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**Environmental
Geotechnical
Specialists**



Via Email: Craig.Smith@Headoffice3.com

For the attention of Mr Craig Smith

Dear Craig

Ref: Contamination Assessment – 6-8 Market Place, Reading.

It is understood that the property located at 6-8 Market Place Reading is to be converted from an office premises into a residential apartment complex. These works will comprise internal alterations only, with no groundworks required. The existing limited outdoor space will be retained and wholly comprises hard standing. The basement and ground floor of the property will comprise undercroft parking, with the basement containing ancillary service room(s). The remaining floors above ground shall be converted to residential apartments.

As part of the change of use for the building, it is necessary to assess the environmental impact of the development to future end users (residents). This letter report assesses the risks posed by potential land contamination as a result of the proposed conversion.

Sources of Ground Gas

Publically available data has been analysed to assess the potential sources of ground gas within the vicinity of the development. Such features are detailed below:

Table 1: Landfill Data and Artificial Ground, Recorded and Anticipated¹

HISTORIC LANDFILLS, MADE GROUND & INFILLED WORKINGS			
Waste Type	Location	Comments	Monitoring Requirement
Historic Landfill	Within 250m	None identified.	N
Authorised Landfill	Within 250m	None identified.	N
BGS Artificial Ground	Within 250m	None identified.	N

¹Groundsure data accessed at <https://groundsure.io> on 16.03.2021

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Preliminary Risk Assessment

The contamination risks are assessed in the following preliminary risk assessment in accordance with industry practice and the 'suitable for use' approach. This has been conducted using the source-pathway-receptor approach. This method dictates that there must be a risk contaminant produced at a 'source' in sufficient concentration to cause harm and there must be a 'pathway' for the contaminant to reach an identifiable 'receptor' for the linkage to be proved and a contamination hazard to be considered present. Not all substances are contaminants and not all contaminants are considered to be a risk. Indeed, DEFRA and The Environment Agency state that 'a contaminant is a substance which has the potential to cause harm, while a risk itself is considered to exist if such a substance is present in sufficient concentration to cause harm and a pathway exists for a receptor to be exposed to the substance.'

The preliminary risk assessment has been evaluated with reference to the following ratings and definitions:

1. **N/A** - A source-pathway-receptor linkage is not considered to exist and therefore a risk assessment is not required.
2. **Low** - A pollution linkage is unlikely and/or the likelihood of harm occurring is low and of minor consequence.
3. **Moderate** - The linkage exists but further field or laboratory data is required to confirm that the contaminant has reached the receptor and the levels of contaminant are harmful.
4. **High** - The linkage exists and the available data indicates that significant harm may be caused and remedial action could be necessary.

Table 2: Conceptual Site Model and Preliminary Qualitative Risk Assessment

CONCEPTUAL SITE MODEL			PRELIMINARY RISK ASSESSMENT	
Pathways	Receptor	Linkage Present?	Risk Rating	Notes
Direct contact/dermal absorption/soil ingestion	Operative	No – no breaking ground as part of the proposed conversion. Existing outdoor spaced is capped w ith hard standing.	N/A	A source-pathway-receptor linkage is not considered to exist and therefore a risk assessment is not required.
	End User	No – limited outdoor space w ill comprise hard standing.	N/A	
	Neighbours	No – no breaking ground as part of the development.	N/A	
Inhalation of Dust/Vapours	Operative	No – no breaking ground as part of the proposed conversion. Existing outdoor spaced is capped w ith hard standing.	N/A	A source-pathway-receptor linkage is not considered to exist and therefore a risk assessment is not required.
	End User	No – limited outdoor space w ill comprise hard standing	N/A	
	Neighbours	No – no breaking ground as part of the development.	N/A	
Ingestion of fruit/vegetables and/or w aters	Operative	No – no edible plants or contained w ater sources in the area of the proposed new works.	N/A	A source-pathway-receptor linkage is not considered to exist and therefore a risk assessment is not required.
	End User	No – no soft landscaping proposed	N/A	
Migration of hazardous gases via permeable strata	Operative	No – no credible ground gas sources have been identified w ithin the public domain, such that there is deemed to be no risk from the build-up of bulk ground gases.	N/A	A source-pathway-receptor linkage is not considered to exist and therefore a risk assessment is not required.
	End User		N/A	
Direct contact w ith contaminated soils			N/A	
Uptake via root system	Plants	No – no soft landscaping proposed.	N/A	
Exposure to Radon	Operative	No – not in a radon affected area.	N/A	The publication BR211 states that no protection measures are necessary.
	End User			

Conclusions

The information provided shows that no source-pathway-receptor linkages with respect to the risks posed to human health have been identified within this study. In view of the above, it is not considered necessary to undertake an intrusive *geo-environmental* investigation. Nonetheless, should development plans change, particularly within external areas, it will be necessary to re-consider and revise the conclusions drawn within this assessment.

We trust that this information is of interest and should you have any other requirements do not hesitate to contact us.

For Rogers Geotechnical Services Ltd,
Yours Faithfully



Rob Palmer MSc, FGS, ACIEH
Senior Geo-environmental Engineer



Imran Sakoor BEng FGS
Geo-environmental Engineer