

TEF 92545
HIGH BOOTH HOLLINS FARM
LITTLEBOROUGH

SHALLOW MINING
SITE INVESTIGATION WORKS

Job Number: LKC 22 1443
Date: July 2023
Client: Clarke Telecom



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LK Consult Document Verification			
Site Address	TEF 92545 High Booth Hollins Farm, Littleborough OL15 0AR		
Report Title	Shallow Mining Investigation Works		
Job Number	LKC 22 1443	Document Ref.	LKC 22 1443-B1-CMSI-High Booth Hollins Farm
Date Issued	24 th July 2023	Report Version	R0
Prepared By	Fraser Peers Hannah Moss	Reviewed By	Colin Crompton Emma Khadun

Revision Record			
Revision No.	Date	Nature of Revision	Approved By

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1 Introduction

1.1 Background

LK Consult Ltd (LKC) has been commissioned by Clarke Telecom to carry out an investigation works into the potential shallow mining risks at TEF 92545 High Booth Hollins Farm, Littleborough.

The following work was previously undertaken by LKC:

- » Coal Mining Risk Assessment (CMRA) undertaken by LKC (Ref: LKC 22 1443-01, September 2022).

This investigation has been undertaken to confirm the ground conditions below the site and allow an assessment of the potential for the site to be affected by shallow coal seams / workings. The report will aim to confirm the risks from historical coal mining and recommend further assessment and / or remediation as required.

The assessment and interpretation of the factual data obtained as part of this investigation has been undertaken in line with currently accepted national and international guidelines including CIRIA758¹.

Ground conditions can change rapidly, especially in areas of Made Ground; however, it is assumed that the ground conditions observed are typical and representative of the site as a whole. The ground conditions have been determined from a limited number of exploratory holes, therefore only a small percentage of the total area of the property has been investigated. Conclusions drawn from the ground investigation should be read in this context. LKC cannot accept responsibility for any situations resulting from locally unforeseen ground conditions occurring between exploratory holes.

1.2 Site Details

A summary of the site details is presented in Table 1-1. Figures 1 and 2 indicate the site location, boundary and proposed development plan.

Location	North of Lower Booth Farm, north of the M62 Motorway, Littleborough, OL15 0AR. Centred at approximate National Grid Reference 395130E 414250N.
Approximate Area	60m ²
Topography	263 metres Above Ordnance Datum (AOD). Slopes gently up to the east.
Current Land Use	<u>Site</u> Livestock field. <u>Surrounding Area</u> Agricultural fields with M62 motorway to the south. A farm building is present alongside the M62.
Proposed Development	Upgrade to communications mast and compound.

Table 1-1: Summary of site details.

¹ CIRIA2019: C758D Abandoned mine workings manual. ISBN: 978-0-860017-765-4

2 Summary of Previous Work

The following sections provide a summary of previous work relating to historical coal mining on the site.

2.1 LKC Desk Based Coal Mining Risk Assessment

2.1.1 Geology

Artificial

Worked ground (undivided) recorded in the south of site. No artificial ground recorded in the north of site.

Superficial

No superficial geology recorded on site.

Bedrock

The bedrock is mapped as the Pennine Lower Coal Measures Formation (Mudstone, Siltstone and Sandstone). No dip data is available on site, surrounding area data dips to the southwest / west between 10° and 15°.

A coal seam is shown to on BGS mapping to cross the site trending north-south. The cutting of the M62 motorway immediately to the south of the site also indicates that the coal seams are dipping down to the west to southwest.

Extracts from the geological mapping are shown on Plate 2-1. These show the differences in geological mapping between the BGS 2008 and digital 1:10,000 mapping.

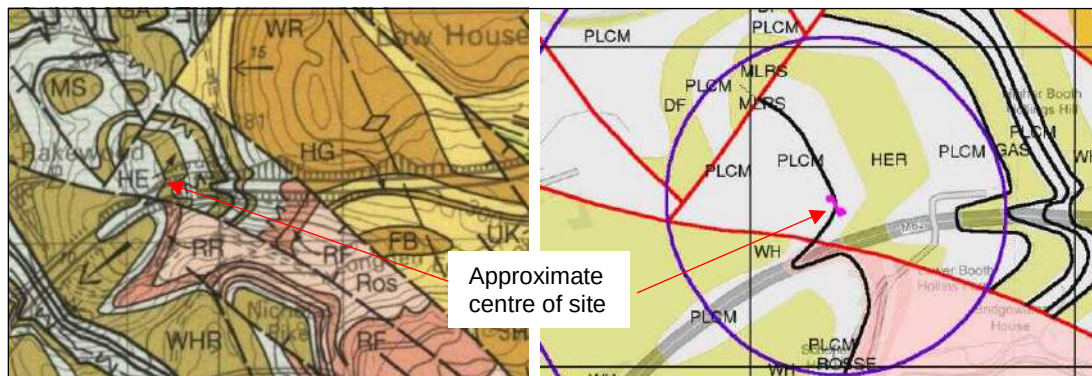


Plate 2-1: Extracts from geological mapping. Left: 2008 1:50,000 sheet mapping, right: 2010 1:10,000 digital mapping. Not to scale.

A coal seam is not present on the BGS 2008 mapping however it is present on digital mapping. Plate 2-2 shows an extract of the generalized vertical section from Sheet 76 showing the section of strata expected on and below the site. Based off the vertical section, it would appear likely that it is the Upper Mountain (Hogards) Coal seam present on or close to the site at shallow depth.

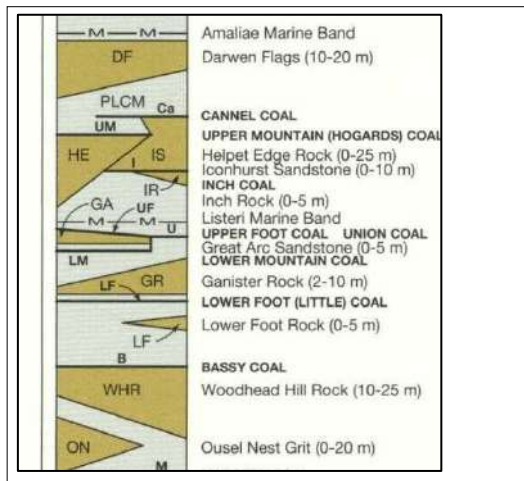


Plate 2-2: Extract of the generalized vertical section from Sheet 76 (dated 2008). Not to scale.

2.1.2 Coal Authority Consultants Report

As part of the CMRA, LKC obtained a Consultants Coal Mining Report. Table 2-1 summarises the findings.

Mining Activity and Geology	
Past underground mining	Yes: See Plate 2-1.
Probable unrecorded shallow workings	Yes.
Spine roadways at shallow depth	No spine roadway recorded at shallow depth.
Mine entries (within 100m)	None recorded within 100m of the enquiry boundary.
Abandoned mine plan catalogue numbers	6002B
Outcrops	No outcrops recorded.
Geological faults, fissures and breaklines	No faults, fissures or breaklines recorded.
Opencast mines	None recorded within 500m of the enquiry boundary.
Coal Authority managed tips	None recorded within 500m of the enquiry boundary.
Investigative or Remedial Activity	
Site investigations	None recorded within 50m of the enquiry boundary.
Remediated sites	None recorded within 50m of the enquiry boundary.
Coal mining subsidence	Not received a damage notice or claim for the subject property, or any property within 50m, since 1994. No current Stop Notice delaying remedial works or repairs to property. Not aware of any request made to carry out preventative works before coal is worked.
Mine gas	None recorded within 500m of the enquiry boundary.
Mine water treatment schemes	None recorded within 500m of the enquiry boundary.

Table 2-1: Summary of Coal Authority Consultants Coal Mining Report.

Licensing and Future Mining Activity	
Future underground mining	None recorded.
Coal mining licensing	None recorded within 200m of the enquiry boundary.
Court Orders	None recorded.
Section 46 notices	No notices have been given, stating that the land is at risk of subsidence.
Withdrawal of support notices	Not in an area where a notice to withdraw support has been given or where a notice has been given cancelling the entitlement to withdraw support.
Payments to owners of former copyhold land	Not in an area where a relevant notice has been published.
Further Information	
The following potential risks have been identified and as part of your risk assessment should be investigated further.	
Development advice	
The site is within an area of historical coal mining activity. Should you require advice and/or support on understanding the mining legacy, its risks to your development or what next steps you need to take, please contact us.	

Table 2-1 (cont.): Summary of Coal Authority Consultants Coal Mining Report.

Plate 2-3 shows the past underground mining. This is defined by the Coal Authority as *'details of all recorded underground mining relative to the enquiry boundary. Only underground workings where the enquiry boundary is within 0.7 times the depth of the workings (zone of likely physical influence) allowing for seam inclination, will be included'*.

Colliery	Seam	Mineral	Coal Authority reference	Depth (m)	Direction to working	Dipping rate of seam worked (degrees)	Dipped direction of seam worked	Extraction thickness (cm)	Year last mined
unnamed	LOWER MOUNTAIN	Coal	3XBB	23	Beneath Property	8.1	West	30	1904
	LOWER MOUNTAIN	Coal	AOSZ	177	North	8.1	West	55	1881
	LOWER MOUNTAIN	Coal	AOSY	191	North-West	10.0	North-West	55	1909

Plate 2-3: Extract from Coal Authority Report showing past underground mining.

Probable unrecorded shallow workings are defined as *'areas where the Coal Authority believes there to be unrecorded coal workings that exist at or close to the surface (less than 30m deep)'*.

2.1.3 Abandoned Mine Plans

As known shallow workings have been recorded in the Lower Mountain Seam by the Coal Authority at less than 30m below the site LKC obtained the abandoned mine plans from The Coal Authority. Relevant information is summarised below:

Plan No. 6002B:

- Shows extensive workings within the area, that when compared with the mapped development high risk area are considered to be beneath the site.
- Annotations on the plan suggests the plan shows workings (likely within the Lower Mountain seam) in 1857.

2.1.4 Risk Assessment

Based upon the available information, LKC have identified potential shallow coal mining risks which are summarised in Table 2-2.

Coal Mining Issue	Potential Risk
Underground coal mining (recorded at shallow depths)	✓
Underground coal mining (probable at shallow depths)	✓
Mine entries (shafts / adits)	?
Coal mining geology (fissures)	X
Record of past mine gas emissions	?
Recorded coal mining surface hazard	X
Surface mining (opencast workings)	X

Table 2-2: Summary of coal mining potential risks.

Considering the available information and guidance given in CIRIA C758², LKC considered that intrusive investigation work should be carried out to confirm the risk associated with coal mining.

² CIRIA (2019). "Abandoned Mine Workings Manual". CIRIA C758

3 Investigation Works

3.1 Site Investigation Design and Methodology

The following site investigation works were carried out by LKC on 7th-10th July 2023 and comprised the following:

➤ 2no. open hole rotary boreholes to 30.30mbgl (ref: RB1 and RB2).

The open hole rotary drilling was carried out in 2no. locations to determine the presence / absence of shallow workings across site.

RB1 was undertaken where an upgrade to an existing equipment room is proposed. RB2 was undertaken beneath the footprint of a proposed mast tower.

The boreholes were undertaken by Taylor Drilling Services using a Baretta T41 Rotary rig fitted with a PCD drill bit. Upon completion the boreholes were grouted up.

In order to carry out the above works permission is required from the Coal Authority. The permission certificate is included in Appendix A.

All site investigation locations are shown in Figure 3.

4 Ground Conditions

4.1 Rotary Open Hole Drilling

The rotary borehole logs are provided in Appendix B. The investigation locations are shown on Figure 3.

4.1.1 *Made Ground*

Made ground was encountered in RB1 only and comprised light brown sandy GRAVEL with limestone to 0.50mbgl.

4.1.2 *Superficial*

Topsoil was recorded in RB2 (brown gravelly silty SAND with frequent rootlets) only to 0.20mbgl.

Superficial deposits in RB1 were recorded as brown sandy clayey GRAVEL to 1.50mbgl.

Light brown to dark brown sandy silty CLAY was recorded in RB2 between 0.20-2.00mbgl, underlain by light brown CLAY to 3.00mbgl.

4.1.3 *Bedrock (Coal Measures)*

Rockhead was encountered at 1.50mbgl in RB1 and at 3.00mbgl in RB2.. Bedrock comprised:

- Yellow SANDSTONE was recorded in RB1 between 1.50 and 2.55mbgl.
- Light grey and dark grey SANDSTONE was recorded in RB1 between 2.55 and 10.30mbgl.
- Dark grey shaley MUDSTONE was recorded in RB2 between 3.00 and 3.60mbgl.
- Light brown shaley MUDSTONE was recorded in RB2 between 3.60 and 6.00mbgl.
- Dark grey SANDSTONE was recorded in RB2 between 6.00 and 8.60mbgl.
- Light yellowish brown SANDSTONE was recorded in RB2 between 8.6 and 16.00mbgl.
- Dark grey shaley MUDSTONE with interbedded SANDSTONE recorded in RB1 between 13.20 and 19.50mbgl.
- Dark grey shaley MUDSTONE was recorded in RB2 between 16.60 and 24.50mbgl.
- Light and grey SANDSTONE was recorded in RB2 between 25.30 and 27.90mbgl.
- Dark grey SILTSTONE was recorded in RB1 and RB2 between 19.50 and 30.30mbgl.
- Intact **coal** was recorded in RB1 between 12.00 and 13.20mbgl.
- Intact **coal** was recorded in RB2 between 16.00 and 16.60mbgl and between 24.50 and 25.30mbgl.

It should be noted that evidence for the presence of coal workings can include (but is not limited to) partial or total loss of flush, broken drilling, voids, fast drilling or the sudden dropping of the drill string. No loss of flush, fast / soft drilling or broken drilling was recorded either borehole.

4.1.4 *Ground Gas*

No detectable concentrations of methane, carbon dioxide, carbon monoxide or hydrogen sulphide or any oxygen depletions were measured during the rotary drilling process.

5 Conclusions and Recommendations

5.1 Shallow Coal Mining

The site is within a Development High Risk Area relating to probable and past shallow coal workings.

To investigate the above potential hazards a total of 2no. rotary open hole boreholes were sunk to a maximum depth of 30.30mbgl.

The investigation works identified up to 0.50m of made ground, over clay and gravel superficial deposits (up to 3.00mbgl), underlain by coal measures (mudstone, siltstone and sandstone) to approximately 30.00mbgl.

Both boreholes terminated at approximately 30mbgl in siltstone.

Intact **coal** was recorded in RB1 between 12.00 and 13.20mbgl and in RB2 between 16.00 and 16.60mbgl and between 24.50 and 25.30mbgl. The seam identified at 24.50-25.30mbgl is likely to represent the Lower Mountain seam as indicated in the desk based CMRA. The shallower seams encountered at depths of 12.00mbgl (RB1) and 16.00mbgl (RB2) is assumed to represent the Upper Mountain seam based on the desk based CMRA.

Although the desk based CMRA concludes that recorded shallow workings are present beneath the site (at 23m beneath site), no evidence of workings were recorded in the 2no. boreholes drilled.

Although workings may not always be identified, it should be considered that boreholes may be sunk into 'pillars' of intact coal. Early 19th century workings using pillar and room methods left significant areas of coal intact with extraction ratios in the range of 30-70%. Later workings typically have extraction ratios of 50-60%³.

Shallow workings related ground subsidence events may manifest as localised crown hole collapses at the surface (which are related to workings roof failures), or can be associated with more extensive ground movements, typically associated with pillar collapse, floor heave, or a combination of roof and pillar failure. As there is limited evidence for structural damage caused by pillar failure compared with that resulting from roof collapses, the focus of engineering assessments of the potential instability at the surface has focussed on roof collapses as the more likely mechanism of failure.

The limit height on void migration, where no appreciable surface subsidence can result is termed 'acceptable cover'. The calculation of the amount of acceptable cover is determined by the worked thickness of the seam (t) and the amount of overlying rock cover (h). The acceptable cover criterion is generally referred to as ht.

According to CIRIA C758D⁴, from the examination of mines within Coal Measures, the height of collapse migration might exceptionally extend to 10t the height of the original extraction. As a result of this, the 10t criterion has been adopted by the industry as providing reasonable assurance against surface subsidence from roof collapses in old pillar and stall mines. However, there are documented cases, albeit rare, where migrations in excess of 20t have been observed.

³CIRIA (2019). "Abandoned Mine Workings Manual". CIRIA C758D

⁴CIRIA (2019). "Abandoned Mine Workings Manual". CIRIA C758D

CIRIA C758D, lists a number of circumstances where the acceptable cover criterion may need to be increased from 10t. These include:

- » Where the strata dip is $>20^{\circ}$ (unlikely on this site).
- » Strong groundwater flows within workings and rising or falling groundwater levels. The deep groundwater regime is unknown beneath the site.
- » Where multi-seam extractions have taken place (unlikely on this site).

Intact coal seams have been encountered in RB1 and RB2 with a maximum thickness of 1.60m in RB1 and 0.60m thickness in RB2, which is beneath the proposed tower. Assuming a possible extracted thickness of 1.5m to work this coal seam beneath the proposed tower (including possible roadways), then $t=1.50\text{m}$ which implies that the 10t height of rock cover will be minimum 15m beneath the proposed tower. This investigation has proven that there is $<10\text{t}$ of rock cover overlying the coal seams at all investigation locations. As bedrock is unlikely to dip at $>20^{\circ}$ and as multiple seams have not been extracted the 10t guidelines are considered appropriate.

Stabilisation work is recommended beneath the proposed mast tower. Stabilisation works should be designed by an appropriately experienced and qualified contractor using the information provided.

Given that no significant groundworks are proposed beneath RB1 where the upgrade to an existing equipment room will be undertaken, stabilisation work is not considered necessary in this area as, based upon Coal Authority exemptions list justifications, LKC assume that no significant groundworks are proposed.

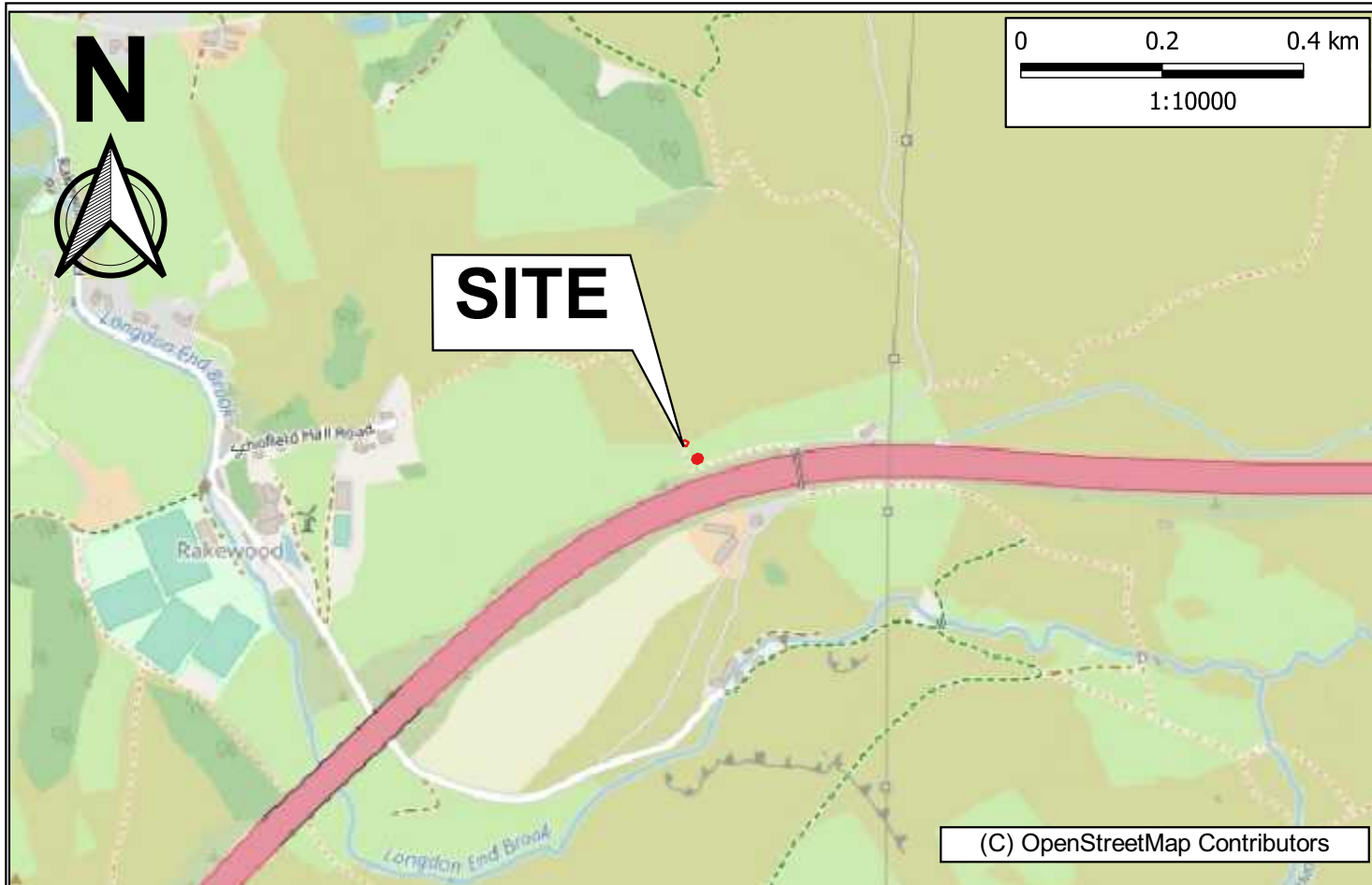
The recommendations should be approved by the Coal Authority.

5.2 Additional Advice

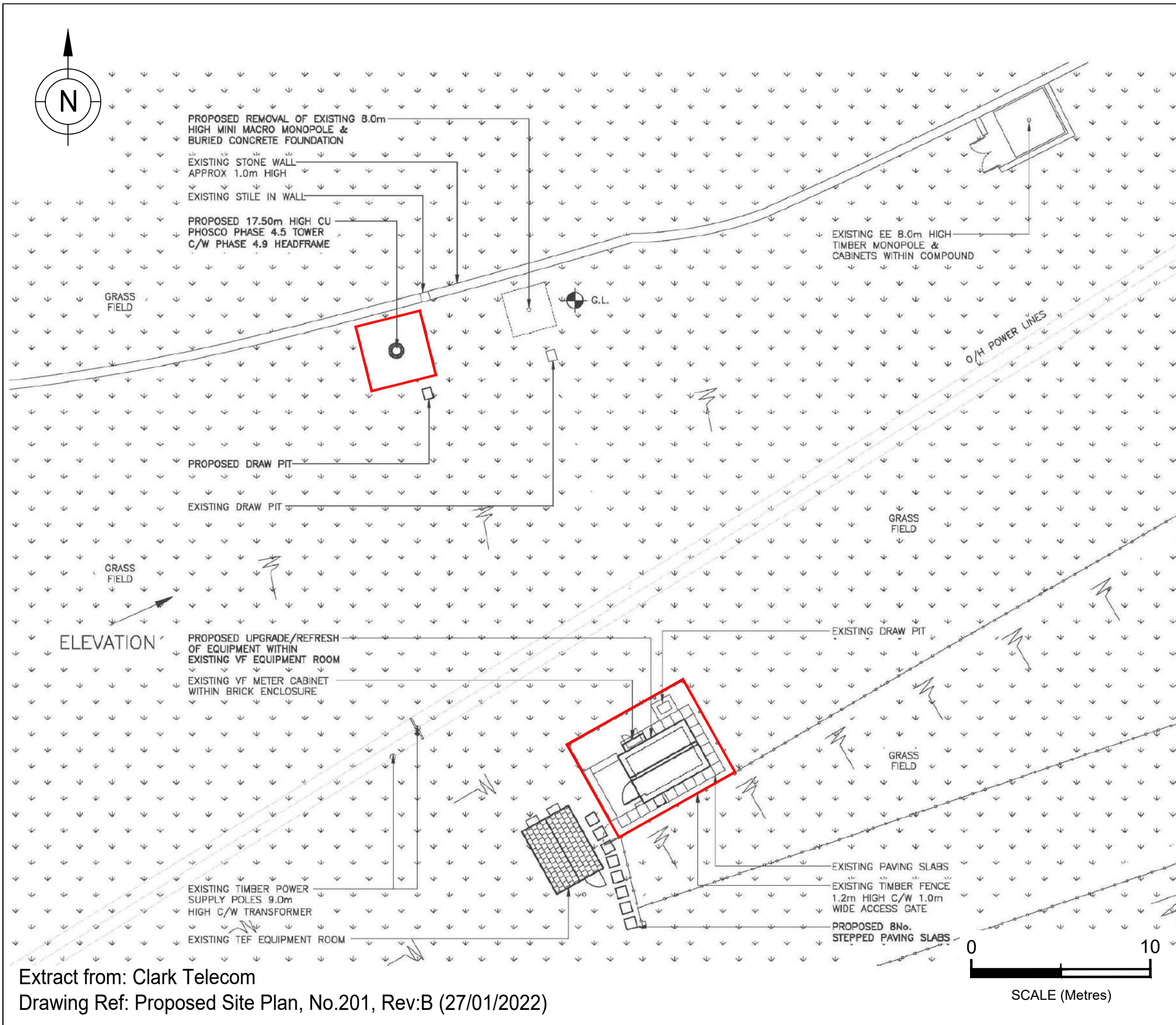
A Coal Authority permit would need to be obtained prior to any further coal mining treatment works being carried out on this site. Treatment of the shallow workings will need to be agreed in advance of the works taking place with the Coal Authorities engineering department, the local authority and building control.

In line with the guidance supplied by the Coal Authority there remains a risk of encountering unrecorded mine entries during the redevelopment of the site. Mine entries are likely to manifest as potentially square, rectangular or circular areas of dark deep Made Ground (which may or may not be brick lined) surrounded by natural soils/weathered rock; mine shafts could also potentially be capped – e.g., with a large block of concrete. If the presence of mine entries is suspected, the affected area should be cordoned off immediately and the advice of a coal mining engineer sought.

Figures



Client: Clarke Telecom				Title: Site Location & Boundary Plan			
Site: TEF 92545 - High Booth Hollings Farm, Littleborough				Scale (see scale bar): 1:10,000 & 1:500 @ A4			
Job No.: LKC 22 1443		Drawn By: FP	Checked By: EK	Drawn: July 2023	Figure: 1		



KEY

Site Boundary

Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.

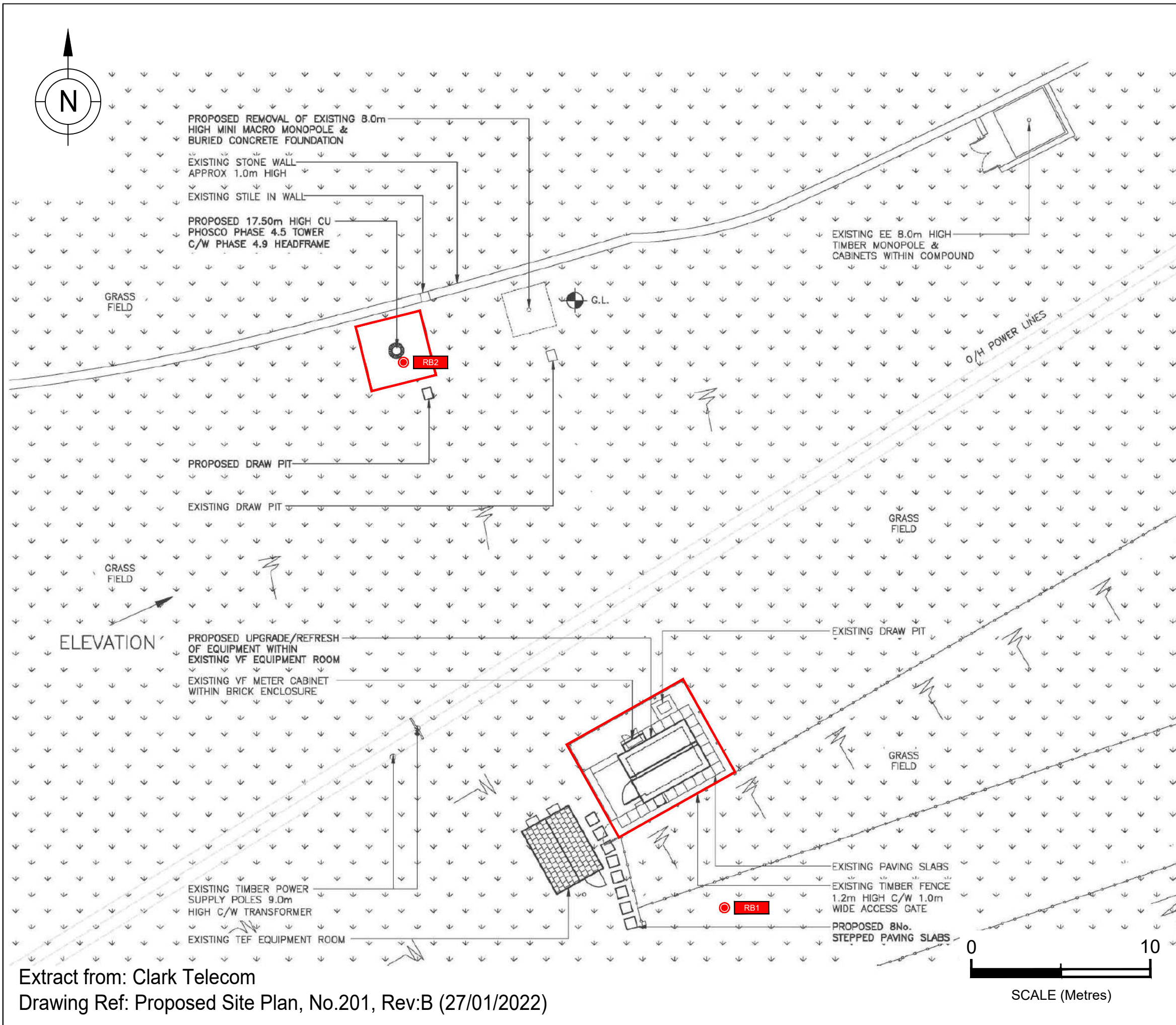


Client: Clark Telecom

Site: High Booth Hollings Farm, Littleborough (TEF92545)

Title: Proposed Development Plan

Job No.: LKC 22 1443	Scale (See Scale Bar): See Scale Bar	Figure: 2	Revision:
Drawn By: AC	Checked By: RW	Drawn: Sep 2022	



KEY

-  Site Boundary
-  Rotary Borehole (RB)

Sampling Locations and features annotated by LK Consult Ltd are approximate and are based upon observed measurements unless otherwise stated. Do not scale from this drawing and work from marked dimensions only. All dimensions and features should be confirmed on site by the Contractor. Where this drawing includes information provided to LK Consult Ltd by others, LK Consult Ltd gives no warranty, representation or assurance as to the accuracy of such information.



Client:			
Clark Telecom			
Site:			
High Booth Hollings Farm, Littleborough (TEF92545)			
Title:			
Borehole Location Plan			
Job No.:	Scale (See Scale Bar):	Figure:	Revision:
LKC 22 1443	See Scale Bar	3	
Drawn By:	Checked By:	Date:	
AC	FP	Jul 2023	

Extract from: Clark Telecom
Drawing Ref: Proposed Site Plan, No.201, Rev:B (27/01/2022)

Appendix A

Coal Authority Permit to Enter or Disturb Mine Workings



The Coal
Authority

Permit to Enter or Disturb Coal Authority Interests

Permit 26598

Name and Address of Permit Holder:

Cornerstone Telecommunications
Infrastructure Ltd
Hive 2
1530 Arlington Business Park
Theale
RG7 4SA

Site Location:

High Booth Hollins Farm
Rakewood
Littleborough
Greater Manchester
OL15 0AR

This certificate hereby grants the above named Permit Holder a Permit to carry out:-

Ground investigation by two boreholes to 30m within the Authority's interests at the identified site location above as shown on the Grant Permit Boundary (overleaf) for the period of **12 months** from the granted date shown below. *The granting of this Permit does not constitute advice given by the Authority in relation to the proposed operations. It is the Permit Holder's responsibility to obtain appropriate health, safety, environmental, technical and legal advice.*

Conditions:

- *Manned entry (i.e.) into mine entries/workings) is strictly prohibited.*
- *Water flush*
- *Gas Monitoring CO, CH₄, CO₂, O₂, H₂S at borehole and rig*
- *Operators undertaking the work must be in possession of this certificate and the Permit boundary plan at the time of works*
- *Appropriate borehole sealing without delay and to withstand site level changes*

Signed: Richard Morson Granted Date: 08/06/23

For and on behalf of The Coal Authority

Nominated Representative: Richard Morson, Permitting Manager;

The Coal Authority, Permitting Office, 200 Lichfield Lane, Mansfield, Notts, NG18 4RG

Tel: 01623 637450; E-Mail: permissions@coal.gov.uk



The Coal
Authority

Granted Permit Boundary

Permit Ref: 26598

Permit Boundary:



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Appendix B

Rotary Borehole Logs

**LK CONSULT LTD**Eton Business Park, Eton Hill Road, Radcliffe, M26 2ZS
Tel: 0161 763 7200 web: www.thelkgroup.com**Site**

TEF 92545 High Booth Hollings Farm, Littleborough

Borehole Number**RB1****Machine :****Flush** : Water**Core Dia** : mm**Method** : Rotary Cored**Casing Diameter**

101mm cased to 1.00m

Ground Level (mOD)**Client**

Clarke Telecom

Job Number

LKC 22 1443

Location**Dates**

07/07/2023

Engineer

LKC

Sheet

1/2

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
							(0.50) 0.50	MADE GROUND: Light brown sandy GRAVEL. Sand is fine to coarse. Gravel is fine to coarse, subangular comprising limestone.		
							(1.00) 1.50	Brown sandy clayey GRAVEL. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded comprising sandstone and mudstone.		
							(1.05) 2.55	Yellow SANDSTONE.		
							(7.75) 10.30	Light and dark grey SANDSTONE.		
							(1.70) 12.00	Dark grey shaley MUDSTONE.		
							(1.20) 13.20	COAL. (Intact)		
								Dark grey shaley MUDSTONE interbedded with dark grey SANDSTONE.		

RemarksNo groundwater encountered.
Borehole cased to 1.00mbgl.
Location moved due to access restrictions.**Scale (approx)**

1:75

Logged By

DT

Figure No.

LKC 22 1443.RB1

**LK CONSULT LTD**Eton Business Park, Eton Hill Road, Radcliffe, M26 2ZS
Tel: 0161 763 7200 web: www.thelkgroup.com**Site**

TEF 92545 High Booth Hollings Farm, Littleborough

Borehole Number**RB2****Machine :****Flush** : Water**Core Dia** : mm**Method** : Rotary Cored**Casing Diameter**

101mm cased to 1.00m

Ground Level (mOD)**Client**

Clarke Telecom

Job Number

LKC 22 1443

Location**Dates**

10/07/2023

Engineer

LKC

Sheet

1/3

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
							(0.20) 0.20	TOPSOIL: Brown gravelly silty SAND with frequent rootlets. Sand is fine to coarse. Gravel is fine to coarse, subangular to subrounded comprising sandstone and mudstone.		
							(1.80)	Light brown and dark brown gravelly sandy silty CLAY.		
							2.00	Light brown CLAY.		
							(1.00)			
							3.00	Dark grey shaley MUDSTONE.		
							(0.60) 3.60	Light brown shaley MUDSTONE		
							(2.40)			
							6.00	Dark grey SANDSTONE.		
							(2.60)			
							8.60	Light yellowish brown SANDSTONE.		
							(7.40)			

RemarksNo groundwater encountered.
Borehole cased to 1.00mbgl.**Scale (approx)**

1:75

Logged By

DT

Figure No.

LKC 22 1443.RB2



LK CONSULT LTD
Eton Business Park, Eton Hill Road, Radcliffe, M26 2ZS
Tel: 0161 763 7200 web: www.thelkgroup.com

Site
TEF 92545 High Booth Hollings Farm, Littleborough

Borehole Number
RB2

Machine : Flush : Water Core Dia : mm Method : Rotary Cored			Casing Diameter 101mm cased to 1.00m			Ground Level (mOD)		Client Clarke Telecom		Job Number LKC 22 1443	
			Location			Dates 10/07/2023		Engineer LKC		Sheet 2/3	

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
							16.00 (0.60) 16.60	COAL. (Intact)		
							(7.90)	Dark grey shaley MUDSTONE.		
							24.50 (0.80) 25.30	COAL. (Intact)		
							(2.60)	Light and dark grey SANDSTONE.		
							27.90 (2.40)	Dark grey SILTSTONE.		

Remarks Borehole cased to 1.00mbgl. No groundwater encountered.	Scale (approx)	Logged By
	1:75	DT
	Figure No. LKC 22 1443.RB2	

Machine : Flush : Water Core Dia: mm Method : Rotary Cored	Casing Diameter 101mm cased to 1.00m	Ground Level (mOD)	Client Clarke Telecom	Job Number LKC 22 1443
	Location	Dates 10/07/2023	Engineer LKC	Sheet 3/3

Depth (m)	TCR (%)	SCR (%)	RQD (%)	FI	Field Records	Level (mOD)	Depth (m) (Thickness)	Description	Legend	Water
							30.30	Complete at 30.30m		

Remarks
Borehole cased to 1.00mbgl.
No groundwater encountered.

Scale (approx)	Logged By
1:75	DT

Figure No.
LKC 22 1443.RB2

Based across the UK with
offices in Manchester,
London, Liverpool and Glasgow.

Manchester (Head Office)

Unit 29,
Eton Business Park
Eton Hill Rd, Radcliffe
M26 2ZS

t: 0161 763 7200
e: info@thelkgroup.com

London

Brooklands Business Park
Wellington Way
Weybridge
KT13 0TT

t: 01932 871872
e: info@thelkgroup.com

Glasgow

Wright Business Centre
1 Lonmay Road
Glasgow
G33 4EL

t: 0141 773 6269
e: info@thelkgroup.com

Liverpool

The Corn Exchange
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