



GEO-ENVIRONMENTAL CONSULTING

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LAND OFF AMBROSE STREET, MANCHESTER

Remediation Method Statement



Prepared for:

GK Construction & Project Management Ltd

Report Ref: BEK-24060-1-RevA

October 2024



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Project Quality Assurance Information Sheet

Site	Land off Ambrose Street, Manchester
Report Title	Remediation Method Statement
Report Status	Final
Report No	BEK-24060-1
Date	October 2024
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LAND OFF AMBROSE STREET, MANCHESTER

Remediation Method Statement

PROJECT NO: 24060

REPORT REF: BEK-24060-1

DATE: October 2024

REVISION STATUS / HISTORY

Rev	Date	Issue / Comment	Prepared	Checked
A	15/10/2024	Cover depth amended from 300mm to 450 mm	DE	MB

GENERAL REPORT LIMITATIONS

BEK Enviro Limited (BEK) has prepared this report for the sole use of the client, showing reasonable skill and care, for the intended purposes as stated in the agreement under which this work was completed. The report may not be relied upon by any other party without the express agreement of the client and BEK. No other warranty, expressed or implied, is made as to the professional advice included in this report.

Where any data supplied by the client or from other sources have been used, it has been assumed that the information is correct. No responsibility can be accepted by BEK for inaccuracies in the data supplied by any other party. The conclusions and recommendations in this report are based on the assumption that all relevant information has been supplied by those bodies from whom it was requested.

No part of this report may be copied or duplicated without the express permission of BEK and the party for whom it was prepared. Where field investigations have been carried out, these have been restricted to a level of detail required to achieve the stated objectives of the work.

Unless explicitly agreed otherwise, in writing, this report has been prepared under BEK's limited standard Terms and Conditions as included within our proposal to the Client. The report needs to be considered in the light of the BEK proposal and associated limitations of scope. The report needs to be read in full and isolated sections cannot be used without full reference to other elements of the report and any previous works referenced within the report.

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Urban Green drawing No. UG_1754_LAN_GA_DRW_01 (Rev P04) entitled 'General Arrangement – Ambrose Street, Manchester', dated 17/10/22	

1. INTRODUCTION

- 1.1.1 BEK Enviro Limited (BEK) has been commissioned by GK Construction & Project Management Ltd to prepare a method statement for the remediation works to support the proposed commercial development located off Ambrose Street, Manchester, M12 5DD (hereafter referred to as 'the site').
- 1.1.2 The site occupies a roughly rectangular shaped area of land covering approximately 4,500 m² which is currently occupied by a large warehouse building with associated exterior hardstanding areas. The site is located to the north of Ambrose Street at the junction of Ambrose Street and the A6010 some 2 km south-east of Manchester City Centre. The National Grid Reference for the centre of the site is SJ 87266 97207.
- 1.1.3 Manchester City Council has granted Planning Permission (subject to conditions) for the *'Erection of five storey self-storage facility (Class B8) together with associated parking, circulation space and stores, landscaping, boundary treatment and roof mounted photovoltaic panels, following demolition of existing buildings'* at the site located off Ambrose Street, Manchester (Planning Application No: 13568/FO/2022).
- 1.1.4 This report has been prepared to satisfy Planning condition 5b which states:
- 'Before the development hereby approved commences, a remediation strategy outlining what measures, if any, are required to remediate the land shall be submitted to and approved in writing by the City Council as local planning authority'*
- 1.1.5 The proposed development can be seen on Urban Green drawing No. UG_1754_LAN_GA_DRW_01 (Rev P04) entitled 'General Arrangement – Ambrose Street, Manchester', dated 17/10/22, an extract of which can be seen below and a copy of which is presented in Appendix A.

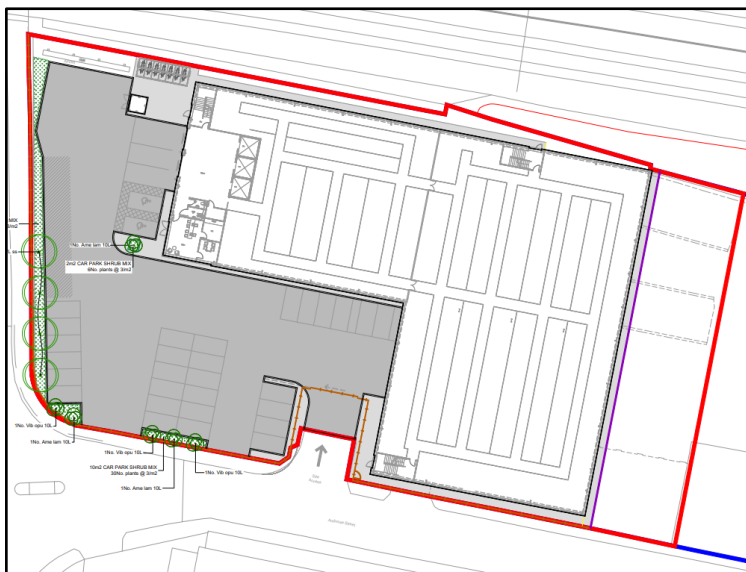


Figure 1: Proposed Development Plan

2. PREVIOUS SITE INVESTIGATION

2.0.1 The site has been subject to previous site investigation and contamination assessment, the details of which are provided within the following reports:

- Intelligent Environmental Services 'Asbestos Management Survey – Ambrose Street, West Gorton, Manchester, M12 5DD', Report Ref: A21097, dated March 2022.
- GeoAssist 'Phase 1 Desk Study and Preliminary Contaminated Land Risk Assessment – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ V1.00 PCLRA, dated August 2022
- GeoAssist 'Preliminary Coal Mining Risk Assessment Report (Desk Study) – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ CMRA V1.0, dated September 2022
- GeoAssist 'Geotechnical Ground Investigation – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ-G, dated September 2022
- GeoAssist 'Geotechnical Ground Investigation – Concrete Floor Flab – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ-G, dated January 2023
- GeoAssist 'Phase II Contaminated Land Risk Assessment – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ-CLRA V1.00, dated January 2023
- GeoAssist 'Ground Gas Risk Assessment – Storage World Ambrose Street, Manchester', Report Ref: 6101/VAJ-GRA V1.00, dated January 2023
- BEK 'Supplementary Site Investigation Letter Report – Land off Ambrose Street, Manchester', Report Ref: BEK/24060/240606/GK, dated June 2024.

2.0.2 The above reports form the basis for the remediation works required at the site and should be read in conjunction with this report.

2.1 **BEK Summary**

Coal Mining Risks

2.1.1 The Coal Mining Risk Assessment undertaken by GeoAssist in September 2022 found the risk classification to the proposed development from legacy coal mining to be low and no further works were deemed to be required.

Site Investigation Works - GeoAssist

- 2.1.2 The site investigation works undertaken by both BEK and GeoAssist were designed to provide indicative information for the ground conditions across the site with respect to the quantitative assessment of the potential risks associated with contamination.
- 2.1.3 Site investigation works undertaken by GeoAssist in January 2023 comprised the drilling of six exploratory holes to a maximum depth of 6.0 m, as well as the hand excavation of two trial holes to a maximum depth of 0.9 m. The exploratory locations can be seen on BEK Drawing No. 24060-1, dated 30/05/24, a copy of which is presented in Appendix A.
- 2.1.4 Made ground within the exploratory locations was encountered to depths between 0.4 m and 2.7 m and generally comprised an uppermost layer of hardstanding atop sandy gravel with brick fragments. Silty clay containing ash and cinders was encountered in BH2, BH3 and BH6.
- 2.1.5 Natural strata was encountered below made ground in all exploratory locations and generally comprised 'gravelly sandy silty clay with sand inclusions'. Bedrock was not encountered during site investigation works.
- 2.1.6 Groundwater was encountered at depths of 1.9 m and 1.0 m in BH1 and BH6 respectively during drilling operations. Groundwater levels during monitoring were recorded at depths of between 0.8 m and 1.9 m within the monitoring standpipes.
- 2.1.7 GeoAssist obtained a total of nine soil samples which were subjected to chemical testing for a wide range of contaminants of concern in accordance with the 'Phase 1 Desk Study and Preliminary Contaminated Land Risk Assessment'. The chemical test results were then compared against assessment criteria for a Commercial end use which showed no elevated contaminants of concern were present.
- 2.1.8 Notwithstanding the above, five of the nine soil samples tested returned a positive asbestos result, the details of which can be seen in the table below. No asbestos quantification testing was undertaken on the samples.

Location	Asbestos Containing Material Types Detected (ACM)	PLM Results
BH1 (0.3 m)	Hard/Cement Type Material	Chrysotile
BH2 (0.4 m)	Hard/Cement Type Material & Loose Fibrous Debris	Chrysotile
BH3 (0.5 m)	Loose Fibrous Debris	Chrysotile
BH5 (0.5 m)	Loose Fibres	Chrysotile
TP1 (0.3 m)	Hard/Cement Type Material	Chrysotile

Table 1: Summary of Results for Positive Asbestos Samples from GeoAssist Site Investigation

2.1.9 GeoAssist concluded that the site presents a low contamination risk to end users/receptors and recommended that the issues relating to the ACMs encountered within the shallow made ground be addressed.

2.1.10 Risks to controlled waters were considered to be very low and the risks to buildings and services were considered to be negligible.

Site Investigation Works - BEK

2.1.11 As no asbestos quantification testing was undertaken by GeoAssist, BEK considered it necessary to undertake additional site investigation works to obtain samples of made ground for asbestos quantification testing. This allows for a thorough assessment of the potential risks associated with asbestos at the site and facilitates the preparation of an Asbestos Management Plan.

2.1.12 Site investigation works were undertaken by BEK in May 2024 with the aim of obtaining additional samples of made ground for asbestos quantification testing. The works comprised the drilling of 8 No. window sample boreholes to 1.0 m depth.

2.1.13 Made ground was encountered in all exploratory locations and generally comprised an uppermost layer of hardstanding or gravel atop gravelly sands and sandy clays containing varying proportions of brick, ash and clinker.

2.1.14 The exploratory locations can be seen on BEK Drawing No. 24060-1, dated 30/05/24, a copy of which is presented in Appendix A.

2.1.15 A total of eight samples were recovered and subjected to asbestos identification testing and after an initial test, no asbestos was detected within any of the samples. Notwithstanding, as asbestos was anticipated to be present within the samples, a retest of the samples was requested and found asbestos to be present within three of the eight samples.

2.1.16 Quantification was undertaken on the positive asbestos samples, with detailed quantification undertaken on those samples containing two or more types of ACMs. The results of the testing can be seen in the table below.

Location	Asbestos Type/Matrix Description	Quantification Result	
WS101 (0.3 m)	Amosite – Loose Fibres	<0.001 % w/w	
WS102 (0.4 m)	Amosite & Chrysotile – Loose Fibres	<0.001 % w/w	
WS103 (0.5 m)	Chrysotile – Loose Fibres	<0.001 % w/w	0.022% w/w Total
	Chrysotile – Woven	0.022 % w/w	

Table 2: Summary of Asbestos Quantification Testing in Positive Samples



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Ground Gas Risks

- 2.1.17 The Ground Gas Risk Assessment undertaken by GeoAssist in January 2023 classified the site as Characteristic Situation 1 (Very Low Risk) of BS 8485 2015+A1 2019, meaning there is no significant gas risk and gas mitigation measures are not required at the site.

3. REMEDIATION STRATEGY

3.0.1 In order to remove potential risks to the development and/or human health, specific remediation and mitigation measures need to be carried out.

3.1 Asbestos Management Plan

3.1.1 An Asbestos Management Plan (AMP) should be prepared to manage and mitigate the potential risks from asbestos inhalation. The AMP should consider the ground conditions detailed in the Phase II Contaminated Land Risk Assessment to implement safe working procedures and mitigate any potential risks to contractors on site or the general public adjacent to the site. All groundworks should be carried out in accordance with the recommendations presented in the AMP. The groundworkers risk assessment and method statements should reflect the information presented herein and the AMP.

3.2 Contamination

Made Ground

3.2.1 To mitigate the potential risks to human health associated with ground contamination (asbestos) within the soft landscaped areas of the proposed development, the following works will need to be undertaken:

- (i) All soft landscaped areas will be capped with a minimum of 450 mm of clean suitable soil (300 mm subsoil and 150 mm topsoil). The capping soils should be underlain by a 100 mm granular no-dig layer or a geotextile membrane to prevent mixing.
- (ii) The soils used in the capping system will need to be tested and assessed to ensure suitability of use. Materials can be sourced from other developments and commercial companies. The capping thickness will also require validation.

3.2.2 As it is planned to demolish the existing buildings on site, any buildings that have not already been subject to a pre-demolition asbestos survey should be surveyed and any asbestos removed prior to demolition and clearance.

3.2.3 Groundworkers should remain vigilant to the presence of asbestos during the redevelopment works and works with the sub-surface soils should be carried out in accordance with an Asbestos Management Plan given that made ground was encountered at the site and its inherent variability.

3.3 Imported Material

- 3.3.1 There may be a requirement to import suitable topsoil/subsoil for use in landscaped areas of the development.
- 3.3.2 The suitability of the sub/topsoil and any other material imported to the site should be independently validated.
- 3.3.3 The details pertaining to the independent validation of material to be imported to the site are outlined within Section 5 of this report.

3.4 Off-Site Disposal

- 3.4.1 The chemical testing regime for off-site disposal may be different to the chemical testing required to assess the suitability of the soils for retention on site and the risks to human health. Therefore, additional assessment may be required to classify the soils for off-site disposal with testing criteria to assess whether the soil is hazardous, non-hazardous or inert waste.
- 3.4.2 However, existing laboratory test certificate will help inform the process. Any additional testing should also be used in the classification of the waste soils for off-site disposal.
- 3.4.3 The receiving landfill may require additional specialist laboratory testing to further characterise the material proposed for disposal against Waste Acceptance Criteria (WAC). We would recommend early consultation between the Contractor and the receiving landfill to determine any specific laboratory testing requirements.
- 3.4.4 Individuals/companies removing soils from the site are bound by a Duty of Care and as such this should only be undertaken by an authorised person. All waste movements should be accompanied by a waste transfer note.

3.5 Dewatering

- 3.5.1 The presence of significant quantities of groundwater is considered unlikely considering that it was largely absent during the site during the site investigation and groundwater monitoring.
- 3.5.2 However, if water entering any of the excavations is visually or olfactory affected by contamination then consideration should be made for dewatering. Any impacted water should be carefully pumped from the excavation directly into a tanker for off-site disposal. Water will be pumped from the near surface of the water and (as much as practicable) away from the sides of the excavation to avoid pumping up soils.

- 3.5.3 All pumping activities will be carefully monitored by BEK to watch for drawing in contaminated water from elsewhere on the site. Pumping will continue until visual/olfactory evidence of contamination has reduced/gone or as is considered reasonably practicable.

3.6 Construction Workers

- 3.6.1 It is recommended that construction personnel involved with direct contact with the soils at the site use appropriate PPE equipment (i.e. boots, gloves and overalls) together with hygiene facilities in accordance with general health and safety guidelines. The successful remediation/site works contractor should undertake a suitable risk assessment to confirm the appropriate level of PPE.
- 3.6.2 A copy of all reports relating to the site should be included in the site Health and Safety File and site workers should be made fully aware of the sites setting.

3.7 Concrete Mix Design

- 3.7.1 Precautions are required with respect to concrete classification. BEK recommends that, based on the results of the GeoAssist site investigation, that the minimum design sulphate class for the site should comply with DS-2 and the ACEC class AC-2.
- 3.7.2 Confirmation that the correct concrete mix has been used on site is outside the BEK validation remit.

3.8 Unforeseen Circumstances

- 3.8.1 Any areas of previously unidentified potentially contaminated soils encountered during site construction works must be brought to the attention of BEK, to ensure that the recommendations herein apply. Any potentially contaminated soils should be left in-situ and subjected to further assessment, to potentially include further chemical testing and risk assessment.

3.9 Utilities

- 3.9.1 Prior to redevelopment, BEK would recommend that a copy of this report and other relevant reporting prepared by GeoAssist be supplied to utility companies, and that their recommendations relating to appropriate supply pipes are adhered to.
- 3.9.2 It may be necessary to complete the UKWIR Risk Assessment to confirm water pipe specification.

3.10 Re-Use of Waste Soils on Site

- 3.10.1 The re-use of waste soils generated at the site should be covered through environmental permit exemptions (if applicable) and/or through the preparation of a Materials Management Plan as part of compliance with the Definition of Waste: Code of Practice (DoW:CoP).

3.11 Communication

- 3.11.1 It is recommended that regular communication is maintained between BEK and the Site Manager throughout the development works.

3.12 Statutory Consultation

- 3.12.1 We would recommend that a copy of the Remediation Method Statement is issued to the local authority for review/comment and approval.
- 3.12.2 The NHBC (or other insurer) may also require written approval of the remediation proposals from the regulators in order to satisfy their Land Quality Conditions.

3.13 Closure

- 3.13.1 Following satisfactory completion of remediation works, BEK will produce a Validation Report to demonstrate compliance with this Remediation Method Statement.

4. SUPERVISION & VALIDATION

4.1 Supervision of Works

4.1.1 The works will be supervised by BEK who will ensure the following verification procedures are adopted:

- (i) Liaison with the appointed groundwork/remediation contractor
- (ii) Inspection and supervision of the works
- (iii) Collection of samples and co-ordination of laboratory testing

4.1.2 The remediation areas will be checked and verified by the Engineer at key stages during the works, including:

- (i) Prior to/following placement of the capping soils to ensure suitability and capping thickness of suitably clean soils
- (ii) Recovery of validation samples, as required

4.2 Validation of the Works

4.2.1 Validation testing is required to ensure the remediation works have been undertaken in accordance with the methodology presented herein.

4.3 Capping Material

4.3.1 It may be necessary to import additional soil for use in the landscaped areas. If possible, all imported soils should be sourced locally.

4.3.2 The methodology to validate the quality of any imported material for use in the gardens will depend on source of those materials. Materials from a known source, where independent risk assessment has been carried out would require no further testing, provided it has been sampled on an appropriate density and has been proven fit for purpose in accordance with residential criteria.

4.3.3 To confirm the suitability of the sub/topsoil it will be necessary to recover representative samples for chemical testing and assessment. We initially recommend that this consists of a minimum of 3 samples, however the sampling frequency may be varied at the discretion of the Engineer depending on the nature and variability of the soil.

- 4.3.4 The methodology to validate the quality of any imported material for use in the landscaped areas will depend on source of those materials. Materials from a known source, where independent risk assessment has been carried out would require no further testing, provided it has been sampled on an appropriate density and has been proven fit for purpose in accordance with commercial criteria.
- 4.3.5 Without any validatory information, all potentially suitable sub/topsoil will be thoroughly assessed at source prior to importation onto the site. The Engineer will obtain samples from the identified sources, at a rate of between 3 and 5 samples per source depending upon the volume of material available.
- 4.3.6 It will also be necessary to carry out routine inspection and sampling during the importation process in order to confirm the material is consistent with the source testing and assessment.
- 4.3.7 The visual inspection shall ensure that the soil is visually acceptable for use and does not contain any deleterious material (i.e. glass, plastic, brick, concrete etc.).
- 4.3.8 Imported topsoil and subsoil being brought to the site should be tested for contamination to ensure that they are suitable for commercial end use. Testing of imported soils can be undertaken upon import within a stockpile, or preferably upon placement within rear gardens areas. Testing will vary based on the source of the material.
- 4.3.9 All soils from greenfield sources will be checked to confirm the greenfield status and confirmation will be provided in the Validation Report (ie red line site boundary, grid reference and other checks).
- 4.3.10 If soils are not greenfield then sampling frequencies should be agreed with the Local Planning Authority (LPA) prior to undertaking the work.
- 4.3.11 Imported topsoil and subsoil will be tested in accordance with Table 3 below.

Type	Number of Samples	Testing Schedule	Assessment Criteria
Please note that these guidelines apply to a typical residential development, and relaxation of the guidelines or more stringent requirements may apply dependent on local and site specific factors. Therefore, <u>all parameters need to be agreed with the Local Authority.</u>			
Virgin Quarried Material	1 or 2 depending on the type of stone utilised, to confirm the inert nature of the material.	Standard metals/metalloids (should include as a minimum As, Cd, Cr, CrVI, Cu, Hg, Ni, Pb, Se, Zn)	The assessment criteria need to be UK based, e.g. LQM S4ULs, Defra C4SLs or other similarly derived GACs.
Crushed Hardcore, Stone, Brick (excluding asphalt)	Minimum 1 per 500m ³	Standard metals/metalloids (as above), PAH (16 USEPA speciation), asbestos, total TPH. Any additional analysis dependant on the history of the donor site (e.g. phenol, total cyanide, BTEX, MTBE).	
Greenfield/ Manufactured Soils	Minimum 3 Dependent on source and receptor, between 1 per 50m ³ and 1 per 250m ³	Standard metals/metalloids (as above), PAH (16 USEPA speciation), asbestos, pH and soil organic matter (SOM) (or calculated from total organic carbon (TOC)).	
Brownfield/ Screened Soils	Minimum 6 Dependent on source and receptor, between 1 per 50m ³ and 1 per 100m ³	Standard metals/ metalloids (as above), PAH (16 USEPA speciation), TPH (CWG banded), asbestos, pH and SOM (or calculated from TOC). Any additional analysis dependant on the history of the donor site (e.g. phenol, total cyanide, BTEX, MTBE).	

Table 3: Summary of Soil Testing Frequency and Schedule (taken from YALPAG)

4.3.12 The sampling frequency may be varied at the discretion of the Engineer depending on the nature and variability of the imported material and its source (subject to Local Authority approval).

4.3.13 Following assessment of the source of material, it may be necessary to test for additional determinands. The assessment criteria for the determinands to be tested for are presented in Table 4.

4.4 Assessment Criteria

4.4.1 The following table provides a list of assessment criteria for assessing suitability of imported topsoil/subsoil:

4.4.2 The criteria have been sourced from the LQM/CIEH Sutable 4 Use Level (S4UL). In addition, the category 4 Screening Level (C4SL) for lead has been used and the Atkins ATRISKOIL screening level for cyanide has been used.

Contaminant of Concern	Assessment Criteria (mg/kg)
Arsenic	640
Cadmium	190
Chromium	8600
Copper	68000
Lead	2300
Mercury	1100
Nickel	980
Selenium	12000
Zinc	730000
Cyanide	34
Acenaphthene	84000
Acenaphthylene	83000
Anthracene	520000
Benzo(a)anthracene	170
Benzo(a)pyrene	35
Benzo(b)fluoranthene	44
Benzo(ghi)perylene	3900
Benzo(k)fluoranthene	1200
Chrysene	350
Dibenzo(ah)anthracene	3.5
Fluoranthene	23000
Fluorene	63000
Indeno(1,2,3-cd)pyrene	500
Naphthalene	1600
Phenanthrene	22000
Pyrene	54000
Phenols	120
Aliphatic Hydrocarbons >C5-C6	3200
Aliphatic Hydrocarbons >C6-C8	7800
Aliphatic Hydrocarbons >C8-C10	2000
Aliphatic Hydrocarbons >C10-C12	9700
Aliphatic Hydrocarbons >C12-C16	59000
Aliphatic Hydrocarbons >C16-C21	1600000
Aliphatic Hydrocarbons >C21-C35	1600000
Aromatic Hydrocarbons >C5-C7	26000
Aromatic Hydrocarbons >C7-C8	56000
Aromatic Hydrocarbons >C8-C10	3500
Aromatic Hydrocarbons >C10-C12	16000
Aromatic Hydrocarbons >C12-C16	36000
Aromatic Hydrocarbons >C16-C21	28000
Aromatic Hydrocarbons >C21-C35	28000
Asbestos	None detect

Table 4: Assessment Criteria for Imported Sub/Topsoil

4.5 Assessment of Chemical Test Results

- 4.5.1 BEK will be responsible for the assessment of all chemical test results to determine suitability of material to be used on site.
- 4.5.2 The assessment will be undertaken in accordance with current UK policy and guidelines and the method agreed with the local authority.
- 4.5.3 All chemical test results will be presented in the Validation Report.

4.6 Capping Thickness

- 4.6.1 The verification of the capping thickness will be done by the excavation of a series of trial holes and the capping thickness relative to previous ground level be determined.
- 4.6.2 The Engineer may take other measurements as required to verify the works have been carried out in accordance with the Method Statement.

4.7 Unexpected Area of Ground Contamination

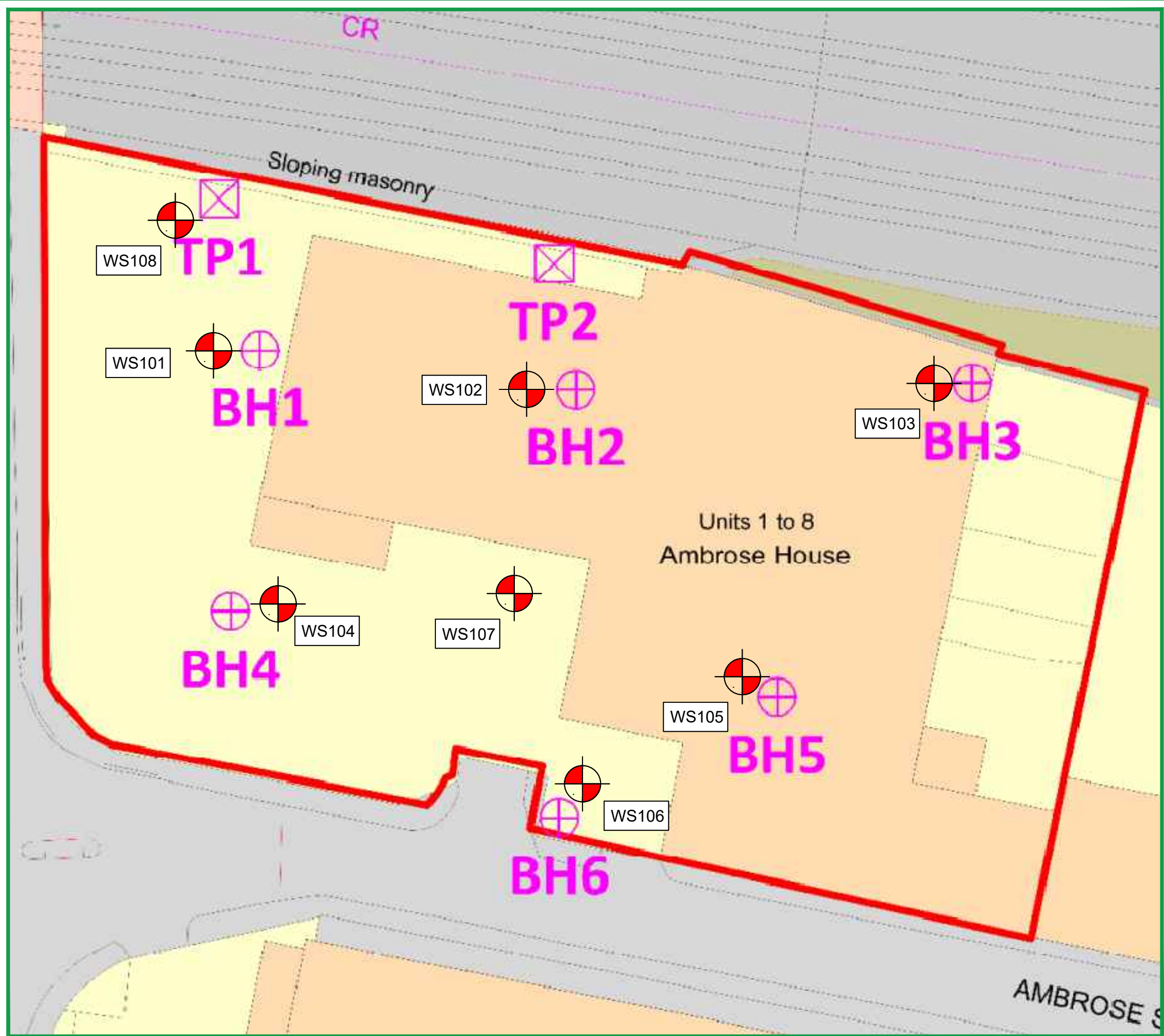
- 4.7.1 As stated previously within this report the site has been subject to previous site investigation and as such, indicative ground conditions are known.
- 4.7.2 However if “any area of suspect material are encountered during the development of the site (i.e. that do not conform to the anticipated ground conditions)” appropriate action will be taken. This will initially include the cessation of work in the area of concern and information BEK, who will attend site and carry out further assessment.
- 4.7.3 As a minimum BEK will notify the local authority and prevent any additional work in the area pending further assessment which may include sampling, testing and risk assessment.

5. REPORTING

- 5.1 On completion of the remediation and mitigation works, BEK will prepare a Verification Report.
- 5.2 The Verification Report will describe the works undertaken in order to satisfactorily demonstrate that the works have been completed successfully and will include the following:
- (i) A description of works undertaken
 - (ii) Record of any unforeseen contamination encountered during the works
 - (iii) Record of any material imported into the site for use in the landscaped areas (if required) including geotextile membrane or capillary break layer
 - (v) Validation samples recovered and tested
 - (vi) Assessment of the chemical test results
 - (vii) Photographs showing the remediation works being undertaken and completed.

APPENDIX A

Drawings



LEGEND

-  GEOASSIST WINDOW SAMPLE BOREHOLE (JANUARY 2023)
-  GEOASSIST TRIAL PIT (JANUARY 2023)
-  BEK WINDOW SAMPLE BOREHOLE (MAY 2024)

REV	DESCRIPTION	DATE	BY



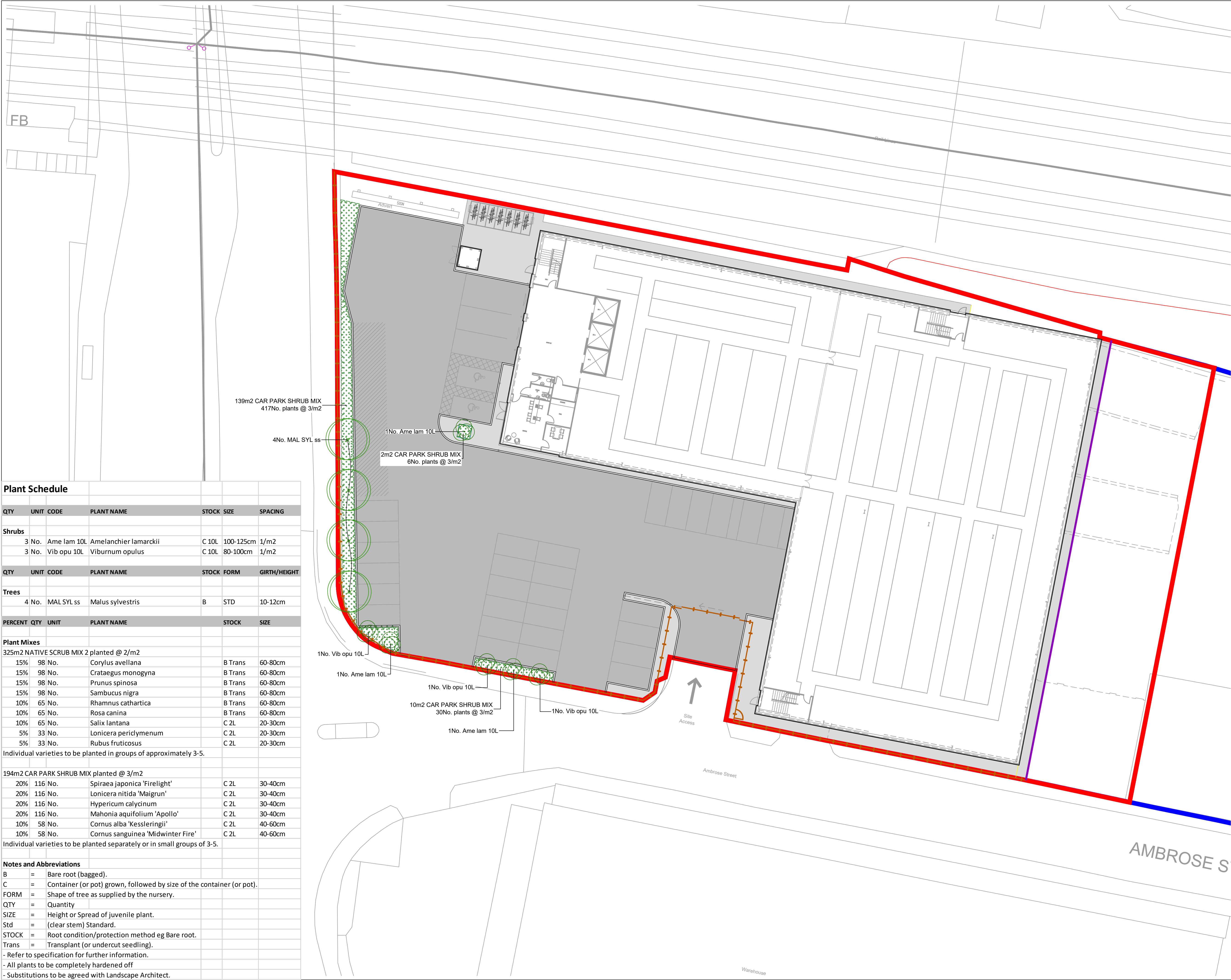
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CLIENT.
GK CONSTRUCTION & PROJECT MANAGEMENT

JOB TITLE.
AMBROSE STREET, MANCHESTER

DRAWING TITLE.
SITE INVESTIGATION PLAN

SCALE © A3. NTS	DRAWN BY. D.E.	APPROVED BY. M.B.	DATE. 30/05/24
DRAWING No. 24060-1			REV. -



Plant Schedule

QTY	UNIT	CODE	PLANT NAME	STOCK	SIZE	SPACING
Shrubs						
3 No.	Ame lam 10L		Amelanchier lamarckii	C 10L	100-125cm	1/m2
3 No.	Vib opu 10L		Viburnum opulus	C 10L	80-100cm	1/m2
QTY	UNIT	CODE	PLANT NAME	STOCK	FORM	GIRTH/HEIGHT
Trees						
4 No.	MAL SYL ss		Malus sylvestris	B	STD	10-12cm

PERCENT	QTY	UNIT	PLANT NAME	STOCK	SIZE
Plant Mixes					
325m2 NATIVE SCRUB MIX 2 planted @ 2/m2					
15%	98 No.		Corylus avellana	B Trans	60-80cm
15%	98 No.		Crataegus monogyna	B Trans	60-80cm
15%	98 No.		Prunus spinosa	B Trans	60-80cm
15%	98 No.		Sambucus nigra	B Trans	60-80cm
10%	65 No.		Rhamnus cathartica	B Trans	60-80cm
10%	65 No.		Rosa canina	B Trans	60-80cm
10%	65 No.		Salix lantana	C 2L	20-30cm
5%	33 No.		Lonicera periclymenum	C 2L	20-30cm
5%	33 No.		Rubus fruticosus	C 2L	20-30cm

Individual varieties to be planted in groups of approximately 3-5.

194m2 CAR PARK SHRUB MIX planted @ 3/m2					
20%	116 No.		Spiraea japonica 'Firelight'	C 2L	30-40cm
20%	116 No.		Lonicera nitida 'Maigrun'	C 2L	30-40cm
20%	116 No.		Hypericum calycinum	C 2L	30-40cm
20%	116 No.		Mahonia aquifolium 'Apollo'	C 2L	30-40cm
10%	58 No.		Cornus alba 'Kesslerringii'	C 2L	40-60cm
10%	58 No.		Cornus sanguinea 'Midwinter Fire'	C 2L	40-60cm

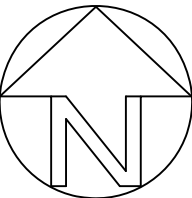
Individual varieties to be planted separately or in small groups of 3-5.

Notes and Abbreviations

B	=	Bare root (bagged).
C	=	Container (or pot) grown, followed by size of the container (or pot).
FORM	=	Shape of tree as supplied by the nursery.
QTY	=	Quantity
SIZE	=	Height or Spread of juvenile plant.
Std	=	(clear stem) Standard.
STOCK	=	Root condition/protection method eg Bare root.
Trans	=	Transplant (or undercut seedling).
- Refer to specification for further information.		
- All plants to be completely hardened off		
- Substitutions to be agreed with Landscape Architect.		

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Notes:-



KEY

Hard Works

	Vehicular Asphalt Surface Black colour.
	Pedestrian Asphalt Surface Black colour.
	Black Paladin Fence With matching gates.
	Retaining Wall Detail to engineer's specification
	Raised 500mm high Planter Edging Steel planter, Logic STAPEL Size- 500mm high, 1500mm x 1500mm. Supplied by Logic Street Furniture or equal approved.

Soft Works

	Proposed Trees
	Proposed specimen shrub C 10L specimen shrub.
	Proposed Low Level Shrub Mix Planting

P04	30/06/23	AMENDED ISSUE	SH	SA
P03	13/01/23	AMENDED ISSUE	TH	SA
P02	31/10/22	AMENDED ISSUE	TH	SA
P01	18/10/22	FIRST ISSUE	TH	SA
REV.	DATE	DESCRIPTION	DRAWN	CHK'D



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Client:	STORAGE WORLD		
Project:	AMBROSE STREET, MANCHESTER		
Title:	General Arrangement		
Issue:	PLANNING		
Drawn:	TH	Checked:	SA
Approved:	ME		
Project:	UG1754	Scale @ A1:	1:200
Date:	17/10/22		
Dwg No:	UG_1754_LAN_GA_DRW_01	Revision:	P04