# Damage Information Reporting Tool (DIRT)
# USER'S GUIDE

The USER'S GUIDE is intended to assist users of the DIRT in selecting the proper entries. This will help ensure that individuals submitting reports have a common understanding of the data fields, which in turn will make analysis of the data more useful and meaningful. New registrants are encouraged to read this entire document prior to submitting data. Experienced data reporters are encouraged to refer to the USER'S GUIDE as needed.

The tool will accept data relating to damages, events that do not involve damage such as underground near misses and downtime. The term "event" will be used throughout this document to include near misses, damages and downtime. These terms are defined in the Glossary. If the User wishes to report two or more facilities damaged in the same event, please complete an event report for each facility damaged.

Please fill out the form as accurately and as truthfully as possible based on the best of your knowledge and available information**.** Several fields have choices "Unknown/Other." Use of this choice is discouraged, as complete and accurate information on all fields will provide the most value to the data analysis.

If you find anything to be confusing or unclear within the tool and/or this USER'S GUIDE, please select from the options available in the tool that you consider to be the best answer. Let us know what is unclear by using the "Feedback" link on the bottom of the page on the www.cga-dirt.com website. We welcome and encourage any feedback on how DIRT or this USER'S GUIDE can be improved.

Records entered into the tool can be revised with the appropriate level of authority granted through the DIRT registration process. Users of the tool with managerial or administrator status can update records.

The data collected will be used to analyze the root causes of these events, conduct trend analyses, thereby increasing public awareness and the effectiveness of educational programs. The data will not be used for enforcement purposes or to determine liability.

*If you would like additional information on the Reporting & Evaluation Best Practices or on additional practices identified during the Common Ground Study, please refer to the most current edition of "Common Ground Alliance Best Practices." It is available through the Common Ground Alliance web site (www.commongroundalliance.com).*

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# DIRT User's Guide

## Part A: Original Source of Event Information

Who is providing this information?

Please select one of the following to indicate the original stakeholder group providing the Event information:

> **Note**: One Call Centers and Insurance companies that compile member or customer data for submission, please select the stakeholder group of the original source or the information.

**Part A – Original Source of Event Information**

**Who is providing the information?**

- ☐ Excavator
- ☐ Public Works
- ☐ Telecommunications
- ☐ Liquid Pipeline
- ☐ Railroad
- ☐ Electric
- ☐ Locator
- ☐ Road Builders
- ☐ Unknown/Other
- ☐ Engineer/Design
- ☐ Natural Gas
- ☐ Equipment Manufacturer
- ☐ Private Water
- ☐ Federal / State Regulator

**Name of person providing the information:**

- Unknown/Other: Select if none of the above choices are appropriate.
- Name of person providing this information: Applies to paper Field Form only. When entering on-line or by bulk upload it is automatically populated based on the User's registration information.

## Part B: Type, Date and Location of the event

**Part B – Type, Date, and Location of Event**

**Type of Event:** DIRT Event ☐ Underground Damage ☐ Underground Near Miss

Non-DIRT Event ☐ Above Grade ☐ Aerial ☐ Natural Cause ☐ Submarine

***Date of Event:** (MM/DD/YYYY)

***Country** ***State** ***County** **City**

**Street address:** **Nearest Intersection:**

**Latitude/Longitude:** Lat: Lon ☐ Decimal Degrees ☐ D M S

***Right-of-Way where event occurred**

Public:
- ☐ City Street
- ☐ State Highway
- ☐ County Road
- ☐ Interstate Highway
- ☐ Public-Other

Private:
- ☐ Private Business
- ☐ Private Land Owner
- ☐ Private Easement
- ☐ Pipeline
- ☐ Power /Transmission Line
- ☐ Dedicated Public Utility Easement
- ☐ Federal Land
- ☐ Railroad
- ☐ Unknown/Other

*Type of Event:

- Underground Damage: Buried facility damaged during excavation activity. See definitions of "damage," "facility," and "excavate or excavation" in the Glossary.
- Underground Near Miss: See definition of "Near Miss" in the Glossary. Examples - no response to locate request or facilities discovered mismarked, excavator found digging with no locate request.

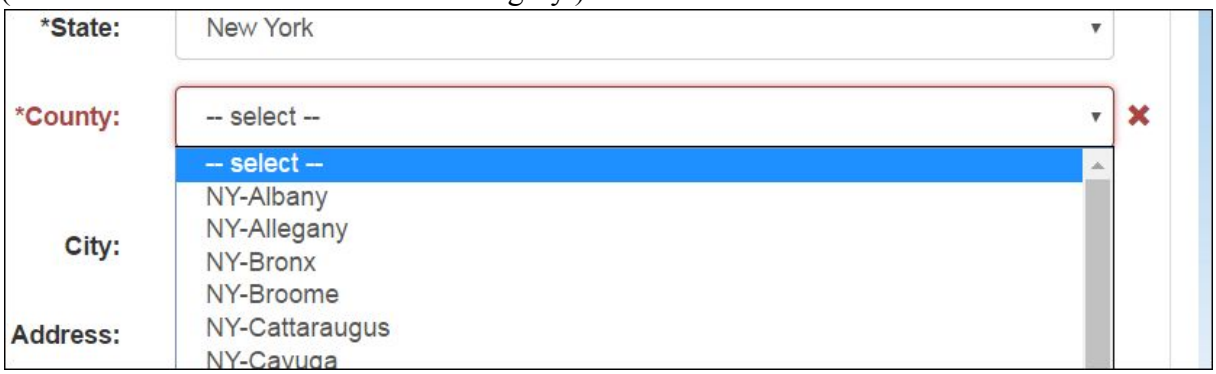
- Above Ground/Surface: Examples - vehicle struck meter or pole, lawnmower or farm implement struck valve.
- Aerial: Examples - truck hit overhead lines/wires, etc.
- Natural Cause: Examples - damage to above or below-ground facilities due to weather events, downed lines due to high winds, tornadoes or lightning strikes, pipeline damaged by flood or washout.
- Submarine: Examples - dredging, anchor snags an underwater pipeline.

*Date of event: Please enter the date the event occurred, if known. Otherwise, please provide the date it was discovered. For example, damage to a facility in an open trench can readily be documented at the time of occurrence. However, if a directional bore damaged a facility the date of discovery may be days or even weeks later. Also use date of discovery for events with Root Cause of *Previous Damage*.

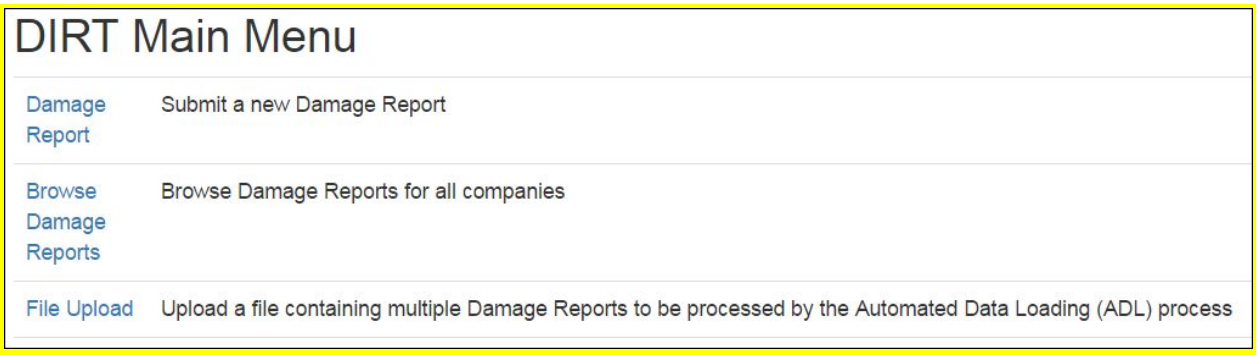
*Country: Country where the event occurred.

*State: Select the state or Canadian province where the event occurred. The on-line tool will default to your home state based on the log-in information. However, a different state or province may be chosen if necessary.

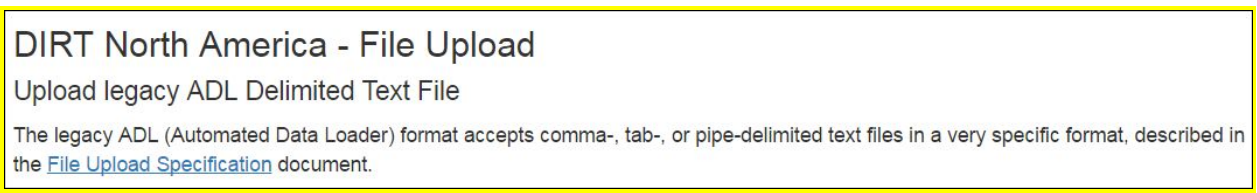
*County: Select the county where the event occurred. In the on-line version the list of possible counties will be automatically provided in the field drop-down box based on the State selected. (Parishes would be included in this category.)



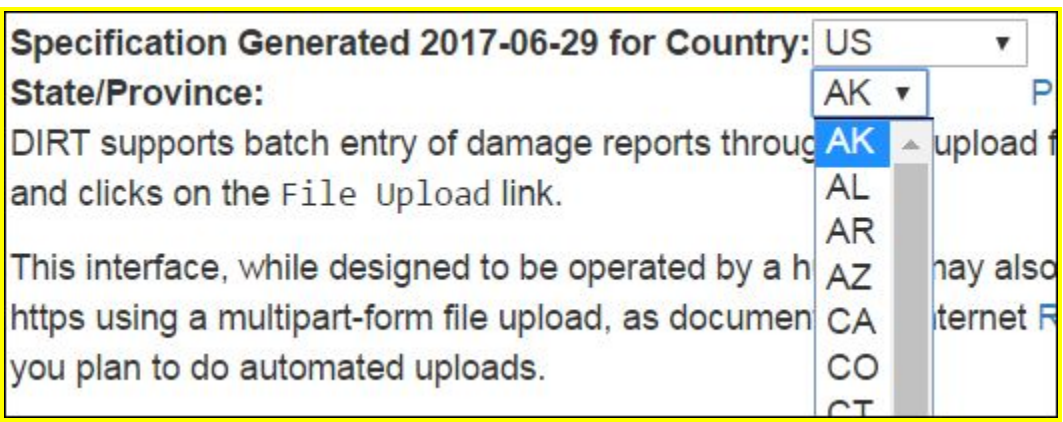

For bulk uploading, consult the File Upload Specification.
From the DIRT Main Menu choose File Upload.




Then choose File Upload Specification.




Use the drop-down menu to select the state.




The page will re-fresh showing the ID, Abbreviation and Description for the counties in that State/Province.

**COUNTY:**

The following table lists supported values for the COUNTY column. For County values, the 2-letter state/province prefix on either Abbrev. or Description values is *optional* -- you can just enter the county name as "Boulder" or with the prefix, like "CO-Boulder".
Currently displaying the list of values for: **AK**. You may use the selector at the top of the page to choose a different state.

| ID | Abbrev. | Description |
|---|---|---|
| 2013 | AKALEU | AK-Aleutians East |
| 2016 | AKALEW | AK-Aleutians West Census |
| 2020 | AKANCH | AK-Anchorage |
| 2050 | AKBETH | AK-Bethel Census |
| 2060 | AKBRIS | AK-Bristol Bay |

City: Enter the city where the event occurred. The "city" is defined as an incorporated municipality in the United States or Canada with definite boundaries and legal powers set forth in a charter granted by the state or a Canadian municipality of high rank, usually determined by population but varying by province. (Towns, Boroughs, Villages, etc. would be included in this category.)

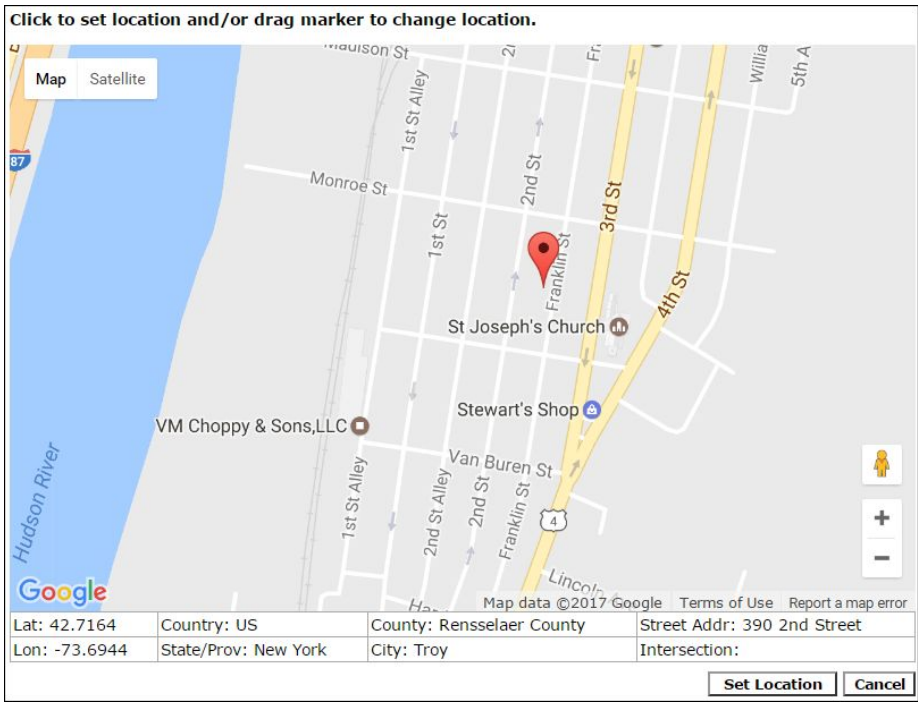
Street Address: Enter the street address where the event occurred. Please include the nearest house number, if available (example: an event may not be near a building). This field is not required and will not be published in any reports issued by the CGA. However, providing this information may enable identification of multiple reports of the same event.

Nearest Intersection: Enter the nearest intersection, or cross street, to where the event occurred. This field is not required and will not be published in any reports issued by the CGA. However, providing this information may enable identification of multiple reports of the same event. It is especially useful when a house number is not provided with the Street Address.

Latitude/Longitude:
If the location of the damage is available from GPS coordinates, provide the latitude and longitude. These can be used in addition to, or in place of: City, Street Address and Nearest Intersection Lat/Lon can be provided in two forms:

- Decimal degrees like 41.34512 and -102.3189 (please note longitudes in the United States and Canada are negative).
- Degrees/minutes/seconds like N deg: 41 min: 20 sec: 42 and W deg: 102 min: 19 sec: 8.

**NOTE:** The on-line DIRT Damage Report entry form has a "Map Location" feature that opens a Google Maps window. Users can use the navigation features (zoom in or out, move east, west, north or south) to pinpoint the desired location. Clicking on "Set Location" will populate the DIRT entry form with the Latitude/Longitude as well as the State, County, City and Street Address.




*Right-of-Way where the event occurred: Select the type of land or property, in which the underground facility was placed, where the event occurred. If uncertain, please provide a "best guess" based on the information below. Please select from the drop-down menu options listed.

- Public – City Street: Within the boundaries of a road that is under the jurisdiction of and maintained by a municipality where a permit was required to place the facility. Typically, a city street is a paved road within the city limits with boundaries at the outer edge of a sidewalk, building front or back-of-ditch line if no sidewalk is present.
- Public – State Highway: Within the boundaries of a road that is under the jurisdiction of and maintained by the state department of transportation (DOT) where a permit was required to place the facility. Typically, a state DOT owns and maintains anywhere from 20 feet to 50 feet from the centerline of the road on either side of the road, although these distances vary. Often, a fence line or back-of-ditch line denotes the edge of the state right-of-way.
- Public – County Road: Within the boundaries of a road that is under the jurisdiction of and maintained by a county department of roads or public works and where a permit was required to place the facility. County roads can be paved, gravel or dirt. Typically, a county owns and maintains anywhere from 20 feet to 50 feet from the centerline of the road on either side of the road, although these distances vary. Often, a fence line or back-of-ditch line denotes the edge of the county right-of-way.
- Public – Interstate Highway: Within the boundaries of a road that is under the jurisdiction of and maintained by the DOT where a permit was required to place the facility and is a controlled access highway linking major cities across the United States.

- Public – Other: Within public lands not covered by Federal Lands (as defined below). This includes National Parks, Native American lands, or other city, state or Federal property not covered under the street, highway or road descriptions.
- Private – Land Owner: On land that is owned by a person, group, corporation or other entity, not a government body, but does not fit within any other listed right-of-way type,
- Private – Business: On land owned by a person, group, corporation or other entity and not owned by a government body. The land is used for commercial or industrial purposes, but does not fit within any other listed right-of-way type.
- Private Easement: Property owned by a person, group, corporation or other entity, not a governmental body. Placement of facilities within the property of a private person, group, corporation or other entity typically requires an easement (a right created by a grant or agreement with the land owner to allow the placement and maintenance of the facility by the facility owner). Easements are of varying widths.
- Pipeline: Within a strip of land where a private easement has been obtained to place and maintain a gas or petroleum pipeline. Typically, this strip of land is a cross country route with boundaries of 20 feet to 50 feet on either side of the pipeline, although this width may vary. If the event occurred within an area that is common to a city street, state highway or county road and a pipeline crossing, then choose the appropriate option of city street, state highway or county road.
- Power/Transmission Line: Within a strip of land where a private easement has been obtained to place and maintain an overhead power or high-voltage transmission line. Typically, this strip of land is a cross country route with boundaries of 20 feet to 50 feet or more on either side of the pole/tower line. If the event occurred within an area that is common to a city street, state highway or county road and a power/transmission line crossing, then choose the appropriate option of city street, state highway or county road.
- Railroad: Within the boundaries of land maintained by a railroad company and where a permit from the railroad company was required to place the facility. If the event occurred within an area that is common to a city street, state highway or county road and a railroad crossing, then choose the appropriate option of city street, state highway or county road.
- Dedicated Public Utility Easement: strip of land devoted solely for the placement of public utilities. Typically, dedicated public utility easements are 10 feet to 20 feet wide and are found between adjacent properties (usually along the back sides) within a subdivision.
- Federal Land: Within lands owned by the United States government, except for lands in the National Park System, lands held in trust for a Native American or Native American tribe, and lands on the Outer Continental Shelf (see "Public – Other" above).
- Unknown/Other: Select if none of the above choices are appropriate.

## Part C: Affected Facility Information

**Part C – Affected Facility Information**

***What type of facility operation was affected?** ☐ Cable Television ☐ Electric ☐ Liquid Pipeline
☐ Natural Gas ☐ Sewer ☐ Steam ☐ Telecommunications ☐ Water ☐ Unknown/Other

***What type of facility was affected?** ☐ Distribution ☐ Gathering ☐ Service/Drop ☐ Transmission ☐ Unknown/Other
**Was the facility part of a joint trench?** ☐ Yes ☐ No ☐ Unknown
**Did this event involve a Cross Bore?** ☐ Yes ☐ No
**Was facility owner One Call Center member?** ☐ Yes ☐ No ☐ Unknown
**If No, is facility owner exempt from One Call Center membership?** ☐ Yes ☐ No ☐ Unknown
**Measured Depth From Grade** ☐ Embedded in concrete/asphalt pavement ☐ <18" / 46 cm Measured depth
☐ 18" – 36" / 46 - 91 cm ☐ >36" / 91 cm from grade _____in/cm

*What type of facility operation was affected?

Select one of the following options from the drop-down menu. If the User wishes to report two or more affected facilities in the same event, please complete an event report for each facility damaged.

- Cable TV: Any underground CATV facility.
- Electric: Any underground electrical lines and related electrical facilities regardless of the voltage or the type of service i.e., primary or secondary.
- Liquid Pipeline: Any underground facility that contains and/or transports any liquid other than water, including petroleum products.
- Natural Gas: Any underground facility containing and/or transporting natural gas.
- Sewer: Select for both forced mains and gravity sewers and facilities associated with lift stations. **This category also includes storm water facilities**.
- Steam: Any underground facility providing steam for use in heating or other industrial applications
- Telecommunications: Any underground buried telecommunication lines and fiber optic lines used for either telecommunications or for internet/data transfer.
- Water: Any underground facility installed for the purpose of supplying or transporting water for consumption or industrial purposes, including reclaimed water.
- Unknown/Other: Any underground service not included in the other categories. For example, high or low-pressure gas lines exist with other products such as air, helium, nitrogen, etc.

*What type of facility was affected?

Select one of the following options from the drop-down menu.

- Distribution: Distribution lines are the tier below transmission for gas and electric but also apply to water companies. Water companies often refer to their distribution lines as water mains. Electric companies further delineate the distribution network into primary and secondary. For the purpose of the DIRT, please check *Distribution* for primary electric and as appropriate for the other listed utilities.
- Gathering: Any pipeline that transports a commodity from a production facility to a transmission line or distribution main, or directly to an end-user.
- Service/Drop: For the purpose of DIRT, please select Service/Drop for secondary electrical lines, gas services, and laterals for water and sewer. Also, since CATV and telecommunications are not normally delineated as either transmission or distribution, select *Service* for these utilities.

- Transmission: Transmission lines are generally operated by electrical utilities and by natural gas and other pipeline utilities/operators. Electrical transmission includes both extra-high-voltage (EHV) lines and high voltage (HV).
- Unknown/Other: All other facilities that do not fulfill the requirements stated above. For example, there are many temporary or localized utilities that may not meet the requirements as defined previously in this section. Pipelines carrying gasses other than natural gas, such as air, helium or nitrogen, should be listed as Unknown/Other.

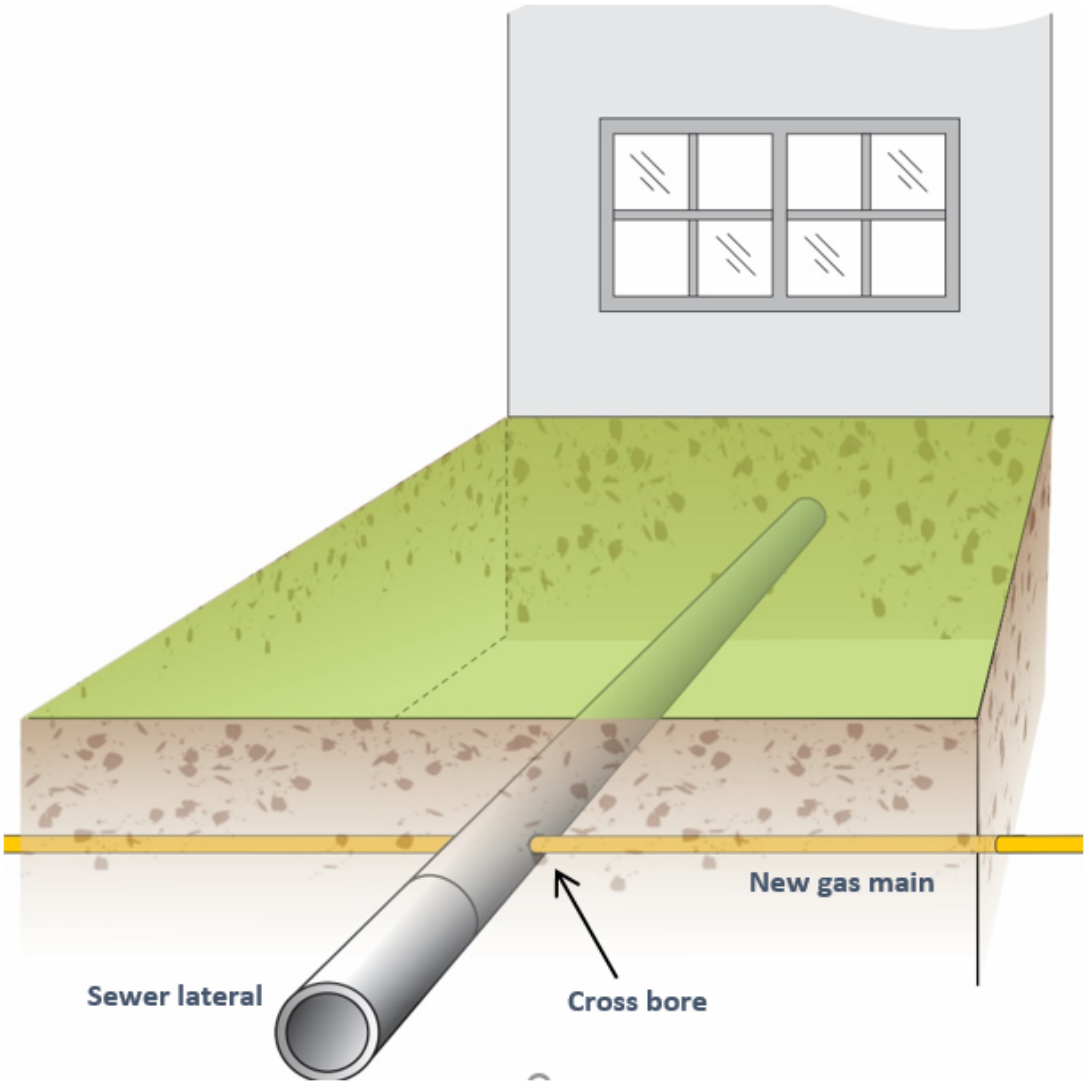
**Was this facility part of a joint trench?**
See definition of "joint trench" in the Glossary. Select one of three options from the drop-down menu.

- Yes
- No
- Unknown

**Did this event involve a Cross Bore?**

- Yes
- No

"Yes" can include ANY event involving one buried facility intersecting another, and is not limited to gas services intersecting sewer lines. However, this example is used here as it is of most concern in the damage prevention community. A Cross Bore may not be detected at the time it occurs. For example, a natural gas service line may intersect a sewer pipe causing a sewer to back-up at a later time. A sewer cleaning service could then puncture the gas line.




Below are several examples with recommendations on how to select the **Type of Event, Date of Event, Type of Work Performed, and Type of Excavation Equipment**.

The appropriate Root Cause would require judgement as to *"the primary reason an event occurred."* For example, if 811 was not notified, it could be a **Notification Issue** such as *No notification made to One Call Center / 811***.** If 811 was notified, but buried facilities were not marked at all or were marked inaccurately, the root cause could be a **Locating Issue**. If 811 was notified and facilities were marked correctly, the root cause could be an **Excavating Issue** such as *Excavator dug prior to verifying marks by test-hole (pothole)*.

Using the example of a gas service bored through a sewer line, here are some scenarios and recommendations on how to complete a DIRT Report. In all cases the answer to Did this Event Involve a Cross Bore? is **Yes**.

(1) Cross Bore is realized/discovered promptly.
a. **Type of Event** is **Underground Damage**.
b. **Date of Event** is date of occurrence.
c. **Type of Facility Operation** is **Sewer**.
d. **Type of Work Performed** is **Natural Gas**
e. **Type of Excavation Equipment** is **Drilling**
(2) Natural Gas service is damaged during sewer clean-out, investigation finds latent Cross Bore:
a. **Type of Event** is **Underground Damage**
b. **Date of Event** is date of discovery (i.e. date of gas service damage).
c. **Type of Facility Operation** is **Natural Gas**.
d. **Type of Work Performed** is **Sewer**
e. **Type of Excavation Equipment** is **Auger**
(3) Cross Bore situation is discovered in preparation for sewer cleaning (i.e. result of 811 notification or "clear before you dig" program (callbeforeyouclear.com) but before gas service is damaged.
a. **Type of Event** is **Underground Near Miss**.
b. **Date of Event** is date of discovery.
c. **Type of Facility Operation** is **Natural Gas.**
d. **Type of Work Performed** is **Sewer**
e. **Type of Excavation Equipment** is **Auger**
(4) Combinations of (1) and (2) or (3) – date of original Cross Bore occurrence is known, and date of gas service damage or date of Cross Bore discovery is known: Submit two DIRT reports – one for **Sewer** per example (1), and one for **Natural Gas** per example (2) or (3).

**Was facility owner a member of One Call Center?**
See definition of "One Call Center" in the Glossary. Select one of three options from the drop-down menu.

- Yes
- No
- Unknown

**If No, was facility owner exempt from One Call Center membership?**
See definition of "facility owner" in the Glossary. Some state laws/regulations exempt certain types of underground facility operators (example: railroads, DOT's).
Select one of three options from the drop-down menu. Select one of three options from the drop-down menu.

- Yes
- No
- Unknown

**Measured Depth from Grade**

See definition of "facility" in the Glossary. Select one of three options from the drop-down menu.

- Embedded in concrete/asphalt pavement
- <18" / 46 cm
- 18" – 36" / 46-91 cm
- >36" 91 cm
- Measured depth from grade _____ in/cm

## Part D: Excavation Information

**Part D – Excavation Information**

| | | | | | |
|---|---|---|---|---|---|
| ***Type of Excavator** | ☐ Contractor | ☐ County | ☐ Developer | ☐ Farmer | ☐ Municipality |
| | ☐ Occupant | ☐ Railroad | ☐ State | ☐ Utility | ☐ Unknown/Other |
| ***Type of Excavation Equipment** | | ☐ Auger | ☐ Backhoe/Trackhoe | ☐ Boring | ☐ Bulldozer |
| ☐ Drilling | ☐ Directional Drilling | ☐ Explosives | ☐ Farm Equipment | ☐ Grader/Scraper | ☐ Hand Tools |
| ☐ Milling Equipment | | ☐ Probing Device | ☐ Trencher | ☐ Vacuum Equipment | ☐ Unknown/Other |
| ***Type of Work Performed** | | ☐ Agriculture | ☐ Bldg. Construction | ☐ Bldg. Demolition | ☐ Cable Television |
| ☐ Curb/Sidewalk | | ☐ Drainage | ☐ Driveway | ☐ Electric | ☐ Engineering/Survey |
| ☐ Fencing | ☐ Grading | ☐ Irrigation | ☐ Landscaping | ☐ Liquid Pipeline | ☐ Milling |
| ☐ Natural Gas | ☐ Pole | ☐ Public Transit Auth. | ☐ Railroad | ☐ Road Work | ☐ Sewer |
| ☐ Site Development | | ☐ Steam | ☐ Storm Drain/Culvert | ☐ Street Light | ☐ Telecommunication |
| ☐ Traffic Signal | | ☐ Traffic Sign | ☐ Water | ☐ Waterway Improvement | ☐ Unknown/Other |

*Type of Excavator: See definition of "excavator" in the Glossary. Please identify the type of excavator that was involved in the event, regardless of fault, liability or root cause. Select from the following options on the drop-down menu.

- Contractor: The excavating party plans, executes, and controls excavation with its employees and its schedule on property or right-of-way that it does not own. This includes subcontractors hired by (for example) utility, municipality, general contractor, etc.
- County: The excavating party is employed by a County government agency and is engaged in excavation for any purpose.
- Developer: The excavating party plans, executes, and controls excavation with its employees and its schedule on property or right-of-way that it does own or lease.
- Farmer: The excavating party tends land for agriculture purposes that it owns, rents or leases.
- Municipality: The excavating party is a town, city, or district having the power of self-government and engaged in excavation for any purpose.
- Occupant: The excavating party is a resident or property owner and performs excavation activities on the same property.
- Railroad: The excavating party is performing railroad construction, maintenance, or excavation with railroad employees.
- State: The excavating party is employed by a State government agency and is engaged in excavation for any purpose.

- Utility: The excavating party plans, executes, and controls excavation with its employees under its control in placing utilities it owns.
- Unknown/Other: The excavating party cannot be determined to fit the above categories, or the excavating party does some specialized excavation that does not fit the above categories.

*Type of Excavation Equipment: Please indicate the type of equipment or machinery that was involved in the event, regardless of fault or liability. Most are self-explanatory.
Select one of the following options from the drop-down menu.

- Auger: Machinery used to drill earth horizontally or vertically by means of a cutting head and auger or other functionally similar device.
- Backhoe/Trackhoe: Backhoe is a machine with a rear mounted attachment that digs by drawing a bucket toward the machine. Trackhoe is a machine with 360 degree rotation used to dig, demolish, lift, and load material.
- Boring: Machinery used to dislodge or displace spoil by a rotating auger or drill string to produce a hole called a bore. Also include pneumatic tools such as hammer head or hole hog.
- Bulldozer: A machine propelled on continuous tracks or rubber tires equipped with a wide blade on the front and possibly a ripper on the rear which is used to push material with the blade or to loosen material with the ripper.
- Drilling: An implement with cutting edges or a pointed end for boring holes in hard materials, usually by a rotating abrasion or repeated blows; a bit.
- Directional Drilling: A steerable system for the installation of pipes, conduits and cables in a shallow arc using a surface launched drilling rig. Traditionally the term applies to crossings in which a fluid-filled pilot bore is drilled using a fluid-driven motor at the end of a bent-sub, and back reamer to the size required for the product pipe.
- Explosives: The controlled use of chemical charges to break rock for excavation (example: blasting).
- Farm Equipment: Planter, combine, tractor, plow, items used for tiling, tilling, terracing, anhydrous fertilizer applicators, sub-soilers (used to break up hard pan for draining), etc. (See also: *Agriculture* under Type of Work Performed).
- Grader/Scraper: Grader is a machine used to smooth and level material or to shape ground surfaces such as roadside ditches and slopes. Scraper is a machine used to excavate a thin layer of soil, load it into a bowl and transport that soil over some distance.
- Hand Tools: Excavation with tools that are not mechanically powered (example: pick ax, shovel, drill, hammer, grounding rod).
- Milling Equipment: Equipment used for grinding a paved road surface, typically in preparation for repaving. The ground up material is either disposed of or treated and reapplied.
- Probing Device: A slender rod or shaft, often with a T handle, that is pushed into the soil by hand to determine the soil condition or the location and depth of a facility or to vent the soil when searching for a gas or water leak.

- Trencher: Equipment used to dig trenches, especially for laying pipes or cables, or for installing drainage products. If the activity is in a farm environment, consider selecting *Farm Equipment.*
- Vacuum Equipment: A powerful suction device for removing earth and other materials, typically after loosening by air or water jets (example: hydro-vac).
- Unknown/Other: The type of work performed cannot be determined to fit any of the available choices.

*Type of Work Performed:
Choose the best work activity for installing, maintaining or removing facility. Please select the primary (best) one for the event when more than one type is performed concurrently, example: Water and Sewer. Record additional comments in Part J as needed.

Select one of the following from the drop-down menu.

- Agriculture: Land cultivation (includes tiling, tilling, plowing, sub soiling, terracing, logging, etc.).
- Bldg. Construction: Infrastructure for residential, commercial, or institutional purposes.
- Bldg. Demolition: Partial or complete destruction by any means of a structure served by, or adjacent, to an underground line or facility.
- Cable Television: Coaxial or fiber-optic cable facilities for television.
- Curb/Sidewalk: Pedestrian walks / driveway aprons.
- Drainage: Removal of excess water.
- Driveway: Work on the parking area of a property.
- Electric: Work on or for electric system facility.
- Engineering/Surveying: Work to plan and execute surveys for the location, design, construction, operation, and maintenance of civil and other engineered projects.
- Fencing: Enclosures and boundary structures.
- Grading: Levelling or sloping the ground surface.
- Irrigation: Interval water supply systems to plants and crops.
- Landscaping: Modifying the visible features of an area of land.
- Liquid Pipeline: On or for a facility used to transport liquid petroleum products, including brine.
- Milling: Grinding a paved road surface, typically in preparation for repaving.
- Natural Gas: On or for natural gas underground pipelines and related facilities.
- Pole: Utility and lighting poles, anchors, and related equipment.
- Public Transit Authority: On or for a facility used by public vehicles.
- Railroad: On or for a facility used by railways.
- Road Work: Vehicle roadways.
- Sewer: On or for facility used to drain sanitary or storm water.
- Site Development: Work, not described elsewhere, preparing a site for construction.
- Steam: On or for to steam power or piping facility.
- Storm Drain/Culvert: On or for drainage system.
- Street Light: Electrical lines for public lighting.
- Telecommunications: On or for a facility used to transmit communications signals.

- Traffic Signal: On or for timing controls to change traffic lights.
- Traffic Sign: Visible cues to help control the flow of traffic.
- Water: On or for water facilities or systems.
- Waterway Improvement: Work along waterways (includes dredging and stream bank improvements).
- Unknown/Other: The type of work performed cannot be determined to fit any of the available choices.

## Part E: Notification

**Part E – Notification and Locating**

*Was the One-Call Center notified? ☐ Yes ☐ No Ticket Number

If Yes, type of locator ☐ Facility Owner ☐ Contract Locator ☐ Unknown/Other

If No, is excavation activity and/or excavator type exempt from notification? ☐ Yes ☐ No ☐ Unknown

Was work area white-lined? ☐ Yes ☐ No ☐ Unknown

**Part F – Intentionally left blank**

**Was the One Call Center notified?** See definitions of "locate request", "notice" and "One Call Center" in the Glossary. Select Yes or No.

- Yes: There was a **valid** ticket, with correct information, and in accordance with state law.
- No: No notification to the One Call Center was provided for the location of the event, or notification was made but not in conformance with applicable regulations (notice expired or otherwise **invalid** according to state law).

  **If "Yes" is selected, "No notification made to One Call Center / 811" (NOLOCATEREQ on bulk upload) may NOT be selected as a root cause.**

  **If "No" is selected, any root cause may be chosen in Part I –Root Cause.**

  **If the Root Cause is any of the following Notification Issues, the answer to *"Was the One Call Center notified?* Should be NO, as there is not a VALID ticket in effect.**

☐ Excavator dug outside area described on ticket
☐ Excavator dug prior to valid start date/time
☐ Excavator dug after valid ticket expired
☐ Excavator provided incorrect notification information

**If Yes, please provide the ticket number**:
See definition of "ticket number" in the Glossary. This field is not required and will not be published in any reports issued by the CGA. However, providing this information, if known, may help to establish the identification of multiple reports of the same event.

*Type of Locator:
See definition of "locator", in the Glossary. Select one of the following from the drop-down menu.

- Utility Owner: The locator is employed by the same entity that operates the buried facility being located.
- Contract Locator: The locator is employed by a firm that performs locating services on a contract basis for operators of buried facilities or others.
- Unknown/Other: Select if none of the above apply. Private Locators should be considered **Other**.

**If No, is excavation activity and/or excavator type is exempt from notification?**
Some state laws/regulations exempt certain types of excavators (example: homeowner, farmer, railroads, DOT's) and/or type of excavation (example: hand tools, some types of farming operations, depth of excavation) from being required to notify 811 prior to the activity.

- Yes
- No
- Unknown

**Was work area white-lined?**
Was the work area to be excavated premarked with white paint, stakes, or flags, etc. prior to arrival of the locator (see Best Practice 5-2).

- Yes
- No
- Unknown

## Part F: Intentionally Left Blank

## Part G: Excavator Downtime

| Part G – Excavator Downtime | | | | | | |
|---|---|---|---|---|---|---|
| **Did Excavator incur down time?** | | ☐ Yes | ☐ No | | | |
| **If yes, how much time?** | ☐ < 1 hr | ☐ 1 -<2 hrs | ☐ 2-<3 hrs | ☐ 3+ hrs | Exact Value _____ | ☐ Unknown |
| **Estimated cost of down time?** | ☐ $0 | ☐ $1 -1000 | ☐ $1,001 - 5,000 | ☐ $5,001 - 25,000 | | |
| ☐ $25,001 - 50,000 | ☐ >$50,000 | | Exact Value _____ | ☐ Unknown | | |

Did the Excavator incur downtime?
See definition of "downtime" in the Glossary. Downtime may occur with or without damage to a facility. For example, an excavator may be delayed while waiting for repairs to a damaged facility that was either incorrectly marked or unmarked. Alternatively, an excavator may discover a mislocated or unlocated facility with no damage occurring, but be delayed while the facility owner/operator corrects the situation. Time spent trying to find a correctly marked but hard-to-find facility does not constitute downtime.

Examples of downtime include delays associated with the following:

a. A mislocated or unlocated facility.
b. A facility owner/operator refusing to allow work near their facilities.
c. An excavator made proper notice to the One Call Center, but upon arrival at the work site, or after checking with the Positive Response System (where required), finds on the start date that some or all of the operators have not completed the locates.
d. On a large project, the crew may be able to move to another area and continue working. In this case, include only the time required and costs associated with moving to the other area.

Select Yes or No.

- Yes
- No.

<u>If yes, how much time?</u>
Provide the amount of time the work crew is delayed that can be determined and proved, less any statutory allowed response times, i.e., excavator requested additional assistance or re-marking and facility owner is given specific response times in state statutes.
Select one of the following from the drop-down menu.

- Less than 1 hour: 0:01 to 0:59
- 1 to 2 hours: 1:00 to 2:00
- 2 to 3 hours: 2:01 to 3:00
- More than 3 hours: 3:00 and above
- Exact Value:
- Unknown

<u>Estimated Cost of Downtime:</u>
Only costs that are associated with the delay and can be documented should be included in the cost of downtime. These costs should take into consideration statutory allowed facility response times, i.e., excavator requested additional assistance or re-marking and facility owner is given specific response times in state statutes. Generally, the hourly or daily cost of a work crew is known and that cost can be determined and proved. An event such as a mislocate may not delay the total crew. In addition, on a large project, the crew may be able to move to another area and continue working. In this case, include only the costs associated with the time required to move to the other area, and other documented costs.

Select one of the following from the drop-down menu.

- $0
- $1 – 1,000
- $1,001 – 5,000
- $5,001 – 25,000
- $25,001 – 50,000
- $50,001 and over
- Enter Exact Value: A new box will appear where an exact value may be entered.

- Unknown

## Part H: Description of Damage

**Part H – Interruption and Restoration**

***Did the damage cause an interruption in service?** ☐ Yes ☐ No ☐ Unknown

**If yes, duration of interruption** ☐ < 1 hr ☐ 1 - <6 hrs ☐ 6 - <12 hrs ☐ 12 - <24 hrs ☐ 24 - <48 hrs ☐ 48+ hrs Exact Value _____hrs ☐ Unknown

**Approximately how many customers were affected?**

☐ Unknown ☐ 0 ☐ 1 ☐ 2 - 10 ☐ 11 - 50 ☐ 51+ Exact Value _____

**Estimated cost of damage / repair/restoration:** ☐ $0 ☐ $1 - 1,000 ☐ $1,001- 5,000 ☐ $5,001 - 25,000 ☐ $25,001 - 50,000 ☐ > $50,000 Exact Value _____ ☐ Unknown

*Did the damage cause an interruption of service?

Select Yes or No.

- Yes: Include all situations where any changes are required for the facility that actually affects customers or causes a deviation from normal operating capabilities
- No
- Unknown: Select if none of the above apply. For example, a previously unreported damage is discovered.

If yes, duration of the interruption: Include the total time the facility operation has been impaired causing an actual interruption of service or deviation from normal operating capabilities. The duration of the interruption includes the time required to relight or activate service for ALL customers who are available for such service, or as can best be determined.

Less than 1 hour: 0:01 to 0:59

- 1 to 6 hours: 1:00 to 5:59
- 6 to 12 hours: 6:00 to 11:59
- 12 to 24 hours: 12:00 to 23:59
- 24 to 48 hours: 24:00 to 47:59
- 48 hours and above
- Exact Value
- Unknown

Approximately how many customers were affected? Use your best estimate, and update if more accurate information becomes available. Select one of the following:

- Unknown
- 0
- 1
- 2 - 10

- 11 - 50
- 51 or more
- Exact Value
- Unknown

Estimated cost of damage repair/restoration? Include an estimate of the total costs for repairs, interruption of service, and other costs. Include the value of any lost product. Update the information in this field if additional costs are incurred or updated information becomes available. Select one of the following:

- $0
- $1 – 1,000
- $1,001 –5,000
- $5,001 – 25,000
- $25,001 – 50,000
- $50,001 and over
- Exact Value
- Unknown

## Part I: Root Cause

See Root Cause definition in the Glossary

*Part I – Root Cause Select only one

**Notification Issue**

- ☐ No notification made to One Call Center/ 811
- ☐ Excavator dug outside area described on ticket
- ☐ Excavator dug prior to valid start date/time
- ☐ Excavator dug after valid ticket expired
- ☐ Excavator provided incorrect notification information

**Excavation Issue**

- ☐ Excavator dug prior to verifying marks by test-hole (pothole)
- ☐ Excavator failed to maintain clearance after verifying marks
- ☐ Excavator failed to protect/shore/support facilities
- ☐ Improper backfilling practices
- ☐ Marks faded or not maintained
- ☐ Improper excavation practice not listed above

**Locating Issue**

*Facility not marked due to:*

- ☐ Abandoned facility
- ☐ Incorrect facility records/maps
- ☐ Locator error
- ☐ No response from operator/contract locator
- ☐ Tracer wire issue
- ☐ Unlocatable Facility

*Facility marked inaccurately due to*

- ☐ Abandoned facility
- ☐ Incorrect facility records/maps
- ☐ Locator error
- ☐ Tracer wire issue

**Miscellaneous Root Causes**

- ☐ Deteriorated facility
- ☐ One Call Center Error
- ☐ Previous damage
- ☐ Root Cause not listed (comment required)

### Notification Issue

- **No notification made to One Call Center / 811**: Excavator did not provide notification of intent to dig to the One Call Center / 811. (BP 5-1)
- **Excavator dug outside area described on ticket:** Excavator did notify One Call Center / 811 of intent to dig, but then dug outside of work area as described on one call ticket. (BP 5-1)
- **Excavator dug prior to valid start date / time:** Excavator did notify One Call Center / 811 of intent to dig, but then dug before the stated start date and time. Include when excavator dug before markouts completed when facility operator or locator requested

delay in accordance with state regulations. Include if excavator failed to check positive response system where required. (BP 5-1, 5-8)

- **Excavator dug after valid ticket expired:** Excavator did notify One Call Center / 811 of intent to dig, but state law has a "life-of-ticket" which was exceeded without renewal or renotification. NOTE: this should be selected for cases where a ticket renewal likely would have prevented the event. Example: Ticket is few days beyond expiration but marks are still visible. If marks are inaccurate Root Cause could be a Locating Issue. If marks are accurate the Root Cause may be an Excavating Issue, such as not test holing or not maintaining clearance. If state does not have a life-of-ticket consider "marks faded or not maintained" as possible root cause. (BP 5-1, 5-23)
- **Excavator provided incorrect notification information:** Excavator provided wrong information on One Call Ticket, such as start date, worksite location, etc., either by voice or electronic (i-notice) notification to One Call Center / 811. (BP 5-1)

**Excavation Issue**

- **Excavator dug prior to verifying marks by test-hole (pothole):** Excavator did not hand dig, or use a "soft excavation" practice such as vacuum excavation to dig a test hole (or pothole) to verify accuracy of markings prior to beginning excavation within the tolerance zone. Excavator did not continue to hand dig test holes on a regular basis during excavation. (BP 5-19, 5-20)
- **Excavator failed to maintain clearance after verifying marks:** Excavator failed to maintain a safe distance between excavating equipment and marked facility after verifying accuracy of marks (pot-holing) in accordance with state regulations. (BP 5-15, 5-18, 5-19)
- **Excavator failed to protect / shore / support facilities:** Excavator failed to provide proper shoring or support for marked and exposed facilities. (BP 5-22)
- **Improper backfilling practices:** Excavator failed to use caution while backfilling or compacting soils in or near marked and exposed facilities. Example: large / sharp rocks or pieces of sidewalk or pavement in in the backfill. (BP 5-27)
- **Marks faded or not maintained:** Marks were either destroyed or faded. Excavator failed to maintain marks or request re-marking by facility owner/operator. If state has a "Life-of-Ticket" rule consider "Excavator dug after valid ticket expired" as possible root cause. (BP 5-17)
- **Improper excavation practice not listed above:** Please consider the other Excavating Issue Root Causes before selecting this one. Excavator's methods and practices were improper and did not protect marked and exposed facilities but none of the other excavating practices apply.

**Locating Issue**

These are sorted into two categories – Facilities were not marked/located at all, and facilities were marked/located but inaccurately. Several root causes appear in each category. Please take care to ensure the proper category is used.

***Facility not marked due to:***

- **Abandoned facility:** Facility not marked due to an abandoned facility in the area; facility owner/contract locator may not mark abandoned facilities or may not be aware that an abandoned facility is in the area. Operator maps/records indicated facility is abandoned, but it is actually active. (BP 4-11)
- **Incorrect facility records / maps:** Facility was not marked or the ticket was cleared with no markout because facility is not mapped at all, or facility owner/contract locator's maps/records incorrectly indicate the facility outside the work area (example: on opposite side of the street or the other side of the building). Also includes when operator did not receive ticket because facility was not in One Call Center's mapping data from the member. (BP's 4-1, 6-12)
- **Locator error**: Please consider other Locating Issue Root Causes before selecting this one. For example, if the lack of marks was due to incorrect maps, tracer wire issue, or unlocatable facility, choose one of those root causes. Facility not marked due to locator error examples: the locator misunderstood the requested scope of the ticket and failed to mark all of the facilities, or the locator cleared the ticket in error. (BP 4-5)
- **No response from operator / contract locator:** Facility owner/operator or their contract locator received a valid ticket, but did not mark, locate or communicate (i.e., positive response where required) with the excavator prior to the start of work. (BP 4-9)
- **Incomplete marks at damage location:** Please consider other Locating Issue Root Causes before selecting this one. For example, if the incomplete marks were due to incorrect maps, tracer wire issue, or unlocatable facility, choose one of those root causes. Choose incomplete marks at damage location if facility owner/contract locator responded to one call ticket and provided marks in the work zone but missed a facility (section or piece) and no other root cause applies.
- **Tracer wire issue:** Locator did not mark a facility due to broken tracer wire or there was no tracer wire available for the facility. (BP 2-5)
- **Unlocatable facility**: Facility owner/contract locator were unable to locate a facility due to the type of facility, depth. Example: Clay or concrete sewer that cannot be detected with traditional locating equipment. Excessively deep facility. If unlocatable due to missing or damaged tracer wire, consider "tracer wire issue" as possible root cause. If unlocatable due to lack of records or maps, consider "Incorrect facility records / maps" as a possible root cause.

***<u>Facility marked inaccurately due to:</u>***

- **Abandoned facility:** Facility inaccurately marked due to an abandoned facility in the area.
    - From facility owner/contract locator point of view: marked an abandoned facility in error or may not be aware that an abandoned facility pulled the signal/tone away from an active facility and the marks for the active facility were placed outside of the tolerance zone.
    - From excavator point of view: pot-holed and exposed marked facility, then damaged another nearby facility. Investigation finds marked (pot-holed) facility is abandoned and damaged facility is active. (BP 4-11)

- **Incorrect facility records / maps:** Facility was marked inaccurately due to incorrect facility records/maps; Example: facility owner/contract locator's maps/records incorrectly indicate the facility is on the opposite side of the street or the other side of the building and as a result the facility was marked inaccurately or outside of the tolerance zone. (BP 4-1)
- **Locator error:** Please consider other Locating Issue Root Causes before selecting this one. For example, if the inaccurate marks were due to incorrect maps or a tracer wire issue choose one of those root causes. Facility was marked inaccurately due to locator error; the locator marked the work zone but did not locate a facility accurately; a facility was marked incorrectly or marked outside of the tolerance zone. (BP 4-5)
- **Tracer wire issue:** Locator marked a facility incorrectly and outside of the tolerance zone due to broken tracer wire, there was no tracer wire available for the facility, or tracer wire was too far away from facility. (BP 2-5)

**Miscellaneous Root Causes**

- **Deteriorated facility:** An existing deteriorated facility is discovered during the excavation activity. Example: pipe is corroded or graphitized and vibrations or loss of soil support during excavation activity caused leak rather than contact with excavating equipment.
- **One Call Center error:** Includes issues with One Call Center entered data, and includes online tickets only if they were intercepted and approved by One Call Center staff. Please select "Notification Issue - Excavator provided incorrect notification information" for errors by online users not intercepted by One Call Center staff. Please select "Miscellaneous Root Causes - Root Cause Not Listed" for ticket transmission and receiving site equipment failures.
- **Previous damage**: A significant period of time has passed from the actual damage to the failure or the discovery of the damage. Examples: responding to water leak, gas odor, electric or telephone outage report finds evidence of previous excavation damage. Use date of discovery as date of event.
- **Root Cause not listed (comment required):** Please consider other available Root Causes before selecting this. The cause of the damage or near miss is not addressed above. Explanation is required in the text box provided when using the online form. If submitting by bulk upload an entry is required in the next column (DAMAGE_OTHER_DESC).

## Part J: Comments

This text field (4000 characters maximum) is available for stakeholder to enter/add other applicable information. The stakeholder may use this field to assist them in tracking their damages.

**Part J – Additional Comments**

## Part Z: Images and Attachments

**Part Z – Images and Attachments: List the file names of any images and attachments to submit with this report**

DIRT can be used to store digital images and attachments associated with an Event Report, but can only be used for "one-at-a-time" events entered through the on-line tool, (i.e. cannot be done with a bulk upload).

The paper DIRT Field form can be used to record name and file location of the attachments, which can be uploaded to DIRT.

Part Z cont. (non-CGA) Images and Attachments

| Thumbnail | File Name | Size | Last Modified | Action |
|---|---|---|---|---|
| Add #1 | Choose File No file chosen | | | Remove |
| Add #2 | Choose File No file chosen | | | Remove |
| Add #3 | Choose File No file chosen | | | Remove |
| Add #4 | Choose File No file chosen | | | Remove |
| | | | | Add More Attachments... |

## Glossary of Terms

Damage: Any impact or exposure that results in the need to repair an underground facility due to a weakening or the partial or complete destruction of the facility, including, but not limited to, the protective coating, lateral support, cathodic protection, or the housing for the line, device, or facility. (BP)

Depth of Facility/Cover: The vertical distances, measured in inches or centimeters, from existing grade to the top of the facility that was damaged.

Downtime: Time that an excavator must delay an excavation project due to failure of one or more stakeholders to comply with applicable damage prevention regulations or best practices. There may or may not be a damage associated with the downtime.

BP definition – Lost time reported by a stakeholder on the Damage Information Reporting Tool (DIRT) field form for an excavation project due to failure of one or more stakeholders to comply with applicable damage prevention regulations.

Embedded: Fixed or contained within a surrounding mass.

Event: The occurrence of facility damage, near miss, or downtime. (BP)

Excavation: Any operation using non-mechanized or mechanized equipment or explosives in the movement of earth, rock or other material below existing grade. This includes, but is not limited to, augering, blasting, boring, compaction, digging, ditching, dredging, drilling, driving-in, grading, milling, plowing-in, pulling-in, ripping, scraping, trenching and tunneling.

BP definition – Any operation using non-mechanical or mechanized equipment, demolition, or explosives in the movement of earth, rock, or other material below existing grade.

Excavator: Any person proposing to excavate or engaging in excavation or demolition work for himself or for another person. (BP)

Facility: An underground or submerged conductor, pipe or structure used to provide electric or communications service (including, but not limited to, traffic control loops and similar underground or submerged devices), or an underground or submerged pipe used in carrying, providing, or gathering gas (typically between the wellhead and transmission line), oil or oil product, sewage, storm drainage, water, or other liquid service (including, but not limited to, irrigation systems), and appurtenances thereto. (BP)

Grade: The surface of the earth (i.e. ground level) upon which a structure is built or prepared. (BP)

Joint Trench**:** Two or more buried utilities providing separate services share a common trench.

BP definition – A trench containing two or more facilities that are buried together by design or agreement.

Locate: To indicate the existence of a line or facility by establishing a mark through the use of stakes, paint, flagging, whiskers, or some other customary manner that approximately determines the location of a line or facility. (BP)

Locator: A person whose job is to locate lines or facilities. (BP)

Locate Request: A communication between an excavator and one call center personnel in which a request for locating underground facilities is processed. (BP)

Near Miss: An event where a damage (as defined above) did **not** occur, but a clear potential for damage was identified. (BP*) Some examples include, but are not limited to the following:

a. An excavator discovers a buried facility that was not marked or not marked accurately.
b. An excavator is found digging without having notified the one call center
c. An operator fails to respond to a locate request.
d. A one call center incorrectly entered data regarding the work site.

**BP manual does not include the examples.*

Notice: The timely communication by the excavator/designer to the one call center that alerts the involved underground facility owners/operators of the intent to excavate. (BP)

One Call Center: An entity that administers a system through which a person can notify owners/operators of lines or facilities of proposed excavations. (BP)

Root Cause: The predominant reason that the event occurred. (BP)
For purposes of the DIRT, the point where a change in behavior would reasonably be expected to lead to a change in the outcome, i.e. avoidance of the event.

Ticket number: A unique identification number assigned by the one call center to each locate request. (BP)

Tolerance Zone: A strip of land comprised of the width of the facility plus 18" (or dimension specified by state law) on either side of the outside edge of the underground facility on a horizontal plane.

BP definition – The space in which a line or facility is located and in which special care is to be taken.