



# Mid-Atlantic Utility Locating **LLC**

A Certified Small Business Enterprise

**Expect the unexpected. Avoid the unseen.**

## About us

We were founded to provide a service: Subsurface Utility Engineering. It's not just a fancy name for digging holes... our dedicated professionals are highly experienced in utility locating and mapping. We locate and expose the underground utilities and structures that can cause delays and cost you time and money when moving forward with your project.

We strive to ensure that we observe the best safety practices and quality control procedures in our work to provide you with superior customer service and the most accurate deliverables. Mid-Atlantic's clients are in both the public and private sectors, and while their projects can vary in terms of scope, they have one thing in common: they rely on us to fill in the crucial blanks. We remain at the forefront of the industry's best practices by following American Society of Civil Engineers (ASCE) standards.

At Mid-Atlantic Utility Locating, our work revolves around information....not just Subsurface Utility Engineering matters, but also providing you with resources to learn more about what we do, how we do it, and why it is so crucial to your projects.

### Affiliations:



*Mid-Atlantic's mission is to be the preferred provider of timely, accurate & cost-effective Subsurface Utility Engineering services in the region, and to consistently exceed our clients' expectations.*

## What we do

Mid-Atlantic Utility Locating is a leading provider of Subsurface Utility Engineering (SUE) services, utilizing state of the art equipment and technology to provide accurate locating and mapping of all underground utilities. We are a Certified Small Business Enterprise providing SUE services which include:

- Utility Locating
- Utility Mapping
- Vacuum Excavation Services
- Ground Penetrating Radar
- Plastic and Concrete Water Line Locating
- Electronic Utility Markers
- Utility As-Builts
- Utility Information Databases/GIS
- Underground Tank Detection
- Septic System Locating
- Valve Box Clean-Out
- Storm Box Clean-Out
- Utility Manhole & Handhole Cleanout



Mid-Atlantic also provides field run surveys to obtain the horizontal location of subsurface utilities and test holes. The results of the utility mapping are provided at an appropriate map scale in hardcopy and digital format to meet our client needs. The benefits companies and agencies of engaging our services include reduction in utility conflicts and resulting project delays, improvement in contractor productivity and quality, facilitation of electronic mapping accuracy, less environmental damage, and minimization of utility customers' loss of service. The benefits of initial SUE are recognized throughout the life-cycle of the project, including development, redevelopment, or renovation. Utility mapping is an integral component of proper planning for any successful project. Mid-Atlantic's professionals have wide-ranging experience in compliance with all state and federal department of transportation regulations. Chief among these are the required permitting, traffic management while performing locating and designating, dimension regulations of test pits, and reparation of roadways once the project has been completed. Guiding this compliance is their vast knowledge of the underground utility damage prevention acts of Virginia, Maryland, and Washington, D.C.

*"Mid Atlantic has performed very well in completing the most recent task, utility subsurface investigation for the Phase 2 Dulles Corridor Metrorail Project.*

*Mid-Atlantic is committed to their work, complied with the scope and schedule, and we've been pleased working with the team."*

—Jeff Abravesh, P.E., D.P.E.  
Airports Authority's Project Team  
Dulles Corridor Metrorail Project

## Why we do it

Mid-Atlantic Utility Locating offers a service which is indispensable in any design, construction, as-build, or utility project. When you consider how long humans have been living and building in the Washington D.C. region, there are a lot of underground variables to contend with. There are a number of unknown obstacles, but even the known obstacles present a particular challenge because their precise locations are rarely known or recorded. That's where we come in. It's one thing to spray-paint the ground and give an approximation of a water or gas line... it's quite another when mere inches make the difference between a successful project and a gas main rupture.



Our services are engaged by a wide variety of clients who need the kind of accurate locating and reporting of underground utilities we offer. Engineers make up a significant portion of our clientele, because the knowledge they gain from us translates directly into accurate planning for any project they undertake. Transportation agencies such as VDOT and Arlington County are frequently calling on our expertise because of the number of new installations crossing or adjacent to existing underground utility locations. The kind of accuracy we deliver is essential when those new utilities need to be integrated in areas which are already laced with existing utility networks.

Who knows the value of our services? Our clients include VDOT, the Anacostia Waterfront Initiative, Walter Reed National Medical Center, Dulles Metro Silver Line Project, Dulles Airport, Arlington County, Fairfax County, and many more local commercial and public sector entities who need the information and resources we can provide.

There are other companies that offer the services we do, but Mid-Atlantic stands out for some very good reasons. We are responsive to our clients, whether they are long-time customers or working with us for the first time. Our crews are expertly trained, and have over 95 years of combined experience. Reliability. Accuracy. Dedication. We bring all of these things to every project we take on.

*“Rinker Design Associates, P.C. has had the pleasure of working with Mid-Atlantic on many projects throughout the Northern Virginia area. We have used their services for utility locating and test holes. Our experience with Mid-Atlantic has proven that they are very responsive and are always more than willing to answer any questions or go out of their way to make sure you receive the best possible product.”*

—Sharon D. Dusza, P.E.  
Project Manager/Principal  
Rinker Design Associates, P.C.

## Equipment

### E.M. BASED LOCATING:

Our professionals use the top of the line Metrotech 9800 series, i5000 MetroMark, Metrotech 810, Metrotech 530, and the Pipehorn to locate even the toughest utility systems as accurately and as quickly as possible. The i5000 MetroMark is a 100% digital Electronic Utility Locator. It is able to negate high levels of interference associated with variable frequency drives, which are often encountered at wastewater treatment facilities and around industrial cooling towers.

### VACMASTER/AIR VAC:

Mid-Atlantic utilizes three VACMASTERS System 4000 trucks, the world's most powerful air-vacuum excavation system. These allow for test pitting with both air and water, giving us the ability to excavate through the toughest of soils and ground conditions. Mid-Atlantic Utility Locating also uses the Air-Vac 7, a portable vacuum excavation unit designed for excavation in areas that are inaccessible with other equipment due to height, width, or weight concerns including inside buildings and remote locations.

### GROUND PENETRATING RADAR (GPR):

Mid-Atlantic Utility Locating uses a Mala Geoscience Easy Locator to easily detect subsurface utilities & structures, including underground voids, vaults, and plastic or concrete utilities that would otherwise be undetectable with regular utility locating devices. The GPR unit allows Mid-Atlantic to locate septic fields and tanks, research and recover historic sites, and identify nonmetal utilities.

### PLASTIC AND CONCRETE WATER LINE LOCATING:

Mid-Atlantic Utility Locating utilizes the Radiodetection RD500 Plastic Water Line Locator for the identification of non-metal water lines when other methods of locating are not available. This invaluable tool allows our technicians to locate plastic, concrete, and otherwise unlocatable water mains and services. This instrument uses sound waves transmitted through the water within these pipes to locate their horizontal position up to 500 feet away from the transmission source.

### ELECTRONIC UTILITY MARKERS AND MARKER LOCATING:

Mid-Atlantic Utility Locating can provide electronic utility markers and marker locating to ensure that utilities are re-locatable long into the future. Electronic utility markers allow for the detection of utilities that are traditionally non-locatable because of paralleling utilities or damaged tracing materials.

- Utility Locating
- Vacuum Excavation Test Holes
- Utility Mapping
- Ground Penetrating Radar
- Plastic & Concrete Water Line Locating
- Electronic Utility Markers
- Utility As-Builts
- Utility Research
- Underground Tank Detection
- Septic System Locating
- Valve Box Clean-Out
- Storm Box Clean-Out
- Information Databases/GIS



# Subsurface Utility Engineering

## A few facts about Mid-Atlantic Utility Locating:

- 95+ years of combined field experience
- 2.5 million linear feet of utilities marked annually
- 800+ test holes dug every year
- Certified for Confined-Space Entry work
- Fully equipped for traffic management
- Asbestos, Orange Soils & Respirator trained
- CSX & MWAA Rail Safety trained

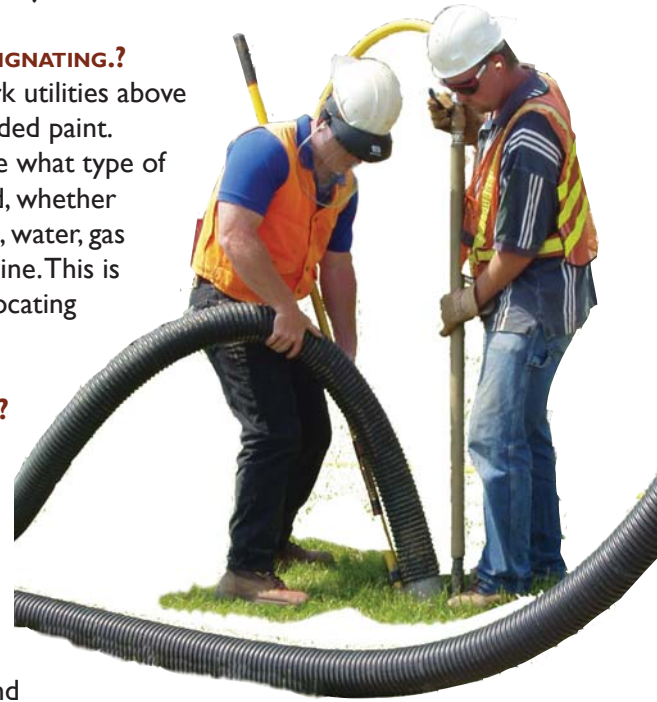


**WHAT IS SUBSURFACE UTILITY ENGINEERING (SUE)?** This term refers to a process which has seen considerable growth in recent years, especially in the Metro Washington D.C. region. Civil engineering and surveying practices combine to provide hyper-accurate utility mapping and locating which is an essential part in any design, construction or utility project. These utilities can include water lines, fiber optic cables, communication lines, electric and other power lines, water lines, and gas lines. Mid-Atlantic's services are focused on the locating and mapping of these utilities and other underground obstacles which can directly impact any construction or utility installation project.

**WHAT IS UTILITY DESIGNATING.?** This is where we mark utilities above ground with color-coded paint. Various colors denote what type of utility is being marked, whether it be communications, water, gas or any other type of line. This is the first step in our locating process

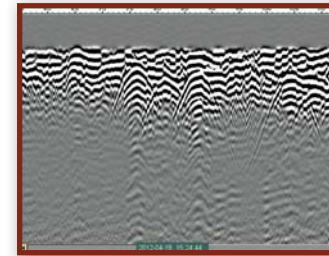
**WHAT IS A TEST HOLE?** The test hole is a critical part of the locating process, because it involves the actual physical locating of the utilities. While Ground Penetrating Radar and EM locators can give us a very good idea of where the utility is, nothing beats opening a hole in the earth and actually measuring the utility's depth, width, and physical condition. All of this information is absolutely critical when preparing a data sheet to compile our reports to project managers.

**WHAT IS A TEST HOLE FORM?** This is the data sheet we use to prepare reports on utility location, type, depth, and width after digging for the utility.



**WHAT IS VACUUM EXCAVATION?** Vacuum excavation is the process of using vacuum excavation equipment and techniques to excavate large areas or trenching where mechanical methods are not safe for various reasons. This technology has frequently been utilized at sensitive sites such as nuclear power plants and large industrial complexes where a single utility damage or outage can have widespread or tragic consequences.

**WHAT IS GPR?** GPR, Ground Penetrating Radar, is a scanning device which uses radar pulses to image the subsurface. This non-destructive method uses electromagnetic radiation in the microwave band (UHF/VHF frequencies) of the radio spectrum, and detects the reflected signals from subsurface structures. GPR can be used in a variety of media, including rock, soil, ice, fresh water, pavements and structures. It can detect objects, changes in material, and voids and cracks. The depth range of GPR is limited by the electrical conductivity of the ground, the transmitted center frequency and the radiated power. As conductivity increases, the penetration depth also decreases. This is because the electromagnetic energy is more quickly dissipated into heat, causing a loss in signal strength at depth. GPR is not as effective in clay rich soils, and is highly effective in sand or sandy soils.

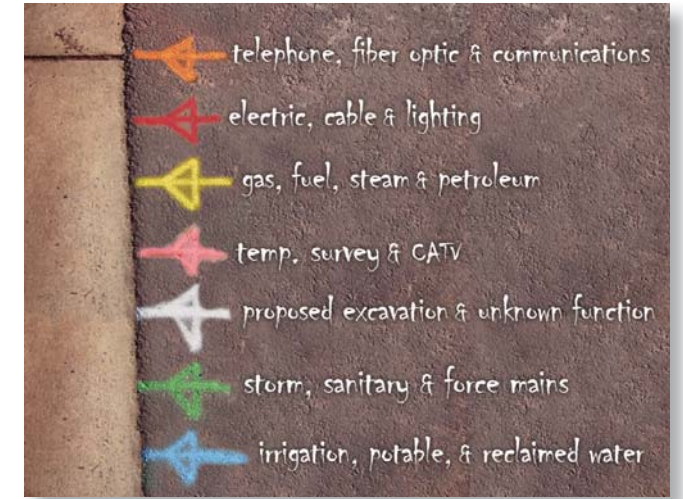


Detail of a GPR scan

**WHAT TRAINING & CERTIFICATIONS DOES MAUL HAVE?** Mid-Atlantic's training and certifications are comprehensive. We are OSHA certified and our training includes VDOT traffic management, railway safety, asbestos and orange soil handling as well as confined space entry certification. We can also handle VUPS ticket entry as well as permitting procedures.

Contact Mid-Atlantic Utility Locating to see how we can help you achieve your project objectives!

## What do those colors mean...?





**A Certified Small Business Enterprise**

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