

# COMPLETE UTILITY LOCATING SYSTEM

**TELECOMMUNICATIONS UTILITIES** 

## INSTALLATION INSTRUCTIONS

- Tracer wire installation shall be performed in such a manner that allows proper access for connection of line tracing equipment, proper locating of wire without loss or deterioration of low frequency (512 Hz) signal, and without distortion of signal caused by more than one wire being installed in close proximity to one another.
- 2. Tracer wire systems must be installed as a single continuous wire, except where using approved connectors. No looping or coiling of wire is allowed.
- 3. Any damage occurring during installation of the tracer wire must be immediately repaired by removing the damaged wire and installing a new section of wire with approved connectors. Taping and/or spray coating shall not be allowed.
- 4. Tracer wire shall be installed approximately 2 inches above the conduit or fiber cable.
- 5. Mainline tracer wire shall not be connected to existing conductive material. Treat as a mainline deadend ground using an approved waterproof connector to a Ground Rod driven into virgin soil beneath and in line with the utility.
- 6. All service lateral tracer wire shall be a single wire, connected to the mainline tracer wire using a three-way mainline-to-service connector, installed without cutting/splicing the mainline tracer wire.
- 7. In occurrences where an existing tracer wire is encountered on an existing utility that is being extended or tied into, the new tracer wire and existing tracer wire shall be connected using approved connectors.
- 8. Tracer wire on all service laterals/stubs must terminate at an approved tracer wire access point located directly above the utility, at the edge of the road right-of-way, but out of the roadway.
- 9. One foot of excess/slack wire is required in all tracer wire access points after meeting final elevation.
- 10. Tracer wire must be properly grounded as specified.
- 11. At all mainline dead-ends, tracer wire shall go to ground using an approved connection to a drive-in magnesium ground rod.
- 12. When grounding the tracer wire at dead-ends/stubs, the ground rod shall be driven into virgin soil directly beneath and in line with the utility.
- 13. Ground rod wire shall be connected to the ground rod terminal on the two-terminal SnakePit<sup>®</sup> Access Point Lid or to the bottom terminal on the two-terminal Cobra<sup>™</sup> Access Point.
- 14. Where the ground rod wire will be connected to a tracer wire access point, one foot of excess/slack wire is required after meeting final elevation.

#### **Prohibited Products and Methods**

The following products and methods shall NOT be allowed or acceptable:

- 1. Uninsulated tracer wire
- 2. Stainless steel tracer wire
- 3. Tracer wire insulations other than HDPE
- 4. Tracer wire not domestically manufactured
- 5. Non-locking, friction fit or taped connectors
- 6. Brass or copper ground rods
- 7. Wire connections utilizing taping or spray-on waterproofing
- 8. Looped wire or continuous wire installations that have more than one wire laid side-byside or in close proximity to one another
- 9. Tracer wire wrapped around the corresponding utility
- 10. Wire terminations within the roadway in valve boxes, cleanouts, manholes, etc.
- 11. Connecting tracer wire to existing conductive utilities





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#### Testing

All new tracer wire installations shall be located using typical low frequency (512 Hz) line tracing equipment, witnessed by the contractor, engineer and facility owner as applicable, prior to acceptance of ownership.

This verification shall be performed upon completion of rough grading and again prior to final acceptance of the project.

Continuity testing in lieu of actual line tracing shall not be accepted.

