



UK Head Office

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Railway Services



Introduction

Operating at the forefront of the UK's rail sector since 2003 and holder of the coveted Network Rail Principal Contractor's Licence, XRAIL is one of the leading providers of technical, consulting, engineering and installation services to the railway industry.

XRAIL has an enviable and well-deserved reputation for providing first class support to railway clients throughout the Network Rail, LUL and DLR infrastructures.

Be it a twelve month long renewals project requiring machine control, ground investigation, setting out engineers and an ecological survey or simply a single-shift survey or track hand back, XRAIL have the personnel, the experience and the know-how to add real, measurable value to your most important projects.



Track Surveys

As one of the UK's most knowledgeable and experienced P-Way survey firms, XRAIL is capable of undertaking any level of track survey from simple plain line to detailed S&C on Network Rail, LUL and DLR infrastructures.

A team of over 40 professional railway surveyors are supported by a fleet of cutting-edge track measuring devices (TMD), robotic total stations and laser scanning instruments.

This impressive capability is further backed up by a team of highly experienced project managers to ensure that each track survey is delivered to the client's standards, deadline and budget.

Track Monitoring

Using a combination of target monitoring and top and line surveys, our engineers help preserve track safety by monitoring for undue cant, twist and settlement. Not usually necessary under normal conditions, these techniques are generally employed when construction activities or environmental conditions may affect the stability of the tracks.

XRAIL monitoring engineers deliver track monitoring services almost every working day to a range of valued clients from Colas Rail and May Gurney to Stobart Rail, BAM Nuttall and Morgan Sindall.



Tamping, Stressing & Handback

Whether your project requires handback engineers to monitor and verify conformity to Network Rail standards, tamping specialists to survey and perform comparative analyses, producing ALC files for tamping machines or stressing engineers to calculate, supervise and sign off on the pull, XRAIL is able to provide highly qualified staff at short notice.

Datum Plating

Whilst offering conventional datum plating services, XRAIL can also complete this task with the use of the Mephisto track-mounted laser. Plates are installed according to created alignment designs for future track tamping.

Guaging Surveys

Using the latest 2D laser sweep and 3D laser scanning equipment, XRAIL are able to produce incredibly accurate profiles of tunnels, platforms or any other structure where proximity to the track needs to be measured.

Laser Rails 'Clearoute' software is used to show kinematic information for different classes of rolling stock while laser scanning technology enables our engineers to provide 3D point clouds of areas of the infrastructure from positions of safety.

By using such methods our clients avoid the need for costly safety systems and personnel.



Machine Control

Using the latest Trimble ATS technology and SiteVision 3D Dozer System, our engineers regularly provide machine control services to the rail sector.

This system uses GPS, laser or total station technology inside the cab to accurately position the bucket when creating surfaces, grades or alignments.

Utility Mapping

Imagine how useful it would be to know exactly what lies beneath your feet before breaking ground, to know for sure where expensive fibre-optics cut across your site or how deep utility pipes lie.

XRAIL provide services ranging from basic CAT scanning to more in-depth ground penetrating radar surveys providing detailed CAD plans of buried services and anomalies. Key benefits include...

- Reduced levels of cost, delay and risk
- Improved levels of safety
- Unnecessary excavation kept to a minimum
- Disruption to other site users reduced



Site Engineering

Unlike many survey firms, XRAIL possess the added dimension of a comprehensive site engineering service.

Our specialist teams have extensive experience of setting-out of both track and structures ranging from plain line and S&C to bridges, OLE bases, platforms and station buildings.

Structural Monitoring

From short-term monitoring to assess the impact of a specific activity on a structure or long-term structural health monitoring, we provide specialist monitoring services to a wide variety of engineering disciplines delivering real-time and accurate data direct to their desktops through our bespoke, online data portal.

Quite simply, we can help you to predict certain problems, preventing situations from becoming critical and reducing time, costs and risk in the process. Services include...

- Building deflection and displacement monitoring
- Building foundation monitoring
- Building crack monitoring
- Automated and manual target monitoring

Vibration & Noise Consultancy

Our experts are full Corporate Members of the Institute of Acoustics with considerable experience gained in both regulatory and private sector environments. We can provide advice and assistance on limits and effects in advance of works, provide real-time enforcement and safety advice based on measurement data during operations, undertake liaison with regulators and other stakeholders and provide post measurement assessment and reporting of recorded data.

All of our advice makes appropriate reference to current standards, guidance and industry best practice. Services include...

- Remote vibration monitoring (PPV and VDV)
- Background noise monitoring (both environmental and occupational)
- Noise and vibration predictive assessments and analysis
- Mitigation advisory services
- Expert witness services at Public Enquiries



Structural Investigation

Available in isolation and as part of a larger survey or engineering project, XRAIL offers the complete range of structural investigation, scanning, testing and advisory services to the rail industry.

Our experienced team of highly-qualified engineers and technicians carry out testing, scanning and analysis of existing structures, calculating the factors responsible for decay and delivering highly informative, comprehensive analytical reports that help advise you on the appropriate course of action.

SmartWater™

Working in partnership with SmartWater™, XRAIL is the only company currently authorised to install SmartWater™ on the UK's rail infrastructure.

The cutting-edge, police-approved forensic solution that's slashing cable thefts and vandalism both on and off the railway, SmartWater™ is applied to cable, track and other assets and can directly link thieves and vandals to a crime scene.

The financial savings and the improvements in service cannot be overestimated.





Ecology

From the early planning stages of your scheme to the very end, our specialist ecology surveyors can add considerable ecological expertise to all manner of railway infrastructure projects.

Services include...

- General ecological appraisals (suitable for small, simple sites)
- JNCC Phase 1 Habitat Surveys
- BS5837 tree surveys, arboricultural implications assessments and more
- Bat surveys, breeding bird surveys, great crested newt surveys, badger surveys
- Ecology chapters for environmental statements
- Natural England Licence applications
- Ecologist input for BREEAM and CSH

Telecoms Services

From the early planning stages of your scheme to the very end, our specialist ecology surveyors can add considerable ecological expertise to all manner of railway infrastructure projects.

Geotechnical Investigation

XRAIL's specialist engineers provide a flexible, comprehensive geotechnical investigation service designed to ensure a positive, safe and compliant outcome to our clients' projects.

From localised line-side works to multi-million pound rail renewals, our team will actively manage your GI project from consultation, desktop study and investigative phases to analysis, reporting and recommendations.



Minor Civils

XRAIL's senior management team has extensive experience working on civil engineering projects on both the UK's rail and highway infrastructures. Work undertaken includes...

- Concrete trough installation
- Installation of concrete bases for REBs and line side cabinets
- De-vegetation
- Fencing
- Under Track and Road Crossings
- Cable installation
- Trial hole digging
- Establishment of site compounds including hardstanding, drainage, fencing, temporary office accommodation etc.



3D Modelling & Laser Scanning

At the forefront of 3D modelling in the UK, XRAIL's professional laser scanning teams produce three-dimensional building and structure elevations that deliver previously unimaginable levels of information and precision.

Both external and internal models can be produced with millions of referenced points being surveyed leading to a quite incredible level of detail. The data gathered can be enhanced with cutting edge photogrammetry software in order to provide a virtual 3D model or 'walk-through' of a structure.

From embankment monitoring and volume calculations to 3D walk-through models and visual impact assessments, our laser scanning services are delivered efficiently, on time and on budget with deliverables (2D, 3D or BIM) being tailored to such each client's requirements.

Get in Touch

For more information on our range of services or the best approach for your project why not call our office on **+44 (0) 3450 600 700**. A member of our team will be happy to help.



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