



TOOL BOX TALK







By Michael Twohig, Survey Project Director, Woolpert

PRE-EXCAVATION CHECKLIST







All excavators should have a pre-excitation checklist which will help prevent utility damage and ensure a safe work environment. The checklist should be reviewed, signed and dated by the project manager at the beginning of each project.












PROJECT PLANNING:

Check the Safety Folder for Project Information/ Project Plan







-  Emergency Contact Information
-  Supervisor Contact Information
-  Emergency Procedure Guidelines
-  Name, number, address and map of nearest Medical Facility
-  Check the prints to verify the print was prepared by a licensed professional and the utility information shown conforms to ASCE 38-02 Quality Levels A, B, C and D where appropriate (see sidebar article on next page).
-  Make sure a working, multi-function pipe and cable locator is on site.

Review the Project Plan

-  Check to see if the One Call Ticket(s) is current (check Ticket Number and a copy must be with site foreman and/or the excavator).
-  Check to see if One Call locates have been completed (look at due date).
-  Check to see if all listed stakeholders have responded to the One Call locate request and the contact information is available for every stakeholder on the project.
-  Make sure you have a detailed field sketch of the survey marks to protect them and document the response to the locate request.
-  Check to see if the locate marks have been disturbed, moved or destroyed.
-  Check for critical facilities on site including restriction on excavation, encroachment permits and notify the appropriate inspectors, if required (excavation in and around some critical and hazardous facilities require an inspector on site to ensure the integrity of the systems during the excavation process; prior notice is often required on gas, oil, high voltage and some communication systems).

-  Check to see if the physical conditions, surface utility structures, risers, pedestals, previous markings and job site work plan match and confirm the marks (if not, or if marks look disturbed, request a remark).
-  Check for any privately owned facilities which may not participate in the One Call ticket system but which may exist, i.e, lighting, landscape lights, irrigation, sprinkler systems, power outlets and septic systems. If any evidence is found, contact the owner, the engineer and wait until the systems have been located and marked.
-  Check for any new construction, utility trenches or evidence of new utility installations.
-  Check to see if all services and utility laterals have been located, identified and marked. If not, make sure the laterals are marked prior to commencing work, add the information to the site plans and notify the project owner.
-  Check the prints and verify all the utilities shown on the plan agree with the mark outs.
-  Check for aerial facilities and verify the height clearance needed for all equipment, trucks and vendor material delivery trucks.
-  Communicate and explain the prints or drawings and the meaning of the flags. Define the work zone to all personnel working in, around or adjacent to the job site.
-  Communicate and explain the Safe Work Practices with respect to the day's works.
-  Communicate any hazards, details and procedures required to maintain the safety of the public, personnel, equipment and the site.
-  Communicate the specific details of unacceptable habits and short cuts that may violate the Safety Policies.
-  Provide clear instructions on equipment and tool inspections prior to beginning work including communication devices.



-  Communicate and define the proper PPE required for each employee based on type of work, discipline and project assignment.
-  Review materials and chemicals on site and ensure an MSDS Sheet is available for all materials used during the course of the day.
-  Look for suggestions, recommendations and identify concerns that any crew member, inspector or on-site personnel may have.
-  Require all attendees to sign the Tool Box Talk attendance form.
-  Check to ensure all job site personnel know the location of the Safety Manual, the MSDS sheets, the emergency contact information and the location of phones and radios needed in the event of an emergency.
-  Take immediate precaution to remedy any deficiencies identified during the Tool Box Talk.

ASCE 38-02

Quality Levels of Information

Quality Level D: The most basic level of information, based solely on existing records.

Quality Level C: This is the most commonly used level of information, supplementing Level D information with a visible ground survey of utility facilities, such as manhole or valve boxes. Subsurface Utility Engineering (SUE) industry experts estimate a 15-30% inaccuracy rate for Level C data.

Quality Level B: This is the first level where SUE designating information is used, supplementing and verifying Level C and D data. This level addresses problems caused by inaccurate utility records, abandoned or unrecorded facilities, or lost references.

Quality Level A: This is the highest level of accuracy available, where SUE locating information is added to Level B designating information. Level A provides precise three-dimensional horizontal and vertical mapping of underground utilities and related structures.

Pre-Excavation Communication is the Key to Damage Prevention

Although there are many tools available to excavators, the most significant thing any excavator can do to prevent utility damage is to communicate.

1. Communicating with the one-call center

Most one-call centers repeat the information back to the caller when a locate request is made because they want to make sure the information they are receiving is correct. As an excavator you are responsible for communicating the correct information to the call center and you are also responsible to make sure the information was received according to your intent.

2. Communicating with line locate personnel

Do not make undocumented agreements with the line locators just to shortcut the system because these short cuts will come back to haunt you if a damage occurs.

3. Communicating with your employees and your sub-contractors

You may understand the excavation laws implicitly but do your employees and sub-contractors? Make sure that everyone working for you knows all of the excavation laws of the state in which you are working.

4. Communicating after damage occurs.

It is important that you communicate all damages or near-misses to the facility owner or one-call center. The information you provide is critical in identifying the root cause of the incident and will help to prevent damages in the future.