

Southcott Homes

Via email only: andy.southcott@southcotthomes.co.uk

14th December 2020

Our Ref.: 18935/RMSLR

Dear Andy

Re: Orchard Nursery Options Appraisal

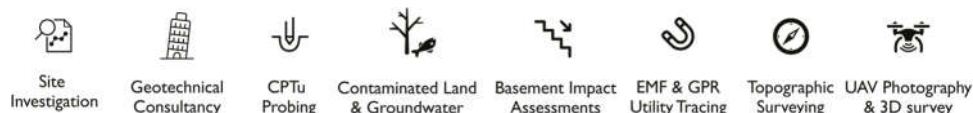
It is understood that permission has been granted under reserved matters relating to the planning application for this site. Due to the number of reports that have been undertaken on the site for Crayfern Homes, from whom you have obtained Soils Limited's reports and liabilities, we have provided below a list of relevant reports in our possession along with a brief summary of each report content to assist in review and options appraisal in relation to the extant contaminated land conditions as expressed in DECISION NOTICE Application Ref: Y/18/20/PL dated 13th May 2020.

***Phase I Desk Study on Land adjacent to Orchard Business Park, North End Road, Yapton, West Sussex BN18 0GA
Report reference 16612/DS dated November 2017***

The desk study identified a low to moderate risk of contamination on site from historical activities and a low gas risk from off-site sources in light of the proposed residential development. The report made recommendations to undertake a ground investigation to test the assumptions presented with the conceptual site model.

***Phase II Ground Investigation Report at Land adjacent to Orchard Business Park, North End Road, Yapton, West Sussex BN18 0GA
Report reference 16612/GIR dated November 2017***

The report detailed the findings of a combined geotechnical and environmental investigation undertaken with 4No windowless sampler trial holes and 4No dynamic probes. Contamination analysis of 5No. samples revealed a Lead outlier in excess of the current C4SL generic guidance value of 200mg/kg. Locations were installed to consider and monitor the identified gas risk on a precautionary basis. The report noted that consideration would be required for possible remediation of the outlier area identified in WS3 at 0.20m.



Soils Limited is a limited company registered in England and Wales number 1612073. VAT number 318273558

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Letter Report Soil Gas Risk Assessment Land adjacent to Orchard Business Park, North End Road, Yapton, West Sussex BN18 0GA Report reference 16612/SGRA dated February 2018

This letter report provides an assessment of ground gas conditions beneath the site based on six monitoring visits in line with current guidance recommendations for a low risk residential development over a range of pressures and conditions. Data quality is considered good for this report and did not determine or identify any requirement for gas protection to be emplaced as part of the development.

Options Appraisal

As expressed in the decision notice (Y/18/20/PL dated 13th May 2020) a review has been undertaken of the initial works and investigations to date in concert with the CDM designer (Vivid Design Studio) and an options appraisal as to the potential works and remediation required has been undertaken. The findings of the options appraisal process are summarised herein.

1. Lead in one of 5No samples is technically in excess of the appropriate generic guideline value of 200mg/kg at WS3 0.20m.
2. Soils Limited cannot “prove” this is an outlier as a minimum of 10no.data points are required to do that under current guidance. However, on the balance of probability, it appears to be an outlier.
3. No specific attempt to determine the nature and extent of the materials encountered was undertaken at the time of initial reporting, as this was considered beyond the scope of the then report.
4. However, on review, the elevated zinc and lack of significant associated PAH or TPH suggests the elevated Lead levels encountered are in fact an artifact, a piece of whitewash or some window glass or flashing.
5. At this concentration, such materials would be too small to see with the naked eye.
6. The relatively low Arsenic levels in the sample re-enforce the contention that this is not “natural” Lead but processed.
7. If the Lead is processed, leachability and hence the bioavailability would usually be expected at or around the order of 0.1-2.5%.
8. Applying an appropriate modifier for the bioavailability as recommended in current guidance to derive a site-specific (DQRA) value would place the actual risk value at significantly below any of the current guidance values.
9. For comparison typically acceptable DQRA London remediation values are around 750mg/kg and based on mainly atmospheric (as opposed to processed) Lead which is even more accessible.
10. On this basis Soils Limited consider that this exceedance is not considered significant in context as it is an outlier artefact with little relationship to the site as a whole.
11. It could be (for example) that the investigation located the only piece of elevated lead concentration and by submitting it for analysis have already removed it from site.

On this basis it was concluded on appraisal of the data and the options available that in light of these remaining unknowns, but given the relatively low exceedance in context, and consideration of the material type, that the most reasonable, sustainable and cost-effective option at this point is considered to be to undertake the development works as planned but emplace and report a suitable “discovery” strategy in case any additional deleterious materials are located during the works.

No additional pollutant linkages beyond those already identified would be created by the proposed works and therefore no longer-term strategy would need to be devised or undertaken. However, as noted in the Soils Limited Reports, imported and/or exported materials would be subject to the usual requirements

regarding wastes etc. and the MMP and WMP for the site under CDM should be forwarded for comment to the regulator to ensure compliance.

Soils Limited therefore consider that no remediation strategy as such is either required nor is specifically indicated by the results of the investigations to date on the basis of the appraisal, but these conclusions will all have to be agreed with the regulator and a statutory 28 days should be allowed for their response.

Verification and validation criteria will, if considered necessary, also have to be agreed with the regulator and monitored with compliance assured during the works under CDM in relation to reporting of the discovery strategy. In this regard and to avoid possible issues on completion, Soils Limited would recommend the establishment of a precautionary confirmation and validation sample for an appropriate and generic suite of determinants (including Lead) based on the initial sampling criteria, to be undertaken close to or following completion of the development in areas of gardens and open space to confirm and validate that the materials emplaced are suitable and fit for purpose and do not present a risk to site receptors.

A report detailing the works and the findings of the analysis in the context of the final use will also probably be required to allow discharge of the final conditions as noted and acceptance of this methodology and proposal in the short term should allow development, with regulatory agreement, to proceed beyond site clearance to development.

If you have any questions regarding the above reports, please contact the undersigned.

Yours sincerely



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Principal Geo-Environmental Engineer

For and on behalf of Soils Limited