

Association Tackling Hidden Dangers

By **Kevin Kemper**

Cross Bore Safety Association (CBSA) was founded in 2007 to address an issue that has been gaining recognition among industry leaders, academics and governmental jurisdictions.

The chairman and president of the CBSA, Mark Bruce from Can Clay Corporation, shared the common sentiment that “eliminating intersections of underground utilities (or cross bores) continues to be a top priority in the utility industry.” According to Bruce, the goal of the CBSA is to “provide a dedicated and focused forum for safer practices for prevention of new cross bores and elimination of existing cross bores.” A recognized standard of safe practices is needed to ensure that the public is protected from the dangers of cross-bores.

There are dangers posed by the intersection of all types of utilities: communication, cable, electric, gas and sewer. A ruptured communication line prevents essential access to fire and safety services. A severed electrical line puts the lives of construction personnel in danger. But the intersections that most worry the members of the CBSA are gas and electric lines in sewer lines, especially sewer lateral service lines. Frequently, according to Bruce, these cross-bores occur in sewer service laterals to homes and can create a sewer blockage and backup. If the homeowner calls a drain cleaner to clear the blockage, chances are good that the drain cleaner will use a rotary cutting device to clear out the lateral. This powerful machine will almost invariably rupture any cross bored plastic gas or electric line within. In the electric line scenario, we all know what can happen when a live electric line is cut. In the gas line scenario, pressurized gas will be released that could cause a devastating explosion. These types of cross bores have been found in mobile home parks



A robotic camera was used to take a picture of this cross bore which is intersection of an existing underground utility by a second utility that compromises the integrity of either utility.

and other privately owned sewer systems. In addition, Bruce said they have been found in at least one hospital and one school.

Standard Safe Practice Needed

Bruce explained how a standard of safe practice would protect not only the public, but the industry-leading utilities and contractors

Of course, working to create a safe standard is only one aspect to solving the issue of cross bores. Bruce said the lack of legislation for locating sewer laterals is a problem.

“It has been one of the last frontiers to fall under regulation and is now required in 40 states, but to varying degrees, and with in-

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who already have a standard of safe practice in place, as well. By bringing the methods of all utilities and contractors, even those with less experience or knowledge, to the same level, innovative utilities and contractors will not be punished by higher insurance costs for dangers that they alone are working to minimize and eliminate.

consistent language between the states,” Bruce said. Generally, all types of utilities must be located and marked before any underground construction begins on a construction site. This is not always true for sewer utilities. Forty states have regulations for requiring marking of sewers, others states are expected to follow. The legislation is more

comprehensive in some states than others. Interpretation and enforcement is greatly varied among the states. It is imperative that sewer lines are always marked and the public protected.

Improved technology has also helped to prevent new cross bores and eliminate existing cross bores. "During the last several years, the gradual awareness of this safety issues is balanced with new tools and techniques that can eliminate cross bores entirely," Bruce said. "Robotic cameras, radio sondes, locating tools and traditional inspection techniques can provide assurance for elimination of cross bores of sewers. New technology is another aspect of solving the issue of cross bores."

Association Focuses on Education

The CBSA is taking many approaches to solving this issue. Additionally, they are focusing on the opportunity for education and training within the industry. Bruce believes that "some well intending companies are not aware that their processes still result in unreasonably high risks. Companies that have been on the forefront have the most experience. Experience has resulted in innovation, change, and better procedures." The CBSA's goal is to access this experience for the benefit of the entire industry.

The first publication released by the CBSA focus on the elimination of existing gas lines intersecting sanitary sewers. *CBSA Legacy Crossbore Verification Guidelines* is a step-by-step, 21-page guide to evaluating risks and developing legacy inspection projects. Continuing efforts include development of a consensus guideline for *Elimination of Cross Bores Resulting from New Construction Projects*.

CBSA welcomes the participation of all interested parties to create solutions for the elimination of cross bores. For information on the organization, visit www.CrossBore-Safety.org. **UF**

Kevin Kemper is a recent graduate of Boston College. He has authored several industry articles. His articles have appeared in Construction Today, American Builders Quarterly, American Executive and Underground Focus.

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