

Fugro Aperio road pavement surveys: overview



Fugro Aperio provide information on the construction and condition of pavements using Ground Penetrating Radar (GPR) and a range of complementary non-destructive techniques. Whether you need asset management information for whole networks, a map of buried utilities, or diagnostic investigation of a pavement failure, we have the experience and resources to help. This sheet provides an overview of the approach and technologies employed.

OVERVIEW

We have the specialist non-destructive technologies to investigate the subsurface from depths of a few millimetres to tens of metres. Ground penetrating radar (GPR) provides continuous information on pavement construction and condition with minimal disruption to the road user. Fugro Aperio have collected over 150 000 km of GPR data from 20 countries and have been at the forefront of the industry in terms of developing new applications and improving accuracy and reliability for more than 20 years. Other geophysical techniques have been developed to map moisture, contamination, buried utilities or characterise ground conditions and engineering properties.

As part of the wider Fugro Transportation Infrastructure group we can offer the expertise and technology to undertake most types of internationally recognised pavement and geotechnical testing, evaluation and consultancy.

ROAD NETWORK SURVEYS

By providing reliable information about the pavement construction we can help you value your pavement assets, select schemes for treatment, calibrate other test data and get best value from your pavement management system. Data collection is rapid and safe, cost per kilometre is low, and the information provided gives a more representative summary of layer thickness and material type than reliance on cores and records.

Networks are surveyed at traffic speed to enable rapid coverage with minimal disruption. Network data can be accessed through the REVEAL Construction Database which lets you choose the data you want, when you want it. For further information see our *GPR for road network surveys* datasheet.

ROAD SCHEME SURVEYS

Fugro Aperio investigations of specific road schemes or projects provide more detailed information on pavement construction and condition, and can be used to investigate issues such as the cause and extent of failure or distress. We can help you make better engineering decisions by providing information about pavement construction, the extent of defects such as voids, delamination or moisture contamination.

Where you need to complete the subsurface picture we can map buried utilities and structures such as basements or tanks or investigate the condition and arrangement of sub-layers using geophysics. Geophysical methods include ground stiffness mapping surveys to determine engineering parameters, electromagnetic surveys of ground moisture and radiometric mapping of contaminants. For further information see our *GPR for road scheme investigations* datasheet.

QUALITY

Surveys are conducted in line with the UK Highways Agency Design Manual for Roads & Bridges, HD29/08 Vol. 7, Section 3, Part 2. Traffic speed surveys are regulated by the Transport Research Laboratory in the UK and Fugro Aperio undertake trials and meet all mandatory test standards. International projects are conducted in line with local needs and standards.

WHY GPR?

- reduce your coring
- avoid disruption
- no traffic management
- comprehensive & reliable data
- calibrate structural surveys
- populate your PMS
- construction information
- condition information

COMPLEMENTARY METHODS

- utility mapping
- coring
- video
- moisture mapping
- ground resistivity
- ground stiffness mapping

Fugro Transportation Infrastructure



Fugro Aperio Limited Focal Point, Newmarket Road, Bottisham, Cambridge CB25 9BD, United Kingdom
Tel: +44 (0)870 600 80 50 Fax: +44 (0)870 600 80 40 www.fugro-aperio.com
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