



## **Remediation Plan**

Project:

49 Barbould Road  
Stoke Newington  
N16 0RT

April 2019

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# 1 Introduction

## 1.1 Introduction

This Remediation Plan has been prepared by Caldera Construction to help with the removal and disposal of any spoil or unwanted waste from excavation and construction of foundations at 49 Barbould Road, N16 0RT. The Architects on the project are Timothy Smith & Jonathan Taylor LLP and are responsible for all final designs during the construction phase. Rodrigues Associates are the Structural Engineers on the project and are responsible for all final structural designs.

**Geo-Integrity** have produced a report from samples taken from site the report can be viewed on **Phase II Factual and Interpretative Geotechnical & Geo-environmental report. (Report No: 18-10-03a)**

## 1.2 Objectives

The objectives of this document are to identify how Caldera Construction are to handle the remediation of the contaminated soils on site.

To do this Caldera are;

- To provide an account of the specific environmental risks that are likely to be associated with the proposed site redevelopment works and subsequent operational life.
- To set out in detail practical measures to be adopted to mitigate these risks to an acceptable level and to remediate excavated materials to such an extent that they can be re-used on site where practicable.
- To inform the regulatory authorities (Environment Agency and Hackney Council) and other stakeholders of these risk assessments and the remedial design to make the site fit for use and environmentally acceptable.

## 1.3 Key Stakeholder Details

### **1.3.1 The Client**

Name: Abigail and Rupert Meats

Address: Unit F11, The Chocolate Factory, Farleigh Place, London, N16 7SX

Tel: 07904 690 327

Email: abimeats@thisisrude.com

### **1.3.2 Principal Contractor**

Name: Michael Brown

Company: Caldera Construction Ltd

Address: 335 The Water Tower, Benfleet Road, Essex SS7 1PW

Tel: 01268 928187

Email: michael.brown@calderaconstructionltd.co.uk

### **1.3.4 Designers, Engineers and Contractors**

#### **Structural Engineer**

Name: Carl Bauer & Andrea Boiardi

Company: Rodrigues Associates

Address: 1 Amwell Street, London, EC1R 1UL

Tel: 020 7837 1133

Email: [carl@rodriguesassociates.com](mailto:carl@rodriguesassociates.com) & [Andrea@rodriguesassociates.com](mailto:Andrea@rodriguesassociates.com)

#### **Architect**

Name: Timothy Smith

Company: TIMOTHY SMITH & JONATHAN TAYLOR LLP

Address: 4 Northington Street, London, WC1N 2JG

Tel: 020 7241 1494

Email: [info@smithandtaylorllp.com](mailto:info@smithandtaylorllp.com)

## **2 Approach**

The soil report shows elevated levels of PAH's and lead within the made ground soils and further confirms that soil bearing capability is weak until virgin ground is found a depth of circa 2.6m

As such a piled foundation solution for the works has been adopted which will minimise the amount of contaminated spoil to be removed from site.

Prior to any spoil removal from site the contamination testing results will be sent to a licenced landfill / waste carrier for classification and selection of a suitable landfill site.

As there are elevated levels of lead and PAH within the spoil a detailed method statement / risk assessment will be produced to ensure the workers on site are protected.

As noted within the soil report and as shown on the project drawings there are no garden areas where a pathway between soil conditions and humans can become an issue and as such the issue to be addressed is the proper removal of classified soil

## **3 Method**

The method for remediation used will be planned as such to prevent the spread of contamination off site and to keep in mind all health and safety aspects for during / post construction works.

### **3.1 Excavation**

#### **3.1.1 By Hand**

Where excavation is needed for drainage and other floor works, this will be by hand using breaker tools and shovels, and once excavated the soil will be stockpiled as per section **3.2 Stockpiling**. To do this all workers will have full PPE on and advised on the correct method

of working and how to identify substances (as section **4 Further Testing / Watching Brief**) stated in the associated Method statements and Risk Assessments.

### **3.1.2 Piling**

Piles will be constructed by a hand screwed piling system and will not produce any spoil.

### **3.1.3 Protective clothing (PPE)**

PPE to include;

- Disposable overalls
- Respiratory protective equipment
- Hand protection
- Steel toe cap boots / Safety wellingtons

## **3.2 Stockpiling**

Stockpiles will be minimal but where stockpiles are formed, Caldera will ensure;

- All contaminated soil will be stockpiled separate from clean materials.
- Be stored on plastic sheeting (Polyethylene sheeting).
- The stockpile shall be covered with plastic sheeting if not actively involved in construction.
- The plastic covering will be secured to ensure it stays in place.

## **3.3 Classify**

All testing pre-construction is complete and all contamination so far has been classified. Where further classification is needed please see section **4 Further Testing / Watching Brief**.

## **3.4 Remove to Licensed Landfill**

Once excavation is complete and all contaminated soil has been stockpiled Caldera will use a licensed waste disposal company (**Norris**) to collect all contaminated soils and dispose of at an appropriate landfill. Caldera will obtain all associated RAMS from Norris and hold inductions / toolbox talks on day of removal to dispose of the contaminated soil safely.

# **4 Further Testing / Watching Brief**

This will be appropriately done using the techniques in the sections below.

## **4.1 Constant visual inspection**

Whilst excavation is in process all soils being removed will be checked for visual signs of other contaminants. If contaminants are found the site manager is to be advised straight away and the site manager is to inform the soil survey company for re-testing.

## **4.2 Smell Checks for Contaminates**

Caldera will check for smells of contaminants such as hydrocarbons etc in the soil excavated and will advise any tradesman to also inform of any suspicious odours. If a smell is to a level of suspicion we will advise the soil survey company for re-testing.

### **4.3 New Found Contamination**

If anything is noted – Caldera will contact Geo-integrity the soil survey company and ask for a re-test of associated waste.

### **4.4 Training**

Before any excavation work by any worker has commenced the worker will receive relevant information / training through a toolbox talk to identify contaminated soils and the dangers of these. Before the worker can start the site manager will need to approve the worker has understood the information before work can begin.

## **5 Disposal of waste**

It is Caldera's duty to ensure that all waste is disposed of appropriately and that any waste is sent to a licenced landfill. All waste sent to landfill must be classified and must be pre-treated. The form of pre-treatment will be documented in the Site Waste Management Plan see section **5.2 Site Waste Management Plan**.

### **5.1 Ensure no cross contamination**

The excavation is internal as seen in project drawings and the contaminated stockpiles will be stored also internally, this will stop and contaminated soils cross contaminating normal soils. To ensure the soil is disposed of correctly we will only use a licensed waste carrier (**See section 5.3**) who will use a licensed landfill (**See section 5.4**)

### **5.2 Site Waste Management Plan (SWMP)**

A SWMP has been produced and will keep all information stored within. This document will be kept on site and all soils / amounts monitored stored within by the site manager. If a new contaminate is found this will also be stored in the document.

All information regarding different types of contaminants can be seen within the SWMP.

### **5.3 Licensed Waste Carrier**

Caldera will be the client to the licenced waste carrier and will ensure all correct licenses are obtained and correct procedures of contaminated land removal abided by.

The Carrier to be used;

**PETER NORRIS (HAULAGE) LTD**

STATION APPROACH

ORPINGTON

BR5 2NB

Environmental Licence Registration: CBDU89511

#### **5.4 Licensed Landfill**

Although the licenced landfill used is Caldera's responsibility, we will be using the appropriate landfill selected by the licensed waste carrier (See Section 5.3).

Caldera will do all appropriate checks that the landfill is licenced and is able to take the associated spoil.