

# Excavator Manual

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*A Guide To Safe Excavation Practices in  
Massachusetts, Maine, New Hampshire,  
Rhode Island and Vermont*



**DigSafe.com or Call 811**

**BEFORE YOU DIG**

**It's Smart. It's Free. It's the Law.**

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# Preface

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The purpose of this document is to provide you with a basic understanding of your responsibilities as set forth in the “Dig Safe” law of your state concerning safe excavation practices and the protection of underground facilities.

This document is not intended as a legal reference. It does not contain the complete text of the “Dig Safe Law,” and is not intended to be a guide for dealing with specific utility companies or products.

You may download copies of this manual at [digsafe.com](http://digsafe.com), as well as complete copies of the state laws and rules for MA, ME, NH, RI and VT.

## State Regulatory Agencies

The following state agencies regulate and enforce the “Dig Safe Law.”

- **Massachusetts Department of Public Utilities**  
One South Station, Boston, MA 02201  
[www.mass.gov/guides/about-dig-safe](http://www.mass.gov/guides/about-dig-safe)
- **Maine Public Utilities Commission**  
101 State Street, Hallowell, ME 04347  
[www.maine.gov/mpuc/safety/dig-safe](http://www.maine.gov/mpuc/safety/dig-safe)
- **New Hampshire Department of Energy**  
21 South Fruit Street, Suite 10, Concord, NH 03301-2429  
[puc.nh.gov/Safety/undergrounddamageprevention.htm](http://puc.nh.gov/Safety/undergrounddamageprevention.htm)
- **Rhode Island Division of Public Utilities and Carriers**  
89 Jefferson Boulevard, Warwick, RI 02885  
[www.ripuc.ri.gov/digsafe/index.html](http://www.ripuc.ri.gov/digsafe/index.html)
- **Vermont Department of Public Service**  
112 State Street - Drawer 20, Montpelier, VT 05620-2601  
[publicservice.vermont.gov/publications-resources/damage\\_prevention](http://publicservice.vermont.gov/publications-resources/damage_prevention)

# What is Dig Safe®?

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Dig Safe® is a notification center, serving as a link between you – the excavator, and member utility companies. We are a private, not-for-profit organization established to collect information about your upcoming excavation project and notify the appropriate member utilities in the area of excavation. The utilities mark the location of their lines, or use private contract locating companies to mark their lines. This is a free service for anyone to use.

***Note: Dig Safe is a clearinghouse that notifies member companies to respond to locate requests. Dig Safe does not mark underground facilities.***

## How to Contact Us

Both Regular and Emergency tickets may be submitted online any time, day or night, with Exactix - Dig Safe's web platform for creating and managing Dig Safe tickets. Sign up at [www.digsafe.com/exactix.php](http://www.digsafe.com/exactix.php). See page 30 to learn more about Exactix.

You may also call 811 to reach a customer service representative with questions or to request a utility locate.

If you plan to dig in a state outside of our territory, go to [www.call811.com](http://www.call811.com) for a national 811 notification center directory.

## Hours of Operation

Our customer service representatives are available from 6:00am to 6:00pm, Monday through Friday, by calling 811. Only Emergency Tickets may be submitted by phone during nights, weekends, and holidays. Remember that Exactix users can submit both Emergency and Regulator tickets at any time, day or night. Sign up at [www.digsafe.com/exactix.php](http://www.digsafe.com/exactix.php).



# Notify Dig Safe Before You Dig

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1. You must give advance notice of at least 72 hours in MA, ME, NH, RI and VT - excluding weekends and holidays.
2. In MA and ME, you must get a ticket regardless of where the excavation is. In NH, RI and VT, you must get a ticket when working within 100 feet of underground utility facilities, including private property.
3. You must get a ticket for most earth penetrating activities, even small jobs. See the definition of "Excavation" on page 5.
4. Don't rely on old marks or faulty information. Get your own Dig Safe Ticket.
5. Mark out the area that you plan to excavate with white paint, flags or stakes. Include the name or initials of your company.
6. When state regulators inspect an excavation site or investigate a damage prevention incident, they will check to see if you have a valid Dig Safe ticket.
7. Review the Locate Request Form so that you will know what information you need when notifying Dig Safe. (See page 29)
8. In an emergency, notify Dig Safe with the location of the emergency excavation as soon as possible. Do NOT apply for an Emergency Dig Safe Ticket if the job is not a true emergency.

An emergency is a sudden or unexpected occurrence which poses a threat to public safety, life, health, property or essential utility service.

# What is an “Excavation?”

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**Massachusetts:** “Excavation” means an operation for the purpose of movement or removal of earth, rock or the materials in the ground including, but not limited to, digging, blasting, auguring, backfilling, test boring, drilling, pile driving, grading, plowing in, hammering, pulling in, jacking in, trenching, tunneling and demolition of structures, excluding excavation by tools manipulated only by human power for gardening purposes and use of blasting for quarrying purposes. (Chapter 82, Section 20)

**Maine:** “Excavation” means any operation in which earth, rock or other material below the ground is moved or otherwise displaced, by means of power tools, power equipment or explosives and including grading, trenching, digging, ditching, drilling, auguring, tunneling, scraping and cable or pipe driving, except tilling of soil and gardening or displacement of earth, rock or other material for agricultural purposes. (Title 23, MRSA 3360-A)

**New Hampshire:** “Excavate”, “excavating”, or “excavation” means any operation conducted on private property or in a public way, right-of-way, easement, public street, or other public place, in which earth, rock, or other material in the ground is moved, removed, or otherwise displaced by means of any tools, equipment, or explosive, and includes but is not limited to drilling, grading, boring, milling, trenching, tunneling, scraping, tree and root removal, cable or pipe plowing, fence or sign post installation, pile driving, wrecking, razing, rending or moving any structure or mass material but does not include the tilling of soil for agricultural purposes, landscaping and maintenance or residential property performed with non-mechanized equipment, landscaping activities performed with mechanized equipment that are intended to cut vegetation, including lawn edging,

*Continued on the next page.*

## What is an “Excavation?” - Continued

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aeration and de-thatching, excavations permitted or grandfathered under RSA 155-E, or replacement of department-of-transportation-installed delineator posts in the same location. (RSA 374, Section 48)

**Rhode Island:** “Excavation” means an operation for the purpose of movement or removal of earth, rock or other materials in or on the ground, or otherwise disturbing the subsurface of the earth, by the use of powered or mechanized equipment, including but not limited to digging, blasting, auguring, back filling, test boring, drilling, pile driving, grading, plowing in, hammering, pulling in, trenching, and tunneling; excluding the movement of earth by tools manipulated only by human or animal power and the tilling of soil for agricultural purposes. (Chapter 1.2, Section 39-1)

**Vermont:** “Excavation activities” means activities involving the removal of earth, rock or other materials in the ground, disturbing the subsurface of the earth, or the demolition of any structure, by the discharge of explosives or the use of powered or mechanized equipment, including but not limited to digging, trenching, blasting, boring, drilling, hammering, post driving, wrecking, razing, or tunneling, within 100 feet of an underground utility facility. Excavation activities shall not include the tilling of the soil for agricultural purposes, routine home gardening with hand tools outside easement areas and public rights-of-way, activities relating to routine public highway maintenance, or the use of hand tools by a company, or the company’s agent or a contractor working under the agent’s direction, to locate or service the company’s facilities, provided the company has a written damage prevention program. (VSA Title 30, Chapter 86)

# Pre-Excavation Safety Checklist

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## OFFICE:

- ☐ Review all drawings, plans, engineering blueprints for existing buried facilities.
- ☐ Proposed excavation area has been premarked in white paint, stakes and/or flags.
- ☐ Submit a Dig Safe ticket at least 72-hours in advance – not including weekends and holidays at [digsafe.com](https://digsafe.com) or by calling 811.
- ☐ Onsite meeting scheduled with all facilities (gas/oil pipelines, high-voltage electric cables, fiber optic)

## ONSITE:

- ☐ Use your Exactix dashboard to access or print a copy of the ticket to have it available at the jobsite.
- ☐ Complete a pre-excavation walkthrough of the entire jobsite and adjacent areas with visual inspection for:  
*Locate marks, permanent markers, signs or marking posts, pavement markers (stamped nails, pavement decals, A-tags™) and surface markers.*
- ☐ Consult any maps or field sketches of the location
- ☐ Identify all services to buildings such as:  
*Gas meters, pipeline valves, cable pedestals, electric cables, water valves, telephone closures*
- ☐ Look for evidence of trench lines from previous excavation
- ☐ Look for cleared pipeline ROWs
- ☐ Talk with the property owner or general contractor to identify potential private facilities that may not be marked:  
*Lighting, outbuildings, pools/spas, irrigation, sewer laterals, propane tanks, communication lines*

# Pre-Excavation Safety Checklist

## - Continued

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### DOCUMENT OF JOBSITE:

- ☐ Compare actual jobsite to Dig Safe ticket
- ☐ Ticket covers the scope of the work
- ☐ "Work to Begin" date is valid
- ☐ All utilities have responded
- ☐ All facilities are marked within the excavation area
- ☐ Photograph the jobsite
- ☐ Locate marks and flags from 360° at varying distances for perspective
- ☐ Permanent signage and location relative to the dig area:  
*Video and/or sketches where pertinent*

### BEFORE YOU DIG:

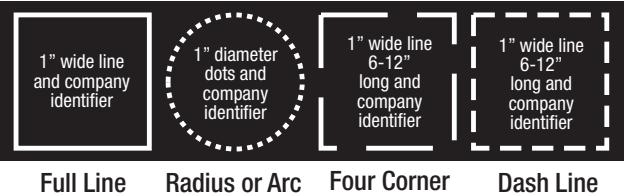
- ☐ Review safety information with anyone working the job
- ☐ Confirm with facility owner vacuum or hydro excavation is scheduled for all pipelines impacted
- ☐ Locations for hand digging within the tolerance zone are noted
- ☐ Representatives for all critical facilities are present
- ☐ List of all emergency contact numbers for facilities in and adjacent to the dig zone is readily available

# Guide to Premarking Proposed Excavations

These suggestions serve as a guideline. Refer to the current Common Ground Alliance (CGA) Best Practices for complete details at [www.commongroundalliance.com](http://www.commongroundalliance.com).

These illustrations are examples of how excavators should 'premark' the area of proposed excavation. Use white marking products (paint, flags, stakes, whiskers or combination) to identify the excavation site. Using florescent pink is recommended to premark on snowy terrain.

## Single Point Excavation Markings



Premark the proposed area of excavation by using: a continuous line, dots marking a radius or arc, dashes marking the four corners of a project, or dashes outlining the excavation project. Make the dash about 6" to 12" in length and 1" in width. Space them between 4' to 50' apart. Make the marks close together enough to be seen by utility locators. Dots of about 1" in diameter are typically used to define arcs or radii and can be placed at closer intervals instead of the dashes.

*Continued on the next page.*

# Guide to Premarking Proposed Excavations

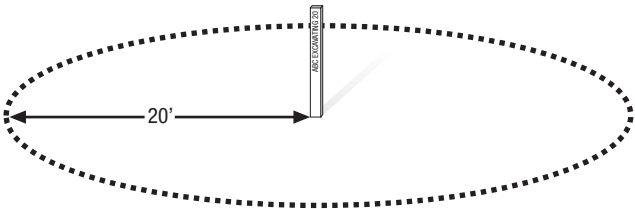
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### Using a Single Stake to Mark the Center Point of Excavation Site

When an excavation site is contained within a 50' radius or less, you can mark it with a single stake positioned at the center of the proposed excavation. If you choose this way of marking, you must indicate the radius on the ticket that you have marked the excavation site with a single stake at the center and include the radius of the site.

The stake should be white, and have this information on it: Excavator's name, abbreviations or initials, and the radius of the excavation site in black letters on the stake, or a note attached to the stake.





# Wait the Required Time

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After notification for non-emergency work, you must wait 72 hours in ME, MA, NH, RI and VT (excluding weekends and holidays).

## Observed Holidays

New Year's Day • M.L.K. Day • President's Day • Patriot's Day (MA,ME only) • Memorial Day • Independence Day • Victory Day (RI only) • Battle of Bennington Day (VT only) • Labor Day • Juneteenth • Columbus Day • Election Day (NH only, on even years) • Veteran's Day • Thanksgiving Day • Christmas Day

# Renewing Tickets

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1. In all five states, tickets expire if excavation does not commence within 30 days.
2. Do not request a new ticket or renewal unless you expect the work to take place within 30 days.
3. In Massachusetts, New Hampshire, and Vermont, tickets expire every 30 days from the date of issue. In Maine, tickets expire every 60 days. In Rhode Island, tickets do not expire provided that the marks are maintained.
4. Please do not notify Dig Safe too far in advance, and/or renew the same tickets month after month without excavation ever taking place. Also be careful not to renew tickets for completed projects. Remember, the utility locators must respond to mark each time you renew a ticket.
5. If the scope of work has changed (i.e. three miles of roadway is now only one mile) you must get a new ticket, rather than renew the original ticket.

# Respect The Marks

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1. You are responsible for maintaining the marks placed by member utility companies at your site.
2. Hold a pre-construction meeting before you start the excavation. Walk all employees through the site and note the location of all utility markings. Notify Dig Safe of any utility structures with no markings around it, or if anything 'just doesn't seem right.'
3. Pay special attention to any changes in direction that the underground facilities take.
4. If your excavation causes the removal or disturbance of the markings, establish offset marks in order to maintain a reference point for those underground facilities, or call 811 to request a re-mark.
5. Make sure that everyone involved in your excavation is aware of any offsets that have been established, any marks that have been compromised, or any other information regarding facility locations.
6. Don't put spoil piles over markings. Avoid driving machinery over stakes and flags. Paved areas should be swept periodically so that painted marks remain visible.
7. Refer to "Laws at a Glance" on page 27 for advance notice requirements for re-mark requests.
8. If you refresh the markings at the site, make sure that you use the uniform color code and identification letters to avoid any confusion. (See the Color Code for Utility Marks on the back of this manual).

# Understanding the Marks

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These suggestions serve as a guideline. Refer to the current Common Ground Alliance (CGA) Best Practices for complete details at [www.commongroundalliance.com](http://www.commongroundalliance.com).

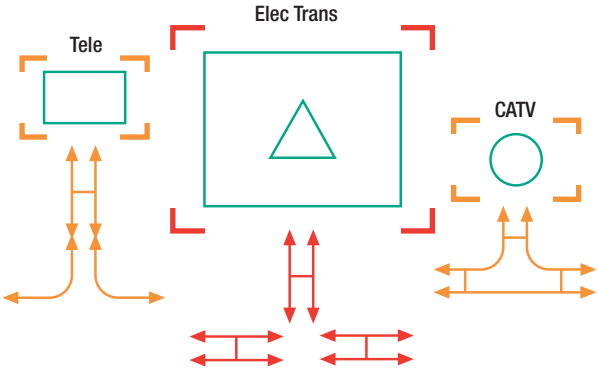
1. Utility lines should be indicated by markings using the current APWA color codes (see back cover). Markings should be 18"-24" in length and 2" in width.
2. The owner of a facility should be indicated by initials or by company name in letters 6" high at the beginning and end of the locate. On long locates, the facility owner should be indicated every 100'.
3. For operators with multiple facilities within an excavation area, for example bundled or stacked facilities, the total number of lines within the ground should be indicated when known.
4. If a facility is known to be present but the total number of lines for a facility cannot be determined, a corridor marker may be used indicating the approximate length of the facility.
5. When known, the size of the line being located should be indicated. Line size should indicate the outside diameter of the pipe or structure.
6. When known, the pressure of a the facility should be indicated.
7. When known, termination points, dead ends and stub outs should be indicated.
8. Offset marks should be used when there is a likelihood that the markings may be destroyed if placed directly over the facility.

# Understanding the Marks - Continued

The following is only a guideline. Refer to the current Common Ground Alliance (CGA) Best Practices for complete details at [www.commongroundalliance.com](http://www.commongroundalliance.com).

## Using Brackets Around Pedestals, Transformers and Poles

Brackets 18" around peds

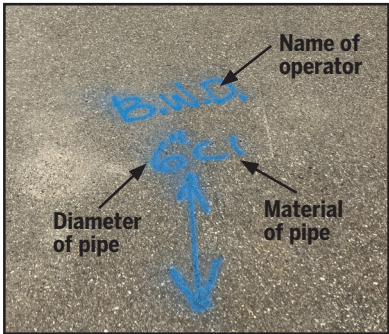


Markings start outside of brackets. Dig by hand inside the marked area.

The use of vacuum excavation equipment is also an acceptable means of removing earth within the tolerance/safety zone.

# Understanding the Marks - Continued

## Direct Buried Cables – Centerline Marks



Includes the diameter of pipe, name of operator, and material of pipe. Width of pipe + plus 18" on both sides of pipe = Tolerance Zone. Hand dig or use hydro vac equipment to work safely in this zone.

## Multiple Direct Buried Cables



Two arrows are connected with a perpendicular line, to form an "H". Number of cables indicated, if known.

# Understanding the Marks - Continued

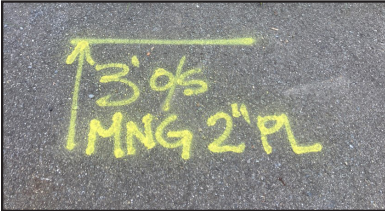
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## Duct Structures



Two arrows connected with a diamond shape. Primarily in downtown areas, often concrete or wood encased. For multiple stacked ducts, the number will be indicated, if known.

## Off-Set Marks



Off-set marks indicate the location of underground utilities relative to a reference point. Instead of marking directly above the utility on a sidewalk, road, or landscaped area, off-set marks are placed on less disruptive surfaces to reduce the need for remarking. Off-set marks are also placed in areas where they are less likely to be worn away by traffic, weather, or excavation activity, so they remain visible for longer periods.



# Dig With Care

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1. Before you excavate within the Tolerance Zone (see page 18), you must:

*Verify the location, type, size, direction-of-run and the depth of the facility.*

*For gas and liquid petroleum lines, verification must be by means of hand-dug test holes or vacuum excavation.*

*The location of other utilities must also be verified by means of hand-dug test holes or vacuum excavation unless otherwise agreed upon with the facility operator.*

2. Do not assume that buried facilities will be at a certain depth.

*Facilities may have been originally installed at a prescribed depth, but later erosion or grade changes cause them to now have a shallow or deep cover.*

3. Verification by a hand-dug test hole or vacuum excavation requires the facility to be exposed to view.

*If after a diligent search the facility cannot be verified in this manner, notify the facility operator.*

4. Vacuum excavation is an accepted means of verifying the location of marked facilities.

5. Powered Equipment may be used for removing pavement, but only to the depth of the pavement.

6. If the excavation is going to cross a Tolerance Zone, dig a test hole to expose the facility at the point of crossing.

7. If the excavation is going to parallel a utility, you should dig test holes at any marked change of direction, elevation and at tee's.

8. For relatively straight excavations parallel to a utility, a test-hole should be dug approximately every 20 to 25 feet.

9. If you find an unmarked or unknown facility, notify the facility owners, locating company or contact Dig Safe.

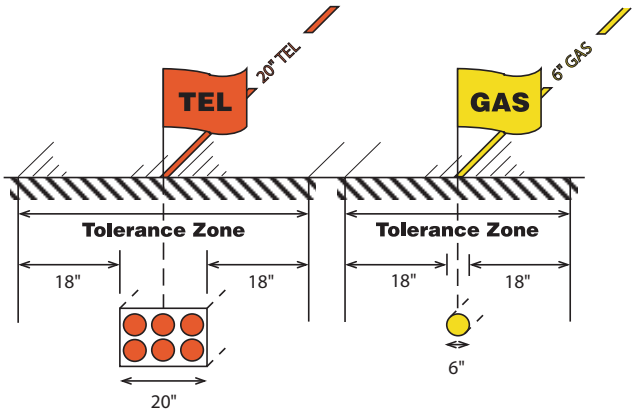


# Tolerance Zone

The Tolerance Zone (in most states) is a zone designated on the surface by the use of standard color-coded markings, which contains the width of the facility plus 18 inches on each side of the facility.

For exceptions, refer to your state's "Dig Safe" law which may be downloaded at [digsafe.com](http://digsafe.com).

## Measuring the Tolerance Zone



The use of vacuum excavation equipment is also an acceptable means of removing earth within the tolerance/safety zone.

# Excavation After Verification

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1. When excavating close to an underground facility, it is a good practice to have a spotter assist and guide the machine operator.
2. After you have verified the location of a facility by hand digging test holes, or by vacuum excavation, you must use due care when excavating around a facility with any type of equipment.
3. If the excavation work requires significant spans of the facility to be exposed, support them to prevent sagging or collapse.
4. Take care not to damage the protective coating or tracer wire of a facility. If you do, leave the damaged facility exposed and immediately call the facility operator.

## Reporting Natural Gas Emergencies

In the event of an emergency involving danger to life, health or property as a result of damage to an underground facility, the excavator shall:

***Immediately notify 911, the operator of the affected facility, and the appropriate state regulatory agency (See page 2) of the exact location and nature of the emergency.***

## If a Facility Is Contacted or Damaged

1. If you damage a facility, you must immediately call the operator whose facilities have been damaged, even if you only scrape the protective coating. Left untreated, this type of damage can lead to a catastrophic failure.
2. You should keep the emergency number of your local facility operators at hand.
3. If you are in doubt about whose facility it is, call Dig Safe at 811 to send a message to all member facility owners in the area.

# Gas Leak Recognition and Response

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**A gas leak is usually recognized by smell, sight or sound.**

**Smell:** Natural gas is colorless and odorless. A distinctive, pungent odor is added so that you'll recognize it quickly. Not all transmission lines are odorless.

**Sight:** You may see a white cloud, mist, fog, or bubbles in standing water, or blowing dust. You may also see vegetation that appears to be dead or dying for no apparent reason.

**Sound:** You may hear an unusual noise like roaring, hissing or whistling.

## **What to do if you suspect a gas leak:**

- Move to a safe environment.
- Call 911 if damage results in a gas release.
- Provide the exact location, including cross streets.
- Let them know if sewer construction or digging activities are going on in the area.
- Do not smoke or operate electrical switches or appliances. These items may produce a spark that might ignite the gas and cause an explosion.
- Do not assume someone else will report the condition.





## **Federal Regulations – Pipeline & Hazardous Materials Safety Administration**

Like all forms of energy, natural gas, propane and petroleum must be handled properly. Utility operators work very closely with industry and government agencies and stay abreast of new technologies and security methods to ensure the highest levels of service and safety. Despite an excellent safety record, a leak caused by damage to a pipeline may pose a hazard and has the potential to ignite. A variety of measures are used to ensure pipeline safety including: *Coordination with One Call Centers, Inspection programs, Design and construction practices, Workforce qualifications, Industry safety practices and government oversight, Pipeline markers and facility mapping, and Public education programs.*

### **Gas Pipeline Locations**

Since pipelines and other utilities are underground, line markers are sometimes used to indicate their approximate location along their route. The markers display the material transported in the line, the name of the utility operator, and the telephone number where the operator can be reached in the event of an emergency. Markers only indicate the general location of an underground line and cannot be relied upon to indicate the exact position. The presence of markers does not negate the requirement to notify Dig Safe prior to excavation.

### **More PHMSA Information**

To learn more about pipeline safety, mapping, and federal safety standards for excavators, visit [www.phmsa.dot.gov](http://www.phmsa.dot.gov).

# Trenchless Utility Construction & Blocked Sewer Lines

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A blocked sewer line may be the result of another utility line which was accidentally “cross bored” through a sewer line during the trenchless construction process. When this happens it may take the sewer line a long time to become blocked and the excavator who caused the damage may be unaware of what has happened. If a sewer blockage is then cleared with mechanical clearing tools, there is a risk of cutting through the utility line which is causing the blockage. This in turn could result in a loss of utility service, or if it is a gas or electric line causing the blockage, may result in serious injury or property damage.

When engaged in trenchless construction operations, limit the risk of a cross bore situation from occurring and reduce the risk of serious injury or property damage. Contact 811 and other non-member utility members in the area. It is very important to ascertain the location of sewer mains and laterals within the work area. If underground utilities exist in the area of the proposed bore path, pothole to ensure their exact location and depth and to verify that a cross bore does not occur. Before conducting a trenchless operation to install any type of facility, first contact 811 and non-member companies.



*Service lines that have been penetrated during trenchless installation.*

# Damaged a Buried Facility?

## What to Do Next

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### **Natural Gas, Petroleum or Propane Line:**

1. Stop work and evacuate the site.
2. Call 911.
3. Call the appropriate facility operator.
4. Don't do anything that could cause a spark.
5. Alert everyone on the premises.
6. Keep the public and traffic away.
7. Tape, rope or place cones around the area.
8. Stay upwind of blowing gas.
9. Do not try to fix a gas pipe.
10. Do not try to extinguish a gas burning fire, unless there is a threat to life.

### **Electric Line:**

1. Stop work immediately and warn all persons in the vicinity, including emergency and rescue personnel, that the ground and objects near the excavator, and equipment around the point of contact, may be energized.
2. Contact the electrical utility operator and fire department immediately if a radio or phone is at hand. Otherwise, remain still and signal for help to relay a call for utility and emergency assistance.
3. The operator should remain on the excavator.
4. Personnel on the ground near the excavator or point of contact should remain still with both feet together. Don't touch the excavator, nearby equipment, structures or material.

*Continued on the next page.*

## **Damaged a Buried Facility? What to Do Next - Continued**

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5. Evacuate the excavator and the area near the point of contact only after an official of the electric utility deems it is safe to do.
6. If immediate evacuation is required due to threat of serious injury from fire, explosion or other hazard:
  - Jump – not step – clear of the equipment and land with both feet together
  - Move a safe distance away (at least 25 to 30 feet) using short hops or shuffling steps to keep both feet together at all times.
  - Do not take normal, walking steps
7. Do not resume work until an electric utility official confirms the site is safe.

### **Telephone or Fiber Optic Line:**

1. Stop excavation and secure the area for public safety.
2. Notify facility owner of the potential damage to copper/fiber cable.
3. Do not examine or stare into broken/severed/disconnected fibers/fiber cable.
4. Move a safe distance away from a damaged fiber system (always assume that a laser signal is present).
5. Place warning or barricades around the fiber damage location to protect the public and other workers from exposure.
6. Do not view broken fiber cables with any optical instruments.



# Suggestions & Reminders

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**Do** post at the jobsite the Dig Safe number, start date/time, and the list of utility companies Dig Safe notified to mark.

**Do** report immediately to 911 and the facility operator any damage that poses a risk to public safety.

**Do** follow any special instructions regarding their lines.

**Do** keep a minimum of an 18-inch Tolerance Zone between any underground facility and the cutting edge of any powered equipment.

**Do** call for a re-mark if the markings are destroyed, or removed before excavation is complete.

**Do** be sure that someone other than the equipment operator (i.e. the spotter), is there to look for any sign of an underground facility.

**Do** excavate carefully near underground facilities. Excavate by hand to be able to tell the exact location of the line and to prevent damage.

**Do** report any damage to the facility operator. For example, cracked conduit, gouges, dents or breaks to the coatings, cable sheathes and cathodic protection anodes or wiring that may pose problems now or in the future. Allow the underground facility operators time to make repairs.

**Don't** notify Dig Safe unless you plan to start the excavation within 30 days.

**Don't** assume that a pipeline or cable runs straight, or is centered between permanent marker posts.

**Don't** assume the depth of a utility. Never assume that an underground facility is at the same depth throughout the entire route of an excavation.

**Don't** excavate within the Tolerance Zone with mechanized equipment prior to verification.

**Don't** apply for emergency tickets for jobs that are not true emergencies.

**Don't** work under anyone else's Dig Safe request unless you are listed as a sub contractor on another party's ticket.

# The Perfect Excavation

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## Here are some simple steps to the perfect excavation:

1. The excavator visits the site, and marks out every place he may be excavating with white paint, flags, or stakes.
2. The excavator submits a ticket online with Exactix or calls 811 with the information listed on our Locate Request Form (see page 29), and keeps the list of member utility companies that are notified for the mark-out to check their response.
3. The excavator then notifies any non-member facility operators if known. Non-member companies are not notified by Dig Safe.
4. Each member facility company, or its contract locating company, marks out the facilities it owns or maintains in the area of excavation. (See the Color Code for Utility Marks on the back of this manual).
5. While working, the excavator takes care to find and maintain any markings that have been placed.
6. When digging near a buried facility, the excavator observes the tolerance zone around that facility.
7. If exposing a facility, the excavator provides proper support and protection for it so that the facility will not be damaged.
8. When the excavation is complete, the excavator provides proper backfill for any facilities that have been exposed, and removes all utility markings.

Laws at a Glance

LAST UPDATE: 6/5/25

This guide is designed for quick view only and is not all-inclusive. To download a complete copy of Dig Safe state laws and rules, please go to [digsafe.com](https://digsafe.com) – “Laws & Enforcement.”

|                                                                 | Massachusetts<br>Statute Chapter 82,<br>Section 40                                              | Maine<br>Title 23 MRSA<br>Section 3360-A                                | New Hampshire<br>Statute RSA 374,<br>Section 47:56                                                | Rhode Island<br>Statute Chapter 39-1.2,<br>Section 1                                              | Vermont<br>VSA Title 30,<br>Chapter 86                                                            |
|-----------------------------------------------------------------|-------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------|
| Who must notify Dig Safe?                                       | Anyone who excavates                                                                            | Anyone who excavates                                                    | Anyone who excavates                                                                              | Anyone who excavates                                                                              | Anyone who excavates                                                                              |
| What excavation areas require notification?                     | Public ways and private property                                                                | Public ways and private property                                        | Within 100 feet of underground utilities                                                          | Within 100 feet of underground utilities                                                          | Within 100 feet of underground utilities                                                          |
| What utilities are required to participate?                     | Gas, Electric, Telecom, Cable TV, Propane (jurisdictional accounts) and Private Water Companies | Gas, Electric, Telecom, Cable TV, Propane, and Private Water Companies. | Gas, Electric, Telecom, Cable TV, Propane (jurisdictional accounts), and Private Water Companies. | Gas, Electric, Telephone, Cable TV, Propane (jurisdictional accounts) and Private Water Companies | Gas, Electric, Telecom, Cable TV, Propane (jurisdictional accounts), and Private Water Companies. |
| Advance Notice Requirement:<br>(excludes weekends and holidays) | Minimum<br>72 Hours<br>Maximum<br>30 Days                                                       | 72 Hours<br>30 Days                                                     | 72 Hours<br>30 Days                                                                               | 72 Hours<br>30 Days                                                                               | 72 Hours<br>30 Days                                                                               |
| Emergencies                                                     | Same Calendar Day                                                                               | Within 12 hours of starting work                                        | Same Calendar Day                                                                                 | Same Calendar Day                                                                                 | Same Calendar Day                                                                                 |
| Emergency Response                                              | No more than 3 hours                                                                            | ASAP                                                                    | ASAP                                                                                              | No more than 3 hours                                                                              | ASAP                                                                                              |
| Positive Response?                                              | Yes                                                                                             | Yes                                                                     | Yes                                                                                               | No                                                                                                | No                                                                                                |
| Unanticipated blasting notice (after initial notice)            | 4 Hours                                                                                         | 4 Hours                                                                 | 4 Hours                                                                                           | 4 Hours                                                                                           | • • •                                                                                             |
| Remark Notice:                                                  | 24 Hours                                                                                        | 24 Hours                                                                | • • •                                                                                             | 48 Hours                                                                                          | 72 Hours                                                                                          |
| Ticket Expiration:<br>(from date of issue)                      | 30 Days                                                                                         | 60 Days                                                                 | 30 Days                                                                                           | • • •                                                                                             | 30 Days                                                                                           |
| Violation penalties:                                            |                                                                                                 |                                                                         |                                                                                                   |                                                                                                   |                                                                                                   |
| First offense                                                   | \$1000                                                                                          | Up to \$1,000                                                           | \$500                                                                                             | \$350                                                                                             | Up to \$500                                                                                       |
| Subsequent offenses                                             | \$5000 to \$10,000                                                                              | Up to \$10,000                                                          | Up to \$5000                                                                                      | \$2500                                                                                            | Up to \$5000                                                                                      |

LAST UPDATE: 6/5/25

# MUST

MANAGING UNDERGROUND SAFETY TRAINING



*Winning a free pipe and cable locator at a safety seminar.*

M.U.S.T. (Managing Underground Safety Training) is an informal coalition that unites all damage prevention stakeholders- utility companies, Dig Safe®, utility locators, municipalities, excavators, and regulators.

Working in partnership with the Common Ground Alliance to promote Best Practices, the group provides an open forum for assessing damage prevention laws and procedures. M.U.S.T. also provides free safety training throughout five New England states. In addition to the popular series of Safety Breakfast Seminars held each spring, M.U.S.T. offers on-site safety seminars throughout the year to keep excavators safe. Training highlights include an overview of state "Dig Safe" laws, utility marking standards, and best safety practices for "The Perfect Excavation."

M.U.S.T. is looking for your participation and support! Go to [www.must-ne.com](http://www.must-ne.com) to learn how to get involved, and to check out upcoming events in your area.

# Locate Request Form

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Today's Date \_\_\_\_/\_\_\_\_/\_\_\_\_

Dig Safe Number \_\_\_\_\_

## Excavator Information

Excavator ID \_\_\_\_\_

Excavator Name \_\_\_\_\_

Phone # \_\_\_\_\_

Email address \_\_\_\_\_

Company Name \_\_\_\_\_

Address \_\_\_\_\_

City \_\_\_\_\_ State \_\_\_\_\_ Zip \_\_\_\_\_

## Site Information

State: (check one) ☐ MA ☐ ME ☐ NH ☐ RI ☐ VT

City/Town \_\_\_\_\_

(optional) Latitude \_\_\_\_\_ Longitude \_\_\_\_\_

Address/Intersection \_\_\_\_\_

Nearest Cross Street \_\_\_\_\_

Additional Information \_\_\_\_\_

Type of Work \_\_\_\_\_

Area (i.e. St to house, in the st, sidewalk area, right side of house on private property)

\_\_\_\_\_

Premarked? (check one) ☐ YES ☐ NO

Start Month \_\_\_\_\_ Day \_\_\_\_\_ Year \_\_\_\_\_

Start Time \_\_\_\_\_ : \_\_\_\_\_

Excavator Doing Work (if not same as above) \_\_\_\_\_

Members Notified: \_\_\_\_\_



## Create and Manage Tickets with Exactix

Dig Safe is proud to offer New England excavators the best platform in the industry for creating and managing Dig Safe tickets.

A screenshot of the DigSafe Exactix web application. The interface has a green header bar with the DigSafe logo on the left and the user name "LISA POWERS" on the right. Below the header, there are two main sections. The left section is a form for creating a ticket, with fields for "Street/Address", "State", "Municipality", "Nearest Intersecting Street", and "Additional Location Information". The right section is a map view showing a street map with a blue circle indicating a proposed excavation area. The map includes street names like "Glenwood Ave", "Waverly Rd", "Levington St", and "Parker St".

- Apply for regular and emergency tickets online any time, day or night.
- Search our quick-loading map for proposed jobsites. Draw on the map to define your excavation area.
- Renew, print, and email your tickets. Keep them organized with tools to filter and sort.
- Export your ticket data to Excel to produce custom reports.

You'll see right away how easy and intuitive Exactix is to work with. Sign up at [www.digsafe.com/exactix](http://www.digsafe.com/exactix), and while you're there, check out our video tutorials and our Exactix Web User Guide PDF for step-by-step instructions.

# Color Code for Identifying Utility Types

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Color coding is used to identify the type of underground facilities.

|        |                                                           |
|--------|-----------------------------------------------------------|
| RED    | Electric Power Lines, Cables, Conduit and Lighting Cables |
| YELLOW | Gas, Oil, Steam, Petroleum or Gaseous Materials           |
| ORANGE | Communication, Alarm or Signal Lines, Cables or Conduit   |
| BLUE   | Potable Water                                             |
| GREEN  | Sewers and Drain Lines                                    |
| PURPLE | Reclaimed Water, Irrigation and Slurry Lines              |
| PINK   | Temporary Survey Markings                                 |
| WHITE  | Proposed Excavation                                       |

**DigSafe.com**  
or call 811



DOWNLOAD THE MOST UP-TO-DATE  
VERSION - AUGUST 2025

