



Subsurface Utility Engineering

What is SUE?

According to the American Society of Civil Engineers and the Federal Highway Administration, Subsurface Utility Engineering (SUE) is defined as: "A branch of engineering practice that manages certain risks associated with subsurface utilities via: utility mapping at appropriate quality levels, utility coordination, utility relocation design and coordination, utility assessment, communication of utility data to concerned parties, utility relocation cost estimate, implementation of utility accommodation policies and utility design."

SUE began to be used in the 1980's and has been evolving to become an essential part of engineering today. An effectiveness study performed by Purdue University in 2000 shows great cost saving benefits as well as reduced delays on highway projects. For every dollar spent on SUE, a savings of over four dollars is realized.

Why Cumbe & Fair?

Cumbe & Fair provides all aspects of "Subsurface Utility Engineering" (SUE), including vacuum excavation. We are one of the few firms in West Central Florida that provides full service Subsurface Utility Engineering. Our long-standing relationship with various utility owners allows us to easily acquire records of their facilities and to arrange for the "designation" of their facilities. We also provide surveys of these "designated" locations. Whatever our client's need, from research to non-destructive excavation, Cumbe & Fair is qualified.

Designating

Cumbe & Fair utilizes the latest geophysical prospecting techniques and equipment to determine the horizontal location and depths of existing utilities.

These techniques and equipment include Electromagnetic Detection, Radio Detection and Ground Penetrating Radar (GPR).



Locating

Cumbe & Fair is committed to keeping public and private property as nice as possible. Therefore, we use non-destructive digging equipment to physically obtain the exact location, both horizontally and vertically, of underground facilities. This non-destructive digging is accomplished with vacuum excavation and occasionally jet probing in extremely deep and/or wet situations.

Surveying

Our highly trained survey crews use tapes, total stations or GPS methods to locate utilities. We transmit data to our client any way they request, by any combination of preprinted forms, spreadsheets, ASCII tabular format, simple point plot CADD, or a complex CADD drawing.

Utility Contacts

Cumbe & Fair has been collaborating with utility owners for years, in order to better serve our clients. This collaboration involves researching their records and obtaining records for Level D locates, coordinating designates by utility owners, office and field meeting prior to Cumbe & Fair designation and field meetings prior to and during vacuum excavation.

"We (PBA) generally use Cumbe & Fair on our most challenging projects because they have always come through for us even under impossible situations, and the work is always the highest quality."
Robert D. Szatynski
Roadway Department Manager
PB Americas, Inc.



Utility Coordination

Cumbey & Fair also provides Utility Coordination Services. Utility Coordination Services can include:

- * Identification of utility facilities
- * Securing arrangements
- * Utility work schedules and plans from the UAO's
- * Assist in utility negotiations
- * Help resolve utility conflicts.

It is also of the highest importance to us that all Utility Coordination and design follows the FDOT, FHWA, and AASHTO standards and policies. Whatever the need in this area, from coordinating meetings to design schedules, Cumbey & Fair is capable and competent to complete the tasks.

Equipment

- * Vacuum excavation truck (3) with jet probes
- * Radio Detection Locator Series RD 400 and RD 4000
- * Metrotech 810Dx
- * Mala "Easy Locator" Ground Penetrating Radar (GPR)
- * Global Positioning System (GPS)

Benefits of SUE

Cumbey & Fair's SUE status can save you, our client, money! According to the 2000 FHWA/Purdue University study, "A savings of \$4.62 for every \$1.00 spent on SUE was quantified from a total of 71 projects. These projects had combined construction value in excess of \$1 billion." The Federal Highway Administration has stated that the use of Subsurface Utility Engineering (SUE) has saved taxpayers over 100 million dollars.

SUE is also recognized as a BEST PRACTICE by AASHTO, Federal Highway Administration, Associated General Contractors, Office of Pipeline Safety, National Transportation Safety Board, Network Reliability Council, and many state DOT's.

SUE has been shown to be more time efficient by decreasing unexpected utility conflicts and construction delays. It can also decrease injuries and even death on construction projects.

Overall, benefits of SUE are undeniable. Cumbey & Fair can pass on these benefits to our clients in the most professional and efficient ways, with our state of the art equipment as well as our highly experienced and motivated team.

For more information,
please contact:

Cumbey & Fair, Inc.
2463 Enterprise Road
Clearwater, FL 33763-1790
(727) 797-8982
Fax: (727) 791-8752

or visit our Website:
www.cumbeyfair.com