginia Pilot Project for incorporating GPS to enhance damage prevention technology, Phase I – Electronic White Lining, was under-

taken as a “proof-of-concept” project to research and implement new and existing technology to significantly enhance the communication of accurate information among stakeholders regarding the exact location of planned excavations.


The concept was that more accurate and concise data regarding the location of planned excavations could be determined through the enhanced use of technology. More accurate and concise locations data and enhanced communication of that data among the stakeholders were expected to result in measurable improvements in the one-call damage prevention process. These improvements would in turn have a positive impact on damage prevention and the safety and reliability of operations of underground facilities.

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DIRT is a secure online application for collecting, processing and trending national utility damage data.

The primary focus of the Pilot Project was the incorporation of global positioning system (GPS) coordinates in facility locate requests submitted by excavators. In addition, it involved the conveyance of those GPS coordinates and other data through electronic data exchange instead of through the use of traditional telephone voice communication methods.

Existing hardware technology coupled with specifically developed software applications was used for determining the GPS coordinates of proposed excavation sites. This data was communicated via wireless and web-based technology to the one-call center. Hardware-specific software applications were developed to link the various components together. Existing one-call system processes were modified to ensure the enhanced location data was captured and communicated.

Damage Information Reporting Tool

Beginning in 1999, a subcommittee of the CGA was tasked with developing a fair and streamlined process for collecting, processing and trending national utility damage data. With creation of the Damage Information Reporting Tool (DIRT), a secure online application for collecting this data evolved. A progressive path for collecting this data continues annually. 2006 witnessed the largest data gathering in North America with more than 104,000 records input into the system — an impressive 100.6 percent growth over the previous year.

The primary purpose in collecting underground facility damage data is to analyze data, to learn why events occur, and how actions by industry can prevent them in the future; thereby, ensuring the safety and protection of people and the infrastructure. Data collection will allow the CGA to identify root causes, perform trend analysis, and help educate all stakeholders so that damages can be reduced through effective practices and procedures.

The CGA's purpose is to reduce underground facility damage, which threatens the public's safety and costs billions of dollars each year. In order to better

understand where, how and why these damages are occurring, we require accurate and comprehensive data from all stakeholders.

The data will be analyzed and our findings will be issued via comprehensive reports. The data will not be used for enforcement purposes or to try and determine damage liability. The individual identities of parties involved with records submitted will be kept confidential. Additional information on DIRT can be found by visiting www.cga-dirt.com.

Best Practices

The CGA's Best Practices Committee is the committee responsible for the maintenance and review of the CGA Best Practices, the industry standard for damage prevention practices. To become a "best practice," each proposal must first pass through the Best Practice Committee's consensus approval process.

The committee's mission is to focus on identifying those best practices that are appropriate for each stakeholder group, gauge current levels of implementation and use of those best practices, and encourage and promote increased implementation of the best practices. Currently, the committee receives approximately 10 to 15 "new practice proposals" per year. Best Practices version 4.0 can be ordered in booklet or CD format by visiting www.commongroundalliance.com.



In 2006, DIRT added more than 104,000 records to the system.

Path Forward

The 1,400 member companies of the CGA and their legions of volunteers continue to strive to reduce damages to buried facilities and keep America safe and connected. The CGA will hold its annual meeting during the CGA Excavation Safety Conference on March 25-27, 2008 at the Rio Hotel in Las Vegas. All stakeholders are encouraged to attend to learn more about current damage prevention initiatives. For more information on the conference, visit www.cgaconference.com

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