

PHASE 1 DESK STUDY

LAND AT PARKWOOD MILLS,
GROVE STREET, HUDDERSFIELD

AH DEVELOPMENTS LTD

FEBRUARY 2025

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SUMMARY TABLE: Phase 1 Desk Study	
SITE:	Land at Parkwood Mills, Grove Street, Huddersfield
CLIENT:	AH Development Ltd
DATE:	February 2025
REFERENCE	PS3657 – V1
DEVELOPMENT PROPOSAL:	Construction of 5 no. residential units on vacant land adjacent to historical woollen mill developments at Parkwood Mills in the Longwood district of west Huddersfield.

Written by:		Phil Shelton PhD, BSc, CEng, MIMMM, FGS <i>Director</i>
Approved by:		Phil Shelton PhD, BSc, CEng, MIMMM, FGS <i>Director</i>
Date:	February 2025	
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1.0 INTRODUCTION

1.1 PREAMBLE

Phil Shelton Geotechnical Consultancy Limited (PS Geotech) has been instructed by MacMarshalls Ltd - Rural Planning Consultant, on behalf of AH Development Ltd (Client) to provide support to a planning application for the construction of 5 no. new residential houses with associated private gardens and hardstandings at land on the southern side of Grove Street, Longwood, Huddersfield, HD3 4TR.

The assistance in this case takes the form of a Phase 1 desk top study of the site.

The proposed development will be located within the Parkwood Mills area of west Huddersfield, which has a rich history of woollen fabric weaving dating back to the mid-19th century. The mill complex includes several buildings, with the earliest dating back to the early 1850s.

While the mills fell into disuse during the latter half of the 20th century, the structures remained as significant edifices so that in recent years the Parkwood Mills area has benefitted from a local push to preserve and re-purpose the former industrial buildings so that the area is now termed as 'residential and light commercial'.

The area that forms this study is located between the junction of Grove Street and Stoney Lane and was never occupied by formal mill structures, but has been through a series of low-rise temporary product storage usages. It is currently used as an informal car parking area with access from Grove Street.

The Phase 1 desk study is aimed at identifying potential sources of contamination and other geoenvironmental constraints as a result of the site's (and immediate surrounding area's) past usage and providing guidance on geotechnical factors affecting the foundation design for new residential buildings.

The study will conclude with the preparation of a conceptual site model (CSM) to demonstrate the potential risks to designated receptors including construction workers, end users and local environment (groundwater, surface run-off, air-borne dust). This will be based on an industry standard using the Source – Pathway – Receptor risk assessment concept.

Plans showing the site location and proposed development are included in **Appendix A**.

The Phase 1 desk top study has been informed by the acquisition of a bespoke Envirocheck environmental data report (Reference: 368565458_1_1, dated 30th January 2025), which has been included as **Appendix B**.

1.2 LIMITATIONS

This report has been produced in accordance with industry best practice at the time of writing.

Phil Shelton Geotechnical Consultancy has, in the production of this report, relied upon information provided by third parties. Phil Shelton Geotechnical Consultancy does not warrant the accuracy of this information and will not be responsible for any opinions, which Phil Shelton Geotechnical Consultancy has expressed, or conclusions which it has drawn, in reliance upon information which is subsequently proven to be inaccurate.

All statements and opinions provided in this report have been presented in good faith and are based on the information gained during, and restrictions imposed by, desk study techniques used at the time. Phil Shelton Geotechnical Consultancy cannot be held responsible for conditions not revealed by the study.

This report has been prepared for the sole use of the Client and shall not be relied upon or transferred to third parties without the express written consent of Phil Shelton Geotechnical Consultancy. Unauthorised third parties rely upon the information contained within this report at their own risk.

2.0 PHYSICAL CONTEXT

2.1 SITE DETAILS

Site Name & Address: Land between the junctions of Grove Street and Stoney Lane, Longwood, Huddersfield, HD3 4TR.

National Grid Reference / Site Area: 410470 416800 (representative of the central part of the development site). Area c. 0.18ha.

Client: AH Development Ltd.

Planning Consultant: MacMarshalls Rural Chartered Surveyors & Planning Consultants, Hamill House, 112-116 Chorley New Road, Bolton, Lancashire, BL1 4DH.

Description of Location: The proposed development will be located some 2.2km west of Huddersfield town centre, within the Parkwood Mills area of Longwood, which has a history of woollen fabric weaving dating back to the mid-19th century. The site location is shown in **Figure 1** in **Appendix A**.

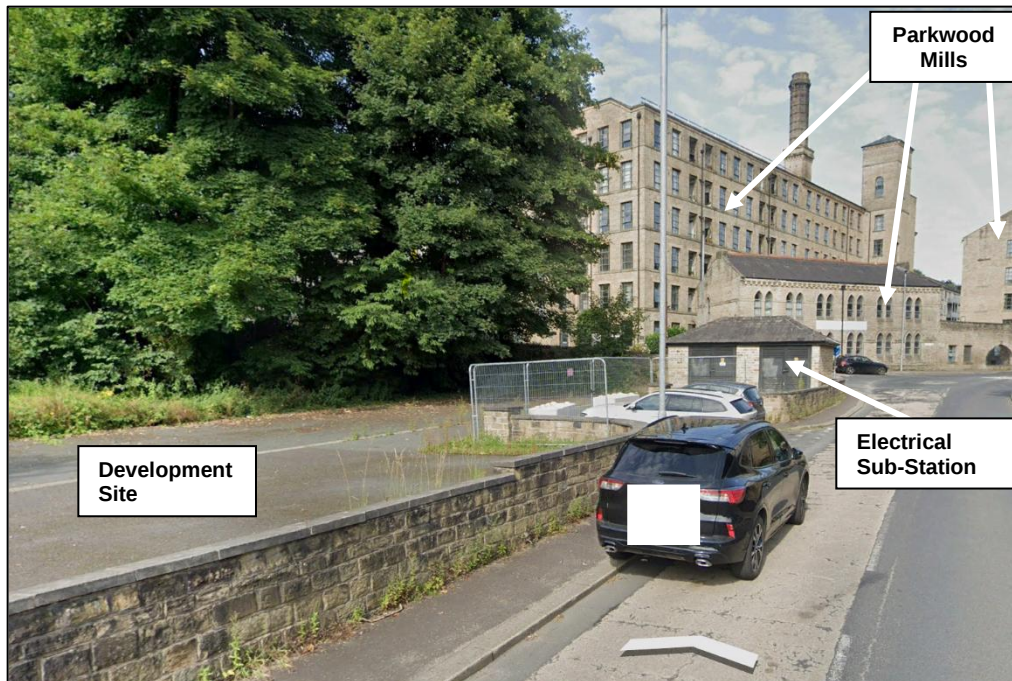
The general area is that of a relatively shallow valley, probably glacial in origin, but draining quickly towards the east. This made it ideal for the development of watermill powered industries. The headwaters were channelled and controlled by works undertaken by Huddersfield Waterworks, that diverted surface waters from the west and north-west into man-made leats and goits to feed the mills. The valley also contains mill ponds that collected the water after passing through the mills. Historical mapping shows a mill pond, immediately south-east of the proposed development site.

The site is approximately triangular in shape, occupying an area of approximately 0.18ha. The national grid reference for the approximate centre of the site is 410470 416800

The northern half of the site is relatively flat, at about the same level as Grove Street (c. 150m aOD), and currently occupied by tarmacked car parking spaces, accessed from Grove Street; while the southern half rises relatively steeply, following the level of Stoney Lane. This section is densely vegetated with semi-mature and mature trees, some of which are understood to be subject to preservation orders. Aerial views of the current site are shown in **Figure 2** in **Appendix A**, and a schematic drawing is shown in **Figure 3** also in **Appendix A**.

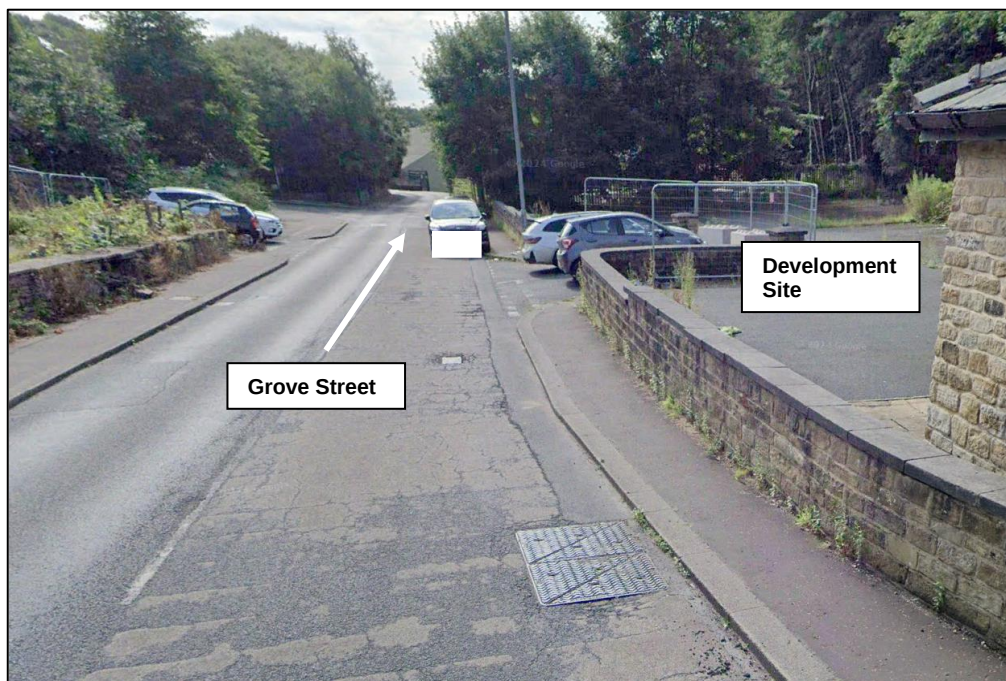
A small area of land, at the junction between Grove Road and Stoney Lane is excluded from the Red Line boundary and is occupied by a brick built and sloping tiled roofed electrical sub-station.

Towards the west, up-slope along Grove Street, are the main remaining buildings of the Parkwood Mill complex – see below. Many of these are now listed for preservation, which is giving a boost to the local area regeneration. Some have already been converted into residential apartments, while others remain vacant.



On the northern side of Grove Street, derelict land adjacent to a vacant 4-storey ex-woollen mill building rises slowly upwards.

Towards the east, down-slope along Grove Street (see below), the ground level falls, but there are few visible remains of the woollen milling industries.

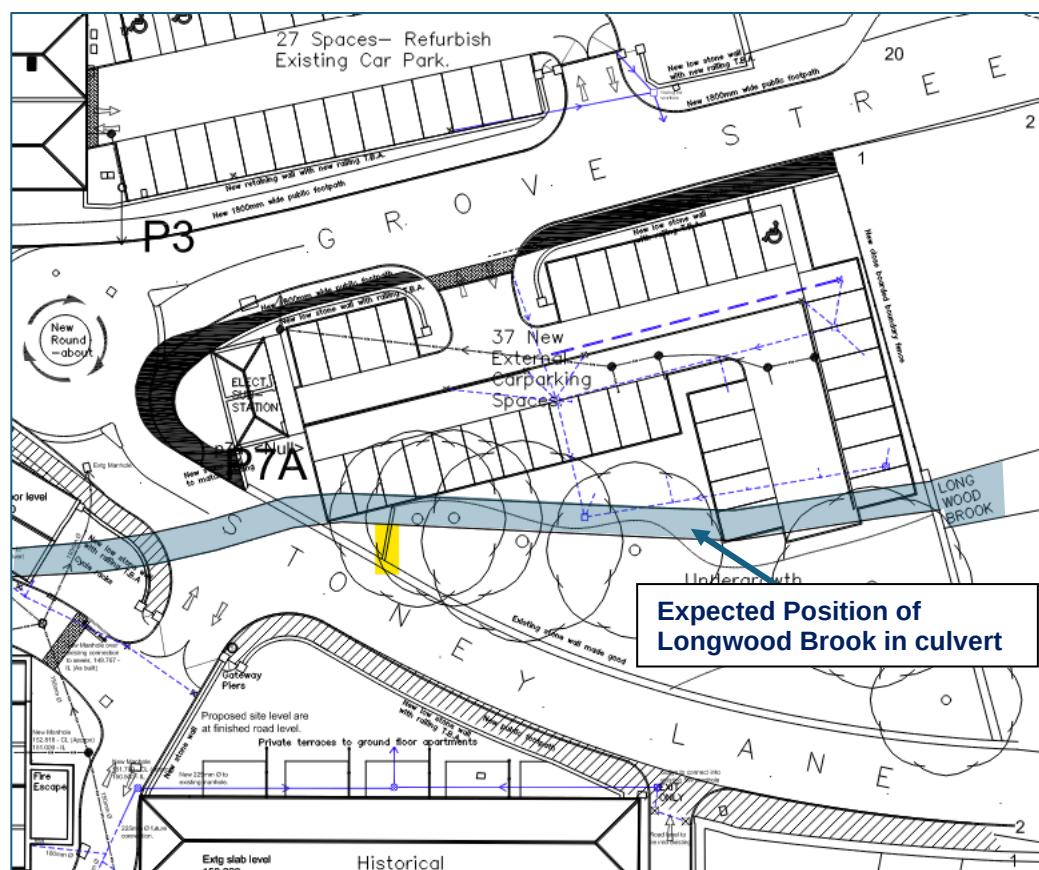


Services: Live electrical, gas and data services along with drainage utilities may be present beneath the red-line boundary of the development site. An extant electrical sub-station is present at the northern site boundary.

The positions of live (and redundant) buried services/utilities will be of considerable importance in designing further stages of intrusive investigations and enabling groundworks.

A comprehensive services/utilities search was commissioned by Rebecca Bennett, 28 March 2024, Ref: Groundwise Searches Ltd, 349 68RB-GWS. Extracts from this are discussed below and included in **Appendix A**. PS Geotech has had access to this document, but has not included it within this report.

Longwood Brook: Historical mapping shows that the accumulation of head-waters to power the Parkwood Mills must ultimately emerge downstream, through the current site location. The Figure below shows the expected position of the Longwood Brook in culvert.



2.2 SITE HISTORY

Historical records contained within the Envirocheck report (*ibid*), **Appendix B**, along with other publicly available sources have been reviewed to develop a context of land use over the last 150 years.

Table 1: Summary of Geological History

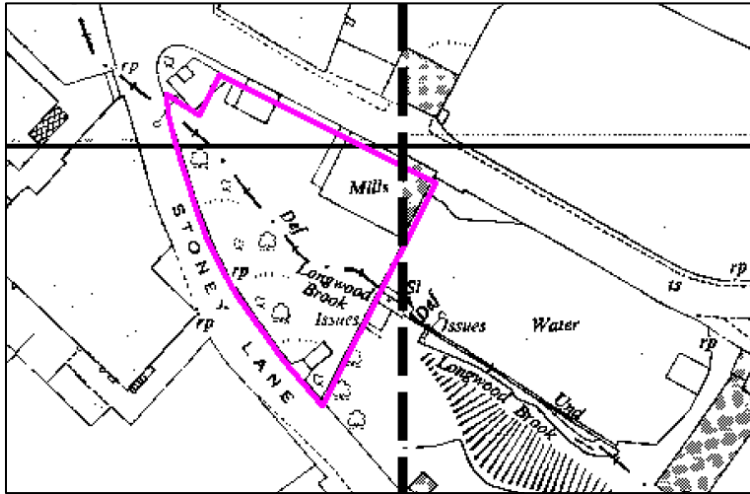
Date	On-Site	Off-Site
1854	At a scale of 1:10,560 the resolution on site is poor, but appears to be vacant.	The plan shown for 1854 appears to have been produced on behalf of Huddersfield Waterworks and shows the systematic collection and channelling of headwaters into the Parkwood area. Parkwood, at this time is shown as undeveloped woodland. Some small mills are shown to the east of the site. A 'mill pond' seems to be shown to the immediate east of the site on the southern side of Grove Street.
1893	At 1:2,500 scale, the plan shows the north-east to south-west split that divides the northern and southern section of the site. The northern half appears to be occupied by 'tanks' of unknown use, while the southern half is shown as vegetated.	The most striking feature is that the full complement of Parkwood Mills to the north-west are now established, which is consistent with historical records. The small area at the junction between Grove Street and Stoney Lane (now occupied by the electrical sub-station) is shown with 2 no. circular features of unknown use. To the east, the 'mill pond' is shown along with potentially marshy ground and a section of 'lead' that appear to extend into and originate within the site. This seems to show the course of the Longwood Brook.
1907	No change on site, but the extent of the mill pond intrusion into the eastern end of the site is shown more clearly.	The circular features show at the north-west corner, just off-site, are no longer shown.
1918	The positions of 'Tanks' now cover the full length of the boundary with Grove Street. The nature/contents of these remains unknown. The southern half of the site remains shown as tree covered.	No significant change locally. It is noted that the upland area to the south remains mainly agricultural pasture. Pasture is also shown on the north-eastern side of the shallow valley.
1948	The mid- 20 th century saw a consolidation of the woollen milling industrial activity including the amalgamation of the smaller mills within the larger conglomerates.	
1961		

Table 1: Summary of Geological History		
Date	On-Site	Off-Site
	The plan shows that most of the tanks have been removed and a structure is shown in the north-eastern corner as 'Mills'. Longwood Brook is shown to 'issue' close within the eastern boundary.	The area shown as 'Mill Pond' on earlier mapping is now shown as 'Water' inferring some type of impoundment.
	By the mid-1900s, the textile industry in Huddersfield, including Parkwood Mills, began to see reduced demand	
1966 - 1983	No significant change.	No significant change, but it is apparent from other sources that the woollen textile industry in Huddersfield was in serious decline.
2000	The site has been cleared of former tanks and other above ground structures.	The former 'Mill Pond' now appears to have been completely filled. There is no standing water. It is unclear how former water sources have been controlled over recent years.
2025	No significant change	No significant change



3.0 ENVIRONMENTAL CONTEXT

3.1 SITE GEOLOGY

The geological and mining assessments for this site have been based on geological maps published by the BGS and Geoindex.

The following documents have been reviewed as part of this study;

- BGS 1:50,000 Sheet 77 Huddersfield, Solid & Drift and Solid Editions (2013), Solid Edition, 1977;
- Geology of the Huddersfield district. A brief explanation of the geological map Sheet 77 Huddersfield;
- Geoindex Interactive website;
- Mining Remediation Authority (Former Coal Authority) Interactive website.

Made Ground

Variable man-made conditions, notably landfill and areas of industrial past usage are a potential problem with respect to differential settlement and ground gas.

Geological records show indications of both at this site. A review of site history shows that industrial activities associated with the Parkwood Mills complex could have resulted in the accumulation of a variety of Made Ground products. In particular, it is known that a former Mill Pond was present to the immediate south-east that may have spread within the site boundary. The filling of this feature could have resulted in the accumulation of an indeterminate (at this stage) thickness of Made Ground. Similarly, the Longwood Brook is known to pass by culvert through the site, which could also be a conduit for ground gases

Superficial Deposits

Extracts from the BGS Sheet 77 Huddersfield (Solid and Drift) and the Geoindex Interactive website are included as **Figures 5 and 6** in **Appendix A**. These records show that natural superficial deposits are probably absent from the site. Alluvium can accumulate at the base of river valleys but this is considered unlikely at this site.

The BGS hold a database of historical borehole records. This includes a borehole record drilled some 30m north-west of the site during 1933, which shows hard sandstone from ground level.

Solid Strata

Geological records show solid strata beneath the site to belong to the Huddersfield White Rock Sandstone, which is part of the Marsden Formation of the Millstone Grit Group and of Carboniferous age. The Huddersfield White Sandstone is a well known thick sandstone unit commonly found at ground level in the Huddersfield area. It typically consists of pale grey medium to coarse grained, massive to flaggy, cross bedded micaceous sandstone.

A significant fault is shown to be present a few metres to the north of the site trending north-west to south-east along the line of the original Longwood Brook channel. The fault, named as the Longwood Fault, downthrows towards the north-east bringing the Rossendale Sandstone/Mudstone and Rough Rock to near ground surface.

3.2 COAL MINING RISK ASSESSMENT

While Parkwood Mills area is located within a general coal mining area, it does not lie within a designated Development High Risk Area. As such it is considered that the risk of ground surface instability as a result of the collapse of abandoned coal mine workings or abandoned coal mine entries is negligible. As a result, no further assessment or intrusive investigation works are required with regards to historical coal mining activities.

3.3 SURFACE MINERAL EXTRACTION / QUARRYING

Based on published OS maps dating from as early as c.1854 until the present day there is no evidence of any mineral extraction within the boundary of the site although undefined excavations are shown to the south-east and northwest, presumably into the various sandstone formations.

The bespoke EnviroCheck report – **Appendix B** – records several sand pits towards the north-west of the site, but these are of negligible impact on the proposed development.

3.4 ENVIRONMENTAL ISSUES

As part of the Phase 1 Desk Study process, a bespoke geoenvironmental report for the site in question has been acquired from EnviroSearch Ltd. The full report is included in **Appendix B**.

A summary of the pertinent findings of the report is included below in Table 2 – negative/trivial findings have not been included in the summary table.

Table 2: Summary of EnviroCheck Report			
Page No.	Source of Information	Comment	Significance
1	BGS Groundwater Flooding Susceptibility	<u>On site</u> : Limited Potential for Groundwater Flooding	Very Low
2	Environment Agency Discharge Consents	<u>Onsite</u> : None <u>Offsite</u> : Parkwood Mills – Ceased 1996	Very Low
8	Environment Agency Pollution Incidents	<u>Adjacent Site (<10m)</u> 1997, Detergents and surfactants.	Very Low
10	Environment Agency Water Abstractions	<u>Onsite</u> : None <u>Offsite</u> : None within 100m	Low
29	Historical Landfill Site	<u>On site 1984 - 86</u> : Deposited Waste included Inert and Commercial Waste. <u>Prohibited wastes</u> : Liable to cause environmental hazards: poisonous, noxious, polluting wastes	High
31	BGS Registered Landfill site	<u>Onsite</u> : None <u>Offsite</u> : c. 35m south-east, construction and demolition waste.	Medium
33	BGS Geology	<u>Onsite</u> : Millstone Grit Group	Negligible
33	BGS Soil Chemistry mg/kg	<u>Onsite</u> : Arsenic 25 – 35; Cadmium <1.8; Chromium 60 - 90; Lead 300 – 600; Nickel 15-30.	Medium
40	Contemporary Trade Directory Entries	<u>Onsite</u> : None <u>Offsite</u> : Low risk	Very Low
46	Fuel Stations	<u>Onsite</u> : None <u>Offsite</u> : None within 850m	Negligible
46	Commercial Services	<u>Onsite</u> : None <u>Offsite</u> : Low risk	Very Low

The main geoenvironmental risk included in the EnviroCheck report is the identification of a registered landfill to the immediate south-east of the site, which had already been identified by the historical research. What has become apparent is that the materials used to backfill the former mill pond included Inert and Commercial Waste and excluded materials “liable to cause environmental hazards: poisonous, noxious, polluting wastes”.

3.5 SITE HYDROGEOLOGY

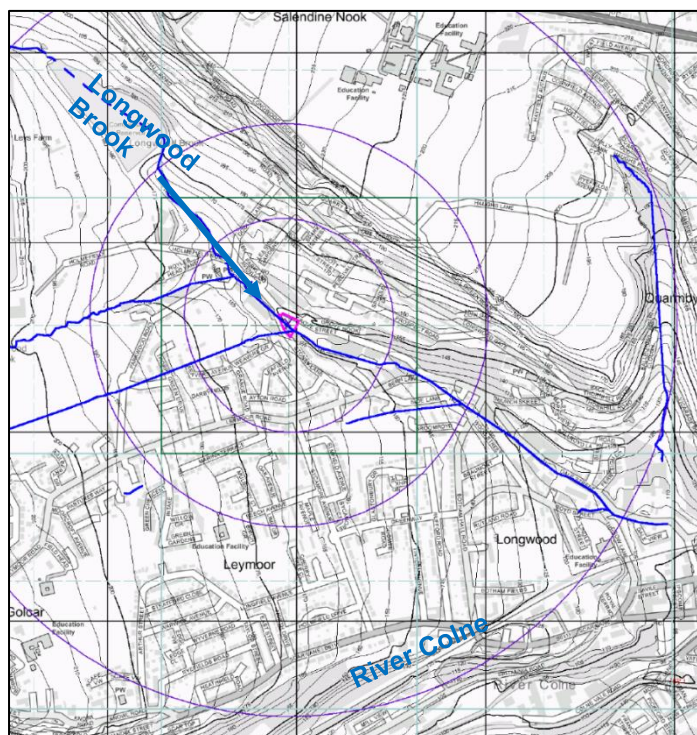
- There are no Source Protection Zones recorded within 1km from the boundaries of the site;
- the closest Water Abstractions is a little over 100m north of the site;
- there are no superficial soils beneath the site and therefore no superficial soil aquifers;
- the underlying solid geology has been designated as a Secondary Aquifer - A.

Table 3: Groundwater Classifications		
STRATA	Aquifer / Soil Leachability EA Classification	Comments
Made Ground:	Not classified.	Of very limited extent and thickness on site, but possible present to the south-east. Possible fill to Longwood Brook culvert.
Superficial Soils	Not Present	Not applicable
Huddersfield White Rock Sandstone	Secondary Aquifer - A	Low to medium permeability. Can provide modest amounts of water, but the nature of the deposit limits their use. They support water supplies at a local rather than strategic scale but may remain important for the provision of base load to rivers, wetlands and lakes.

3.6 SITE HYDROLOGY

Table 4 : Surface Water Classifications		
SURFACE WATER FEATURE	Location	Comments
GQA Classified River	None recorded within 250m.	The River Colne is designated as being of River Quality C.
Unclassified Watercourse(s), Canals, Ponds and Lakes	Numerous surface water courses within 500m – see Figure below.	The closest watercourse is the Longwood Brook, which has been controlled, initially by Huddersfield Waterworks during the establishment of the Parkwood Mills infrastructure. The current position of the Longwood Brook, in relation to the site is uncertain but probably in culvert as shown in Figure 8 in Appendix A .
Flooding from Rivers and the Sea	The site does not fall within a designated Flood Zone II or III.	Given the site and immediate off-site topography it is considered that flooding from adjacent watercourses is very unlikely.
Groundwater Flooding Susceptibility	On site	BGS report a limited potential for groundwater flooding to occur. - Negligible in reality.
RAINFALL (Average)	Measurement	Comment
Annual	5,261 mm	Based on closest 'station average' records at Leeds – Bradford Airport.
Precipitation, March	333 mm	
Precipitation, December	517 mm	

Local Surface Water Network



3.7 RADON ASSESSMENT

The UK Health Security Agency (UKHSA) has published reports containing radon Affected Area maps for the whole of the United Kingdom. Reference to the relevant map shows that this site lies within an area of low radon potential, where a radon potential less than 1% can be expected.

This means that less than 1% of dwellings have the chance of having a radon level that is at or above the radon action level of 200Bq/m³.

Notwithstanding this, it is possible to obtain site specific radon potential risks for particular residence post codes.

Reference is made to BRE Digest, BR211 (2015) Radon: Guidance on protective measures for new buildings.

3.8 SITE ECOLOGY, ENVIRONMENT AND SENSITIVE SITE USE

As expected, given its urban and industrial context, the site does not lie within a Nitrate Vulnerable Zone.

There are no Sites of Special Scientific Interest (SSSI) located within 1km of the site.

PS Geotech is not aware of an ecological or arboricultural survey having been undertaken at the site, but there are areas of significant mature trees, which need to be covered by an arboriculturist report..

There is an area of adopted/unadopted greenbelt, some 150m to the northwest of the site. This is not expected to have any influence on the site development..

3.9 GROUND STABILITY

The Ground Stability section of the EnviroSearch database search has been reviewed with respect to the published geology and provides general information on the potential for ground instability on-site and are discussed below.

Mine Workings and Mine Instability

The property is not located within a surface area that could be affected by past or present underground mining.

Compressible Ground and Ground Dissolution Hazards

No hazard is anticipated at this property based on the available information.

3.10 ASBESTOS

The degree of asbestos risk cannot be assessed on the basis of the available information. Any Made Ground that has accumulated on site, from whatever source, could contain any of the common asbestos types.

It will be recommended that all soil samples sent for laboratory testing are screened for potential asbestos fibres.

4.0 INDUSTRIAL CONTEXT

4.1 RECENT SITE HISTORY

A description of the recent site history has been included at Section 2.2. This has shown that from the mid-19th century, the Parkwood area, within the Longwood Brook catchment area has been developed as a major woollen textile manufacturing centre. While the industrial focus on this area declined, with the British woollen textile industry declined during the late 20th century, the region has benefitted from a local push to preserve and re-purpose the former industrial buildings so that the area is now termed as 'residential and light commercial'.

4.2 LANDFILL AND WASTE

The following information relating to Landfill and Waste has been obtained from the Landmark Information Group EnviroCheck Report (attached in **Appendix B**):

- a BGS recorded landfill site is located immediately adjacent to the south-eastern site boundary. This was a former mill pond that has since been filled with "Inert and Commercial Waste". The records state that "poisonous, noxious and polluting wastes" were not deposited;
- based on the recorded site history, only nominal thicknesses of Made Ground deposits are expected over most of the site area;
- for a time during the active milling stages, the site was used for the storage of unspecified liquids in tanks;
- during the active woollen milling years, it is apparent that the mill pond, located to the south-east of the site may have encroached within the site.

4.3 STATUTORY REQUIREMENTS / AUTHORISATIONS

Table 5: Statutory Issues		
Reference	Location	Comments
Local Authority Pollution Prevention and Controls	Decorative Panels Components Ltd c.138m south-east (down-stream) of site	Manufacture of timber and wood-based products
Local Authority Integrated Pollution Prevention and Control	None recorded within c.500m.	~
Prosecutions Relating to Authorised Processes	None significant within c.250m.	~
Contemporary Trade Entries	None recorded within c.250m.	~
Fuel Station Entries	None recorded within c.250m.	~

5.0 CONCEPTUAL SITE MODEL (CSM)

The Conceptual Site Model (CSM) is one of the primary planning tools that can be used to support the decision-making process of managing contaminated land and groundwater on any given site, and allows a better understanding of what needs to be done to achieve risk management, and informs the decision making process that allows appropriate remediation techniques, if required, to be chosen. This can be done by undertaking a source-pathway-receptor analysis of the site.

Table 6 Conceptual Site Model Programme

Sources (S)		Pathways (P)		Receptors (R)	
S1	Historical records show no formal structures on site, but tanks and temporary mill structures were shown during the 20 th century. Currently an electrical substation is shown to the north-west, a former mill pond/land fill to the south-east and uncertainties regarding buried utilities/services. Asbestos could be present in Made Ground.	P1	Ingestion.	R1	Human health (end users and construction workers).
		P2	Inhalation.	R2	Groundwater below the site is anticipated at depth and is designated as a Secondary Aquifer A.
		P3	Dermal Contact.		
S2	There is a residual risk from potential soil gas migration through Made Ground and sub-soils from buried services and the filled former mill pond..	P4	Migration through existing services and shallow soils.	R3	Building materials.
		P5	Direct contact with building materials.	R4	Adjacent sites.
		P6	Surface run off.	R5	Flora and fauna.

A plan and cross-sectional representation of the CSM has been produced for this site and is presented in **Appendix C**, which sets out the critical pollutant linkages of concern for this site, with regard to contamination as highlighted above.

5.1 GEOTECHNICAL CONSIDERATIONS

The following potential geotechnical issues and hazards have been identified for this site, and these issues should be considered before future development of the site is to take place:

- Made Ground may be present across the site. Made Ground may be associated with general materials accumulating to shallow depth but of no great concern.
- however, there is also evidence that the former mill pond to the south-east may have encroached within the site in the area of the proposed new build houses;
- buried trenches may cross the site containing buried services;
- it is known that the Longwood Brook passes beneath the site through culvert. While the position of culvert is documented, this has not been proven;
- several trees with preservation orders are present over the southern half of the site. These present a development constraint in their own case, but also as a potential constraint on foundation design as a result of potential soil desiccation.
- potential migration of soil gases from the recorded landfill to the site through drainage channels.

To determine the ground conditions with more certainty, it is recommended that consideration is given to undertaking a programme of intrusive works with associated insitu geotechnical and laboratory classification testing.

The information reviewed indicates that the site can be considered to be located within a **MEDIUM** geotechnical risk setting

5.2 SOURCES OF CONTAMINATION

Soils – Human Health

The historical OS maps, the Landmark Information Group Envirocheck Report and other environmental information have revealed that the site remained largely undeveloped during the growth of the Parkwood Mills complex since the mid- 19th century.

During the mid-19th century to late 20th century, while Parkwood Mills were in their prime, the site was undeveloped by permanent overground structures. However, historical mapping indicates areas of tanks storing unknown liquids along the boundary with Grove Street and a well established mill pond that may have encroached within the south-eastern end of the site.

The southern half of the site has been mainly undeveloped in any way and has remained as slightly sloping ground with semi-mature and mature shrubs and trees.

The works undertaken by Huddersfield Waterworks during the mid 19th century included the channelling of the Longwood Brook headwaters into the valley through mill races, leats and goits. The path of the downstream outlet of the brook passes beneath the site.

Considering the above, potential on-site contaminative issues have been identified for this site, as listed below.

- Limited areas of Made Ground present beneath the ground surface;
- spillages from former tanks on site;
- encroachment of mill pond to the south-east;

- culverted Longwood Brook.

The information reviewed indicates that the site can be considered to be located within a **MEDIUM** ground contamination risk setting for Human Health and the environment.

Groundwater / Leachate – Controlled Waters

The following issues have been taken into consideration when assessing the risks towards groundwater / controlled waters;

- groundwater below the site has been classified as a Secondary Aquifer - A and is anticipated to be present at depth within the solid geology (Carboniferous strata);
- there are no Source Protection Zones recorded within 1km from the boundaries of the site;
- there are no downstream Water Abstractions recorded within 100m from the boundaries of the site.

The information reviewed indicates that the site can be considered to be located within a **LOW to NEGLIGIBLE** ground contamination risk setting for Controlled Waters.

6.0 RECOMMENDATIONS FOR PHASE 2 GROUND INVESTIGATIONS

It is recommended that consideration is given to targeted Phase 2: Ground Investigation Works.

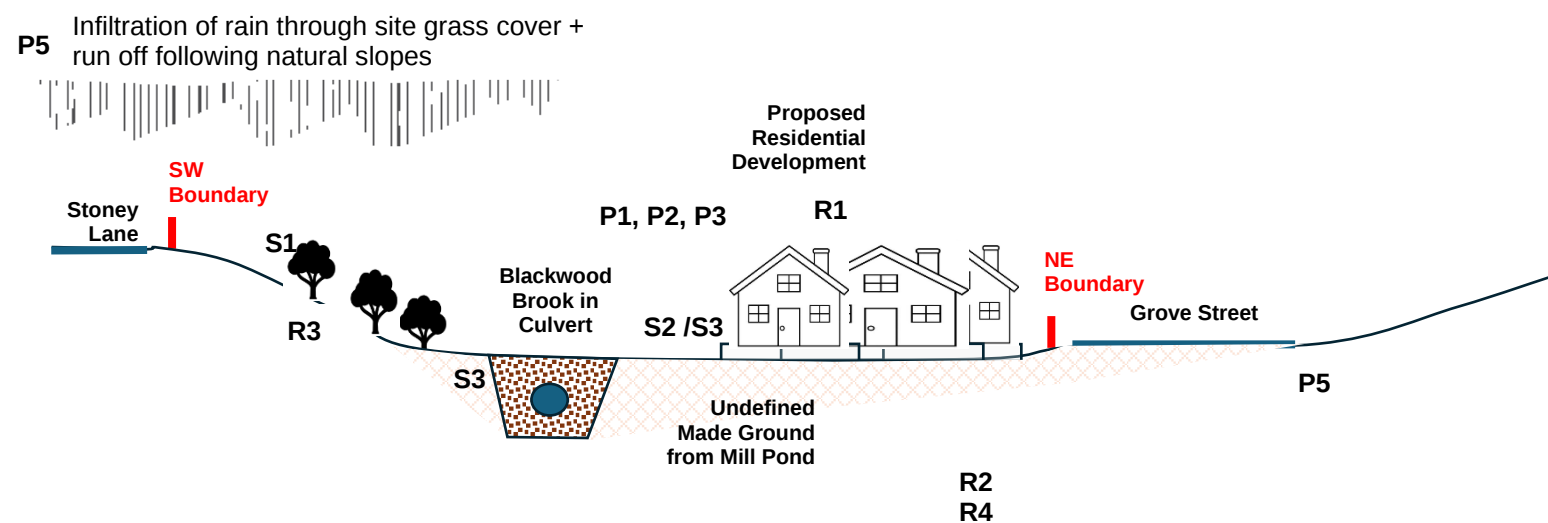
This investigation should be completed prior to commencing with any future development works and could include the following or similar investigation works:

- conventional dynamic probe boreholes to collect samples of shallow Made Ground and weathered solid strata;
- use of the dynamic probes to install groundwater/ground gas monitoring and the establishment of a ground gas monitoring period;
- confirmation of the Longwood Brook culvert and establishment of areas of responsibility.

GENERAL REFERENCES

- BGS 1:50,000 Sheet 76 Rochdale, Solid & Drift Edition, Solid Edition, 2005;
 - Geology of the Rochdale district — a brief explanation of the geological map Sheet 76 Rochdale;
 - Landmark Information Group Envirocheck Report, Reference: 350873814_1_1, dated 24th June 2024;
 - DoE, DEFRA & EA - Contaminated Land Reports.
- CLR 1: A framework for assessing the impact of contaminated land on groundwater and surface water. Report by Aspinwall & Co. Volumes 1 & 2. DoE, 1994.
- CLR 2: Guidance on preliminary site inspection of contaminated land. Report by Applied Environmental Research Centre Ltd. Volume 1. DOE, 1994.
- CLR 3: Documentary research on industrial sites. Report by RPS Group plc. DoE, 1994.
- CLR 4: Sampling strategies for contaminated land. Report by The Centre for Research into the Built Environment, The Nottingham Trent University. DoE, 1994.
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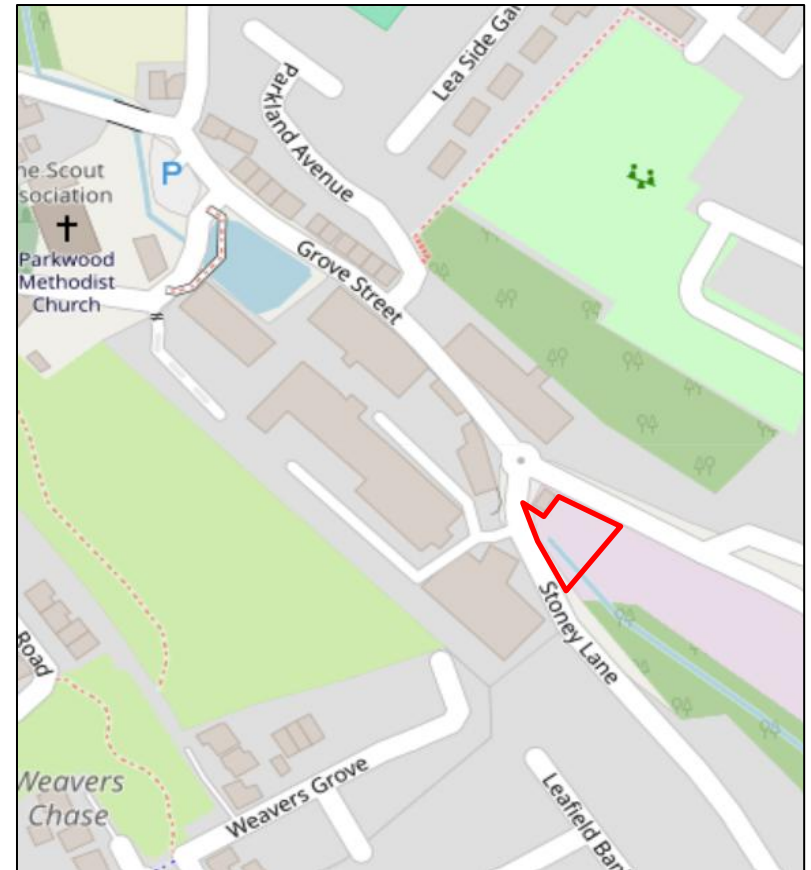
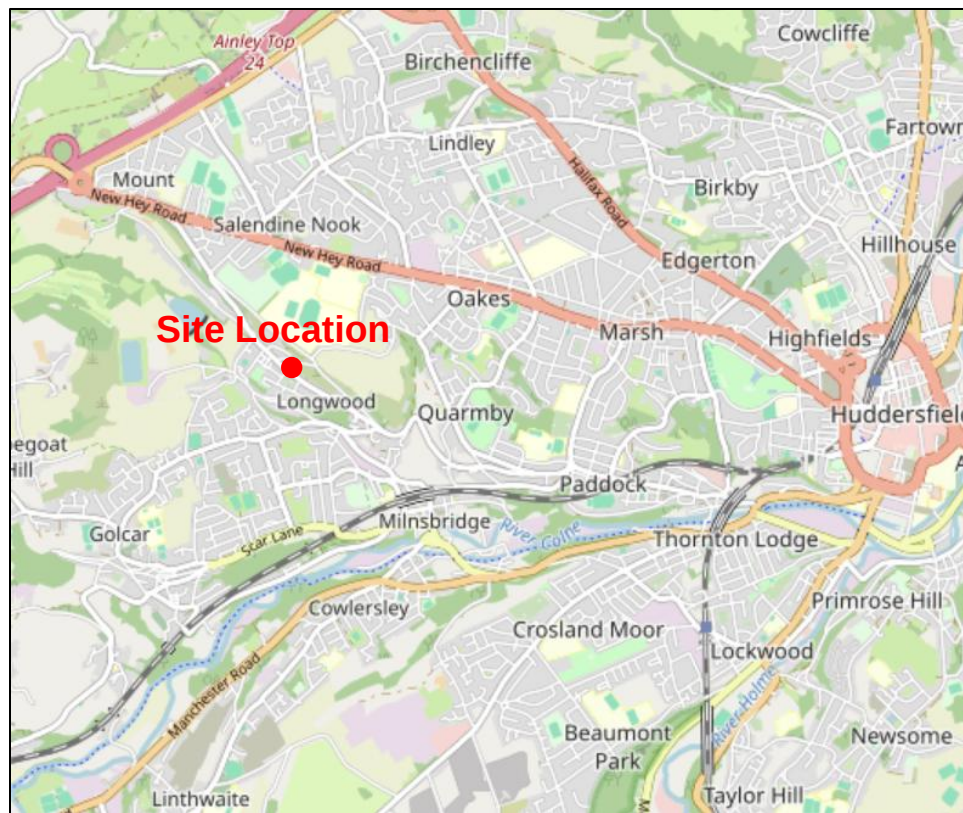
Conceptual Site Model Section					
Source		Pathway		Receptor	
S1	Trees take up moisture causing desiccation	P1	Ingestion	R1	Human Health (End users and Construction workers)
S2	Historic storage of materials in tanks on ground surface	P2	Inhalation	R2	Groundwater and surface water
S3	General asbestos risk in Made Ground	P3	Dermal Contact	R3	Flora and fauna
S4	General ground gas risk along Made Ground conduits	P4	Migration through services	R4	Adjacent sites
		P5	Surface run-off		



APPENDIX A

FIGURES AND DRAWINGS





KEY:

● Site Location

DO NOT SCALE



TITLE:

Site Location Plan

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE :

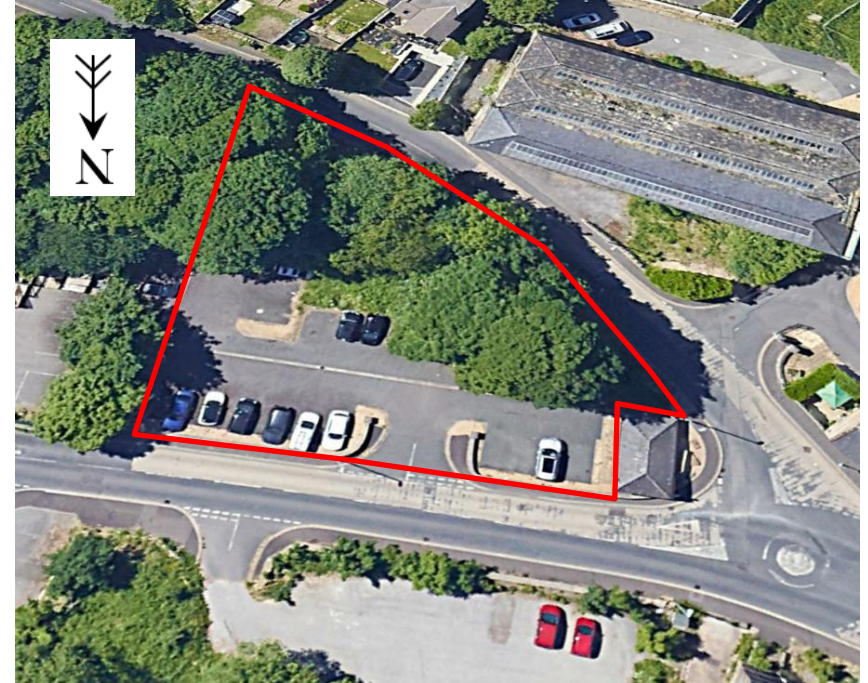
NTS

DRAWN :

PS

DWG No:

Figure 1



Grid Ref: 410470 416800
Post Code: HD3 4TR

KEY:

DO NOT SCALE



TITLE:

Aerial View

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE:

NTS

DRAWN:

PS

DWG No:

Figure 2



KEY:

DO NOT SCALE



TITLE:

Existing Layout

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE :

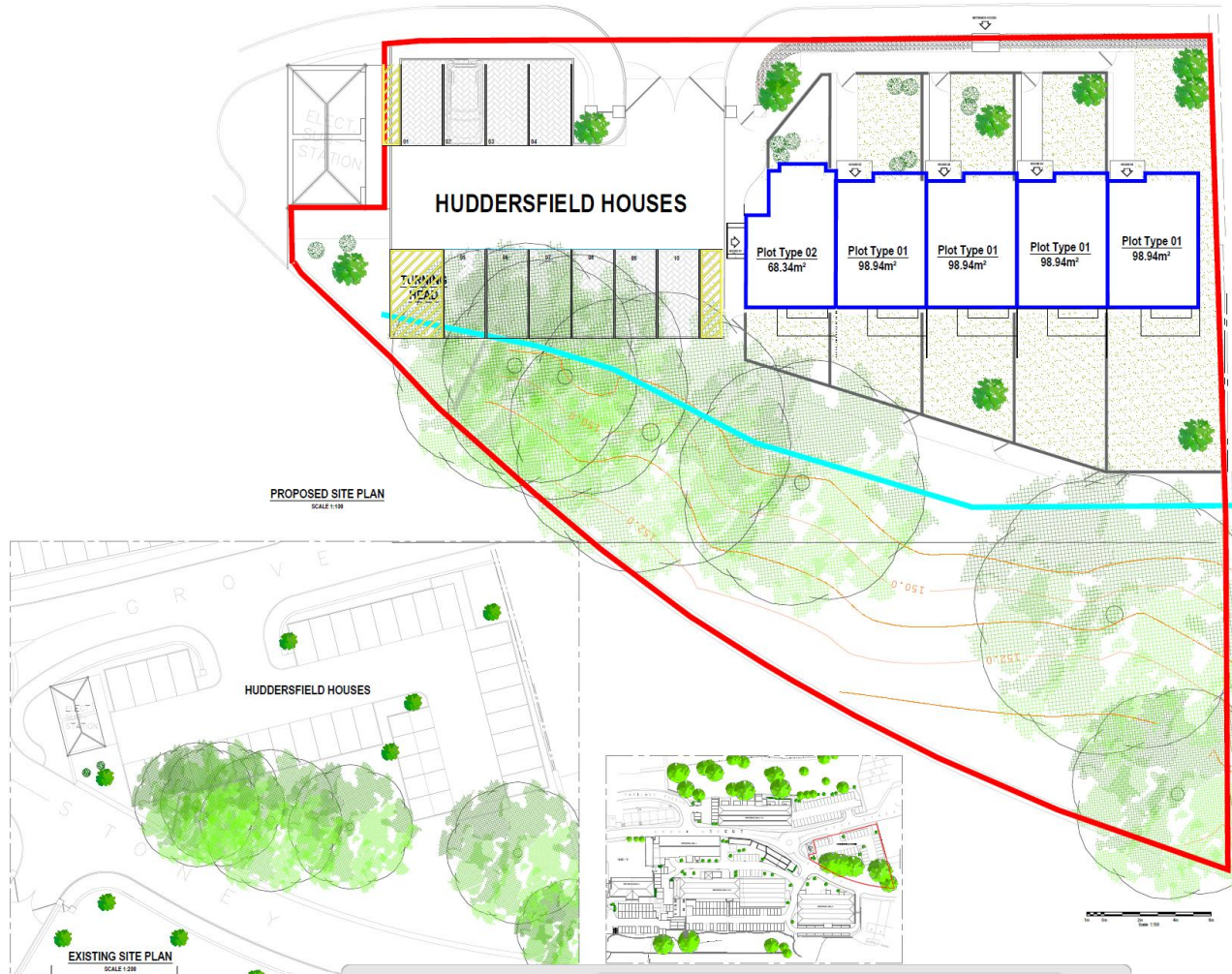
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DRAWN :

PS

DWG No:

Figure 3



KEY:

DO NOT SCALE



TITLE:

Proposed Development

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE :

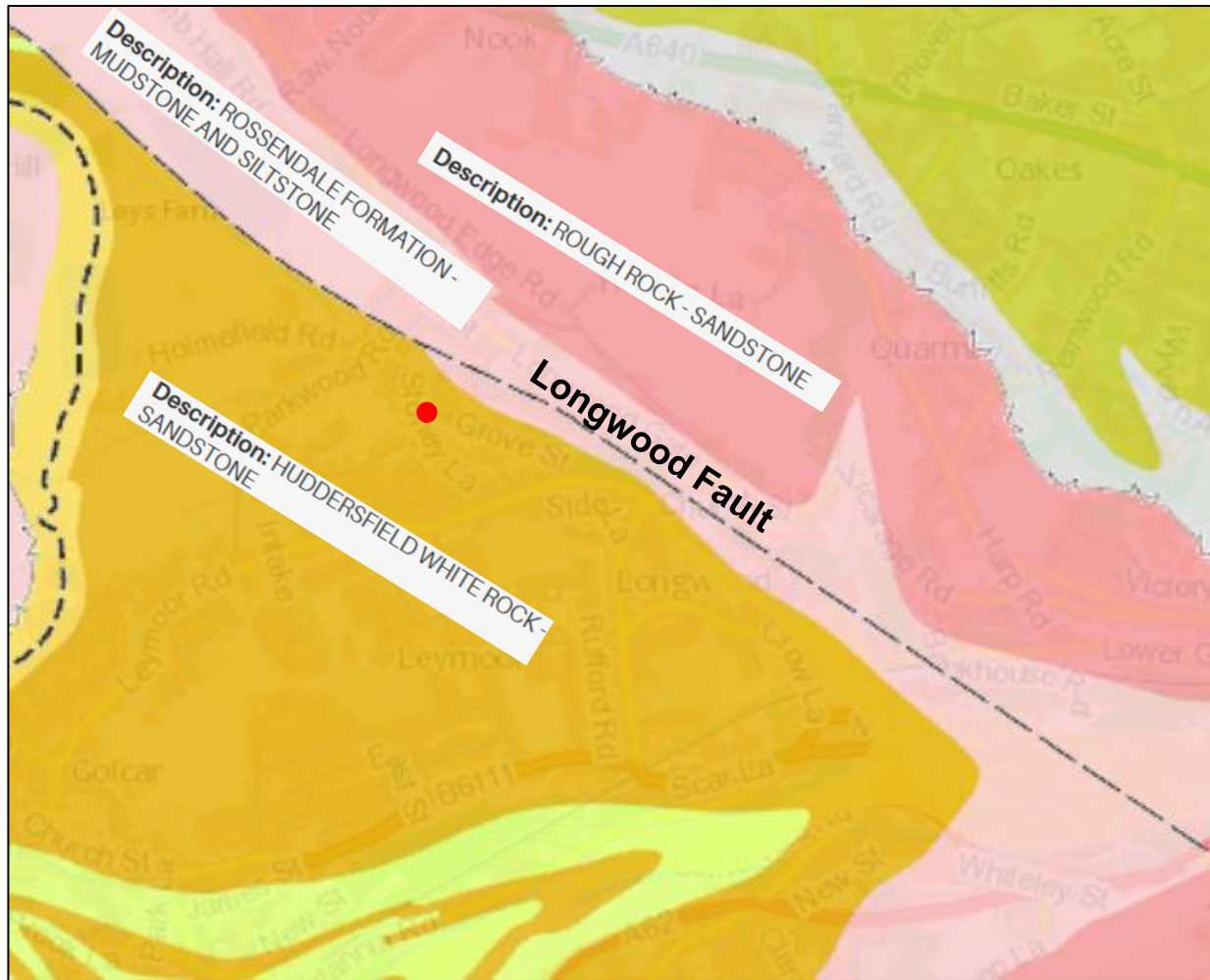
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DRAWN :

PS

DWG No:

Figure 4



KEY:

● Site Location

DO NOT SCALE



TITLE:

Extract from Geoindex

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE :

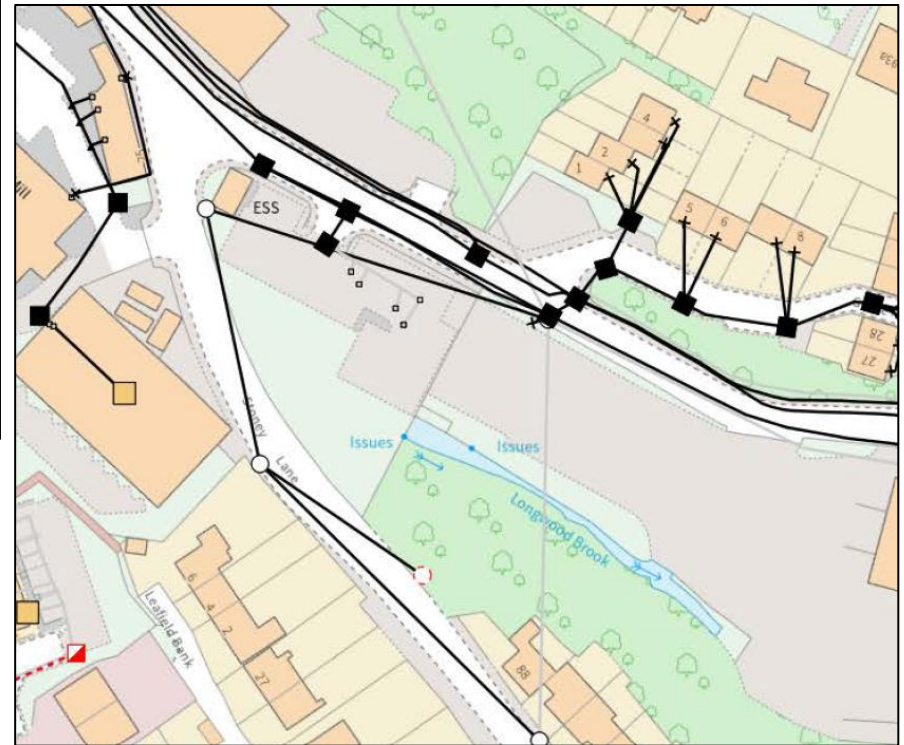
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DRAWN :

PS

DWG No:

Figure 6



KEY:

DO NOT SCALE



TITLE:

Extracts from Utilities Survey

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE :

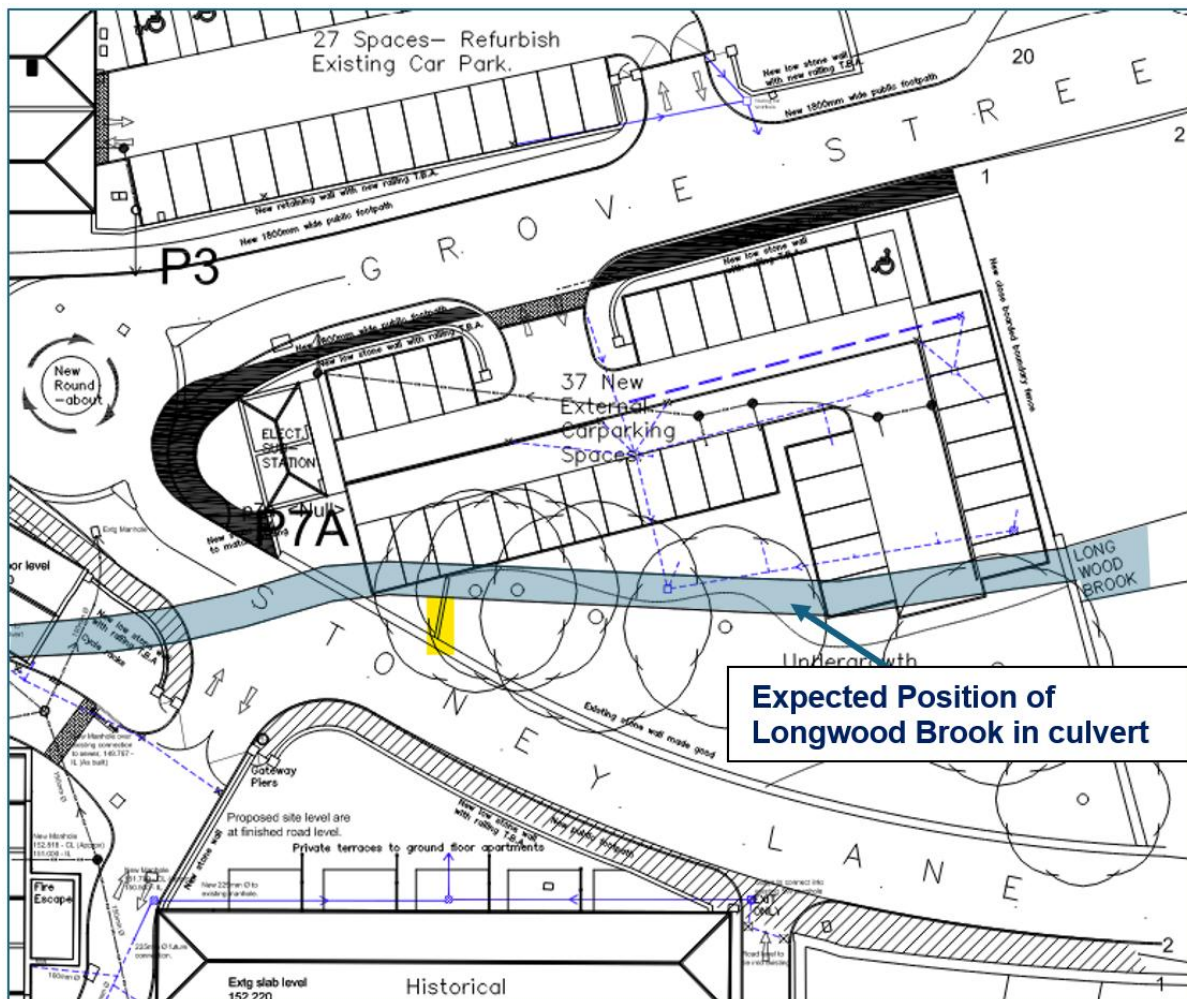
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DRAWN :

PS

DWG No:

Figure 7



KEY:

DO NOT SCALE



TITLE:

Probable Position of Longwood Brook

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE:

NTS

DRAWN:

PS

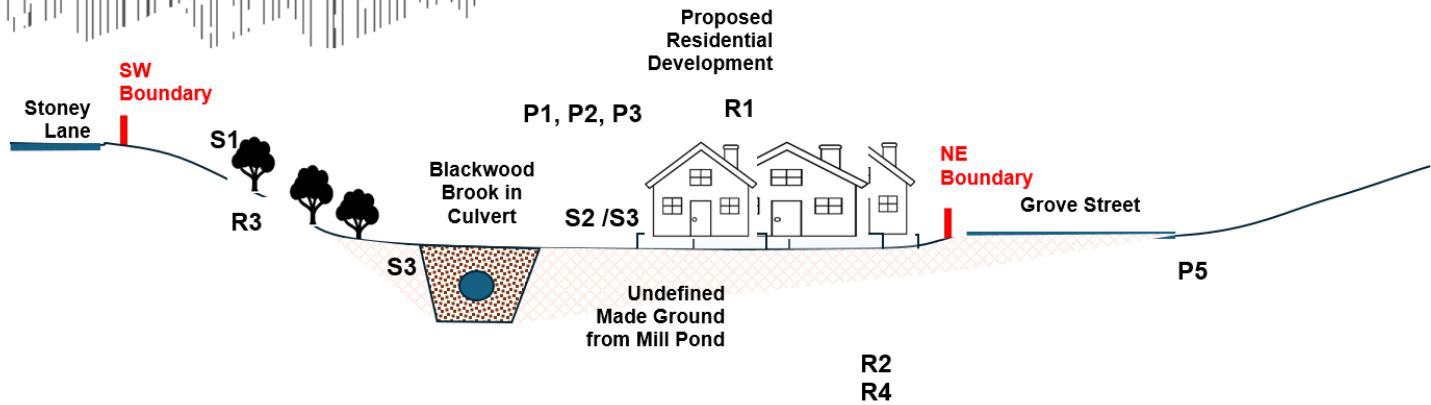
DWG No:

Figure 8



Conceptual Site Model Section					
Source		Pathway		Receptor	
S1	Trees take up moisture causing desiccation	P1	Ingestion	R1	Human Health (End users and Construction workers)
S2	Historic storage of materials in tanks on ground surface	P2	Inhalation	R2	Groundwater and surface water
S3	General asbestos risk in Made Ground	P3	Dermal Contact	R3	Flora and fauna
S4	General ground gas risk along Made Ground conduits	P4	Migration through services	R4	Adjacent sites
		P5	Surface run-off		

P5 Infiltration of rain through site grass cover + run off following natural slopes



KEY:

DO NOT SCALE



TITLE:

Conceptual Site Model

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE:

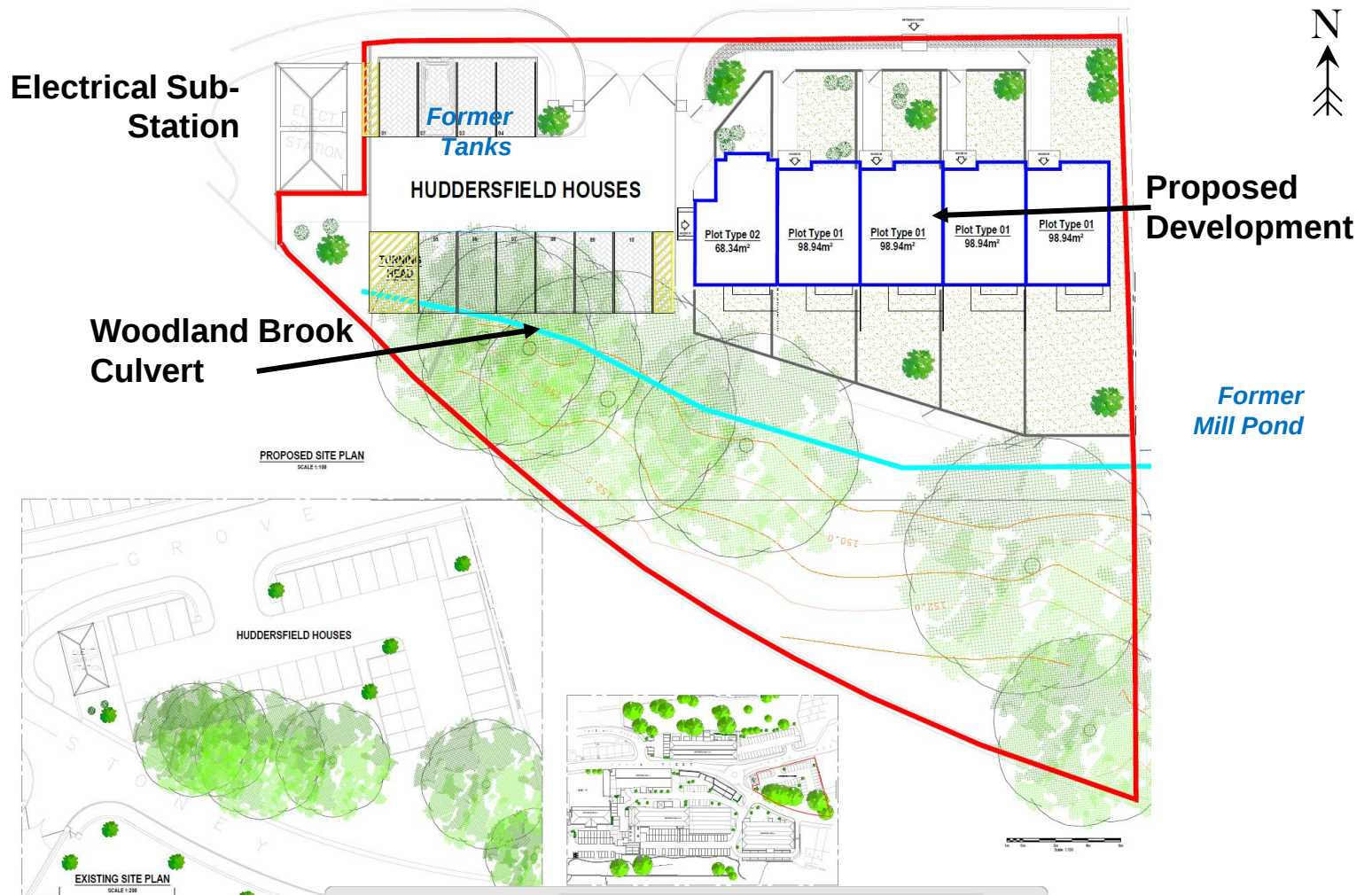
NTS

DRAWN:

PS

DWG No:

Figure 8



KEY:

DO NOT SCALE



TITLE:

Conceptual Site Model 2

PROJECT:

Parkwood Mills, Huddersfield

PROJECT No:

PS3657

DATE:

February 2025

SCALE :

NTS

DRAWN :

PS

DWG No:

Figure 8

APPENDIX B

ENVIROSEARCH REPORT



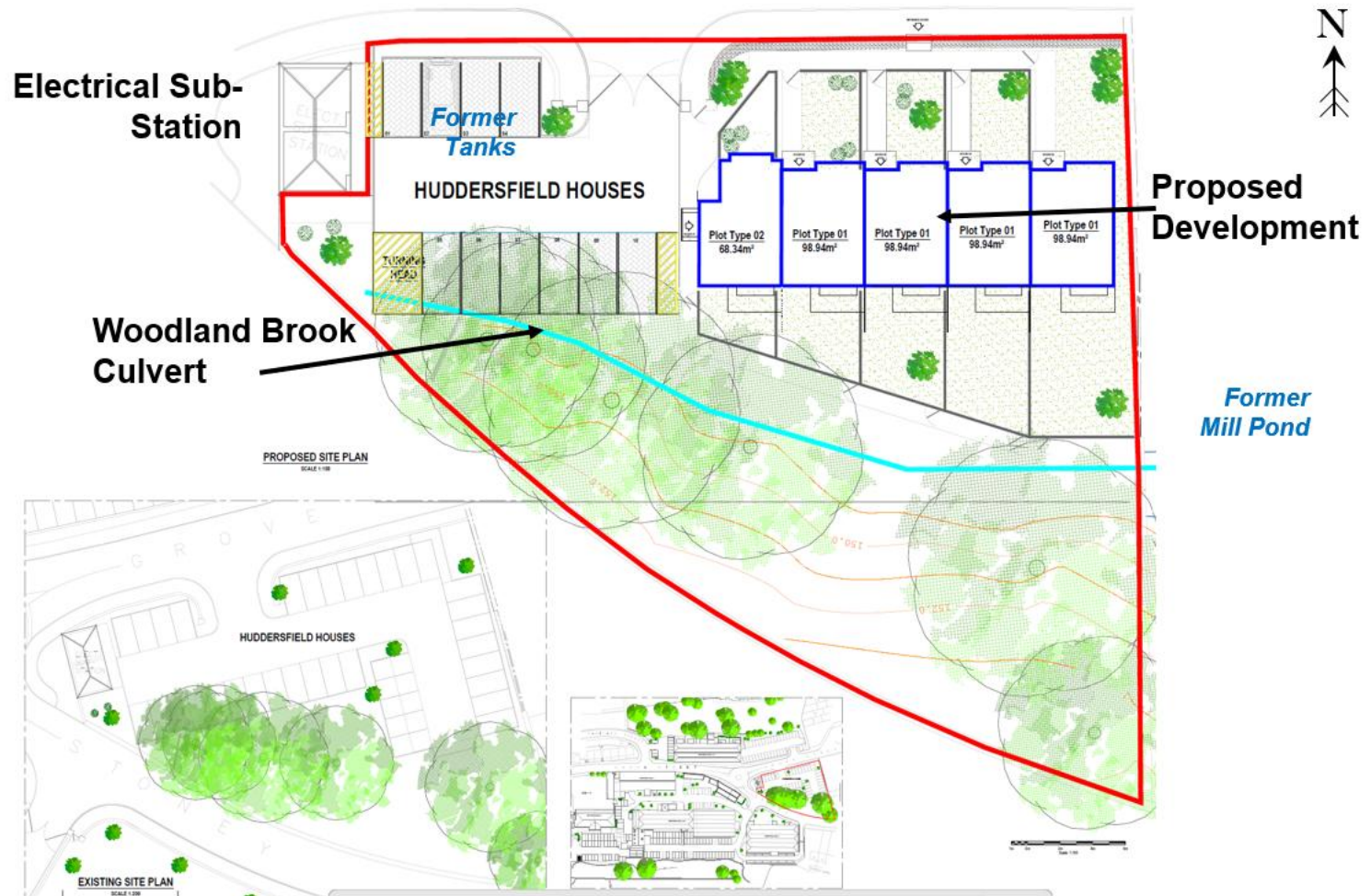
APPENDIX C

CONCEPTUAL SITE PLAN



PS3657 Parkwood Mills

Appendix C – Conceptual Site Model



Conceptual Site Model Section					
Source		Pathway		Receptor	
S1	Trees take up moisture causing desiccation	P1	Ingestion	R1	Human Health (End users and Construction workers)
S2	Historic storage of materials in tanks on ground surface	P2	Inhalation	R2	Groundwater and surface water
S3	General asbestos risk in Made Ground	P3	Dermal Contact	R3	Flora and fauna
S4	General ground gas risk along Made Ground conduits	P4	Migration through services	R4	Adjacent sites
		P5	Surface run-off		

P5 Infiltration of rain through site grass cover + run off following natural slopes

