



Design District, Greenwich, London, UK



PROJECT SUMMARY

PROJECT NAME: Design District

PROJECT DATE: 2019

CLIENT: Knight Dragon Developments Ltd

CONTRACTOR: Volker Fitzpatrick Ltd

INSTRUMENTATION SPECIALIST: CET Structures



OVERVIEW

Design District is a permanent home for the creative industries -16 buildings by eight pioneering architects, as part of a Brown Field Development on the Greenwich Peninsula site.

The buildings will house various combinations of multi-use offices, flexible desk space, workshops and ateliers. The complex includes a food market and a roof-top basketball court.

As the buildings employ different design concepts and materials, each has its own structural solution. They share an efficient approach to foundation and to minimise arisings, depth of foundations and interaction with buried obstructions, vibro piling is to be used.

Transport for London's planned Silvertown road tunnel will cross the site at the southern end, passing under two of the buildings.

MONITORING

Ground conditions on Greenwich Peninsula are mixed with complex alluvial clays and compressible materials ever present.

Pore water pressure monitoring was required during the groundworks to ensure excessive pressures were not reached during piling activity.

The vibrating wire piezometers were connected to WI-SOS vibrating wire Nodes and a WI-SOS Gate-way.

The data was sent direct from site via FTP to Geo-Axion visualisation software to provide near real time monitoring.

PRODUCTS USED

Vibrating wire piezometers VWP-3000
For monitoring pore water pressure.

WI-SOS 5 channel VW Nodes
Long-range 800MHz wireless battery-powered multi-channel (1-5) node/logger for connecting the vibrating wire piezometers to the Gateway. Easily configured using Android phone or tablet via G-LOG APP.

Wi-SOS Gateway
Central data acquisition logger fitted with SIM card to provide GPRS connection for remote access via the internet. It can be configured over air via an Android device and includes sampling intervals and sensor configuration. Data can be either downloaded directly or forwarded to any FTP address.

GeoAxion data visualisation
Easy to use data visualisation software designed to allow the user to retrieve data in or near real time and process the information in map, profile or graph formats.