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Via email only: jbowdery@neilcott.co.uk

Neilcott Construction Excel House Cray Avenue Orpington Kent BR5 3ST

FAO: Jonathan Bowdery

Monday, 27th February 2017

Our Ref: GWQ3224Rev2

Dear Jonathan,

Re: London Borough of Camden - Kiln Place Sites

Thank you for the opportunity to tender for the additional Contamination Assessment works at the above named sites.

This letter sets out Ground and Water Limited's fee proposal for the provision of the services outlined in this proposal (the "Services") by us to you. The terms and conditions of business of Ground and Water Limited (a copy of which is attached) will also apply to this fee proposal and project and those terms together with this fee proposal will form the contract between Ground and Water Limited and your yourself.

If you accept this fee proposal and our terms and conditions of business please complete and sign the Client Information Form (attached) and return it to us via post to **Ground and Water Limited, 2** The Long Barn, Norton Farm, Selborne Road, Alton, Hampshire, GU34 3NB or via email to <a href="mailto:enquiries@groundandwater.co.uk">enquiries@groundandwater.co.uk</a>.

Please note that a contract will not be established between us until you have accepted this fee proposal by returning the Client Information Form to us <u>and</u> we have acknowledged your acceptance in writing or (if earlier) we have started to provide the Services (please see clause 3 of our terms and conditions of business).

Please find below and overleaf our fee proposal for a Ground Investigation in line with your requirements, as outlined within your emails dated the  $17^{th}$ ,  $23^{rd}$  and  $27^{th}$  February 2017.

Based on a review of the plans provided within your emails and other easily available data we have the following comments:

A brief description of each of the sites is given below;

#### Kiln Place East:

The site comprised a 730m² approximately rectangular shaped plot of land, orientated in a north-west to south-east direction, located to the south-east of its junction with Lamble Street and south-west of 7 – 34 Hemmingway Close. The site comprised a grassed soft landscaped bank with semi-mature to mature trees on top. Concrete and tarmac parking areas fronted the site.

### Kiln Place West:

The site comprised a 370m<sup>2</sup> L-shaped plot of land to the west of Kiln Place and south-east of No. 117 – 164 Kiln Place. The site comprised an area of grassed communal landscaping with semi-mature tree and paved communal area in the north-east.

#### Plot 3:

The site comprised a  $90m^2$  square shaped plot of land on the south-west side of Kiln Place, on the northern side of No. 65 - 96 Kiln Place. The site comprised the single storey entrance to No. 73 - 96 Kiln Place.

#### Plot 4:

The site comprised a  $94m^2$  square shaped plot of land to the south-east of Kiln Place, on the north-east corner of No. 1 - 64 Kiln Place. The site comprised the single storey entrance to No. 1 – 64 Kiln Place.

## Plot 5 & 6:

The site comprised a  $310\text{m}^2$  Z-shaped plot of land on the north/eastern side of Kiln Place, to the southwest of 97-116 Kiln Place. The site comprised the single storey entrance to 97-116 Kiln Place with car parking to the south and concrete/tarmac landscaping to the west.

## **Proposed Development**

A brief description of the proposed developments for each of the sites is given below;

## Kiln Place East:

A terrace of 6No. residential houses/flats with gardens to the north-east.

#### • Kiln Place West:

3No. residential houses/flats with gardens.

#### Piot 3 & 4

Appeared to comprise an extension to the existing four storey structure.

# Plot 5 & 6:

An extension to the existing 4 storey and detached block for residential housing/flats with gardens.

## Anticipated Geology

The geology map of the area (Sheet 256 North London) revealed the majority of the sites to be situated on the London Clay Formation.

Geotechnical and Environmental Desk Study: Ramboll Report 61031879, July 2014:

A review of the above report revealed the following information;

The total site area was estimated as 1.53ha (15,300m<sup>2</sup>). The site area comprised residential dwellings, car parking, green spaces, open communal areas and play area. The sites environs comprised residential, industrial and railway land.

The proposed development comprised 2 – 4 storey residential dwellings in standalone blocks and private gardens for Kiln Place East.

A review of the site history revealed the following;

In the 1860 historic map the site comprised steeply sloping land, up to the north-east with a bank along the eastern site boundary and drain at the toe of the slope. Houses were noted to the north with fields to the east and west, and railway to south.

By the 1894 – 1896 historic map part of the Gospel Oaks Brickworks covered the site. The drain previously mentioned was culverted. A railway was noted immediately south. A Coal Alliance and Timber Yard were noted north-east and south of the previously mentioned railway.

By the 1916 historic the Brickworks extended across the entire site area with flooded excavations onsite and to the west. Buildings were noted to the east of the embankment. The Timber Yard to the south was expanded.

By the 1954 historic map the buildings, pits and ponds had been removed. WWII damage was noted. The buildings to the east of the embankment were noted as a Slag Wool Works. The south-west corner of the site was a Timber Yard.

Kiln Place Housing Estate was developed by the 1968 historic map. The Slag Wool Works to the east was marked as a works with Depot. The embankment to the east had been widened and increased in height.

By the 1980 historic map a Builder's Yard was noted to the east. By 2003 the works and Depot was redeveloped into Hemmingway Close.

The site was located on Unproductive Strata comprising the London Clay Formation. The site was located in a Flood Zone 1, however the northern end of the site was possibly located within a flood zone associated with Hampstead Pond No. 1. No radon risk was noted and no landfills were noted within the close proximity of the site. A medium to high UXO risk was present.

Ground Contamination and Interpretive Report: Ramboll 61031879, June 2014:

The results of a ground investigation, undertaken between January - March 2014, were provided in the above report. A review of pertinent points raised in the report is given below;

The site works comprised two boreholes to 15m (BH1 & BH2) and 7No. Window Sampler Boreholes (WS1 – WS7) to 8m. 8No. combined bio-gas and groundwater monitoring wells were installed.

The ground conditions encountered 4.2 – 7.5m of Made Ground over the London Clay Formation. The Made Ground contained clinker, slag, ash, metal, charcoal and/or wood. An organic odour was noted in BH2. No evidence was noted for gross contamination.

Groundwater was observed during the investigation at 2.2 - 5.6m bgl and 1.5 - 5.5m bgl during subsequent monitoring.

Heavy metals, such as mercury, lead and vanadium, along with cyanide and PAH's were observed in the soils underlying the site. Loose fibres of Chrysotile were noted in WS2 at 1.00m bgl. No VOC's/SVOC's or hydrocarbons were noted.

The groundwater was tested and was shown to have high dissolved metal concentrations.

Gas monitoring indicated a Characteristic Situation 2. A maximum methane concentration of 10% was observed during a single round, with a maximum concentration of Carbon Dioxide of 6.5% noted on one occasion. A maximum flow of 1.2l/hr was recorded.

#### Requirements

You requirements, as we understand them are as follows;

- Gas Monitoring was carried out for a number of visits, however the 4 further visits recommended to be undertaken never took place. We would require the monitoring to be allowed for in order to achieve NHBC compliance. It is our understanding that 3-4 wells may be re-usable onsite.
- WAC testing is required across the sites to understand the criteria for each individual site. I have attached a marked up drawing showing proposed locations for WAC testing.
- We require a site specific remediation strategy to discharge Condition 8 (planning tracker attached).

#### Table A - Ground Investigation:

Within Table A we have provided our fee proposal to conduct a further contamination risk assessment, as per your requirements.

The intrusive investigation will therefore comprise:

• Attendance of a Premier/Dart Windowless Sampling Rig and Crew to construct boreholes and install combined bio-gas and groundwater monitoring wells (Up to 3No. to ~4.00m bgl).

We have assumed that a 1.0m wide flat and level access can be formed at each borehole location. The working area associated with the rig is ~4m by 2m.

If any of these assumptions are not correct please advise us at the earliest opportunity so that we can revise our estimate if necessary.

Our estimate assumes that all known services, including service plans, will be indicated to us prior to the commencement of the intrusive investigation. All proposed trial hole positions will be scanned using a Cable Avoidance Tool (CAT) to minimise the risk to sub-surface services.

It must be noted that noise during the investigation may be a slight issue to neighbours. The rig is intrinsically as quiet as it can be and the site works will be completed in two days, so the noise will be relatively short-lived.

*In-situ* testing will be conducted in the trial holes and samples recovered for laboratory testing to determine soil properties relevant to structural and environmental considerations.

On completion, the trial holes will be backfilled, compacted and reinstated, with excess arisings mounded over on-site.

## Chemical Laboratory Analysis (Soil and WAC):

We have provided a lump sum allowance to analyse soil samples for contaminants in accordance with your recommendations. We have made allowance to undertake 10No. standard suites (all 10No. to include Speciated TPH) and at least 1No. WAC test per site (6No.).

#### **Gas Monitoring:**

We have made allowance to monitor the wells present and installed for bio-gas on 4No. occasions over a 4-6 week period.

# Remediation Strategy Report:

Following completion of all bio-gas monitoring and chemical laboratory testing, a Remediation Strategy Report will be prepared discussing our findings. A Remediation Method Statement will be included.

The report will include risk assessments on any contamination identified in terms of bio-gas, soil and groundwater and will make recommendations for an appropriate remediation strategy. The results of the full Waste Acceptance Procedure (WAP) testing will be included within the final report.

### Company Insurances:

We hold £2 Million Professional Indemnity, £10 Million Employers Liability and £5 Million Public Liability. The relevant certificates and documentation can be forwarded upon request.

#### Programme:

At the time of writing this fee proposal we would be able to attend site within  $^5$  – 7 working days. This is subject to confirmation upon instruction as dates can vary according to workload at the time of commission. Site works would be completed in one to two days and engineer trial hole logs/preliminary report prepared and issued within 7 – 10 working days thereafter.

The chemical laboratory testing would be undertaken on a standard 5 working day turnaround. The geotechnical laboratory testing would be undertaken on a standard 7 - 10 working day turnaround. The interpretive report would be issued following completion of all laboratory testing and a return site visits, around 5 - 6 weeks after completion of site works.

# **Price and Payment:**

The estimated price for the services shall be as detailed in the table at the end of this fee proposal (exclusive of VAT). This estimate is based on the description of work and the assumptions set out above. Any additional work will be charged at our standard rates for personnel and equipment hire.

We shall invoice you on completion of the services. All invoices shall be payable within 14 days. Interest shall accrue on late payment and work may be suspended if payments are not made (please see clause 5 of our terms and conditions).

An additional fee of 3.5% of the total price of the services will be charged in relation to each project we are instructed on. This fee is charged as a contribution to our insurance costs and will be added to each invoice we raise in relation to the project.

## Contacts

When you respond accepting this estimate please supply us with the contact details of the person or persons who are authorized to deal with us.