



### Site Investigations

Brewsters can provide a full site investigation service via their sister company Auger.

A site investigation is undertaken to primarily determine ground conditions. This type of investigation is necessary to establish:-

- The cause of **subsidence**
- Implications to consider in the design of a **new foundation**.

### The Investigation

The investigation involves the extraction of soil samples using a range of augering techniques. The soil sample will then be analysed by a laboratory to confirm the moisture content, liquid limit, plastic limit and plasticity index. Tests can also be undertaken for tree root identification which will provide a measurement of the degree of soil suction. In cases of subsidence, the underground drainage will also be investigated.

### Subsidence

Subsidence may occur when the foundation conditions are of a clay material and have suffered 'shrinkage' as a result of a change in the moisture content / water table. This is either due to a long dry spell or the removal of moisture by trees and vegetation. As the clay contracts it pulls the foundations resulting movement of the structure. Sometimes water leaks into the foundation material from damaged drainage systems, in cases where the material is of a sand or gravel content, this can be washed away and will also cause movement.

Subsidence and movement can be indicated by new or expanding cracking to brickwork and plasterwork, doors and windows sticking for no apparent reason or rippling and tearing in wallpaper which isn't caused by damp.

Armed with the results of the investigation, the Structural Engineer will advise in his written report what has caused the subsidence to occur and what course of action is necessary to rectify the problem. In most cases, following the removal of the source of the problem the property will be monitored over a period of 6 months to ascertain whether any further movement is taking place. If movement has ceased then remedial works can be undertaken.

### Foundation Design

The type of foundation design necessary will often be determined upon the quality and condition of the ground material. Analysis of the ground material will provide the Structural Engineer with the essential information needed to make a decision upon foundation type.

### Key Features

- Cost Effective – a full service of specialist expertise from one company
- Focus on reduction in elapsed time resulting in reduced costs
- Quality Service – compliance and quality, focusing on 'treating customers fairly'
- Reporting & I.T. – all projects electronically tracked
- Client portal giving real time job status and account management information
- National Coverage

