

UTILITY CLEARANCE AND MAPPING USING ELECTROMAGNETIC METHODS



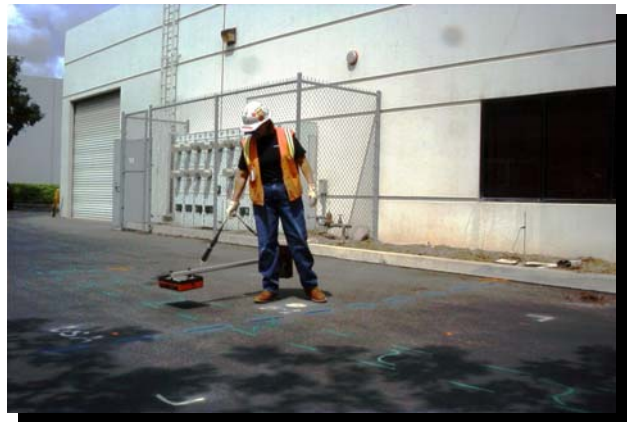
In complex urban settings GEOVision commonly uses electromagnetic (EM) utility locating techniques to clear proposed boring, trenching and excavation locations.

GEOVision area clearance procedures:

1. Visually inspect area for manholes, valve boxes etc as well as review available utility plans
2. Each identified utility will be traced out using EM utility locating instruments (RD-4000, Ditchwitch 950, Metrotech 810)
3. Scan the area in passive 50/60 HZ and radio modes to locate active electrical lines and other lines carrying a passive radio signal.
4. Screen the area using Fisher TW-6 to identify abandoned conduits
5. Screen the area using Schonstead GA-72Cd to identify buried metal debris
6. Conduct perpendicular GPR traverses through the area to detect non-metallic lines (GSSI SIR10B, 2000, or 3000)
7. Hold EM utility locator transmitter at various locations in area and circle at about a 40-foot radius with the receiver
8. Mark all identified lines on the ground in color code established by American Public Works Association and map site.



Ground Penetrating Radar and 50/60HZ



Scanning the Area with the Fisher TW6



Spinning The Boring With The Metrotech

