



University of Massachusetts  
Amherst

**Physical Plant Division**  
policy and procedures manual

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**PP.9.E.001D**  
**June 23, 2014**

R **From:** Ray Jackson, Director

**Subject:** Dig Safe Procedure

**Purpose:** To develop a consistent procedure for processing Dig Safe requests through the Physical Plant and the Facilities Planning Departments.

**Discussion:** The Commonwealth of Massachusetts enacted the “Dig Safe” law (CMMR 82: sec. 40) to ensure the safety of anyone excavating where any public utility, municipal utility, natural gas, or cable television maintains underground facilities, including pipes, mains, or wires or conduits. It is essential that this law, and the more stringent regulations set forth below, be followed on the campus of the University of Massachusetts Amherst. This procedure is meant to clearly define responsibilities of the Physical Plant, Facilities Planning, and Telecommunication Divisions in processing the Dig Safe permit for any such excavation. Unauthorized excavation can result in serious injury and/or death. This procedure must be followed at all times to prevent this from happening. Any noncompliance with this procedure by any member of the Physical Plant, Facilities Planning, and/or Telecommunications will result in punitive actions including disciplinary action and/or fines.

**Action:**

1. All Massachusetts Dig Safe Laws shall be adhered to.
2. Dig Safes that are requested by the Physical Plant shall be filed directly through the Physical Plant Dig Safe Coordinator (DSC) at the Physical Plant. Notification must be made a minimum of three (3) days before the start of any work. The requestor shall give the DSC a precise location of the intended excavation and the associated work order number. “Precise location” shall mean that specific existing landmarks are cited, enabling the DSC and others to easily identify the location.

3. If the excavation is to be done by an outside contractor, the contractor is responsible for phoning the Dig Safe headquarters directly (1-888-DIG-SAFE) a minimum of three (3) calendar days in advance, exclusive of Saturdays, Sundays, and legal holidays. The Contractor must pre-mark the proposed excavation area in white paint (florescent pink maybe used when snow cover exists). On the same day as the pre-marking, the contractor must also provide the DSC with plans showing the relevant areas of excavation. The DSC shall process all Dig Safe requests both internally and through the State Dig Safe organization. The DSC will communicate the Dig Safe information to the Facilities Planning Utility Mapping Coordinator (UMC), Physical Plant Utilities Department, and Telecommunications Services. The preferred method of notification shall be in the form of email. Each department shall provide a primary and secondary contact with email capabilities (Attachment A). All parties shall be notified. The DSC shall install an auto-reply that informs the DSC when the notices are read in order to determine that at least 1 of the parties in each department has received notification.
4. The DSC locates the proposed excavation on the UMA 40 scale photogrammetry and forwards a hard copy of the photogrammetry to the UMC, the Physical Plant Utility Operator Steam Distribution (Mechanical Utilities Department), and the Physical Plant Electrical Utilities Department Manager's designee. The location of the Dig Safe shall be described by the pre-marked area See Attachment B for typical examples. The map of the proposed excavation area shall show the North orientation and any other available pertinent landmarks (corner of buildings, distance from street intersections, etc)
5. The PP Mechanical Utilities Department Manager and the PP Electrical Utilities Department Manager shall ensure timely review of the photogrammetry to the DSC . The reviewers shall clearly state any comments and recommendations, date of the review and initial the written response and return to the DSC. Said written response shall take place within one (1) working day from receipt.
6. The DSC shall pick up reviewed photogrammetry on a daily basis. Those photogrammetries that do not require editing shall be filed with the Safety Office Clerk. If editing of the photogrammetry is required, the DSC shall make the appropriate changes to the hardcopy mapping, then submit to the Safety Office Clerk for filing separately from those that do not require edits. (See Auditing section below)
7. Using the provided photogrammetry, direct connections, and other specialized equipment, the DSC is responsible for marking known utilities at the excavation site. Telecommunications Services will mark their known utilities in the field. It is recognized that time is of the essence in this process. Therefore, the request for a non-emergency Dig Safe must be made at least 3 days before the expected excavation
8. The UMC, Physical Plant Electrical and Mechanical Utilities, and Telecommunications Services shall research and retrieve pertinent utility data at the location of the excavation. This is a review of available plans and does not include a trip to the site. The UMC shall notify Physical Plant Utilities of the required changes.

9. The DSC shall meet with the excavator for a general review of the site. The DSC shall provide the excavator with any pertinent contact information, including secondary contacts.
10. All parties shall notify the DSC and the UMC within 24 hours if changes are required to the original photogrammetry map. The UMC shall make appropriate changes to the map. Once all utilities are identified, the DSC shall proceed with filing the Dig Safe with the revised photogrammetry map. The DSC shall produce copies of the Dig Safe notification and corresponding map. This notification shall be forwarded to the requestor and to a standard list of individuals and businesses (Physical Plant Shops, Telecommunication Services, Berkshire Gas, WMECo, cable companies, etc.). Notification shall be in the form of email and/or hardcopy of all relevant materials to all parties.  
*NOTE: All copies described in items 3, 5, 8 shall normally be on eight and one half by eleven paper.*
11. The Facilities Planning Department and the Physical Plant Department shall ensure that the General Conditions portion of their specifications to outside contractors doing excavation on campus shall include notification to the DSC of their intended work. This condition shall be required in addition to the contractor's responsibility to notify the State Dig Safe organization.
- \* 12. Upon Completion of Marking the underground Utilities, the area will be photographed by the DSC and stored and identified in such a manner that the photographs can be readily accessed.
13. Excavators shall contact the DSC immediately upon discovery of conditions that vary from the provided photogrammetry. If the condition is discovered prior to any damage, the DSC shall investigate and make appropriate changes to the photogrammetry. Should damage to utilities occur, the Physical Plant Safety Officer shall be notified. The Safety Officer shall conduct an investigation to determine where the breakdown in communication and identification occurred.

**Auditing:**

1. Periodically, the UMC shall access the edited photogrammetry file and make appropriate changes to the UMA 40-scale photogrammetry program. In this way, future dig safe permits in the area will reflect accurate location of all utilities.
2. The DSC shall maintain a daily log of all related actions and requests. This log shall be used to track errors, omissions, and other photogrammetry issues that arise. The daily log shall be made available to the Physical Plant Safety Officer upon demand. The log, along with photogrammetry from the "Edited" and/or the "Unedited" file, shall be used to review and correct any unresolved issues related to the Dig Safe procedure.

**Definitions:**

DSC - Dig Safe Coordinator (Physical Plant)

UMC - Utility Mapping Coordinator (Facilities Planning)

Premarked area - the entire area affected by the proposed excavation such as the cut back on a trench to comply with standard safety practices.

- Enclosures:**
- (1) Attachment A – List of Contacts from Physical Plant, Facilities Planning, and Telecommunication Services
  - (2) Attachment B - samples of photogrammetry used by DSC to convey excavation location to the UMC.
  - (3) Attachment C - - Overview of the Dig Safe Law.
  - (4) Attachment D - Copy of the Massachusetts Dig Safe Law.
  - (5) Attachment E - Dig Safe Work Flow Chart

**Distribution:**

Director

Assistant Directors

Executive Assistant

All Managers

All Supervisors

## Attachment A

### List of contacts

#### **Physical Plant:**

- Primary - Randall Boivin (DSC) – [rboivin@facil.umass.edu](mailto:rboivin@facil.umass.edu) (413) 545-4903
- Secondary – Roy Page-Rpage@admin.umass.edu-413-545-4903

#### R **Facilities Planning:**

- Primary – Carl Larson (UMC) – [carll@facil.umass.edu](mailto:carll@facil.umass.edu) (413) 577-1724

#### **Telecommunication Services:**

- Primary – Graeme Sephton – [sephton@admin.umass.edu](mailto:sephton@admin.umass.edu) (413) 545-6504
- Secondary – Leslie Smith – [lesmith@oit.umass.edu](mailto:lesmith@oit.umass.edu) (413) 545-3089

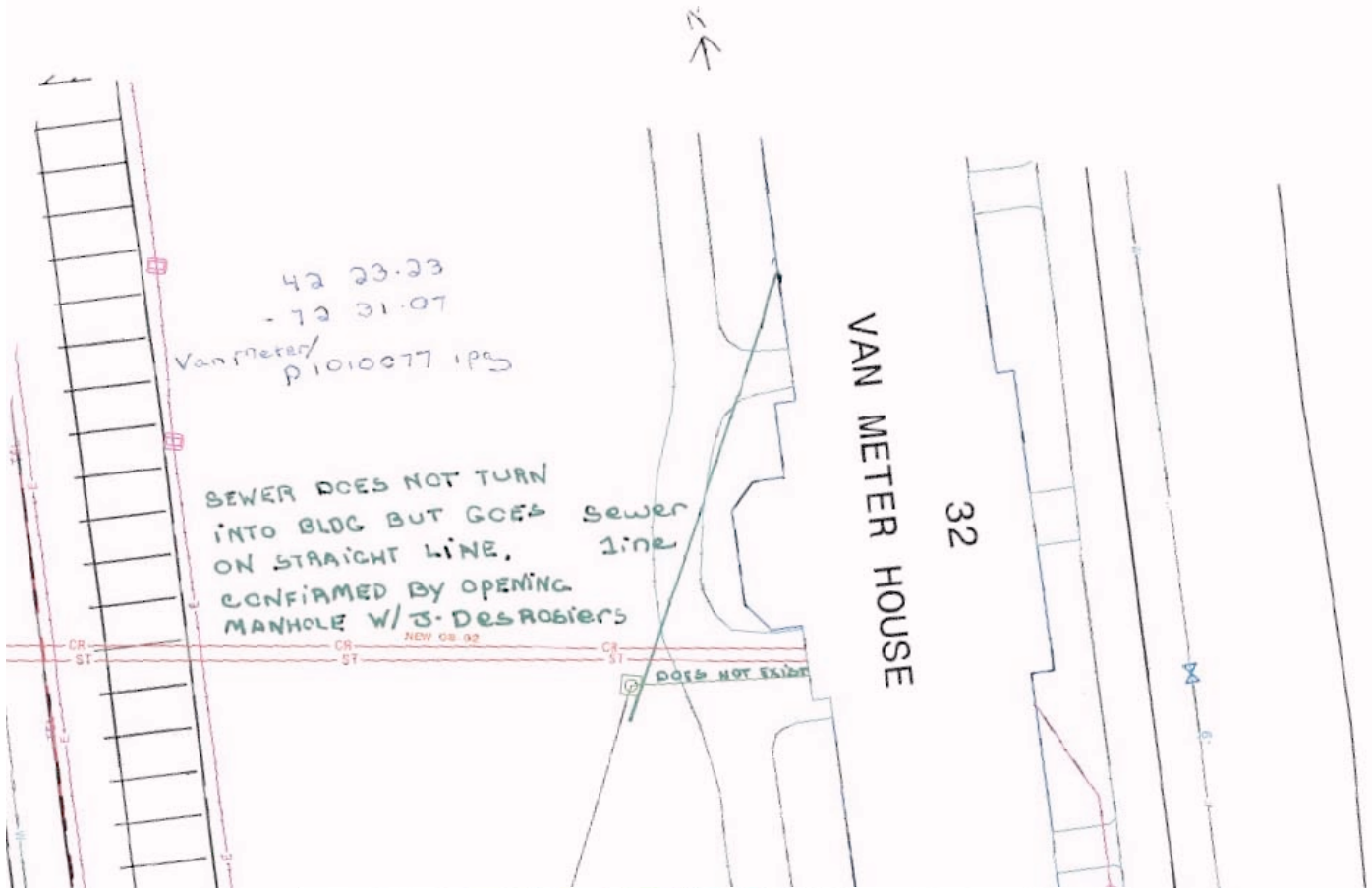
#### **Utilities Electrical:**

- Primary – Dave Schoen – [schoen@admin.umass.edu](mailto:schoen@admin.umass.edu)- 413-345-0053
- Secondary – Steve Grden – [sgrden@facil.umass.edu](mailto:sgrden@facil.umass.edu) – 413-530-0710

#### **Utilities Mechanical**

- Primary – Tom Fydenkevez- Tfydenke@Facil.umass.edu- (413) 230-2143
- Secondary – Mark Bordeaux- 413-775-3844

**Attachment B -  
Samples of photogrammetry used by DSC to convey excavation location to the UMC**



## Attachment C

# What is Dig Safe

Both Federal and State laws require excavators to notify appropriate utility companies before excavating. Notifying member utilities individually would be time consuming, but calling ADig Safe simplifies the process.

Dig Safe is a system, required by these laws and funded by member companies, which allows excavators to notify the appropriate utilities with one telephone call. Dig Safe offers a nationwide toll free number, 1-888-DIG SAFE for this notification before digging, trenching, blasting, demolishing, boring, backfilling, grading, landscaping, or other earth moving operations.

This system was created to promote public safety, avoid costly damage to underground facilities, and reduce cost and time of notifications.

When a call arrives at the Dig Safe Center, an operator will ask for information such as location, intersecting street, type of work, extent of work, name of caller, start date, and name of company. This information will be entered into a computer system, which then notifies the member companies maintaining underground plant in the area of excavation. Any underground facilities will then be marked or staked by the member companies. The excavator will be given a Dig Safe Number to acknowledge their call.

The Dig Safe Center records all incoming and outgoing messages and operates Monday through Friday, 6:00 a.m. to 6:00 p.m. Off-hour coverage is provided for emergencies only.

Dig Safe should not be called for locating and marking underground facilities for project engineering and design, such as preliminary engineering surveys. It should also not be used for miscellaneous requests to relocate, lower, or remove facilities. Damage to underground facilities should be reported to the owner of such facilities.

### State Law Requirements

*Massachusetts Statute Chapter 82 Section 40*

These statutes require:

- X All excavators are required to provide notification.
- X Public ways and private property are areas requiring notification.
- X Required participants in the system are Gas, Electric, Telephone, Cable Television.
- X Notification time requirements:

Minimum	72 hours (except weekends and holidays)
Maximum	30 Days
Emergencies	ASAP

- X Response time by utilities is 72 hours
- X Notification time for unanticipated blasting after initial notification is 4 hours.
- X Premarking by excavation is required.
- X Remark notification is 24 hours.
- X Violation penalties: First offense is \$200; subsequent offense is \$500 to \$1000.

## **Attachment D**

### **The Commonwealth of Massachusetts Chapter 82, Section 40**

No person shall, except in an emergency, contract for, or make an excavation, which shall include, but not be limited to, the discharge of explosives and the demolition of any structure but which shall not be deemed to include gardening and tilling the soil in the case of privately owned land, in any public way, and public utility company right of way or easement, or any privately owned land under which any public utility company, municipal utility department, natural gas pipeline company, or cable television company maintains underground facilities, including pipes, mains, wires or conduits, unless at least seventy-two hours, exclusive of Saturdays, Sundays and legal holidays, but not more than thirty days, before the proposed excavation is to be made such person has given an initial notice in writing of the proposed excavation to such natural gas pipeline companies, public utility companies, cable television companies and municipal utility departments as supply gas, electricity, telephone or cable television service in or to the city or town where such excavation is to be made. Such notice shall set forth the name of the street or the route number of said way and a reasonably accurate description of the location in said way or on private property the excavation is to be made. In addition, such initial notice shall indicate whether any such excavation will involve blasting and, if so, the date on which the specific location at which such blasting is to occur; provided, however, that in no event shall any excavation by blasting take place unless written notice thereof, either in the initial notice or a subsequent notice, accurately specifying the date and location of such blasting shall have been given and received at least twenty-four hours in advance, except in the case of an unanticipated obstruction requiring blasting when such notice should not be less than four hours in advance to such natural gas pipeline companies, public utility companies, cable television companies and municipal utility departments as supply gas, electricity, telephone or cable television service in or to the city or town where such excavation by blasting is to be made. If any such notice cannot be given as aforesaid because of an emergency, it shall be given as soon as may be practicable. Copies of such notices together with a statement certifying that they have been mailed or delivered to such cable television companies and public utility companies as required by this section shall be filed with the officer or board having charge of any such public way before a permit to excavate or to blast may be approved or issued, except in case of an emergency.

Where an excavation is to be made by a contractor as part of the work required by a contract with the Commonwealth or with any political subdivision thereof or other public agency, for the construction, reconstruction, relocation, relocation or improvement of a public way or for the installation of a railway track, conduit, sewer or water main, such contractor shall be deemed to have complied with requirements of this section by giving such notices as required by this section setting forth the location and the approximate time required to perform the work involved to each of said companies.

Within seventy-two hours, exclusive of Saturdays, Sundays and legal holidays, from the time said initial notice is received or at such time as said company and the excavator agree in writing, said company shall respond to the original written notice or to subsequent oral or written notice by designating at the locus, the location of pipes, mains, wires or conduits, in that portion of the public way, public utility company right-of-way or easement or privately owned land in which the excavation is to be made; provided, however, that in the event that the excavator has given notice of proposed excavation as aforesaid at a locus at which because of its length or size the company cannot reasonably designate the location of all such pipes, mains, wires or conduits within such seventy-two hour period, then the excavator shall notify the company of the portion



of the locus in which excavation is to be first made and the company shall designate the location of such pipes, mains, wires or conduits in such portion within seventy-two hours and shall designate the location of the pipes, mains, wires or conduits in the remaining portion of the locus within a reasonable time thereafter; and the providing of such designation by the company shall constitute prima facie evidence of an exercise of reasonable precaution by the company as required by this section. After a company has designated the location of such pipes, mains, wires and conduits at the locus of the excavation in accordance with the provisions of this section, the excavator shall be responsible for maintaining the designation marking at such locus, unless the said excavator requests re-marking at the locus due to the obliteration, destruction or other removal of such markings and the company shall then have twenty-four hours following the receipt of such request to re-marking such locus.

Any such excavation shall be performed in such manner, and such reasonable precautions taken to avoid damage to the pipes, mains, wires or conduits in use under the surface of said public way, public utility company right-of-way or easement, or privately owned land, including, but not limited to, any substantial weakening of structural or lateral support of such pipe, main, wire, or conduit, penetration or destruction of any pipe, main, wire or the protective coating thereof, or the severance of any pipe, main or conduit.

When any damage to any such pipe, main, wire or conduit or its protective coating occurs, the public utility company, natural gas pipeline company, cable television company or municipal utility department shall be notified immediately by the person or public agency responsible for the excavation causing the damage.

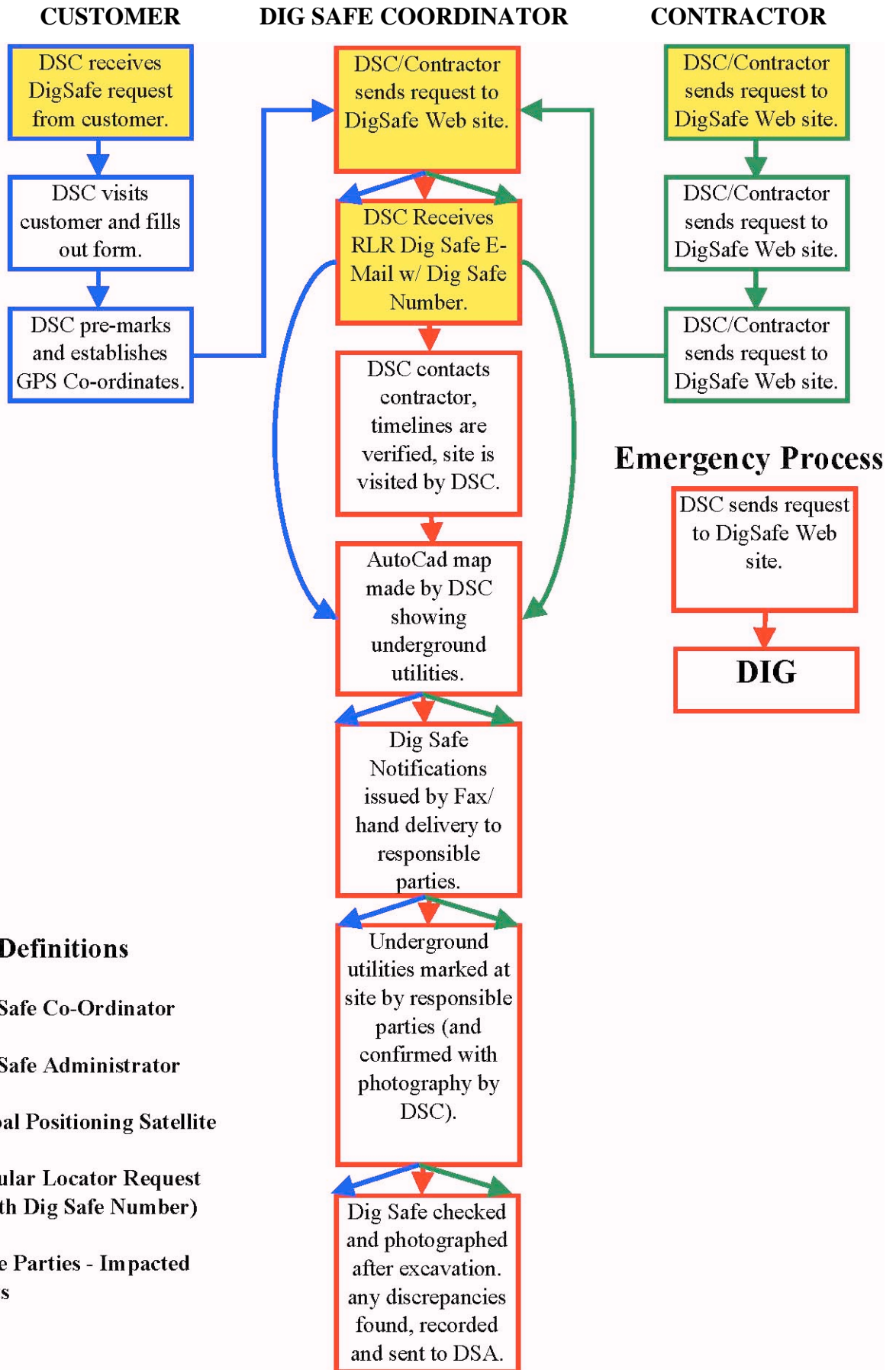
The making of an excavation without providing any or all notice or notices required by this section with respect to any proposed excavator, which results in any damage to a pipe, main wire or conduit or its protective coating shall be prima facie evidence in any legal or administrative proceeding that such damage was caused by the negligence of such person.

Notice to the public utility underground plant damage prevention system pursuant to section seventy-six D of chapter one hundred and sixty-four, which notice is given during normal business hours each day of the year exclusive of Saturdays, Sundays and legal holidays, and which notice is given with the time periods established in this section, shall constitute compliance with the written notice requirements of this section.

Nothing contained in this section shall be construed to affect or impair local ordinances or by-laws requiring permits to be obtained before excavation in a public way, except that, notwithstanding any contrary provision of local ordinances or by-laws, no permit to excavate in a public way shall be approved or issued by the officer or board having charge of any such way, except in any emergency, until such time as copies of such notices to public utility companies and cable television companies are filed with said officer or board by the applicant for a permit as required by this section and copies of such notices are served by said officer or board upon the appropriate water and sewer department.

Any person, contractor or company found by the department of public utilities, after a hearing, to have violated any provision of this section shall forfeit to the Commonwealth the sum of two hundred dollars for the first offense and not less than five hundred nor more than one thousand dollars for any subsequent offense.

## Attachment E Dig Safe Flow Chart



### Definitions

DSC - Dig Safe Co-Ordinator

DSA - Dig Safe Administrator

GPS - Global Positioning Satellite

RLR - Regular Locator Request  
(With Dig Safe Number)

Responsible Parties - Impacted Participants