

# Macleod Simmonds Mobile Ground Penetrating Radar Keeps London Moving



## Background

Transport for London (TfL) is London's integrated transport authority. Responsible for the day-to-day operation of the capital's transport network, they are set to spend £770 million on cycling infrastructure over the next five years. This investment is to be delivered through a new network of high profile Cycle Superhighways – cycle routes that offer safer and direct access into and across London.

## Water, water everywhere...

The new East-West Cycle Super Highway was flooded after prolonged, heavy rain on a very busy section in Upper Thames Street, London. TfL needed to make repairs as soon as possible with minimum disruption to traffic. Before breaking ground, a detailed scan of the problem area was urgently needed, to find out why the water wasn't draining and so that buried services could be protected during excavations. The client contacted Macleod Simmonds MD directly for help.

## Quality with accuracy

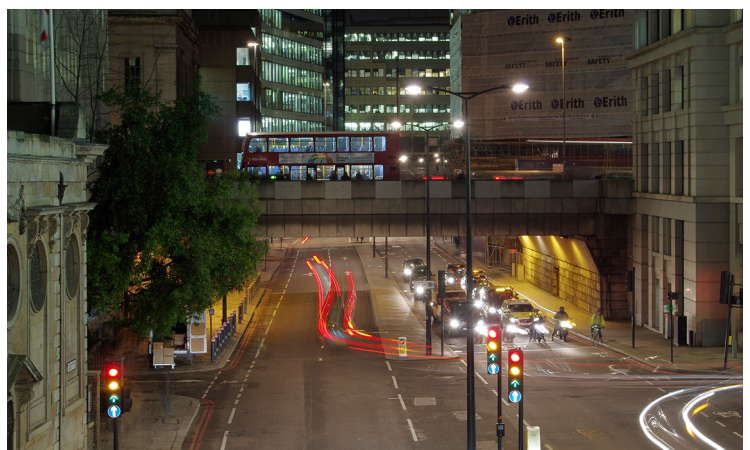
Macleod Simmonds' expert, friendly team combine leading-edge technology with bespoke software to provide rapid response mapping at the highest levels of reliability, quality and accuracy. A mobile Ground Penetrating Radar (GPR) utility scan was recommended to safely survey the subsurface area. Data gathered from the company's non-invasive surveys are analysed and contextualised by an in-house team of best-in-class processing experts.

## Project implementation

A project team was assembled overnight to provide a BSI PAS128:2014 - M4p detection survey carried out to a QL-B1p accuracy level. The survey used hand-pushed GPR array units (Stream C/HDAGPR) to minimise traffic disruption during mapping. As an additional measure, the contents of utility ducts in the area were logged and all utilities detected were traced through the area using Electro-Magnetic Locator (EML) technology. The GPR and EML data were accurately positioned to the grid using GPS or surveyor's total stations. Finally, all GPR and EML data, the utility duct investigations and existing information on record were collated and imported to the client's CAD drawings.

## Summary

A very busy section of the TfL East-West Cycle Super Highway had flooded after prolonged, heavy rain. The client urgently requested a survey to inform their investigation of the site. A rapid response mobile GPR survey team was assembled at very short notice. Macleod Simmonds' winning combination of state-of-the-art technology and personal service gave the client much needed detailed knowledge of the problem site so that repair work could proceed without delay.



***"The mobile GPR team provided a first class service throughout the survey. They were on hand at all hours to ensure we got the job done, despite the urgent timescales we had to work to! They processed the data the next day and the quality of the results was brilliant. Great company to work with."***

**Esme Pooke, Construction Project Manager – Transport for London**