

## Geotechnical Engineering

### What is Geotechnical Engineering?

Geotechnical engineering combines the fields of soil and rock mechanics, engineering geology and other related disciplines to civil engineering design and construction. Geotechnical engineering is an essential feature of any construction project since all subsequent work relies on the accuracy of information obtained from the geotechnical survey. A combined and efficient geo-environmental investigation can therefore save clients' money and reduce their exposure risk.

REC provides geotechnical consultancy services for all aspects of ground works and applies its expertise to all types of civil engineering structures such as foundations and retaining walls deploying a variety of methods for ground improvement, installation of vertical in-ground barriers, soil stabilisation, piling excavation of cuttings and placement of embankments.

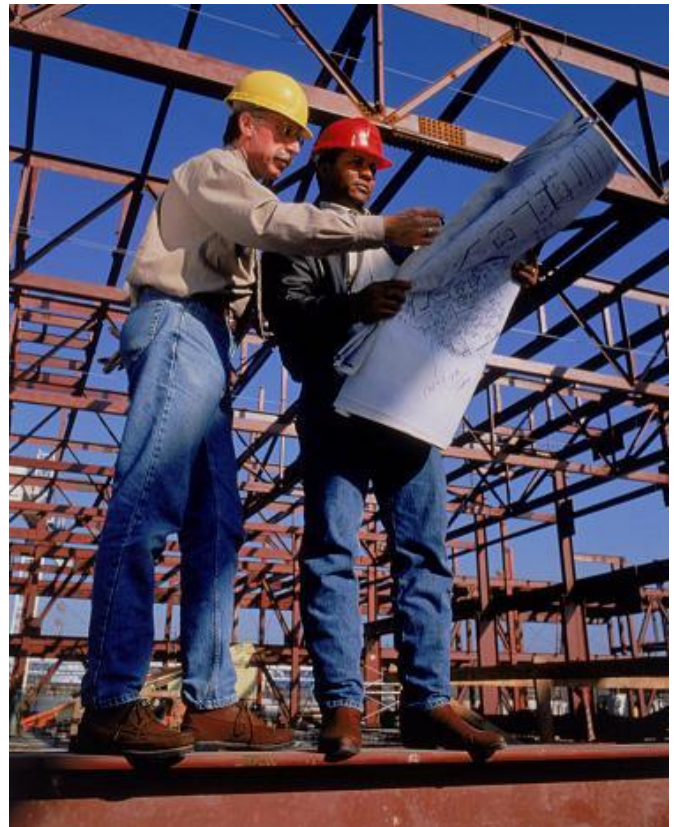
### Why carry out a Geotechnical Survey?

A major factor causing project delays and cost overruns, which is frequently identified during final project reviews, is unforeseen ground conditions. Whilst the cost of a ground investigation may have a major bearing on the likelihood of unforeseen conditions not being identified at an early stage and instead encountered during the construction stage, it is still possible to be cost effective through appropriate deployment of specialist techniques and use of well qualified staff. Solutions to this problem require accurate ground condition data and a thorough understanding of the potential soil, rock and groundwater interactions.

### Why choose REC?

Where intrusive ground investigations are required, REC promotes the concept of maximising the value of the intrusive investigations by combining the geotechnical and contamination assessment. Thus comprehensive data on the ground conditions can be gathered and expert interpretation of the results used to identify the potential risks and solutions identified to overcome them.

REC's engineers and consultants provide site remediation strategies to assist design engineers to minimise foundation costs, with remediation processes being incorporated as part of the foundation systems.



REC provides high quality cost effective foundation options with complimentary remedial programmes for a full range of impacted sites, from gasworks to garages, and timber yards to tanneries.

### Summary of Civil & Geotechnical Services

- Combined geotechnical and contamination assessments.
- Foundation recommendations.
- Instrumentation.
- Ground improvement.
- Slope stability.
- Retaining wall design.
- Earthworks advice and compaction control.
- Soil stabilisation.
- Flood risk assessment.
- Soakaway drainage.
- Contract development.
- Expert witness legal advice.

# REC Office Locations

---

## **Manchester:**

Osprey House, Pacific Quay, Broadway, Manchester M50 2UE  
Tel 0161 868 1300, Fax 0161 868 1301

## **Birmingham:**

Unit 19 Bordesley Trading Est, Bordesley Green Rd, Birmingham B8 1BZ  
Tel: 0121 326 7007, Fax: 0121 328 1689

## **Glasgow:**

11 Law Place, Nerston Mains, East Kilbride G74 4QL  
Tel: 01355 574 160, Fax: 01355 574161

## **Edinburgh:**

Suite 13 Bilston Glen Enterprise Centre, Dryden Rd, Loanhead, Edinburgh, EH20 9LZ  
Tel: 0131 440 4562, Fax: 0131 440 3841

## **Braintree:**

3 Crittall Drive, Springwood Industrial Estate, Braintree, Essex, CM7 3RT  
Tel: 01376 554400, Fax: 01376 528980

## **Fareham:**

Environment House, Segensworth Business Centre, Segensworth Rd, Fareham,  
Hampshire PO15 5RQ  
Tel: 01329 846824, Fax: 01329 845439

## **Port Talbot**

Unit 19 Kenfig Industrial Estate, Margam, Port Talbot, SA13 2PE  
Tel: 01656 749823, Fax: 01656 740824

## **Huddersfield:**

Ellerslie House, Queens Rd, Edgerton, Huddersfield, HD2 2AG  
Tel: 01484 428274, Fax: 01484 428276

## **Dundee:**

Unit 1.7 Discovery House, Gemini Crescent, Dundee, DD2 1SW  
Tel: 01382 561985, Fax: 01382 562839

## **Newcastle:**

Metropolitan House, Longrigg Rd, Swalwell, Gateshead, NE16 3AS  
Tel: 0191 495 6243, Fax: 0191 495 6160

## **N Ireland:**

69A Killyman Street, Moy, Co. Tyrone, BT71 7EA  
Tel: 028 8778 9599, Fax: 028 8778 9552

REC Group Services include: ■ Geo-environmental Site Investigation & Risk Assessment, ■ Brownfield Site Remediation, ■ Ecological Surveys ■ Asbestos Surveys, Analysis & Clearance Certification ■ MCERTS accredited Stack Emission Monitoring ■ Air Quality & Odour Monitoring & Assessment ■ COSHH Monitoring Assessments ■ UKAS & MCERTS Accredited Laboratory Analysis

UK Offices in Manchester, Birmingham, Braintree, Fareham, Huddersfield, Newcastle, Port Talbot  
East Kilbride, Edinburgh, Dundee and N Ireland

REC Ltd Registered Office: Hadfield House, Hadfield Street, Old Trafford Manchester, M16 9FE

[www.recltd.co.uk](http://www.recltd.co.uk)