

## Network Rail Retaining Wall Monitoring

London

The construction of a residential apartment block next to Gospel Oak Station, London, led to the need for a retaining wall at the station to be monitored.



### The project

GEO-Instruments were required to establish if any movement or damage would occur to the retaining wall while Keller carried out piling works directly behind the wall and, at a later stage, during the construction of the residential building.

### The challenge

The main challenge was to ensure the smooth operation of Network Rail asset while the monitoring equipment was installed on a private property away from the construction site. There was also the issue of locating prisms on the retaining wall where they could be seen and communicating wirelessly with a PC based on site in near real time.

## The solution

An Automated Total Station Monitoring System was installed and during the initial phase of the monitoring period the communication equipment was relying on a GPRS mobile network that later on became unstable. The system was promptly redesigned to operate on radio equipment which allowed monitoring to continue without stopping the operations.

## Project facts

### Owner(s)

Network Rail

### Keller business unit(s)

GEO-Instruments

### Main contractor(s)

Keller

### Services

Automated monitoring

### Markets

Rail Monitoring

Building Monitoring

### Technologies

Automated Total Stations (ATS)

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