



Blackmore Farm, Melksham

Remediation Strategy



Report for:

David Wilson Redrow South West

Reference:

P1418/CS-2957

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Document Revision

Client		David Wilson Redrow South West		Project Reference	P1418/CS-2957
Site Address		Blackmore Farm, Melksham			
Issue	Date	Revision Details	Prepared by	Checked by	Approved by
01	12/11/2025	Original Issue	Matthew Carr	Tom Clarke	John Flannery

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1 INTRODUCTION

1.1 Background

Following instruction from David Wilson Redrow South West (the 'client'), this report presents a Remediation Strategy for a proposed residential development at Blackmore Farm, Melksham (the 'site').

1.2 Site Location and Description

The site is approximately centred on National Grid Reference 392538, 164394. The nearest postcode is SN12 7QS. A site location plan is included within Appendix A.

The site is an irregular parcel of land measuring approximately 580m north to south and 500m west to east, occupying roughly 31ha. The site comprises several separate agricultural fields with barns/ sheds associated with Blackmore Farm present in the northern area of site. The fields are currently used as pastoral land.

1.3 Proposed Development

Information presented to T&P Regeneration Ltd (T&P) indicates that the proposed development is intended to comprise the construction of up to 500N° traditional two to three storey residential dwellings with associated areas of communal and private soft landscaping. The development also includes hard landscaped access, parking, proposed primary school, sports pitches and allotments. A development layout plan is included in Appendix A, although it is understood this may be subject to change following completion of master planning.

A Proposed Development Plan is included within Appendix A.

1.4 Previous Reports

Previous reports pertaining to the site are listed in Table 1.1. Pertinent information is summarised in this report where appropriate. However, reference should be made to these reports directly for further detail.

Table 1.1 Summary of Previous Reports

Date	Title	Reference	Author
August 2018	Phase 1 Geo-Environmental Desk Study	BRD3304-OR1-A	BRD Environmental Ltd (BRD)
June 2023	Preliminary Phase 2 Geo-Environmental Site Investigation	BRD3304-OR2-B	
October 2025	Ground Investigation Report	P1418/CS-2957	T&P Regeneration Ltd

1.5 Objectives

The objective of this remediation strategy is to outline the risk mitigation measures required to address identified unacceptable risks presented to human health or the environment in the context of the site's proposed future end use as a residential development.

1.6 Report Limitations

The recommendations, interpretations and conclusions of this report are based solely on the site conditions observed and the ground conditions revealed during previous site investigation works undertaken by T&P and/or third parties. No responsibility can be accepted for the accuracy of third-party data. Due to the inherent variability of the ground conditions between exploratory hole positions these conditions can only be interpreted and are accurate only for the date of the investigation works.

2 BACKGROUND INFORMATION AND SITE SETTING

2.1 Information Sources

Reference has been made to previous reports and publicly available information from the Environment Agency, MAGIC and BGS websites, as relevant. Background and site setting information has been summarised below to provide context to the site, proposed development and remediation strategy.

2.2 Geology, Hydrology and Hydrogeology

The site is reported to be underlain by bedrock geology of the Oxford Clay Formation (clay and mudstone) deposited 157 to 166 million years ago during the Jurassic Period. Superficial Alluvium (clay, silt, sand, gravel) is mapped alongside the stream that runs along the southern boundary of site.

The Oxford Clay Formation is classified as Unproductive Strata. The superficial Alluvium is classified as a Secondary A aquifer. The site is not reported to be within a Source Protection Zone (SPZ) and there are no surface water abstractions within 250m of the site.

A stream is present along the southern section of the site and runs from east to west. In addition, a shallow pond is located in the central eastern section of the site.

2.3 Site History

From the earliest maps in the late 1800s, the site comprised multiple open agricultural fields (approximately 20No.) divided by hedgerows and tree lines, with a stream running from the south-eastern boundary through to the west. Several features were recorded within the site including an orchard in the northern area adjacent to Blackmore Farm, 4No small ponds, 2No small stables, and a plantation (Eight Acre Plantation) in the south-eastern corner.

The site remained largely unchanged until 1972 when two of the ponds were no longer recorded, with a third pond removed by 1975. By this time, drainage ditches had been established and the northern orchard replaced with barns and paddocks associated with Blackmore Farm, which expanded further southwards between 1988 and 2000. By 2018, limited field boundary alteration and infilling of ponds had occurred, with the overall agricultural land use remaining consistent.

In the late 1800s, maps of the surrounding area comprised predominantly agricultural land, with residential dwellings and small farms recorded from the late 1800s. By the early 1900s, 'Brickyard Plantation' is noted which included former brick pits and ponds approximately 250m east. These features are no longer present and likely infilled by the 1901 map. A barn situated on the northwest corner of the northern parcel of site first appears by 1900 but is removed by 1936. Through the mid-20th century, farmyard expansion and localised development occurred, including a depot 250m west. Between 1970 – 1990 maps show further farmyard expansion and the establishment of a pumping station approximately 40m northwest. By 2018, there is significant residential development to the west including the Melksham ring road and a large solar panel farm developed approximately 220m east of the site.

2.4 Summary of Previous Findings

A summary of principal findings of the previous ground investigations is provided below. It should be noted that the site boundary has changed multiple times over the different phases of investigation. This Remediation Strategy is based upon the same proposed development layout as the T&P investigation undertaken in 2025, which did not consider previous exploratory holes outside of the current redline boundary. The following findings summary utilises the latest development layout and reference should be made to the previous report for further detail if required.

2.4.1 Ground Conditions

2.4.1.1 Made Ground

During the BRD investigation made ground was predominantly encountered within the farmyard area as hardstanding underlain by a gravel subbase and reworked 'organic' soils to a maximum depth of 1.10m. Within WS20 a black ash and clinker layer was observed between 0.25 to 0.50m. Suspected asbestos cement fragments were also observed in this made ground in TP27 but were not encountered elsewhere in the farmyard area. In addition, hand dug pit HD01 was excavated in the soil bund surrounding the slurry pond (adjacent to the farmyard), which comprised 0.50m of a reworked made ground topsoil containing a single suspected asbestos cement fragment.

Shallow reworked topsoil was also noted within WS06, WS09 and WS14 located outside of the farmyard area, which included brick and charcoal fragments. This extended to maximum depths of 0.50mbgl representing locally reworked natural soil deposits. Due to the limited quantities of anthropogenic material and lack of any significant visual signs of contamination, screening of material may enable the reuse of soils. As such, these areas are not considered to pose a significant chemical risk but it should be discussed with a landscaping consultant to confirm physical suitability.

2.4.1.2 Natural Soils

Topsoil was encountered in all exploratory locations with a typical thickness ranging between 0.20 and 0.30m. Broadly, the topsoil was found to comprise dark brown sandy clay.

Underlying the entire site, the Oxford Clay Formation was recorded in all exploratory locations. It was initially encountered as a firm to stiff orangish brown clay to a maximum depth of 1.00mbgl. The Oxford Clay Formation was then found to grade into a firm to stiff grey mottled orangish brown slightly sandy clay which was proven to termination depths between 2.90 – 3.20mbgl.

Superficial deposits were not encountered during any phases of investigation.

2.4.2 Evidence of Contamination

During the BRD investigation, the presence of asbestos was recorded within 2No samples as cement fragments recovered from TP27 and HD01 located within the farmyard area. Quantification analysis of the soils in both TP27 and HD01 have confirmed the asbestos fibre content to be <0.001, suggesting that the made ground matrix has not been impacted from these fragments.

With exception to made ground within the farmyard area and reworked topsoil in WS06, WS09 and WS14, no signs of significant contamination were recorded.

2.4.3 Groundwater

During the previous investigation BRD note that in several positions surface water seepages were encountered at the interface of the base of the topsoil and the top of the Oxford Clay Formation due to the heavy persistent rain. Deeper groundwater seepages within the Oxford Clay Formation strata were also observed by BRD in TP07 at 2.40mbgl, TP16 at 2.00mbgl, TP20 at 1.80mbgl, TP22 at 1.10mbgl and WS22 at 3.65mbgl. Groundwater was only encountered during the T&P investigation within TP128 at 2.80mbgl and noted as minor seepage. The recorded strikes are not considered to represent any continuous groundwater bodies.

Groundwater levels were also recorded by BRD during the monitoring visits. The levels recorded within the boreholes revealed variable results with several wells noted to have been flooded and likely to have been affected by surface water entering the wells.

2.4.4 Human Health Risk Assessment

2.4.4.1 Topsoil/Natural Soils – T&P Investigation

The GQRA identified 3No beryllium exceedances when compared to 'Residential with consumption of home-grown produce' within the natural soils across the site. In the absence of evidence indicating significant contamination, these exceedances are considered to reflect naturally elevated concentrations attributable to the underlying geology. Therefore, statistical analysis of the topsoil and natural soils dataset for beryllium was undertaken.

The statistical analysis determined that the datasets are normally distributed and contained no outliers. As such, all data points were retained and no locations were identified as requiring separate assessment. For beryllium, the calculated 95th percentile upper confidence limit (UCL) was 1.51mg/kg below the respective adopted screening criteria of 1.70mg/kg.

On this basis, while isolated exceedances were recorded within the natural soil, it is considered that future site users are statistically unlikely to be exposed to concentrations exceeding the adopted screening criteria. These soils are therefore not considered to present a significant human health risk and the topsoil/natural soils are considered suitable for reuse within the proposed development, within either a private residential or allotment end use.

All other tested contaminants in the topsoil and natural soils were found to be below the adopted screening levels or otherwise below levels of concern.

2.4.4.2 Made ground – BRD Investigation

No significant elevated concentrations above the adopted assessment criteria were noted within the made ground encountered on-site. However, asbestos cement fragments were found within TP27 and HD01 and the general physical characteristics render the made ground unsuitable to remain at shallow depth within areas of soft landscaping.

2.4.5 Phytotoxic Risk Assessment

A total of 5No elevated water-soluble boron soil concentrations were identified in the topsoil/natural soils encountered across the site, when compared to phytotoxic criteria. The calculated 95th UCL of 3.12mg/kg for water soluble boron only marginally exceeded the screening level of 3.00mg/kg. It was also noted that phytotoxic screening criteria are very conservative, with many based on agricultural yields rather than general/decorative planting. Furthermore, no evidence of significant vegetation die-back or distress was noted during the investigation. As such no further consideration of water-soluble boron was considered to be required.

In addition, a single elevated nickel soil concentration was recorded above the adopted screening level in the assessed dataset. However, the calculated 95th% UCL of 47mg/kg is noted to be below the screening level of 70mg/kg. As such, no further consideration of nickel in soils was considered to be required.

2.4.6 Controlled Waters Risk Assessment

The risk to controlled waters was considered to be low as part of the BRD investigation, due to the lack of an identified source. Similarly, during the T&P investigation no further sources were noted. Therefore, this risk to controlled waters is considered low.

2.4.7 Ground Gas Risk Assessment

During the BRD investigation 7No ground gas monitoring rounds were undertaken between November 2022 and June 2023. The calculated gas screening values using the worst case scenario characterised the site as 'Characteristic Situation 1 (CS1)'. It concluded that the ground gas risk was 'negligible' and no gas protection measures are required. During the supplementary T&P investigation no additional potential ground gas sources were identified, as such the ground gas risk was considered to remain low in line with BRDs recommendations.

In addition, no radon protection measures are required.

2.4.8 Potable Water Supply

Based upon the T&P assessment, PE water supply pipework is considered suitable throughout the development. It is advised that statutory water provider is consulted to confirm that no specialist potable pipework is required.

3 REFINED CONCEPTUAL SITE MODEL

3.1 General

Following completion of previous ground investigations and risk assessment, a refined conceptual site model has been developed as detailed below. Further detail of the assessment undertaken is provided in previous reports as listed in Table 1.1.

3.2 Sources

With consideration of the assessment summarised in Section 2, the following Areas of Potential Concern (APC) have been identified which require risk mitigation:

- **APC 1:** Made ground associated with farmyard area.
 - Chemical analysis of the made ground did not record any exceedances against the adopted screening criteria. However, within TP27 and HD01 asbestos fragments were noted.
 - Considered physically unsuitable for soft landscaped areas.
 - PE pipework required for the natural soils. Should the made ground remain on site and pipework is installed within it, then confirmatory testing may be required.

3.3 Risk evaluation

National guidance^{1,2,3} has been considered in the development of the conceptual model for the site to inform an estimation of risk in relation to each plausible source-pathway-receptor (SPR) identified. Table 3.1 presents a summary of the (SPR) relationships identified as a moderate/low risk or higher which will require remedial action and/or management to mitigate unacceptable risks identified, further detail of which will be provided in later sections of this report.

¹ Contaminated Land Risk Assessment. A Guide to Good Practice. CIRIA C552. 2001.

² Land contamination risk management - <https://www.gov.uk/government/publications/land-contamination-risk-management-lcrm>.

³ Guidance for the Safe Development of Housing on Land Affected by Contamination. NHBC. 2008.

Table 3.1 Source-Pathway-Receptor (SPR) Relationships Requiring Risk Mitigation

APC N°	Source	Pathway (s)	Receptor(s)	Consequence	Probability	Risk*	Comment
1	<u>On-site</u> Made ground within the farmyard area.	Oral ingestion	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	Chemical analysis of the made ground did not record any exceedances against the adopted screening criteria. However, within TP27 and HD01 asbestos fragments were noted.
		Vegetable uptake	Future residents	Medium	Low likelihood	Moderate/Low	
		Dermal contact	Future residents and maintenance workers	Medium	Low likelihood	Moderate/Low	
		Dust migration/inhalation	Future residents, maintenance workers and off-site residents/workers	Medium	Low likelihood	Moderate/Low	
		Uptake via root system	On-site flora	Medium	Low likelihood	Moderate/Low	Made ground considered physically unsuitable for soft landscaped areas.
		Permeation into drinking water supplies	Future residents	Medium	Low likelihood	Moderate/Low	PE pipework required for the natural soils. Should the made ground remain on site and pipework is installed within it, then confirmatory testing may be required..

**Where multiple receptors exist the risk classification is based on most sensitive receptor for conservatism.*

4 REMEDIATION STRATEGY

4.1 Remediation Objectives

The objective of the proposed remediation strategy is to render the site suitable for a proposed residential end-use. In addition, the remediation strategy will address statutory risks, such that the site would not be determined as Contaminated Land under Part 2A of the Environmental Protection Act 1995.

4.2 Remediation Strategy

Remedial recommendations are made in the context of the proposed development which will comprise the construction of up to 500N° residential houses. The residential houses will have private residential soft landscaped areas with some small areas of Public Open Space (POS) also noted adjacent to the parking areas. The development also includes hard landscaped access, parking, proposed primary school, sports pitches and allotments.

4.3 Risk Mitigation

As summarised in Table 3.1, several SPR relationships have been identified which are considered to present an unacceptable risk to identified receptors, and which will require risk mitigation measures to be applied, as discussed further in subsequent sections. Reference should be made to the Remediation Strategy Plan included within Appendix A. Recommendations for risk mitigation actions are made in the context of client supplied development information including earthworks strategy and landscaping proposals. In the event that significant changes to the development proposals are made, these recommendations should be reviewed and updated as necessary.

Remediation verification requirements are set out within Section 6.

4.3.1 Areas of Soft Landscaping – Front and Rear Gardens Plots 486 – 500 (Farmyard Area)

- In the defined areas of proposed private soft landscaping as shown on the plan within Appendix A, made ground shall be removed down to 600mm below finished level, with levels reinstated to reflect engineering requirements utilising chemically and physically suitable topsoil/sub-soil, as detailed within Section 6.1. A high visibility geotextile shall be provided at the base and sides of excavations as a marker layer.
- In addition to the remedial measures detailed within the preceding sections, a physical 'no-dig' barrier shall be provided below clean cover in areas where asbestos impacted soils have been positively identified and are to remain *in situ* > (0.6mbgl) at the base of the capping excavation.

4.3.2 Area of POSresi (Farmyard/Pond Area)

- In the defined areas of communal soft landscaping as shown on the plan within Appendix A, made ground shall be removed down to 300mm below finished level, with levels reinstated to reflect engineering requirements utilising chemically and physically suitable topsoil/sub-soil, as detailed within Section 6.1. A high visibility geotextile shall be provided at the base and sides of excavations as a marker layer.

- In addition to the remedial measures detailed within the preceding sections, a physical 'no-dig' barrier shall be provided below clean cover in areas where asbestos impacted soils have been positively identified and are to remain *in situ* (>0.3mbgl) at the base of the capping excavation.

4.3.3 General Recommendations

- The 'no dig' barrier shall comprise a minimum 150mm thickness of crushed aggregate with an underlying high visibility geotextile marker. For example, where private rear gardens are located in the vicinity of deep asbestos impacted soils, capping shall comprise a minimum 600mm of chemically and physically suitable soils, underlain by a minimum 150mm of aggregate, in turn underlain by a geotextile marker
- PE pipework required for the natural soils. Should the made ground remain on site and pipework is installed within it, then confirmatory testing may be required. Any positively identified or suspected contaminated soils shall be stockpiled upon an impermeable barrier to mitigate the potential for cross contamination of underlying soils.
- Where specialist planting is dictated by landscaping proposals, a deeper growth medium may be required, including up to 450mm in areas of proposed shrubs and up to 900mm for tree pits (which may also require specialist installation in line with BS 5837⁴). These details should be confirmed with the project landscaping adviser.
- In root protection areas (if imposed), it may not be possible to excavate to the required depth using conventional machinery, to provide clean capping. In such circumstances, it is considered that staged excavation of soils, undertaken with an air lance or vacuum excavation equipment would be achievable, with capping soils placed as excavations progress laterally to minimise root disturbance. Alternatively, in the event that excavations within root protection areas cannot be achieved, a 100mm 'no-dig' Cellular Confinement System (CCS) should be placed above existing soils, with a minimum of 100mm of suitable topsoil placed above to provide appropriate risk mitigation. The above should be discussed and agreed with the project landscaping advisor.
- Vigilance should be employed for any unforeseen ground conditions when excavating in previously inaccessible areas and when grubbing out, where specialist advice may be required. If during the subsequent construction works additional suspected contaminated soils are subsequently revealed, it will be necessary to contact a suitably qualified environmental consultant who will be able to attend site and advise upon the most appropriate course of action.

4.4 Soil Re-Use Opportunities

As with all construction projects, it is preferable to maximise the reuse of soils on-site and minimise the amounts of off-site disposal. To achieve this whilst accomplishing the remedial objective, a number of potential re-use opportunities have been identified and which are described in later sections of this report which may be undertaken in line with the CL:AIRE Definition of Waste Code of Practice (DoW:CoP).

⁴ *Trees in relation to design, demolition and construction. Recommendations. BS 5837 2012.*

4.4.1 *Made Ground*

Due to the presence of localised asbestos fragments in the made ground within the farmyard area, in addition to its physical composition, the made ground is considered unsuitable for reuse within soft landscape areas. However, it may be possible to use beneath areas of hardstanding or structures depending on additional processing (screening/crushing) and testing to confirm geotechnical and chemical parameters.

4.4.2 *Reworked Topsoil*

Shallow reworked topsoil was also noted within WS06, WS09 and WS14 located outside of the farmyard area, which included brick and charcoal fragments. This extended to maximum depths of 0.50mbgl representing locally reworked natural soil deposits. Due to the limited quantities of anthropogenic material and lack of any significant visual signs of contamination, screening of material will likely enable the reuse of soils. As such, these areas are not considered to pose a significant chemical risk but it should be discussed with a landscaping consultant to confirm physical suitability.

4.4.3 *Natural Soils*

The natural soils (topsoil and subsoil) are considered chemically and physically suitable for reuse within soft landscaped areas.

4.5 **Residual Risk and Uncertainty**

Subject to implementation of the risk mitigation measures described throughout Section 4.3, it is considered that no areas of uncertainty or residual risk will remain.

5 MANAGEMENT OF WORKS

5.1 Health and Safety

The works should be carried out in accordance with the Construction (Design & Management) Regulations 2015. These regulations place specific responsibilities on the Principal Contractor, Principal Designer and Employer. The Employer should appoint a Principal Designer and a Principal Contractor for the works.

The Principal Contractor shall develop appropriate methods of working to ensure the health and safety of workers, visitors and neighbours and also protect the environment, in accordance with management procedures outlined in their Construction Phase Plan.

Following completion of the remediation works, pertinent information shall be supplied to the Principal Designer for incorporation into the site Health and Safety File.

5.2 On-Site Material Management

In the event that on-site re-use of made ground is proposed, this may be undertaken in accordance with the CL:AIRE Development Industry Definition of Waste Code of Practice. In this case, a Materials Management Plan (MMP) shall be prepared to document the principles of re-use outlined within this Remediation Strategy prior to any excavation or stockpiling works commencing on site.

Alternatively, application of a U1 waste exemption may be an appropriate route to support re-use of smaller volumes of site won soils in construction projects. This allows re-use of suitable waste rather than virgin raw material providing site complies with standard rules as set out by the Environment Agency⁵.

Re-use of aggregates from inert waste may also be undertaken in line with the WRAP Quality Protocol.

5.3 Waste Management Strategy

It is a requirement of the Landfill Regulations 2002 that all waste must be treated to reduce its quantity and/or its environmental impact before being disposed of to landfill. This process has been undertaken as part of this remediation design and is demonstrated by the following:

- Intrusive ground investigation has been undertaken at the site in order to identify areas where contamination deemed to present an unacceptable risk to identified receptors is present. Reference should be made to previous ground investigation reports for further details.
- The Principal Contractor is required to further reduce the volume of material for off-site disposal and/or treatment by the sorting of inert rubble, metal, etc. from all excavated and/or stockpiled soils where practically possible.

In accordance with the waste hierarchy, it is preferable to retain as much site won material as possible, in line with the reuse opportunities set out in Section 4.4.

⁵ <https://www.gov.uk/guidance/waste-exemptions-using-waste>

Excavated soils requiring off-site disposal will be transported in road going lorries, in accordance with appropriate duty of care requirements⁶. The waste haulier will be a licensed waste carrier, with evidence of registrations obtained prior to consigning waste for off-site treatment and/or disposal. Appropriate controls will be put in place for handling/transportation of materials including any which may contain asbestos. Laboratory results of the excavated material will be passed on to the haulier and the material will be transported and disposed of accordingly.

Demolition rubble or other recyclable aggregates, metals or other inert and recoverable materials may be segregated for re-use on-site or sent for off-site recycling to an appropriately licensed facility.

5.4 Waste Characterisation

A review of ground investigation data has been completed to support waste characterisation and pre-classification in the event that off-site disposal of soils is required, which is separate to human health or other environmental risk assessment completed to support the remediation strategy. Reference should be made to previous reports for detail on this assessment.

In summary, this waste assessment indicated that the majority of soils can be treated as non-hazardous with exception to made ground from TP27 and HD01 located within the farmyard area.

Asbestos fragments were recorded within TP27 and HD01, with subsequent quantification analysis recording <0.001% in the surrounding soils. As such, where impacted it would be prudent to treat this material as a hazardous mixed waste. If it can be shown that the asbestos can be separated from the surrounding soil matrix, it may be possible to consider this as two separate waste streams, the first being segregated hazardous asbestos and the second larger volume represented by the remaining separate made ground which would be classified based upon its residual chemical composition.

5.5 Control Measures and Monitoring

An environmental risk assessment shall be undertaken by the Principal Contractor which shall establish appropriate environmental control measures and monitoring protocols required during the works, which should be documented within a site-specific Environmental Management Plan. The Principal Contractor shall implement appropriate dust and noise control measures as appropriate and shall ensure that competent staff are on-site to implement the controls when necessary. Where/if movement of asbestos impacted soils/material is required, appropriate controls shall be implemented e.g. damping down and monitoring undertaken as required.

In addition to the above, construction and groundworkers should be made aware of the potential risks associated with made ground soils and when working with soils which may be potentially impacted by asbestos, should allow for appropriate precautionary working practices, personal protective measures and air monitoring in line with Control of Asbestos Regulations: 2012 – 'CAR:2012', as necessary.

⁶ *Waste Duty of Care Code of Practice. Defra. 2018.*

6 VERIFICATION

6.1 Capping Soils in Soft Landscaping Areas

6.1.1 Site Won Soils

Existing ground information has determined that on-site topsoil and natural soils are suitable for re-use in all areas of the development, including soft standing, and may be re-used without further testing.

6.1.2 Imported Soils

If imported soils are required within the development as capping soils in front/rear gardens or areas of POSresi, they shall comply with the soil criteria in Appendix B for a 'residential with homegrown produce' or POSresi end use, as appropriate. All imported soils shall be free of asbestos (<0.001%w/w). Furthermore, it is recommended that the suitability of topsoil in accordance with BS3882⁷ is considered, in consultation with a specialist landscaping consultant.

Details of the proposed source of material shall be supplied. It is recommended that soils are tested at source prior to movement and importation to confirm suitability.

Additionally, representative soil samples should be collected of imported soils for chemical analysis once received at site, at a minimum frequency of 1 per 100m³ for private soft landscaping, increasing to 1 per 250m³ in communal soft landscaping. A minimum number of samples shall be collected, as detailed in Table 6.1. The frequency of testing may need to be increased to 1 per 50m³ if the origin of the topsoil is a brownfield site or an undefined source

Table 6.1 Imported Capping Sampling Frequency

Number of Plots Per Capping Material	Minimum Number of Samples Per Capping Material
1 to 5 plots	3
6 to 10 plots	5
11 to 20 plots	5

All samples shall be submitted to a laboratory with UKAS and MCERTS accredited methods (as appropriate).

Testing shall comprise the following, as a minimum:

- Metals.
- Speciated Polycyclic Aromatic Hydrocarbons (PAHs).
- pH.
- Phenols.
- Total organic carbon.
- Asbestos screening.

⁷ Specification for Topsoil - 2015

Additionally, where the origin of the material is a brownfield site or an undefined source, testing shall include petroleum and diesel hydrocarbons within the carbon range C6-C35, including aliphatic/aromatic split.

6.1.3 Visual Inspections

Visual inspection should be undertaken to confirm placement of appropriate thickness of capping soils and presence of geotextile membrane is in line with requirements of Section 4.3. Inspections should be undertaken at a minimum frequency of 1 per 2 plots.

In addition, inspections should be undertaken at 2N° locations within communal soft landscaping.

Where a crushed aggregate layer is present beneath capping soils there remains a potential for underlying asbestos impacted soils to be disturbed, should the crushed aggregate be locally excavated to verify its thickness. To mitigate this possibility, only the presence of a crushed aggregate layer shall be confirmed during the visual inspections and excavations below the top of the aggregate shall be avoided.

6.2 Record Keeping

Records of operations relating to the remediation works will be maintained on-site by the Principal Contractor and provided to the client for inclusion within the Remediation Completion Report. These records shall include the following, where relevant/appropriate:

- Photographic records during construction works showing extents of excavation, placement of geotextile membranes and imported material for capping layers, where appropriate;
- Photos from inspection pits confirming required thickness of capping soils;
- Environmental monitoring undertaken (if required);
- Volumes of waste materials disposed off-site including tickets/waste consignment notes;
- Volumes of imported fill;
- Validation sample locations;
- Chemical validation test results including supplier certificates for imported fill;
- Details of variations and/or contingency arrangements as a result of design variation.

In addition, where reuse of materials is undertaken in line with an MMP the following shall be recorded:

- Wagon movements on- and off-site;
- On- and off-site soil movement records; and,
- Volumes and placement locations/depths of soil reuse.

6.3 Remediation Completion Report

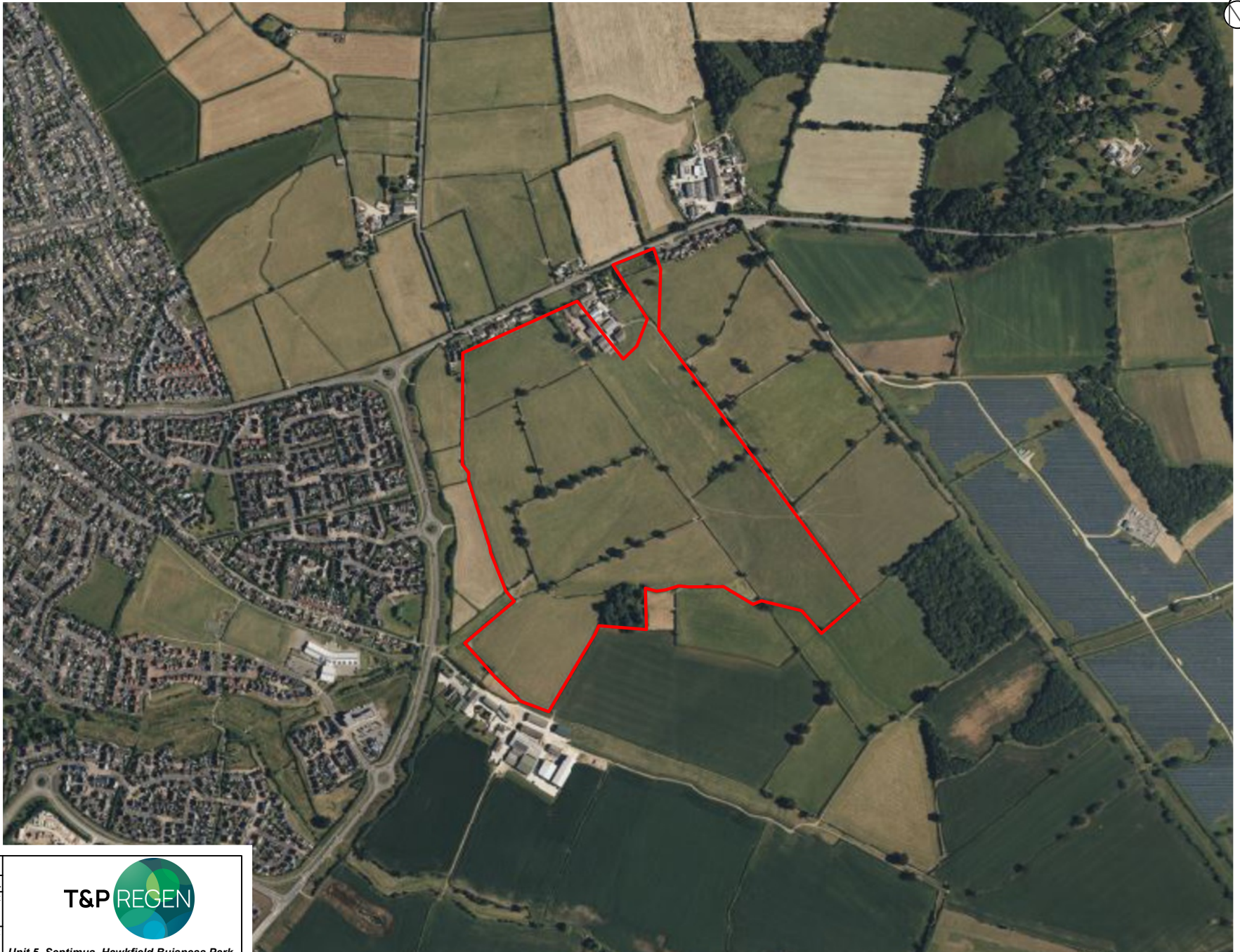
A Remediation Completion Report will be prepared that will include a summary of the works undertaken to demonstrate that the remediation objectives have been met. Supporting information will be provided as summarised in Section 6.2, the report will also serve to

demonstrate compliance with the principles of material re-use outlined within the supporting MMP and will be submitted to CL:AIRE as a final record, if required.

The Remediation Completion Report shall be issued to the regulators upon completion of the works.

Appendix A – Drawings

— Site Boundary



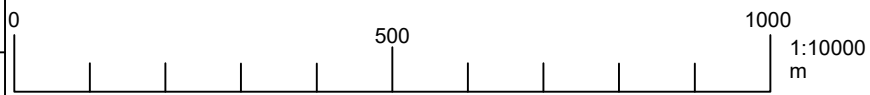
Base Map
Company: Bing Maps Autodesk Licence
DWG Title: -
DWG Number: -
Date: -

-	-	-	-	-
Drawn	Checked	Amendment	Date	Rev.
DWH South West				Client
Blackmore Farm, Melksham				Project
Site Location Plan				Title
Scale	Date	Drawn by	Check by	Rev.
1:10000@A4	21/09/25	DA	JH	-



**Unit 5, Septimus, Hawkfield Buisness Park,
Bristol, BS14 0BN**
Tel: 0117 927 7756
Email: Info@TP-regen.co.uk

Scale	Date	Drawn by	Check by	Rev.	Drawing No.
1:10000@A4	21/09/25	DA	JH	-	P1418-01-2957-001



Issue: 2
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BARRATT MIX MASTER									
Site Name		Melksham							
Number of Units									
HouseType	Sq.ft	Sq.m	St.	Beds	No's	Total Sqft	Total Sqm		
BARRATT HOMES									
2B	Denford	624	58.0	2	2	19	11,856	1,101	
3B	Kenley	624	58.0	2	2	19	11,856	1,101	
3B	Maidstone	830	77.1	2	3	28	23,240	2,159	
3B	Ellerton	830	77.1	2	3	29	24,070	2,236	
3B	Moresby	854	79.3	2	3	7	5,978	555	
3B	Ennerdale	917	85.2	2	3	19	17,423	1,619	
3B	Bewdley	978	90.9	2	3	14	13,692	1,272	
3B	Northbury	1,107	102.8	2.5	3	18	19,926	1,851	
3B	Kingsley	1,085	100.8	2	4	6	6,510	605	
3B	Woodcote	1,217	113.1	2.5	4	12	14,604	1,357	
3B	Hesleth	1,249	117.9	2.5	4	6	7,414	707	
3B	Alfreton	1,483	137.8	2	4	4	5,932	551	
3B	Radleigh	1,317	122.4	2	4	8	10,536	979	
Sub Total (Open Market)						189	173,237	16,094	
AFFORDABLE HOUSING									
SOCIAL/AFFORDABLE RENTED									
F	Loughton	472	43.8	3	1	6	2832	263	
	IBF	655	60.9	3	1	6	3930	365	
	Horsea	721	67.0	3	2	6	4326	402	
	Type S8**	538	50.0	2	1	3	1614	150	
	Type S9	584	54.3	2	1	3	1752	163	
	Type S1	842	78.2	2	2	33	27786	2581	
	WH0528**	1130	105.0	2	2	12	13560	1260	
	Type S2	929	86.3	2	3	23	21967	1995	
	Type S5	957	88.9	2	3	12	11484	1067	
4B	Type S4	1,103	102.5	2	4	2	2206	205	
5B	H04**	1,342	124.7	2	4	2	2684	249	
						108			
SHARED OWNERSHIP									
	Type S1	842	78.2	2	2	7	5894	548	
	Type S2	929	86.3	2	3	3	2787	259	
	Type S5	957	88.9	2	3	3	2871	267	
						13			
FIRST HOMES									
2B	Kenley	624	58.0	2	2	17	10,608	986	
3B	Maidstone	830	77.1	2	3	6	4,980	463	
3B	Moresby	854	79.3	2	3	4	3,416	317	
						27			
Sub Total (Affordable)					44%	148	124,097	11,529	
BARRATT TOTAL						337	297,334	27,623	
NET DEV AREA COVERAGE									
						17.45	acre		
						17,009	sqft/acre		
REDROW									
3B	Letchworth	983	91.3	2	3	14	13,762	1,279	
3B	Warwick	1,075	99.9	2	3	9	9,675	899	
3B	Amberley	1,144	106.3	2	3	4	4,576	425	
3B	Stratford	1,211	112.5	2	4	11	13,321	1,238	
3B	Marlow	1,288	119.7	2.5	4	11	14,168	1,316	
3B	Oxford	1,316	122.3	2	4	13	17,108	1,589	
3B	Overton	1,410	131.0	2	4	7	9,870	917	
4B	Shafesbury (toolkit)	1,423	132.2	2	4	8	11,384	1,058	
4B	Harrogate	1,553	144.3	2	4	10	15,530	1,443	
4B	Ledsham (toolkit)	1,841	171.0	2	4	4	7,364	684	
5B	Henley	1,768	164.3	2	5	10	17,680	1,643	
5B	Hampstead	1,842	171.1	2	5	10	18,420	1,711	
Sub Total (Open Market)						111	152,858	14,201	
AFFORDABLE HOUSING									
SOCIAL/AFFORDABLE RENTED									
F	Loughton	472	43.8	3	1	3	1416	132	
	Horsea	721	67.0	3	2	6	4326	402	
3B	Hadeleigh	801	74.4	1	2	3	2403	223	
						12			
SHARED OWNERSHIP									
2B	Trent	868	80.6	2	2	10	8,680	806	
3B	Stour	1,017	94.5	2	3	8	8,136	756	
						18			
FIRST HOMES									
2B	Trent	868	80.6	2	2	12	10416	968	
3B	Stour	1,017	94.5	2	3	10	10,170	945	
						22			
Sub Total (Affordable)					32%	52	39,805	3,475	
REDROW TOTAL						163	192,663	17,676	
NET DEV AREA COVERAGE									
						12.27	acre		
						15,702	sqft/acre		

WORK IN PROGRESS

LAND AT BLACKMORE FARM, MELKSHAM – COMBINED TESTING LAYOUT

| PEGASUSGROUP.CO.UK | TEAM/DRAWN BY: STH/THA | APPROVED BY: STH | DATE: 17/09/2025 | SCALE: 1:1000@A0 | DRWG: P24-2928_DE_07_A_01 | CLIENT: BARRATT REDROW |



Site Boundary

Areas of Soft Landscaping – Front and Rear Gardens Plots 486 – 500 (Farmyard Area):

- In the defined areas of proposed private soft landscaping, made ground shall be removed down to 600mm below finished level, with levels reinstated to reflect engineering requirements utilising chemically and physically suitable topsoil/sub-soil. A high visibility geotextile shall be provided at the base and sides of excavations as a marker layer.
- In addition to the remedial measures detailed within the preceding sections, a physical 'no-dig' barrier shall be provided below clean cover in areas where asbestos impacted soils have been positively identified and are to remain in situ at the base of the capping excavation.

Area of POSresi (Farmyard/Pond Area):

- In the defined areas of communal soft landscaping, made ground shall be removed down to 300mm below finished level, with levels reinstated to reflect engineering requirements utilising chemically and physically suitable topsoil/sub-soil. A high visibility geotextile shall be provided at the base and sides of excavations as a marker layer.
- In addition to the remedial measures detailed within the preceding sections, a physical 'no-dig' barrier shall be provided below clean cover in areas where asbestos impacted soils have been positively identified and are to remain in situ at the base of the capping excavation.

General Recommendations

- The 'no dig' barrier shall comprise a minimum 150mm thickness of crushed aggregate with an underlying high visibility geotextile marker. For example, where private rear gardens are located in the vicinity of deep asbestos impacted soils, capping shall comprise a minimum 600mm of chemically and physically suitable soils, underlain by a minimum 150mm of aggregate, in turn underlain by a geotextile marker
- PE water supply pipework shall be used within the development.
- Any positively identified or suspected contaminated soils shall be stockpiled upon an impermeable barrier to mitigate the potential for cross contamination of underlying soils.



Base Map
Company: - Pegasus Group
DWG Title: - Combined Testing Layout
DWG Number: - P24-2928_DE_07_A_01
Date: - 17/09/2025

Drawn	Checked	Amendment	Date	Rev.
DWH South West				
Blackmore Farm, Melksham				
Remedial Strategy Plan				
Scale	Date	Drawn by	Check by	Rev.
Sbar@A3	11/11/25	DA	MC	-



Unit 5, Septimus, Hawkfield Buisness Park,
Bristol, BS14 0BN
Tel: 0117 927 7756
Email:Info@TP-regen.co.uk

Scale	Date	Drawn by	Check by	Rev.	Drawing No.
Sbar@A3	11/11/25	DA	MC	-	P1418-2957-01-005

Appendix B – Imported Soil Criteria

SOIL TARGET CONCENTRATIONS – HUMAN HEALTH

Contaminant	Assessment Criteria				
	Residential with homegrown produce	Residential without homegrown produce	POS _{RESI}	Commercial	Source
Heavy Metals					
Arsenic	37	40	79	640	C4SL
Beryllium	1.7	1.7	2.2	12	S4UL
Cadmium	22	150	220	410	C4SL
Chromium III	910	910	1,500	8,600	S4UL
Hexavalent chromium	21	21	21	49	C4SL
Lead*1	200	310	630	2,300	C4SL
Mercury - inorganic	200	300	610	5,100	C4SL
Nickel	180	180	230	980	S4UL
Vanadium	410	1,200	2,000	9,000	S4UL
Selenium	250	430	1,100	12,000	S4UL
Phytotoxic Metals					
Copper	2,400	7,100	12,000	68,000	S4UL
Zinc	3,700	40,000	81,000	730,000	S4UL
Boron	290	11,000	21,000	240,000	S4UL
Organics					
Phenol	280	750.0	760	760	S4UL
PAHs					
Naphthalene*3	15	15	11,000	1,600	C4SL
Acenaphthylene*3	170	2,900	15,000	83,000	S4UL
Acenaphthene*3	210	3,000	15,000	84,000	S4UL
Fluorene*3	170	2,800	9,900	63,000	S4UL
Phenanthrene*3	95	1,300	3,100	22,000	S4UL
Anthracene*3	2,400	31,000	74,000	520,000	S4UL
Fluoranthene*3	280	1,500	3,100	23,000	S4UL
Pyrene*3	620	3,700	7,400	54,000	S4UL
Benz(a)anthracene*3	7.2	11	29	170	S4UL
Chrysene*3	15	30	57	350	S4UL
Benzo(b)fluoranthene*3	2.6	3.9	7.1	44	S4UL
Benzo(k)fluoranthene*3	77	110	190	1,200	S4UL
Benzo(a)pyrene*2	5.0	5.3	10	77	C4SL
Indeno(123-cd) pyrene*3	27	45	82	500	S4UL
Dibenz(ah)anthracene*3	0.24	0.31	0.57	3.5	S4UL
Benzo(ghi)perylene*3	320	360	640	3,900	S4UL
Fuel range hydrocarbons					
Benzene	0.20	0.89	140	27	C4SL
Toluene	130	880	56,000	56,000	S4UL
Ethyl Benzene	47	83	24,000	5,700	S4UL
Xylenes	56	79	41,000	5,900	S4UL
Aromatic C5-C7	70	370	56,000	26,000	S4UL
Aromatic C7-C8	130	860	56,000	56,000	S4UL
Aromatic C8-C10	34	47	5,000	3,500	S4UL
Aromatic C10-C12	74	250	5,100	16,000	S4UL
Aromatic C12-C16	140	1,800	3,800	36,000	S4UL
Aromatic C16-C21	260	1,900	3,800	28,000	S4UL
Aromatic C21-C35	1,100	1,900	3,800	28,000	S4UL
Aromatic C35-C44	1,100	1,900	3,800	28,000	S4UL
Aliphatic C5-C6	42	42	570,000	3,200	S4UL
Aliphatic C6-C8	100	100	60,000	7,800	S4UL
Aliphatic C8-C10	27	27	1,300	2,000	S4UL
Aliphatic C10-C12	130	130	1,300	9,700	S4UL
Aliphatic C12-C16	1,100	1,100	1,300	59,000	S4UL
Aliphatic C16-C35	65,000	65,000	250,000	1,600,000	S4UL
Aliphatic C35-C44	65,000	65,000	250,000	1,600,000	S4UL

Notes:

All values are mg/kg unless stated

C4SL – Category 4 Screening Level as produced by Defra and CL:AIRE –based on 1% SOM

S4UL – Suitable 4 Use Levels as produced by Land Quality Management – based on 1% SOM.

*1 – C4SL for lead based on the LLTC of 3.5µg/dL⁻¹ and C4SL exposure changes.

*2 – BaP can be considered as a marker compound for consideration of other PAHs.

*3 – Threshold values may be discounted based upon use of BaP as a marker compound.

SOIL TARGET CONCENTRATIONS – PHYTOTOXICITY

Contaminant	Assessment Criteria (Phytotoxic thresholds for plants)	Source
Phytotoxic Metals		
Selenium	10.0	SGV9 Document
Boron	3.0	ICRCL 59/83
Copper	130.0	
Nickel	70.0	
Zinc	300.0	
Cadmium	8.0	Amended Dutch RIVM – Ecotoxicological risk
Chromium	154.0	
Mercury	28.0	