



FIELD ASSURANCE

Project Case Studies



INTEGRATED
SOLUTIONS





GIS Data Conversion Verification and Correction

Client

Mid-sized Natural Gas and
Electric Company

Location

California

G2 Integrated Solutions Contacts

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Background

A mid-sized natural gas and electric provider in the western US had recently completed a GIS conversion from paper to electronic. Upon receiving converted data, they quickly realized that their facilities were not correctly mapped on the GIS. Some of the issues found were facilities mapped on the wrong side of the road or not mapped at all.

Scope

- Frontline Energy Services was brought on to locate and map all underground and above ground facilities for the gas company and a specific area of the electric utility. There will also be some land base maintenance as well in smaller areas where there is no spatial land base data.
Use 6-8 locating crews outfitted with Metrotech locators to work in from of GPS collectors and mark the facilities.
- GPS collectors would use Trimble Mapping Grade GPS units for collection of facilities.
- GPS collectors would have a database of meter numbers, valve numbers and pole numbers with them to reference and input data into GPS unit.
- Survey grade GPS was utilized for essential valves and more system critical collections.
- Survey grade was also used in land base correction along with mapping grade street centerline surveys.

Results

With this completion, the utility company now has a complete GIS that is 100% GPS verified and accurate. This includes all service lines and meters. Their accuracy in leak survey inspections and other field related work has improved tremendously. They are able to accurately send people to their assets in case of emergencies. By using the meter numbers during collection, they were able to easily link to their CIS system for real time load readings making their modeling even more accurate.



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GPS As-built With Land Base and Existing Facilities Correction

Client

Municipality

Location

Northern California

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Background

A municipality in Northern California was in need of some survey grade GPS collection for current electric, telecom and natural gas projects. Along with as-built collection, they also need land base collected in several areas to adjust their existing GIS to be more accurate spatially as well as collect missing pieces of infrastructure to better enhance their system.

Scope

Frontline Energy Services was brought on to do the GPS collection of new construction as well as collect areas of existing facilities and infrastructure to enhance existing GIS data. This was done with a robotic Trimble survey grade unit and one field person.

- Collect new facilities as they are being installed. This includes electric and telecom conduit and natural gas facilities.
- Collect existing facilities in the area of new construction to verify accuracy in GIS. This included valves, regulator stations, pedestal, manholes, vaults, etc.
- Create in office electronic and paper as-built for all new construction work collected.
- Collect existing infrastructure points to adjust land base and verify accuracy. This included curb, gutter, sidewalk, catch basins, manholes (electric, storm sewer and sanitary sewer), street lights, traffic lights, poles, etc.

Results

Upon completion of this project, the client received a more accurate GIS land base that now contained several previously missing pieces. With this new GIS, they are able to accept GPS data from both internal and external collectors and place it in the system with minimal effort. They are now able to quickly and efficiently dispatch crews to an area with confidence knowing that their facilities are accurately mapped. This reduces down time and makes emergency response planning much quicker and more accurate.



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