



Recognizing Underground Hazards

Excavation and trenching projects that result in unintentional strikes and damage to underground utilities are a significant and unfortunate operating occurrence during public entity operations. Damage to lines can result in liability claims and cost public entities hundreds of thousands of dollars in damages each year. People and equipment can be harmed when services are damaged. Texas Utilities Code Chapter 251 - Underground Facility Damage Prevention and Safety states that anyone that plans to disturb soil to a depth of 16 or more inches must contact a notification center before proceeding with their work.

A locator's marks provide the excavator with information about the location of underground lines. Due to natural shifting of the ground and other causes, the markings only show a general location, so a Tolerance Zone must also be observed while excavating. The Tolerance Zone acts as added protection to buried utilities. In the state of Texas, the Tolerance Zone is half the nominal diameter of the underground pipeline plus a minimum of 18 inches on either side of the outside edge of the underground pipeline on a horizontal plane.

Do You Have Paint Markings and Flags?



Electric Power Lines, Cables, Conduit, and Lighting Cables



Gas, Oil, Steam, Petroleum or Gaseous Materials



Communication, Alarm, Signal Lines, Cables, or Conduit



Reclaimed Water, Irrigation, and Slurry Lines



Proposed Excavation



Temporary Survey Markings



Portable Water



Sewers and Drain Lines

Excavators should develop and implement an emergency plan in case of an accidental strike. This plan should contain specific procedures for field staff to address their safety and the safety of the public. Procedures should be reviewed with staff periodically to ensure proper protocols are being followed and if changes are needed.

In The Event of Damage

- Call 811 and your supervisor. Call 911 if there is an emergency.
- For Gas and Petroleum pipelines – call 911 and the Railroad Commission.
- Photograph entire area and damage location.
- Make sure the correct date & time stamp is active on your camera.
- Photograph the excavation itself (damage location)
- Take photos from multiple vantage points and of surrounding area (360 degrees)
- If the utility was mis-marked, photograph the locate marks/flags (include tape measure in photo)
- If the utility was not marked, photograph the entire area, and approach the cut site.
- Show a quantifiable location/address (street sign, house number, mailbox number etc.)
- Facility depth (include tape measure in photo)
- Remember - you can never take too many photos!

Additional Resources

Texas811 is a free service that coordinates underground utility locates. Use this service any time you plan to excavate. Call 811 or use the reporting portal at www.texas811.org/portal. You may contact Texas811 up to 14 business days before excavating, but no later than 2 business days before excavating. Keep your request number for future reference. Locators for the utilities will mark their underground utilities at your site. Find the Texas811 Excavator Guide at: <https://texas811.org/excavatorguide>

If a gas or petroleum line is damaged, notify the Railroad Commission of Texas within 30 working days. Use the Texas Damage Reporting Form online. www.rrc.texas.gov

TMLIRP Media Library

- Seeing is Believing - Safely Exposing Buried Utilities, DVD #719