



Haigh Huddleston & Associates

Civil & Structural Engineering Consultants

Unit 4, Midgley Business Park, Bar Lane, Midgley WF4 4JJ

t 01924 574074 e info@haighhuddleston.co.uk

Our Ref: E23/8143/MD/001

Date: 17 May 2024

FAO Mr C Padgett

Enquiries@PadgettsMotorcycles.com

Dear Sir,

Re: Remediation Method Statement for Proposed Extension at 232 Bradford Road, Batley

1. INTRODUCTION

- 1.1 Haigh Huddleston & Associates have been requested by Padgetts (Batley) Ltd to provide a remediation statement for the proposed extension to the commercial premises at 232 Bradford Road, Batley.
- 1.2 The purpose of the document is to specify the remediation philosophy for the site and to specify any fill materials that are required for the controlled backfilling and capping of the site.
- 1.3 Site investigation works have been undertaken and are detailed in HHA Report E23/8143/R001 dated October 2023. Gas monitoring is currently ongoing and a final report detailing any gas measures will be issued upon its completion. The aforementioned report has been utilised to compile this Remediation Statement.

2. RESULTS OF THE INVESTIGATION

- 2.1 Generally, the site investigation proved approximately 1m of made ground overlying soft clays with a sandstone bedrock encountered approximately 4m below existing ground levels. In the north east corner of the site, a suspected concrete slab was encountered at 1.5m below existing ground levels.
- 2.2 The samples submitted for chemical analysis proved elevated levels of Arsenic (65 mg/kg), Chromium (Total) (3300mg/kg), Sulphate (1.4%), Sulphide (980mg/kg), Naphthalene (310mg/kg), Benzo(a)pyrene (230mg/kg), and dibenzo(ah)anthracene(26mg/kg).
- 2.3 Only the sample of made ground from WS05 at 05-0.7m proved positive for asbestos in the form of chrysotile bundles. Quantification analysis has confirmed this to be 0.002% by mass of the sample.
- 2.4 During the monitoring to date, a maximum steady carbon dioxide concentration of 2.0% has been recorded in WS03. No methane has been recorded on site. Due to the low levels of carbon dioxide levels and flow rates on site, we would recommend the gas regime on this site be currently classified as CS1 by BS 8485:2015+A1:2019 Table 2. The gas monitoring is ongoing and a final report

confirming any gas protection measures required will be prepared when the monitoring is completed.

- 2.5 Outside the footprint of the proposed commercial unit is to be hardstanding, which will effectively sever the contaminant pathways from the made ground to future site users.

2.6 REMEDIATION OBJECTIVES

- 2.6.1 From the above, the remediation works required can be stated as follows:

- Breaking out the existing concrete slab to allow the construction of a new floor slab and foundations.
- Made ground to be removed from site to accommodate proposed ground bearing floor slab including stone mattress.
- Excavation to be undertaken in north of site to establish extent of buried concrete slab and break this out to remove obstructions to proposed piles.

3. REMEDIAL PROPOSALS

3.1 BREAKING OUT OF EXISTING CONCRETE SLAB

- 3.1.1 The existing concrete slab should be broken out to allow the new ground bearing slab and foundations to be constructed. To reduce the material to be taken off-site, consideration should be given to crushing the concrete for re-use in the mattress to the new floor slab.
- 3.1.2 Due to the low levels of asbestos recorded within the made ground on site, it is recommended that the material is damped down during excavation works to prevent any fibres becoming airborne.
- 3.1.3 Any made ground to be removed from site to accommodate the proposed ground bearing slab should be taken to a licensed waste facility and waste transfer tickets retained for inclusion in a validation report.

3.2 BURIED CONCRETE SLAB

- 3.2.1 The site investigation works proved window sample refusals on what appeared to be a concrete slab at 1.5m depth in the north of the site. This is potentially a redundant floor slab from a previous building on site.
- 3.2.2 It is recommended that following the breaking out of the surface concrete slab, excavation work is undertaken to verify the nature of the obstruction and break it out to allow the piling to be undertaken. The piles should be marked out beforehand to confirm the extent of slab to be broken out to ensure there are no obstructions to the proposed construction.
- 3.2.3 Due to the low levels of asbestos recorded within the made ground on site, it is recommended that the material is damped down during excavation works to prevent any fibres becoming airborne.

- 3.2.4 To reduce the material to be taken off-site, consideration should be given to crushing the concrete for re-use in the mattress to the new floor slab.
- 3.2.5 Waste transfer tickets for any material removed from site should be retained for inclusion in a final validation report.

3.3 GAS PROTECTION MEASURES

- 3.4.1 Based on the gas monitoring undertaken to date, we would recommend the gas regime on this site be currently classified as CS1 by BS 8485:2015+A1:2019 Table 2. Therefore no gas protection measures are required.
- 3.4.2 The gas monitoring is ongoing and a final report confirming any gas protection measures required will be prepared when the monitoring is completed.

4. REMEDIATION VALIDATION

- 4.1 Final gas protection measures strategy to be confirmed and validated accordingly.
- 4.2 Waste transfer tickets to be provided to confirm the removal of any made ground from site.
- 4.3 If further suspected contaminated material is found during remediation works, the independent consultant must be contacted and testing be undertaken to confirm the contaminants in any material to be taken to waste transfer facilities.
- 4.4 As stated previously, it should be noted that the proposed works consist of an extension with concrete floor slab and surrounding hardstanding. There is to be no soft landscaping, therefore no topsoil validation is required.

We trust that the above is sufficient for your current requirements, however should you need any further information please do not hesitate to contact me direct.

Yours faithfully,



MICHAEL DEAN BSc (Hons) HND
m.dean@haighhuddleston.co.uk