# **CAPITA SYMONDS**

Midland Crescent Ref CS054209
Ground Contamination Plan 19/01/2012

#### **Purpose of Document**

The purpose of this document is to outline the scope of ground investigations works across the Midland Crescent site. This document should be read in conjunction with the Capita Symonds Limited (CSL) Phase I Geoenvironmental Report, Midland Crescent, London.

# **Ground Investigation - Objectives**

The ground investigation works have been designed to achieve the following main objectives:

- · Determine the thickness and nature of the underlying strata;
- Determine the chemical quality of Made Ground and natural strata;
- Identify if perched groundwater is present within the made ground; and
- Assess the soil gas generation across the site.

#### **Site Description**

The site is located on Finchley Road in North West London, NW3 6LT (centered on National Grid Reference 526180, 184890) and the surface area of the site is approximately 0.04 hectares. The site is bordered to the north and south by two railway lines and to the east by Finchley Road.

#### Site History

Map Dates	Description	Comments
		Land and structures associated with Finchley Road Station which is located
1871-1896	Railway Land	immediately adjacent to the west of the site.
		Site appears to have undergone development which is identified as Midland
1915-1995	Buildings	Crescent in 1954 mapping.
2012	Vacant Land	Site is currently disused.

#### Access

The site is accessed via Finchley Road to the east.

## **Historic Ground Investigation**

No previous intrusive ground investigation has been conducted at the site.

### **Contaminants of Concern**

A number of potential contamination sources have been identified associated with current and historic land uses. The main areas of ground contamination sources are provided below

- Made Ground / Demolition Rubble: Potentially shallow ground contamination with inorganic and organic contaminants including asbestos, carbon dioxide and methane; and
- Historic land use associated with rail lines: potential shallow ground contamination with inorganic and organic contaminants including hydrocarbons such as fuel, oils, solvents and PCBs.

#### **Published Geology**

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Ground Conditions	Strata	Description	Thickness		
British Geological Survey (BGS)	Made Ground	The site is built up behind a retaining wall which is indicative of a significant thickness of Made Ground being present beneath the site.	Variable		
1:50,000 Solid and Drift	London Clay	Clay, silt and sand	>50m		
Geological Map, North London	Lambeth Group	Clay, sand, pebbles and shells	15-20m		
(Sheet 256)	Thanet Sand Formation	Sand fine grained	07-10m		
	Upper Chalk	Chalk - white, soft, massively bedded, flinty with thin marl seams in the lower part and conspicuous indurated chalk at the top.	60m+		

### Hydrogeology

The Environment Agency (EA) has designated the underlying deposits (London Clay) present beneath the site as an Unproductive Aquifer.

# **Ground Investigation Works**

# Exploratory Hole Density

The exploratory hole type and number is outlined below to provide general coverage across the site. Provisional locations are shown on the attached Figure 3. All locations are subject to minor revision to take account of site specifics and following a detailed site walkover.

- Four window sample holes up to 5m in depth or to base of Made Ground; and
- Install 50mm diameter monitoring well with gravel filter.

## **Chemical Sampling Requirement**

The schedule for soil sampling will be confirmed by the CSL engineer and will broadly comprise of:

- Metals: arsenic, cadmium, chromium, copper, lead, mercury, nickel, selenium, zinc;
- Speciated PAH; and
- Controlled working group TPH and BTEX

Contamination samples should be collected in accordance with the following frequency:

Two samples in the top 1m (0.25 to 0.5m bgl and 0.75 to 1.0m bgl)

At least one sample every meter or more frequent if field observations identify changing ground conditions or visual evidence of contamination.

## **Post Investigation Monitoring**

**Gas**: soil gas monitoring is to be undertaken by CSL in accordance with Chemical Sampling and Analysis Specification. This will comprise of four visits.

#### Land Surveying

The locations of each window sample hole will be determined by accurate offset measurements to the site boundary.

#### **Key Technical Interfaces**

Services: Prior to commencement of intrusive investigation works the following procedure should be implement by the Principal Contractor

- Review of service tracing plan;
- Utility on site clearance by appropriately qualified service tracing team; and
- Hand dug inspection pit to 1.2mbgl;

## Safety, Health & Environment

All works shall be undertaken in accordance with the requirements of the project specific Construction Code of Practice or similar document and Construction Environmental Management Plans.

In summary the approach to management of health and safety responsibilities is as follows

- Ground Investigation works will be managed as a notifiable project under CDM Regulations 2007.
- Principal Contractor preparation of Construction Phase Health and Safety Plan to include approach to management of below ground utilities, welfare and decontamination, access and egress, traffic management, reinstatement and any other site specific issues.
- Suitable level of personal protective equipment to be used and o include as a minimum high visibility clothing, hard hat, ear defenders and gloves.

