

Safety Flash

Incident with property damage

Incident: During pre-job meetings, the customer, RLI and the crew reviewed dig permit requirements, fire line tie-ins and the need to install the sanitary line first due to its depth. The customer rep in charge of signoff passed the responsibility to another rep. The day before the incident, the crew saw-cut the pavement and hydro-excavated to locate known utilities.

The day of the incident, the customer and RLI reviewed as-built drawings and the day's tasks. The crew excavated to core a manhole and identified a possible abandoned light pole feed. The customer was on site and raised the possibility of a phone line, which was not found after hydro-excavating. They did not look for other lines. While excavating, the crew struck a conduit close to a manhole. The customer identified the conduit as a feed to the lift station. Power was off due to "no signal" to run the pump.

Possible contributing factors

- The conduit was shown on drawings but not identified during reviews, and all lines looked the same on the drawings.
- The customer rep passed the signoff responsibility to another rep, who knew the area better and confirmed that the drawings and permit "look good."
- Active utilities were not identified with GPS and not all equipment was GPS-equipped.
- The customer's master electrical drawings did not accurately show "abandoned" v. "live" lines and some lines were not shown.
- The customer's drawings and maps were confusing because there were no existing reference points to accurately identify/coordinate work areas and utilities.
- The water line was on the critical path and the sanitary line was also moved to the critical path.
- The electrical line was not identified during hydro-excavating.
- Drawings were not reviewed on site, where the line may have been identified.

Primary contributing factors

- The conduit was shown on drawings but not identified during reviews, and all lines looked the same on the drawings.
- The customer's drawings and maps were confusing because there were no reference points to accurately identify/coordinate work areas and utilities.

Possible solutions

- Document the process to standardize as-built drawings and ability to overlay work.
- Continue using an RLI GPS Rover to identify/mark all active utilities.
- Continue to verify that "abandoned" lines are "abandoned" before excavation.
- Continue to involve crews in planning and utility reviews.
- Hold a utility review at the work area to see existing conditions.

Action plan

- RLI is using GPS to identify all lines, while the customer reviews the drawing process and coordinates revisions/color overlays.
- If an abandoned line is hit, the crew will stop, identify and verify the line's source.
- A drawing showing all utilities will be created for a six-week look-ahead.
- Utility reviews will be held on site with the crew, RLI and the customer.

Keep improving

Your health and safety are our core value on every project. If you see a way we can support you in keeping our job sites safe, see your supervisor or contact: Jim Philo, 419/654-2043; Rich Franklin, Michigan, 734/679-7283; Alan Doane, Cleveland, 440/429-0639; Rick Wallace, Lima, 419/705-9170 or Mark Hoffman, 419/360-9280.