

ACCURATE MAPPING OF FOUNDATIONS

Foundations were mapped in order to safely install new drainage below the basement slab

OBJECTIVES

The client was undertaking extensive refurbishments of a central London building. As part of these works, new drainage runs were required below the basement. Given the unknown foundation construction, and concern over damaging potential ground beams, Trace-SI was contracted in to map the foundation details.

SOLUTIONS

Ground penetrating radar (GPR) was used to determine the presence and location of the foundations and resolve their details. The system was set up to work with a robotic total station.

The total station embedded coordinates directly into the GPR data, at the point of collection.

This greatly increased the positional accuracy of detected features, thereby removing positional errors typically encountered due to obstructions or uneven floor levels.

The entire floor slab was scanned and all collected data was analysed by Trace-SI using specialised software. The identified foundation details were determined and their position and extents were presented on a CAD drawing ready to be utilised by the Engineer.

BENEFITS

Site works were fast, non-destructive and comprehensive; avoiding disruption to the project schedule.

Trace-SI produced accurate and detailed CAD drawings with foundations mapped to a high accuracy.

Due to the level of detail provided the client was able to design their drainage scheme without costly intrusive works.

