GEOTECHNICAL AND GEO-ENVIRONMENTAL ASSESSMENT

Capability Statement CS2 | Rev 2.0 | November 2026

Magnum GSI turns site data into engineering and environmental decisions. We interpret ground investigation results, build ground models, assess geotechnical constraints and contamination risk, and report in the form that design teams, planners and regulators need. The work ranges from a single interpretive report to ongoing geoscientific support across a programme of sites.

What we provide

- **Geotechnical assessment and interpretive reporting.** Ground models and design parameters from investigation data, with assessment of foundations, earthworks, retaining structures, slopes and settlement. Ground Investigation Reports and Geotechnical Design Reports structured to Eurocode 7.
- **Geo-environmental assessment.** Phase 1 preliminary risk assessment, Phase 2 generic and detailed quantitative risk assessment under the Land Contamination Risk Management guidance, ground gas assessment to BS 8485 and CIRIA C665, and advice on remediation options and verification.
- **Hydrogeological and hydrological assessment.** Groundwater levels and flow, dewatering and discharge, aquifer and source protection considerations, and the ground-related inputs to flood risk assessments and drainage strategies, including the material needed for abstraction and discharge consents.
- **Geoscientific data management and GIS.** AGS 4.1 data handling, project databases, GIS figures and web-based mapping so that investigation, monitoring and survey data can be viewed and queried by the whole team.
- **Planning and consenting support.** Ground conditions and contamination chapters for planning submissions, responses to local authority and regulator queries, and discharge of ground-related planning conditions.

How we work

The scope follows the decision to be made, so the assessment is proportionate to the stage of the project and the risk involved. We review the data before we interpret it, state the uncertainty in every parameter we give, and flag where more investigation would change the answer. Reports are peer reviewed before issue.

Who it is for

Structural and civil engineers, architects and developers who need ground parameters and constraints for design; planning consultants and applicants who need ground conditions addressed for a submission; contractors facing unexpected ground; and asset owners managing existing structures and earthworks.

Standards and quality

BS 5930:2015+A1:2020; BS EN 1997-1 and 1997-2; BS 8004:2015 (foundations); BS 6031:2009 (earthworks); BS 10175:2011+A2:2017; BS 8485:2015+A1:2019; CIRIA C665; Land Contamination Risk Management; AGS 4.1. Work is carried out under Magnum GSI's ISO 9001 certified quality management system (certificate 251677) and the company holds Cyber Essentials certification across the whole organisation. Every report is checked by a second engineer before issue.

Coverage

England, Wales and Scotland. Single plots to industrial and infrastructure sites.

Contact

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