

### 9.2.1 **Land Quality**

Assessment of geotechnical and contamination issues:

- All assessments for geotechnical and contaminated lands should be carried out by a suitably qualified person.
- Assessments should be carried out by direct investigation and examination of the ground, supplemented where necessary by results of laboratory testing on samples obtained.
- All sites should initially be assessed by a **Desk Survey** and a **Walkover Survey** as defined by NHBC Standards 4.1. D1 & D2.
- Depending on results of initial survey a **Basic Survey** (4.1 D4) or a **Detailed Survey** shall be carried out (4.1 D5).
- The Association should be notified of any hazards/contamination evident from the survey.
- A copy of all documentation relating to the land quality shall be forwarded to the Association.
- Any site investigation reports and results commissioned by the Association are provided for information only. The onus for responsibility on suitability of information provided and interpretation of the results lies with the Consultant or Contractor.
- Adequate boreholes to be taken to ensure all areas of the building have been taken into account.
- All investigations should include an assessment of site contamination.

#### 9.2.1.1. **Existing Buildings (retained or demolished)**

- Consultants should obtain an appropriate asbestos survey of all existing buildings
- Due regard should be given to settlement cracking in existing structures

### 9.2.2 Foundations

- The foundations shall be designed to suit the ground conditions and any hazards revealed by the results of the land quality surveys.
- The foundations shall be designed so as to provide the most economical solution to the identified ground conditions.
- Concrete samples shall be taken in the presence of the Association's Clerk of Works and tested at an approved laboratory. A copy of all test results shall be kept on site, the originals shall be forwarded to the Association upon receipt from the laboratory.
- The consulting Structural Engineer will be required to visit the site in order to confirm that the construction is in accordance with the design.
- Concrete shall be of a mix design which is suitable for the intended use.

### 9.2.3 Excavations

- Excavations for foundations shall be to a depth that gives adequate bearing and protection from frost damage.
- Excavations shall take account of localised effects i.e. soft spots or hard spots.
- The shape of the trench shall not impair the performance of the foundation.
- Trench bottoms shall be compacted, reasonably dry and even before concreting.

### 9.2.4 Ground Floor Slabs

- The type of ground floor slab construction shall be specified by a suitably qualified engineer.
- Moisture from the ground shall be prevented from reaching the inside of the building.

- Ground bearing floors shall be resistant to the passage of moisture from the ground.
- Thermal insulation of ground bearing slabs shall be designed to comply with statutory requirements.
- Ground bearing floor slabs shall be of adequate strength and durability.
- Concrete shall be of a mix design and be reinforced where necessary, to safely support the floor loads and to achieve sufficient durability to resist chemical and frost action.
- Ground below the fill shall be adequately prepared to provide consistent support to the fill and ground bearing slab.
- Fill, including made ground, trench backfill and infill shall provide full and consistent support to any ground bearing slab.
- There shall be no hazardous materials used in the fill.
- The design shall ensure that adequate measures are taken against adverse effects of ground contaminants and radon gas.
- Construction of suspended ground floors shall ensure adequate ventilation.
- Finishes to floors shall be protected, where necessary against damp, condensation and spillage.

### 9.2.5 Walls

- Walls below DPC shall be capable of supporting their intended loads and where necessary be resistant to frost action, sulphates and other harmful or toxic materials.
- Brick, block and mortar strength shall be in accordance with the relevant Statutory requirements and take into account the location and conditions under which the material is required to be used.