

**Missouri Society of Professional Surveyors**

**2016 Annual Meeting**

**Resolving Boundary Disputes**

# **Safety and the Professional Land Surveyor**

**Presented by**

**Mark Wiley, P.L.S.**



# Missouri Revised Statutes

## Chapter 319 General Safety Requirements

Sections [319.010](#) through [319.050](#) shall be known as the "Underground Facility Safety and Damage Prevention Act".

(L. 1976 S.B. 583 § 1)

### **Notification centers, participation requirements and eligibility--names of owners and operators made available, when.**

[319.022](#). 1. Any person, except a railroad regulated by the Federal Railroad Administration, who installs or otherwise owns or operates an underground facility shall become a participant in a notification center upon first acquiring or owning or operating such underground facility. All underground facility owners within the state shall maintain participation in a notification center for the duration of owning and operating such underground facility. Such notification center shall be governed by a board of directors elected by the membership and composed of representatives from the general membership group.

2. The notification center shall maintain in its offices and make available to any notification center participant or excavator upon request a current list of the names and addresses of each notification center participant, including the county or counties wherein each participant has underground facilities. The notification center may charge a reasonable fee to notification center participants or excavators requesting such list as is necessary to recover the actual costs of printing and mailing.

3. Excavators shall be informed of the availability of the list of notification center participants.

4. An annual audit or review of the notification center shall be performed by a certified public accountant and a report of the findings submitted to the speaker of the house of representatives and the president pro tem of the senate.

(L. 1991 S.B. 214 & 264, A.L. 2001 H.B. 425, A.L. 2007 S.B. 613 Revision, A.L. 2008 H.B. 1779, A.L. 2014 H.B. 1867)

Effective 1-01-15

### **Public notice of excavations, duties of owner and operator.**

[319.024](#). 1. Every person owning or operating an underground facility shall assist excavators and the general public in determining the location of underground facilities before excavation activities are begun or as may be required by subsection 6 of section [319.026](#) or subsection 1 of section [319.030](#) after an excavation has commenced. Methods of informing the public and excavators of the means of obtaining such information may, but need not, include advertising, including advertising in periodicals of general circulation or trade publications, information provided to professional or trade associations which routinely provide information to excavators or design professionals, or sponsoring meetings of excavators and design professionals for such purposes. Information provided by the notification center on behalf of persons owning or operating an underground facility shall be deemed in compliance with this section by such persons.

### **Notification of location of underground facility, when, how--failure to provide notice of location, effect.**

[319.030](#). 1. Every person owning or operating an underground facility to whom notice of intent to excavate is required to be given shall, upon receipt of such notice as provided in this section from a person intending to commence an excavation, inform the excavator as promptly as practical, but not in excess of two working days, unless the excavator agrees to extend the start date and time provided in the locate request through methods established by the notification center, of the approximate location of underground facilities in or near the area of the excavation so as to enable the person engaged in the excavation work to locate the facilities in advance of and during the excavation work, provided that no excavation shall begin earlier than the scheduled excavation date provided on the locate request unless the excavator has confirmed that all underground facilities have been located. The two working days provided for notice in this subsection and subsection 1 of section [319.026](#) shall begin at 12:00 a.m. following the receipt of the request by the notification center. Each underground facility owner receiving notifications from the notification center by use of the internet shall, after December 31, 2014, use the locate status system provided by the notification center. Those underground facility owners that do not receive notifications by use of the internet shall, no later than January 1, 2016, provide locate status to the notification center by an alternate method provided by the notification center. If the excavator states in the notice of intent to excavate that the excavation will involve trenchless technology, the owner or operator shall inform the excavator of the depth, to the best of his or her knowledge or ability, of the facility according to the records of the owner or operator. The owner or operator shall provide the approximate location of underground facilities by use of markings as designated in section [319.015](#). Persons representing the excavator and the owner or operator shall meet on the site of excavation within two working days of a request by either person for such meeting for the purpose of clarifying markings, or upon agreement of the excavator and owner or operator, such meeting may be an alternate means of providing the location of facilities by originally marking the approximate location of the facility at the time of the meeting. If upon receipt of a notice of intent to excavate, an owner or operator determines that he or she neither owns or operates underground facilities in or near the area of excavation, the owner or operator shall within two working days after receipt of the notice, inform the excavator that the owner or operator has no facilities located in the area of the proposed excavation. The owner or operator of the underground facility shall make notice to the excavator that no facilities are located in the area of excavation by contacting the excavator by any of the following methods:

**Sewer system owner duties upon notification of intent to excavate.**

[319.031](#). 1. In addition to the other requirements of section [319.030](#), the response to a notice of intent to excavate received by a sewer system owner, when such owner has underground facilities located in the area of excavation identified in the notice and when the notice indicates that trenchless excavation methods will be used, shall include a determination of whether sewer service connections exist in the area of the excavation.

2. If the sewer system owner determines that sewer service connections exist in the area of the excavation identified in a notice of intent to excavate, the owner shall provide his or her best available information, or notice that the information does not exist, regarding the location of such connections to the excavator by any of the following methods:

(1) Placing a triangular green mark at the approximate location of the sewer service connection pointing in the direction of the customer structure serviced;

(2) Providing electronic copies of the information to the excavator;

(3) Delivering copies of the information to the excavator by facsimile or by other agreed upon means; or

(4) Arranging to meet the excavator at the site of the excavation to provide the information.

3. Providing the best available information, or notice that the information does not exist, regarding the location of sewer service connections that exist in the area of excavation identified in a notice of intent to excavate shall constitute full compliance with this section, and a sewer system owner shall not be liable to any party for damages or injuries resulting from an excavation if they are in compliance with this section.

4. Providing the best available information regarding the location of sewer service connections that exist in the area of excavation identified in a notice of intent to excavate shall not in and of itself constitute ownership, operation, control, or management of sewer service lines by a sewer system owner.

**Public right-of-way, installation within, requirements.**

319.033. By January 1, 2016, if new lateral sewer pipes or water service lines are installed and connected to an underground facility within the public right-of-way, as defined in section 319.015, or if such infrastructure is fully replaced by excavation within the public right-of-way, the facility owner shall be required to place tracer wire or other utility location technology and an access point within a protective enclosure over water lines and cleanouts for gravity sewer laterals. For sewer laterals operating under pressure or vacuum, the facility owner shall be required to place an access point within a protective enclosure and shall not be required to place a cleanout. All protective enclosures and cleanouts shall be extended to grade and installed so that it is easily accessible. For water service lines and sewer laterals operating under pressure or vacuum, tracer wire, or other utility location technology, shall be placed within the protective enclosure to provide approximate location of the underground facilities in these areas that are located within a public right-of-way. An underground facility owner shall not be liable to any party for damages or injuries resulting from an excavation if they are in compliance with this section. This section shall apply to all installations of water service lines and sewer laterals without regard to their status as underground facilities under section 319.015. Nothing in this section shall require any owner of underground facilities who is not otherwise required under sections 319.010 to 319.050 to become a notification center participant.

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3. Any person otherwise liable under the provisions of section 319.500 and this section is not liable if he demonstrates that the hazardous substance emergency occurred as the result of an act of God, an act of war, an act of the state of Missouri or the United States, or solely by the act of a third party.

### Notice of Intent to Perform Work Process

(This Notice of Intent does not eliminate the excavator's responsibility under Missouri law to request locates from Missouri One Call).

There are three methods to inform MoDOT of your intent to perform work on MoDOT Right of Way: (Missouri One Call locate sheets are not a substitute. Please fill out the appropriate fields below.) Although MoDOT is a member of Missouri One Call, the information in the form below is required in order to track work zones, lane drops, shoulder work, traffic control plans, etc.

- 1) **Preferred** - Fill out the fields below and click "Submit" at the bottom. The form will automatically be sent to the correct District Office for processing.
- 2) **Fax** - Print out the form ([click here for form](#)), complete and fax to the correct district fax number shown on the form.
- 3) **Phone** - Call 888-275-6636 (ASK MoDOT) or call the district office number shown below and provide the information on the form to the Customer Service Representative.

The documents are provided in Acrobat Reader format. [Free Acrobat Reader download](#) 

\*Notification should be submitted a minimum of 2 working days and a maximum of 10 working days prior to commencement of work.

\*If the form is not filled out correctly it will be returned to you by E-mail or Fax for corrections.

\*MoDOT underground utility facilities are governed under the law for Underground Facility Safety and Damage Prevention RSMO Chapter 319.015 thru 319.050

<http://www.modot.org/asp/intentToWork.html>

**Standard Guideline  
for the  
Collection and Depiction  
of  
Existing Subsurface Utility Data**

**ASCE** *American Society  
of Civil Engineers*

**CI/ASCE 38-02**

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**Standard Guideline for the Collection and Depiction  
of Existing Subsurface Utility Data**

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~~APPENDIX: SURFACE GEOPHYSICAL METHODS FOR UTILITY IMAGING~~

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Utility quality level	A professional opinion of the quality and reliability of utility information. Such reliability is determined by the means and methods of the professional. Each of the four existing utility data quality levels is established by different methods of data collection and interpretation.
Utility quality level A	Precise horizontal and vertical location of utilities obtained by the actual exposure (or verification of previously exposed and surveyed utilities) and subsequent measurement of subsurface utilities, usually at a specific point. Minimally intrusive excavation equipment is typically used to minimize the potential for utility damage. A precise horizontal and vertical location, as well as other utility attributes, is shown on plan documents. Accuracy is typically set to 15-mm vertical and to applicable horizontal survey and mapping accuracy as defined or expected by the project owner.
Utility quality level B	Information obtained through the application of appropriate surface geophysical methods to determine the existence and approximate horizontal position of subsurface utilities. Quality level B data should be reproducible by surface geophysics at any point of their depiction. This information is surveyed to applicable tolerances defined by the project and reduced onto plan documents.
Utility quality level C	Information obtained by surveying and plotting visible above-ground utility features and by using professional judgment in correlating this information to quality level D information.
Utility quality level D	Information derived from existing records or oral recollections.
Utility relocation policy	A policy (typically of the project owner or utility owner) for the relocation of utility facilities required by the project. This policy includes, but is not limited to, establishing provisions for compensating utility owners; for removing and reinstalling utility facilities; for acquiring or permitting necessary rights-of-way at the new location; for moving, rearranging, or changing the type of existing facilities; and for taking necessary protective measures.
Utility search	The search for a specific or unknown utility or utilities using a level of effort in accordance with the specified quality level, within a defined area.
Utility trace	The process of using surface geophysical methods to image and track a particular utility.

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## Permit-Required Confined Spaces in General Industry



A confined space has limited openings for entry or exit, is large enough for entering and working, and is not designed for continuous worker occupancy. Confined spaces include underground vaults, tanks, storage bins, manholes, pits, silos, underground utility vaults and pipelines. See 29 CFR 1910.146.

Permit-required confined spaces are confined spaces that:

- May contain a hazardous or potentially hazardous atmosphere.
- May contain a material which can engulf an entrant.
- May contain walls that converge inward or floors that slope downward and taper into a smaller area which could trap or asphyxiate an entrant.
- May contain other serious physical hazards such as unguarded machines or exposed live wires.
- Must be identified by the employer who must inform exposed employees of the existence and location of such spaces and their hazards.

### What to Do

- Do not enter permit-required confined spaces without being trained and without having a permit to enter.
- Review, understand and follow employer's procedures before entering permit-required confined spaces and know how and when to exit.
- Before entry, identify any physical hazards.
- Before and during entry, test and monitor for oxygen content, flammability, toxicity or explosive hazards as necessary.
- Use employer's fall protection, rescue, air-monitoring, ventilation, lighting and communication equipment according to entry procedures.
- Maintain contact at all times with a trained attendant either visually, via phone, or by two-way radio. This monitoring system enables the attendant and entry supervisor to order you to evacuate and to alert appropriately trained rescue personnel to rescue entrants when needed.

**You have a right to a safe workplace.**

**If you have questions about workplace safety and health, call OSHA.  
It's confidential. We can help!**

For more information:

**OSHA<sup>®</sup>** Occupational  
Safety and Health  
Administration  
U.S. Department of Labor  
[www.osha.gov](http://www.osha.gov) (800) 321-OSHA (6742)

OSHA 3214-09R-11



# CLSA

CALIFORNIA LAND SURVEYORS ASSOCIATION

## SAFETY TAILGATE MEETING GUIDE

