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Technical Note Report

Davidsons Developments

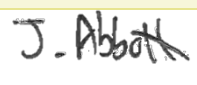
Lutterworth Road, Burbage

26th October 2023

Ref: PJSG21-58-DOC-02A

Document Issue Record

Document Number	
PJS Reference	PJS21-58-DOC-02A

Status	Revision	Date of Issue	Author	Checked	Approved
Original	-	03/08/22	Vinny Hallifield BSc (Hons)	Oliver Sharp BEng (Hons)	Martin Parker BSc (Hons) ICIOB
					
Final	A	26/10/23	James Abbott BEng (Hons)	Oliver Sharp BEng (Hons)	Vinny Hallifield BSc (Hons)
					

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Contents

Document Issue Record	1
Contents	2
1. Introduction	3
2. Site Setting	4
3. Site Investigation Works	5
4. Ground Conditions	6
5. Geotechnical Assessment	8
6. Foundation Assessment	11

List of Figures and Tables

Figure 1 Cu vs Depth	9
Table 1-1 Ground Information Reviewed	3
Table 3-1 Summary of Site Investigation Works	5
Table 4-1 Summary of Ground Conditions	6
Table 4-2 Field Observations	6
Table 5-1 SPT Summary of SPT N Values	8
Table 5-2 Summary of Ground Constraints	9

Drawings

PJSG21-58-DR-001 – Site Location Plan
 SK001 – Sketch Layout
 PJSG21-58-DR-003-C – Exploratory Hole Location Plan

Appendices

Appendix A – Exploratory Hole Logs



1. Introduction

Background and Objectives

In June 2022, PJS Geotechnical Engineers Limited (PJSG) were commissioned by Davidsons Developments to undertake supplementary site investigation works at land off Lutterworth Road, Burbage, Leicestershire, LE10 2DW (the site).

A Site Location Plan (PJSG21-58-DR-001) illustrating the site area is provided within the Drawings Section of this report, this area will henceforth be referred to as the 'site'.

The objective of this assessment were as to follows:

Confirm ground conditions in areas where no investigation works have previously been undertaken and residential development is proposed.

Delineate areas where unsuitable bearing strata has previously been identified to aid with foundation design.

Drill 2 No. deeper boreholes to depths of ~15m in order to aid pile design.

In order to achieve the above objectives, the site works comprised machine excavated trial pits, window sample boreholes and rotary boreholes.

Previously Published Information

The table below provides the details of the relevant documents which have been made available to PJSG for review as part of this report:

Table 1-1 Ground Information Reviewed

Reference	Date
Phase 1 Site Appraisal (Desk Study) – P9034 by GRM	August 2019
Geo-environmental Assessment - PJSG21-58-DOC-01 by PJS Geotechnical	March 2022

This Ground Investigation should be read in conjunction with the above referenced reports and the latest PJSG foundation design drawing / schedule.



2. Site Setting

Site Location and Description

The site has a Greenfield history, with the land being utilised for agricultural purposes.

Geological records indicate that no Made Ground is beneath the site.

The majority of the site is shown to be underlain by Oadby Member deposits comprising Diamicton, Wolston Sand and Gravel deposits are recorded on the extreme western extents and Bosworth Clay Member comprising clay and silt are recorded in the northeast and southeast of the site.

Solid geology underlying the site is shown to be the Mercia Mudstone Group comprising mudstone.

Previous site investigation works have identified natural ground conditions across the site. Generally, competent founding strata was encountered within exploratory holes excavated, however low strength loose granular sands and/or soft cohesive deposits have been encountered predominately in the southeast of the site and locally in the west.

Due to the ground conditions previously encountered and the fact that numerous plots are heavily influenced by trees / hedgerows, a combination of traditional trenchfill and piled foundation solutions were recommended by PJSG.



3. Site Investigation Works

PJSG undertook supplementary site investigation works on the 5th - 6th July 2022 and on the 5th October 2023, a summary of the completed exploratory investigation works is detailed below:

Table 3-1 Summary of Site Investigation Works

Activity	Summary
Window Sample Boreholes	9 No. window sample (WS) boreholes, referenced WS100 to WS109, WS's were advanced to depths between 3.00 and 4.00m bgl. Standard Penetration Testing (SPT) was generally undertaken at 1m intervals within selected boreholes in accordance with the guidance set out within BS5930:2015 'Code of Practice for Site Investigations' 2015. The results of the tests are provided within individual ground logs.
Trial Pits	11 No. machine excavated trial pits (TP), referenced TP100 to TP109, TP's were excavated to depths of between 1.00m and 2.50m bgl. October 2023: 16 No. machine excavated trial pits (TP), referenced TP201 to TP216, TP's were excavate to depths of between 2.50m and 3.10m bgl.
Rotary Boreholes	2 No. rotary (RO) boreholes, referenced RH100 & RH101, were advanced to a maximum depth of 15.00m bgl. The RO boreholes were drilled to confirm deeper ground conditions / strength characteristics in order to aid with pile design. Standard Penetration Testing (SPT) was generally undertaken at 1m intervals within selected boreholes in accordance with the guidance set out within BS5930:2015 'Code of Practice for Site Investigations' 2015.

The location of all exploratory holes (including historic locations) are shown on the PJSG Exploratory Hole Location Plan (PJSG21-58-003-C) contained within Drawings Section.



4. Ground Conditions

Summary of Ground Conditions

The geology encountered during this intrusive investigation was generally consistent with that anticipated from previous investigations; however, evidence of soft sandy silt and loose clayey sand were found within the Bosworth Clay Member superficial deposits.

A summary of the general strata encountered across the site is provided in the table below, with more detailed descriptions given on the exploratory hole logs presented within Appendix A.

Table 4-1 Summary of Ground Conditions

Stratum Description	Typical Description	Comments
Topsoil	Brown sandy TOPSOIL.	Encountered in all exploratory hole locations (reworked topsoil identified in WS100) to a maximum depth of 0.4m. October 2023: Encountered in TP201 to TP210 to a maximum depth of 0.5m. Reworked CLAY Fill encountered in TP212 to TP216. (TP211 natural strata)
Glacial Cohesive Deposits	Typically, firm to stiff brown and/or grey gravelly sandy CLAY.	Encountered in all exploratory hole locations at varying depths. October 2023: Encountered in all. Soft cohesive deposits were noted within TP109 from 0.9m; WS108 at 1m; TP206 from 1.5m; TP207 from 1.0m; TP208 from 1.1m; TP209 from 2.0m and TP210 from 0.8m.
Glacial Granular Deposits	Loose damp clayey silty SAND.	Encountered at 4 No. exploratory hole locations (TP101, TP102, WS107 and WS108). It should be noted that localised pockets of granular material were noted within other exploratory holes across the site.
Bedrock Geology	Mercia Mudstone Group.	Not encountered at any exploratory hole locations.

Summary of Field Observations

The following field observations were made during the intrusive investigation works.

Table 4-2 Field Observations

Location	Observation	Depth Range (m)
Groundwater		
TP100, TP102, TP206 & TP207	Slight groundwater seepage at base.	2.40m to 2.90m
TP109, WS100 & WS108	Groundwater ingress.	2.20m to 3.00m
Instability / Trench Collapse		
TP101, TP102 & TP109	Significant instability noted in side walls of excavations within damp strata or when left open for a period of time.	1.00m to 2.20m



Location	Observation	Depth Range (m)
TP206, TP207, TP208 & TP209	Significant instability noted in side walls of excavations within damp strata or when left open for a period of time. TP207 collapse after 20 mins, TP208 & TP209 terminated due to major instability.	0.10m-2.60m
Running Sands		
TP101	Running sands encountered within damp / wet silty sand / sandy silt strata.	1.00m to 1.50m
TP206	Running sands encountered at the base of the excavation, slow ingress.	2.75m



5. Geotechnical Assessment

In-situ Standard Penetration Testing

Standard Penetration Tests were undertaken at regular intervals during drilling of the window sample and rotary boreholes in accordance with the methodology outlined in British Standard BS EN 22476-3 2005.

In-situ SPT N Value Summary

A summary of the uncorrected SPT N Values recorded in the boreholes advanced across the site is presented below. The recorded SPT N values are detailed on the exploratory hole logs presented within Appendix A.

Table 5-1 SPT Summary of SPT N Values

Borehole Ref:	SPT 'N' Value with Depth (m).				
	1m	2m	3m	4m	5m +
WS100	15	16	20	28	-
WS101	11	14	23	27	-
WS102	10	16	26	30	-
WS103	13	19	25	28	-
WS104	13	17	24	30	-
WS105	13	18	23	27	-
WS106	11	18	25	27	-
WS107	11	12	26	27	-
WS108	4	9	14	-	-
RH100	-	-	26	-	30+
RH101	-	-	15	-	23+

Very soft / soft cohesive deposits Loose granular deposits

As shown above, generally competent strata was encountered within boreholes drilled in the PJSG supplementary investigation. However, very soft / soft cohesive and loose granular deposits were encountered in WS108 to a depth of 2m. The geo-technical implications of this are discussed further in Section 6.



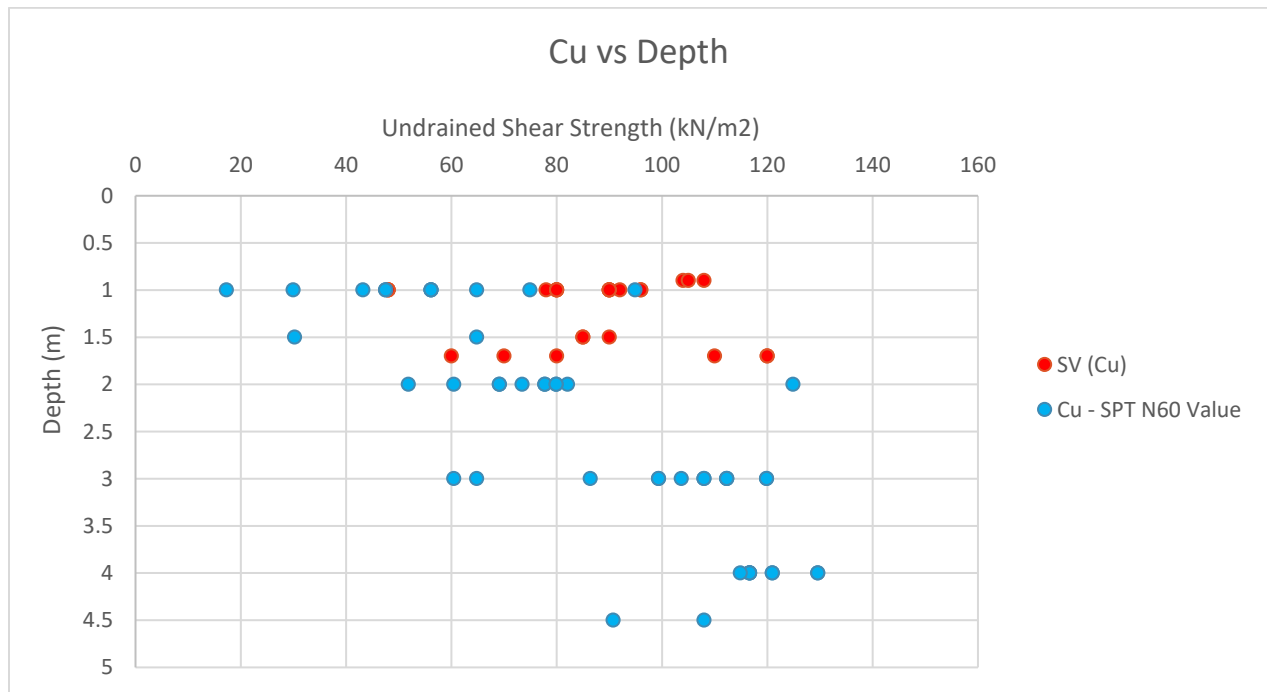


Figure 1 Cu vs Depth

Plot of CU Vs Depth

A plot of Cu Vs depth in relation to the cohesive materials encountered below the site is presented as Figure 1. The graph would indicate that cohesive deposits generally comprise firm to stiff cohesive deposits (with the exception of soft clays encountered in localised areas) with a clear trend of Cu increasing with depth.

Ground Constraints

Based on the ground conditions encountered on site during the original PJSG investigation and these supplementary investigations, the following ground constraints have been identified. Engineering solutions have been given in order to mitigate any potential impact to the proposed development.

Table 5-2 Summary of Ground Constraints

Exploratory Hole Reference	Constraint	Engineering Solution/s
WS02 WS04 WS05 WS06	Soft clay and/or loose sands at 1m	Localised deepening of foundations to ~2m.
TP15 WS18 TP101	Loose / unstable sands between 1 – 2m	Alternative foundation type required Piled solution
WS108 TP102 TP210	Soft clay at 1m and loose sands at 2m Loose sands / major instability from 1m Soft clay at 0.8m - 2.2m	Alternative foundation type required Piled solution

Exploratory Hole Reference	Constraint	Engineering Solution/s
TP109	Soft clays from 1m, excavation unstable below 2.2m	Alternative foundation type required Piled solution
TP19	Excavation unstable below 1.1m	
TP20	Excavation unstable below 1m	
WS16	Soft clays at 1m	
WS20	Soft clays at 1m	
TP206	Soft clays from 1.5m, excavation unstable in top 0.6m	
TP207	Soft clays from 1.0m, excavation unstable	
TP208	Soft clays from 1.1m, excavation unstable	
TP209	Soft clays from 2.0m, excavation unstable	



6. Foundation Assessment

Based on the intrusive works undertaken at the site and ground conditions identified it is considered likely that a combination of traditional and piled foundations solutions will be required in order to facilitate the proposed residential development.

PJSG have undertaken detailed foundation design at the site, foundation solutions for all plots are shown on the Foundation Zoning Plan (PJSG21-58-DR-200C) and Design Schedule (PJSG21-58-DR-201D). It is recommended that this section is read in conjunction with these drawings.

An overview of the current proposed foundation solutions are given below:

Traditional Foundations

The ground conditions identified across the majority of the site are considered suitable to support 2/3 storey proposed residential dwellings using traditional strip / trenchfill foundations.

The natural ground conditions generally comprise firm to stiff cohesive deposits albeit localised soft pockets of clay and lenses of loose granular strata have been encountered. It is recommended that an allowable bearing pressure of 100kN/m² is adopted for foundation design within the approved bearing strata (firm to stiff clays / medium dense sands). Foundation widths should be designed by a Structural Engineer, appropriate to the loads being imposed. It is recommended that selected foundation trenches are inspected by a Geotechnical Engineer prior to pouring concrete to confirm that the approved bearing strata is at foundation formation level and trenches have been extended through any soft/loose material.

Where strip / trenchfill foundations are adopted and plots are affected by tree influence and within cohesive deposits, heave precautions to include for the provision of a 250mm void beneath beam and block floor slabs will be required. Further heave precautions include a requirement for a 25mm void on the inside face of all external foundations, should foundation depths exceed 1.5m due to tree influence.

The excavation of foundation trenches and installation of heave precautions may present a potential safety hazard to site workers working close to open excavations. Contractors should undertake their own risk assessment to ensure a safe method of work is adopted.

Generally, the relatively shallow foundation excavations (<1.50m) into natural soils are anticipated to remain stable in the short term across the majority of the site. It is possible that groundwater control / localised dewatering of excavations and trench stability measures may be required.

Piled Foundations

Piled foundations are considered necessary for any plots where traditional foundations are not a suitable solution, either due to poor ground conditions, upfilling works or excessive tree influence. Any piled plots will require reinforced ground beams, which can be either pre-cast or cast in-situ depending on developer preference, and should be designed by a specialist contractor or Structural Engineer.

Where plots to be piled are within the influence of existing or removed trees heave precautions shall be required comprising compressible material on the inside face (25mm) and underside of ground-beams (100mm). The piling contractor should consider the risk of heave on the actual pile shaft or column.

Based on the available ground information, concrete driven piles are likely to be suitable. Steel piles may be required if driving resistance is high or a reduction in ground vibration is required. Bored piles may be required if ground conditions are not conducive to driven piles or if detailed design demonstrates bored piles could be founded at shallower depths. A specialist piling contractor should be consulted for site specific pile type and design.



Deeper boreholes (2 No.) have been drilled to a maximum depth of 15m and could be utilised by a piling contractor to determine pile depths. It is recommended that advice is obtained from specialist piling contractors to ascertain the most economical solution for the ground conditions encountered.

Should a piled foundation solution be utilised it is recommended that an allowance be made for a working platform to support a specialist rig.

Ground Improvement

Vibro ground improvement may be feasible as a foundation solution at the site however, following discussion with the client, it was agreed that vibro ground improvement is not the most economical foundation solution solution. This is based on the significant cohesive material and numerous mature trees and / or hedgerows present on-site, any vibro treated foundations will require deepening in accordance with the NHBC guidelines.



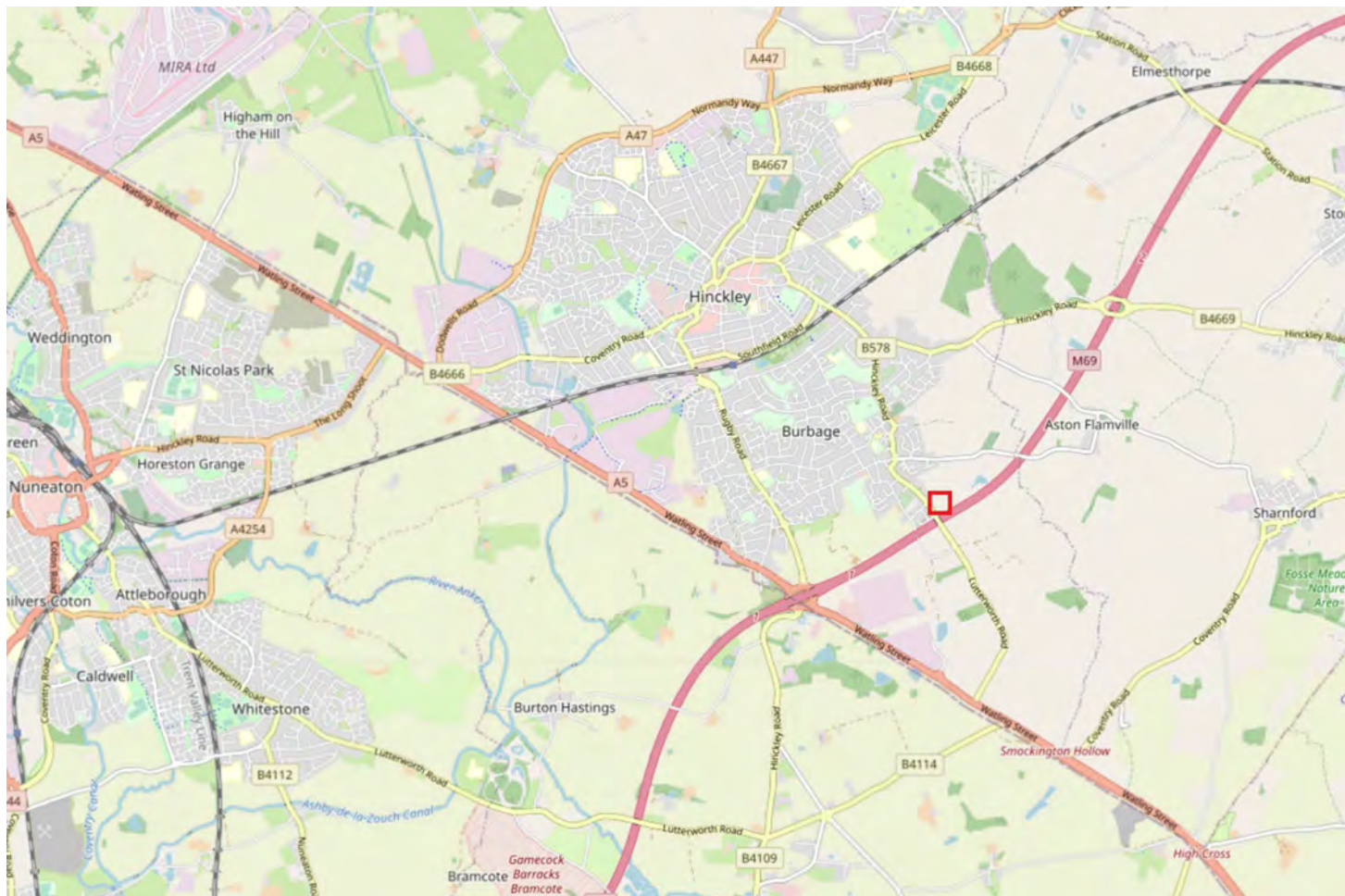
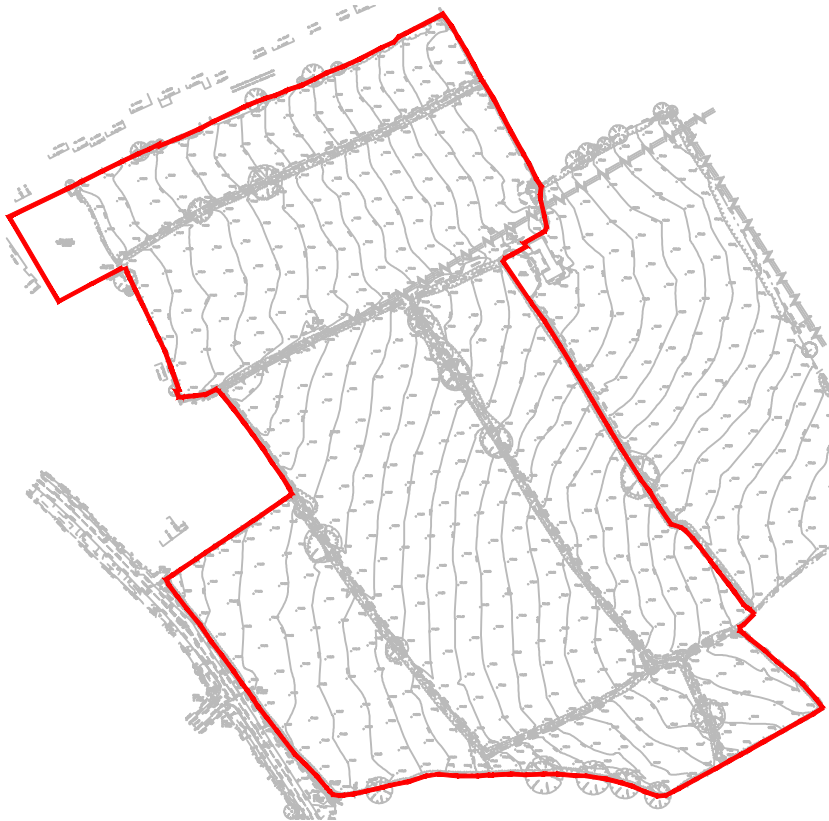
Drawings

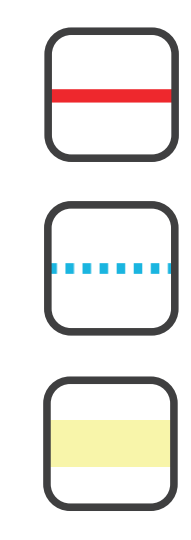
PJSG21-58-DR-001 – Site Location Plan

SK001 – Sketch Layout

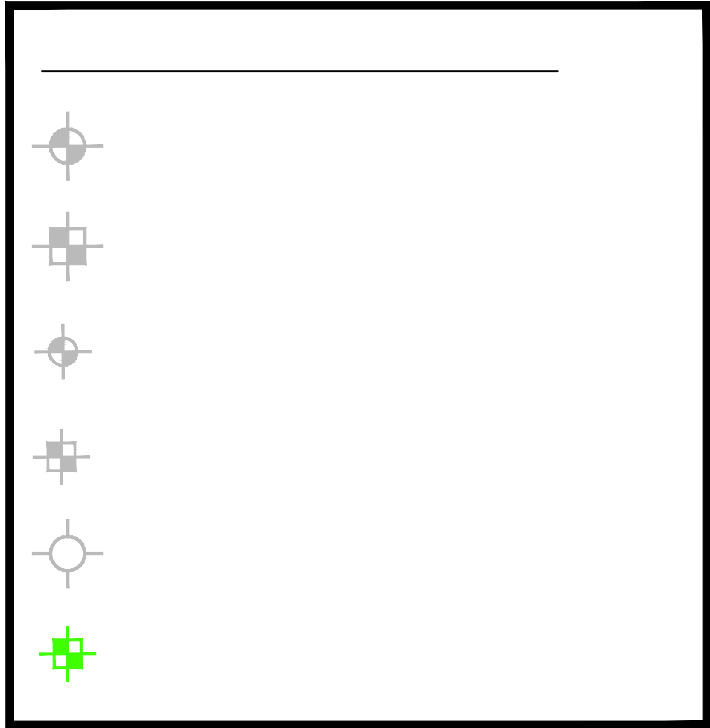
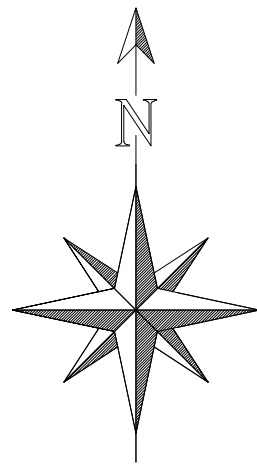
PJSG21-58-DR-003-C – Exploratory Hole Location Plan







Land East Of Lutterworth Road, Burbage				
SK001				
Date 06/05/2022				
House Type	Quantity	SQFT	Total SQFT	
"Open Market"				
1 Bed Total	0	0	0	0%
DH200GE-4	19	728	13832	19%
DH201BSF-4	1	776	776	
DH202B-4	1	776	776	
2 Bed Semi/ Terrace - 2 Storey	21		15384	45%
2 Bed Total	21		15384	
DH302GE-4	2	818	1636	
DH303GE-4	2	944	1888	
3 Bed Semi/ Terrace - 2 Storey	4		3524	
DH313B-4	8	1025	8200	
DH314G/V-4	5	1020	5100	
DH318B-4	20	1046	20920	
DH320R-4	3	1053	3159	
DH328R-4	1	1036	1036	
DH330G-4	4	995	3980	35%
DH342G-4	4	1060	4240	
3 Bed Detached - 2 Storey	45		46635	
3 Bed Total	49		50159	
DH402R-4	1	1428	1428	
DH425G-4	2	1435	2870	
DH430B/R-4	5	1462	7310	
4 Bed Below 1500 sq ft	8		11608	
DH408RS-3	1	1355	1355	
DH409GG/GH-4	11	1749	19239	
DH420V-3	1	1332	1332	
DH422G/GR-4	4	1587	6348	
4 Bed Above 1500 sq ft	17		28274	15%
DH501G-4	3	2274	6822	
DH532B/R-4	6	1917	11502	
DH552G-4	4	1845	7380	
5 Bed	13		25704	
4+ Bed Total	38		65586	
Open Market Total	108		131129	
"Affordable Market"				
AH16G-4	14	503	7042	52%
1 Bedroom Quadrant/ Quarter Houses	14		7042	
1 Bed Total	14		7042	33%
AH21BE-4	9	732	6588	
2 Bed Semi/ Terrace	9		6588	15%
2 Bed Total	9		6588	
AH31BE-4	4	900	3600	15%
2 Bed Semi/ Terrace	4		3600	
Affordable Total	27		17230	
OVERALL				
	135	SQFT	148359	
Site Area (Acres)				
			14.489	
Net Dev (Acres)				
			9.996	
Coverage				
		14841.84	Sq Ft/Acre	



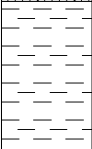
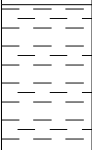
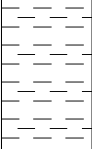
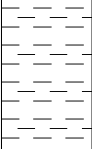
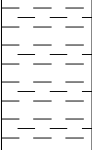
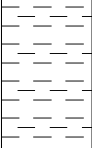
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Appendix A – Exploratory Hole Logs



Rotary Borehole Drilling Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58	Co-ords: E444650.25 N292064.84		Equipment: Comacchio 205	
RH100	Level	Logged By	Scale	Page Number
		DS	1:50	Sheet 1 of 2

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.50			Brown sandy TOPSOIL.	
								Firm brown CLAY.	1
		1.50	SPT	N=15 (1,2/3,3,4,5)	1.50				
								Stiff brown CLAY.	2
		3.00	SPT	N=26 (2,2/4,6,8,8)					3
									4
		4.50	SPT	N=25 (2,4/5,5,6,9)					5
									6
		6.00	SPT	N=30 (2,4/5,6,9,10)					7
									8
		7.50	SPT	N=35 (3,4/6,9,10,10)					9
									10
		9.00	SPT	N=40 (3,5/7,9,11,13)					

Hole Diameter		Casing Diameter		Borehole Stability.		Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.		No groundwater encountered.	

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. Exploratory hole backfilled with bentonite upon completion. 3. No visual or olfactory evidence of contamination identified.	

Rotary Borehole Drilling Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58	Co-ords: E444650.25 N292064.84		Equipment: Comacchio 205	
RH100	Level	Logged By	Scale	Page Number
		DS	1:50	Sheet 2 of 2

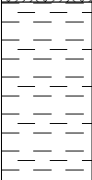
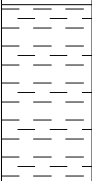
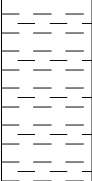
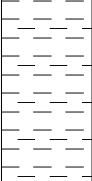
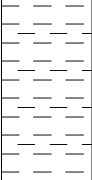
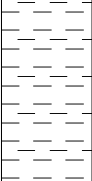
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		10.50	SPT	N=50 (5,7/50 for 295mm)	15.00			Stiff brown CLAY.	11
		12.00	SPT	N=50 (5,8/50 for 285mm)					12
		13.50	SPT	N=50 (7,9/50 for 295mm)					13
		15.00	SPT	N=50 (7,8/50 for 275mm)					14
								Borehole terminated at 15.000m	15
									16
									17
									18
									19
									20

Hole Diameter		Casing Diameter		Borehole Stability.	Groundwater Remarks
Depth Base	Diameter	Depth Base	Diameter		
				No borehole instability noted.	No groundwater encountered.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. Exploratory hole backfilled with bentonite upon completion. 3. No visual or olfactory evidence of contamination identified.	

Rotary Borehole Drilling Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58	Co-ords: E444835.33 N291944.12		Equipment: Comacchio 205	
RH101	Level	Logged By	Scale	Page Number
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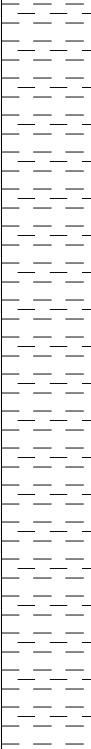
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.30			Brown sandy TOPSOIL.	
								Firm brown CLAY.	1
		1.50	SPT	N=7 (1,1/1,2,2,2)	1.50				
								Stiff brown CLAY.	2
		3.00	SPT	N=15 (1,1/3,4,4,4)					3
									4
		4.50	SPT	N=21 (2,3/5,4,6,6)					5
									6
		6.00	SPT	N=23 (4,4/5,6,6,6)					7
									8
		7.50	SPT	N=40 (6,5/9,9,10,12)					9
									10
		9.00	SPT	N=50 (5,8/50 for 295mm)					

Hole Diameter		Casing Diameter		Borehole Stability.		Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.		No groundwater encountered.	

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. Exploratory hole backfilled with bentonite upon completion. 3. No visual or olfactory evidence of contamination identified.	

Rotary Borehole Drilling Log

Project Name: Lutterworth Road, Burbage				Client: Davidsons Homes				Date: 05/07/2022			
Project No. : PJSG21-58				Co-ords: E444835.33 N291944.12				Equipment: Comacchio 205			
RH101				Level		Logged By		Scale		Page Number	
						DS		1:50		Sheet 2 of 2	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		10.50	SPT	N=50 (6,7/50 for 285mm)				Stiff brown CLAY.	11
		12.00	SPT	N=50 (6,8/50 for 285mm)					12
		13.50	SPT	N=50 (8,4/50 for 275mm)					13
		15.00	SPT	N=50 (9,10/50 for 305mm)					14
		15.00			15.00			Borehole terminated at 15.000m	15
									16
									17
									18
									19
									20

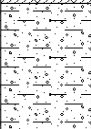
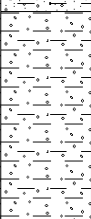
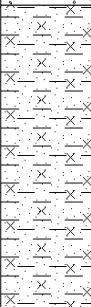
Hole Diameter		Casing Diameter		Borehole Stability.		Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.		No groundwater encountered.	

Remarks							
1. Exploratory hole terminated due to reaching target depth. 2. Exploratory hole backfilled with bentonite upon completion. 3. No visual or olfactory evidence of contamination identified.							



Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes	Date: 05/07/2022
Project No. : PJS21-58	Co-ords: E444630.48 N291951.28	Equipment: JCB 3CX (Maddock Geo Ltd)
TP100	Level	Logged By VH
	Scale 1:25	Page Number Sheet 1 of 1

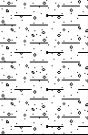
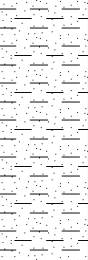
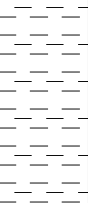
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
▼				0.25			Brown sandy TOPSOIL.	
							Firm brown mottled grey slightly sandy slightly gravelly CLAY Gravel is fine to coarse subrounded to well rounded quartzite.	
				0.70			Stiff brown slightly gravelly CLAY. Gravel is fine to coarse subrounded to well rounded quartzite.	1
	1.00		HVP=48					
	1.00		HVP=48					
	1.00		HVP=48					
	1.50		HVP=85	1.40			Firm to Stiff brown mottled grey slightly silty sandy CLAY.	2
	1.50		HVP=85					
	1.50		HVP=90					
				2.40			Trial pit terminated at 2.400m	3
								4
								5

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Excavation stable. Excavation left open for approximately 30 minutes. No instability or collapses were noted.	Slight groundwater seepage noted at base.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58	Co-ords: E444650.79 N291966.77		Equipment: JCB 3CX (Maddock Geo Ltd)	
TP101	Level	Logged By	Scale	Page Number
		VH	1:25	Sheet 1 of 1

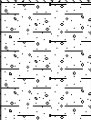
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
				0.20			Brown sandy TOPSOIL.	
				0.70			Firm greyish brown gravelly sandy CLAY. Gravel is rounded fine to coarse quartzite.	
				1.60			Firm brown sandy CLAY. Pockets of orange SAND.	
				2.30			Major instability and running sands noted between 1.00m - 1.50m.	1
	1.70 1.70 1.70		HVP=60 HVP=70 HVP=80				Stiff brownish grey CLAY	2
							Trial pit terminated at 2.300m	3
								4
								5

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width	Excavation unstable. Excavation left open for approximately 30 minutes. Instability or collapses were noted.	No groundwater encountered.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PISG21-58	Co-ords: E444668.16 N291959.72		Equipment: JCB 3CX (Maddock Geo Ltd)	
TP102	Level	Logged By VH	Scale 1:25	Page Number Sheet 1 of 1

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
▼				0.30			Brown sandy TOPSOIL with occasional brick fragment.	
				0.70			Firm brown gravelly sandy CLAY. Gravel is subrounded to well rounded fine to coarse quartzite.	
							Light brown damp occasionally stained black SAND.	
							Major instability noted from 1.00m.	1
				2.00			Grey silty clayey SAND containing occasional organic rootlets.	2
				2.20			Greyish brown silty clayey SAND.	
				2.50			Trial pit terminated at 2.500m	3
								4
								5

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Major instability noted from 1.00m.	Groundwater ingress noted at base.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58	Co-ords: E444666.27 N291952.08		Equipment: JCB 3CX (Maddock Geo Ltd)	
TP102A	Level	Logged By VH	Scale 1:25	Page Number Sheet 1 of 1

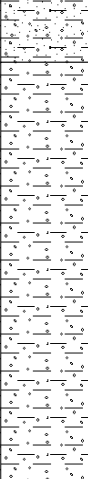
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
				0.20			Brown sandy TOPSOIL.	
							Firm brown gravelly sandy CLAY. Gravel is fine to coarse subrounded to well rounded quartzite.	
				1.00			Trial pit terminated at 1.000m	1
								2
								3
								4
								5

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Excavation stable. Excavation left open for approximately 30 minutes. No instability or collapses were noted.	No groundwater encountered.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58	Co-ords: E444769.81 N292006.25		Equipment: JCB 3CX (Maddock Geo Ltd)	
TP103	Level	Logged By	Scale	Page Number
		VH	1:25	Sheet 1 of 1

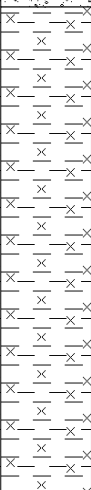
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
				0.20			Brown sandy TOPSOIL.	
				0.60			Firm brown gravelly sandy CLAY. Gravel is fine to coarse subrounded of quartzite.	
	0.90 0.90 0.90		HVP=104 HVP=105 HVP=108	2.00			Stiff greyish brown very gravelly CLAY, containing pockets of fine to coarse sand. Gravel is fine to medium subangular to well rounded quartzite.	1
							Trial pit terminated at 2.000m	2
								3
								4
								5

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Excavation stable.	No groundwater encountered.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSJG21-58	Co-ords: E444806.86 N292082.78		Equipment: JCB 3CX (Maddock Geo Ltd)	
TP104	Level	Logged By	Scale	Page Number
		VH	1:25	Sheet 1 of 1

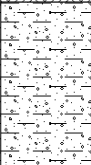
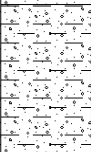
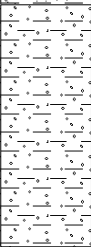
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
				0.30			Brown sandy TOPSOIL containing occasional brick fragment.	
				0.50			Firm brown gravelly sandy CLAY. Gravel is fine to coarse rounded of quartzite.	
							Firm becoming stiff brown mottled grey slightly silty CLAY.	1
	1.00 1.00 1.00		HVP=78 HVP=90 HVP=92					
	2.00 2.00 2.00		HVP=100 HVP=100 HVP=96	2.10				2
							Trial pit terminated at 2.100m	3
								4
								5

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Excavation stable.	No groundwater encountered.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58	Co-ords: E444763.72 N291946.80		Equipment: JCB 3CX (Maddock Geo Ltd)	
TP105	Level	Logged By	Scale	Page Number
		VH	1:25	Sheet 1 of 1

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
				0.15			Brown sandy TOPSOIL.	
							Firm brown gravelly sandy CLAY. Gravel is fine to coarse rounded quartzite.	
				0.70			Stiff brown slightly sandy slightly gravelly CLAY. Gravel is fine to medium subrounded quartzite.	1
	1.00 1.00 1.00		HVP=90 HVP=96 HVP=96	1.20			Stiff brown mottled grey very gravelly CLAY. Gravel is fine to coarse subangular to subrounded of quartzite, chalk and siltstone.	
							Rounded boulder of siltstone encountered at 1.40m.	
				2.00			Trial pit terminated at 2.000m	2
								3
								4
								5

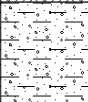
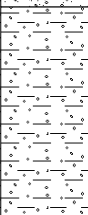
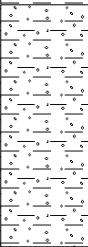
Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Excavation stable.	No groundwater encountered.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

[illegible]

Trial Pit Log

Project Name: Lutterworth Road, Burbage		Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58		Co-ords: E444691.67 N291893.09		Equipment: JCB 3CX (Maddock Geo Ltd)	
TP107		Level	Logged By VH	Scale 1:25	Page Number Sheet 1 of 1

Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
				0.15			Brown sandy TOPSOIL.	
				0.50			Firm brown gravelly very sandy CLAY. Gravel is fine to coarse subrounded to well rounded quartzite.	
	1.00 1.00 1.00		HVP=80 HVP=90 HVP=90	1.20			Stiff light brown mottled grey gravelly CLAY, containing lenses of fine to coarse sand. Gravel is fine to coarse subangular to subrounded quartzite and chalk.	1
	1.70 1.70 1.70		HVP=110 HVP=120 HVP=120	2.00			Stiff grey very gravelly CLAY. Gravel is fine to coarse subangular to subrounded quartzite and Chalk with occasional quartzite cobbles.	2
							Trial pit terminated at 2.000m	3
								4
								5

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Excavation stable.		No groundwater encountered.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Date: 05/07/2022

Equipment: JCB 3CX (Maddock Geo Ltd)

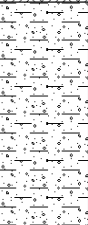
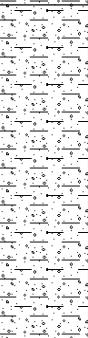
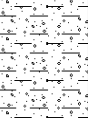
Page Number
Sheet 1 of 1

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Excavation stable.	No groundwater encountered.



Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58	Co-ords: E444807.24 N291939.43		Equipment: JCB 3CX (Maddock Geo Ltd)	
TP109	Level	Logged By	Scale	Page Number
		VH	1:25	Sheet 1 of 1

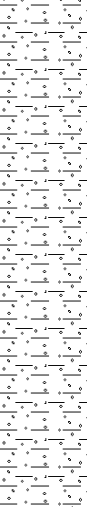
Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
	Depth (m)	Type	Results					
▼				0.15			Brown sandy TOPSOIL.	
							Brown gravelly sandy CLAY.. Gravel is fine to coarse subangular to subrounded quartzite.	
				0.90			Soft to firm orangish brown slightly gravelly very sandy CLAY. Gravel is fine to coarse subangular to subrounded quartzite and chalk.	1
							Pocket of soft and wet clay encountered at 2.00m.	2
				2.40			Trial pit terminated at 2.400m	3
								4
								5

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width	Excavation unstable from 2.20m coinciding with groundwater ingress.	Groundwater ingress noted at 2.20m.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E292114 N444749		Equipment: 20T Track Excavator	
TP201	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

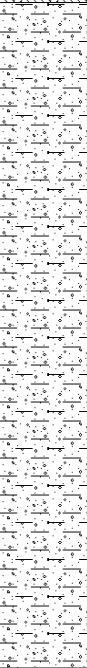
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.30			Grass overlying black gravelly TOPSOIL.	
				0.80			Firm brown sandy CLAY.	
				2.50			Stiff grey/brown mottled gravelly CLAY. Gravel is fine to coarse, subangular to subrounded quartzite, mudstone and chalk.	
2								
3								
4								
5								
							Trial pit terminated at 2.500m bgl	

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E292107 N444792		Equipment: 20T Track Excavator	
TP202	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

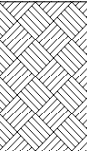
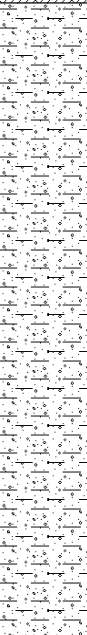
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.30			Grass overlying brown sandy gravelly TOPSOIL.	
							Firm to stiff brown sandy gravelly CLAY. Gravel is fine to coarse, subangular to subrounded quartzite, mudstone and chalk.	
2								
				2.50				
3							Trial pit terminated at 2.500m bgl	
4								
5								

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E292075 N444773		Equipment: 20T Track Excavator	
TP203	Ground Level	Logged By VH	Scale 1:25	Page Number Sheet 1 of 1

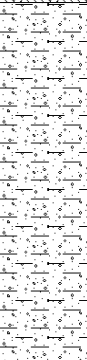
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.50			Grass overlying brown sandy TOPSOIL.	
							Stiff yellow/brown/grey mottled sandy gravelly CLAY. Gravel is fine to coarse, subangular to subrounded quartzite, mudstone and chalk.	
2				2.60				
3							Trial pit terminated at 2.600m bgl	
4								
5								

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291959 N444837		Equipment: 20T Track Excavator	
TP204	Ground Level	Logged By VH	Scale 1:25	Page Number Sheet 1 of 1

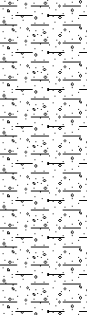
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.30			Grass overlying brown sandy TOPSOIL.	
							Firm brown sandy gravelly CLAY. Gravel is fine to coarse, subangular to subrounded quartzite, chalk and siltstone.	
				1.50			Firm to stiff grey/brown mottled very gravelly CLAY. Gravel is fine to coarse, subangular to subrounded chalk, quartzite and siltstone.	
2								
3	2.80		HVP=40	2.90				
	2.80		HVP=48					
	2.80		HVP=50					
							Trial pit terminated at 2.900m bgl	
4								
5								

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Sides stable.	No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291964 N444850		Equipment: 20T Track Excavator	
TP205	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

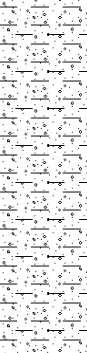
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.25			Brown sandy TOPSOIL.	
							Firm brown sandy gravelly CLAY. Gravel is fine to medium, subangular to subrounded chalk, quartzite and siltstone.	
				1.30			Firm to stiff very gravelly CLAY. Gravel is fine to medium, subangular to subrounded chalk, quartzite and siltstone.	
				2.50			Firm to stiff grey slightly silty CLAY.	
				2.80			Firm grey silty CLAY containing pockets of grey SILT.	
3	2.90 2.90 2.90		HVP=48 HVP=50 HVP=54	3.10			Trial pit terminated at 3.100m bgl	
4								
5								

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291931 N444864		Equipment: 20T Track Excavator	
TP206	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.30			Grass overlying brown sandy TOPSOIL.	
							Firm brown sandy gravelly CLAY. Gravel is fine to coarse, subrounded to rounded quartzite.	
				1.50			Soft to firm grey/brown mottled clayey sandy (damp) SILT.	
				2.40			Stiff dark grey CLAY.	
2				2.75			Trial pit terminated at 2.750m bgl	
3								
4								
5								

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Sides stable initially, slight instability in top 0.6m but sides remained generally stable after 15 minutes.	No water initially, left open for 15 minutes and a slow ingress of running sand noted at the base of the trialpit.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291927 N444850		Equipment: 20T Track Excavator	
TP207	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.10			Brown sandy gravelly TOPSOIL. Gravel is fine to coarse, subrounded to rounded quartzite. <i>0.00 to 0.60m - frequent rootlets.</i>	
							Firm brown sandy gravelly CLAY. Gravel is fine to coarse, subrounded to rounded quartzite.	
				1.00			Soft to firm yellow/brown very gravelly (damp) CLAY. Gravel is fine to coarse, subangular to subrounded chalk and quartzite.	
2				1.60			Soft to firm brown sandy very gravelly CLAY. Gravel is fine to coarse, subangular to subrounded chalk, siltstone, mudstone and quartzite.	
							<i>2.00 to 2.90m - becomes firm.</i>	
3				2.90			Trial pit terminated at 2.900m bgl	
4								
5								

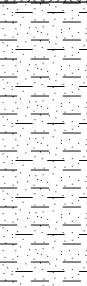
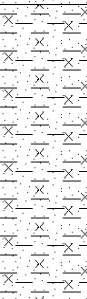
Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Major instability in trench walls after 10 minutes, crack appeared in the side of the trench. Collapse noted after 20 minutes.	Slight water ingress (slow) at the base of the trialpit.

Remarks

1. Trial pit terminated due to reaching target depth.
2. No visual or olfactory evidence of contamination.

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291919 N444811		Equipment: 20T Track Excavator	
TP208	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1 2 3 4 5				0.15			TOPSOIL. Gravel is fine to coarse, subrounded to rounded quartzite.	
							Firm brown sandy CLAY.	
				1.10			Soft to firm orange/brown very silty sandy CLAY.	
				2.10			Stiff grey CLAY.	
				2.50			Trial pit terminated at 2.500m bgl	

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Major instability encountered.	No groundwater encountered.

Remarks	
1. Trial pit terminated due to major instability. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291946 N444798		Equipment: 20T Track Excavator	
TP209	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

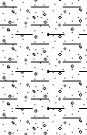
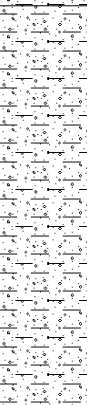
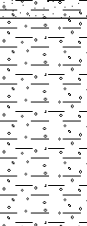
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.20			Grass overlying brown sandy TOPSOIL.	
							Firm orange/brown very gravelly CLAY. Gravel is fine to coarse, subangular to subrounded quartzite, chalk, occasional coal, flint, siltstone.	
							<u>0.50 to 2.00m - becomes very sandy.</u>	
							Soft to firm orange/brown gravelly very sandy CLAY. Gravel is fine to coarse, subangular to subrounded quartzite, chalk, occasional coal, flint, siltstone.	
							Wet (brown) soft sloppy silty gravelly very sandy CLAY.	
2				2.00				
				2.50				
3				2.60				
4								
5								

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Major instability encountered.	No groundwater encountered.

Remarks	
1. Trial pit terminated due to major instability. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291956 N444792		Equipment: 20T Track Excavator	
TP210	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

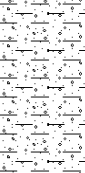
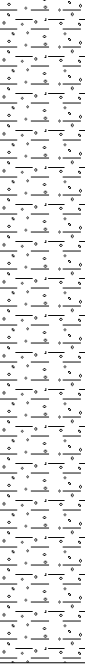
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.30			Grass overlying brown sandy TOPSOIL.	
				0.80			Firm brown sandy gravelly CLAY. Gravel is fine to coarse, subrounded to rounded quartzite.	
				2.20			Soft to firm orange/brown sandy gravelly CLAY. Gravel is fine to coarse, subangular to angular chalk and mudstone.	
				2.90			Stiff grey gravelly CLAY. Gravel is fine to coarse, subangular to angular chalk and mudstone.	
3							Trial pit terminated at 2.900m bgl	
4								
5								

Dimensions		Excavation Stability	Groundwater Remarks
Pit Length	Pit Width		
		Sides stable, trial pit left open for 5 to 10 minutes and no stability issues encountered.	No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291950 N444687		Equipment: 20T Track Excavator	
TP211	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

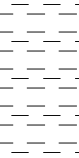
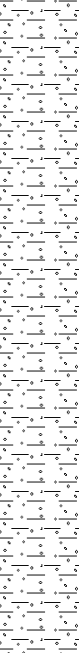
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.60			Firm brown sandy gravelly CLAY. Gravel is fine to coarse, subrounded to rounded quartzite and coal.	
2							Stiff grey occasional brown mottled very gravelly CLAY containing occasional quartzite cobble.	
3				2.80			Trial pit terminated at 2.800m bgl	
4								
5								

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291950 N444675		Equipment: 20T Track Excavator	
TP212	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

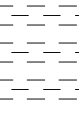
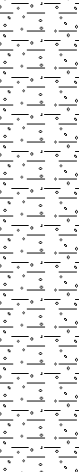
	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.60			Reworked brown CLAY fill.	
							Stiff grey slightly gravelly CLAY containing occasional mudstone gravel.	
2	1.50		HVP=64	2.80				
	1.50		HVP=68					
	1.50		HVP=70					
3				2.80				
4				2.80				
5				2.80				

Dimensions			Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.			No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291959 N444680		Equipment: 20T Track Excavator	
TP213	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.40			Brown CLAY fill.	
							Firm brown/grey mottled gravelly CLAY. Gravel is fine to medium, subangular to angular coal and mudstone.	
2				2.00			Stiff grey CLAY.	
3				2.70			Trial pit terminated at 2.700m bgl	
4								
5								

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291968 N444686		Equipment: 20T Track Excavator	
TP214	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.30			Brown sandy CLAY fill.	
							Firm brown gravelly sandy CLAY. Gravel is fine to coarse, subrounded to subangular quartzite and coal.	
2							1.40 to 2.90m - becomes grey mottled.	
							1.50 to 1.80m - occasional soft sandy pockets.	
3				2.90			2.00 to 2.90m - becomes very stiff.	
							Trial pit terminated at 2.900m bgl	
4								
5								

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291973 N444673		Equipment: 20T Track Excavator	
TP215	Ground Level	Logged By VH	Scale 1:25	Page Number Sheet 1 of 1

	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.30			Brown CLAY fill.	
				0.80			Firm brown sandy gravelly CLAY. Gravel is fine to coarse, subrounded to rounded quartzite.	
							Stiff grey sandy CLAY.	
2	2.20 2.20 2.20		HVP=60 HVP=62 HVP=64					
3				2.80			Trial pit terminated at 2.800m bgl	
4								
5								

Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks	
1. Trial pit terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination.	

Trial Pit Log

Project Name: Lutterworth Road, Burbage	Client: Davidsons Homes		Date: 05/10/2023	
Project No. : PJSG21-58	Co-ords: E291970 N444661		Equipment: 20T Track Excavator	
TP216	Ground Level	Logged By VH	Scale	Page Number
			1:25	Sheet 1 of 1

	Sample and In Situ Testing			Depth (m bgl)	Level (m AOD)	Legend	Stratum Description	Water Strikes (m bgl)
	Depth (m bgl)	Type	Results					
1				0.20			Brown CLAY fill.	
							Firm brown sandy gravelly CLAY containing lenses of damp SAND.	
2							2.00 to 2.50m - becomes stiff.	
				2.50			Trial pit terminated at 2.500m bgl	
3								
4								
5								

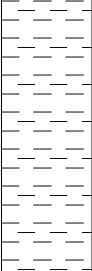
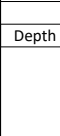
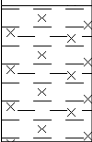
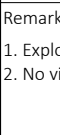
Dimensions		Excavation Stability		Groundwater Remarks
Pit Length	Pit Width	Sides stable.		No groundwater encountered.

Remarks

1. Trial pit terminated due to reaching target depth.
2. No visual or olfactory evidence of contamination.

Window Sample Drilling Log

Project Name: Lutterworth Road, Burbage		Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58		Co-ords: E444633.23 N291971.05		Equipment: Premier Compact 110	
WS100	Level	Logged By	Scale	Page Number	
		OS	1:50	Sheet 1 of 1	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00	SPT	N=15 (3,4/4,4,3,4)	0.40 0.90 1.20		  	MADE GROUND: Reworked brown sandy topsoil containing frequent rootlets.	1
								MADE GROUND: Reworked orangish brown slightly gravelly sand. Gravel is fine to medium subrounded of quartzite.	
								Firm dark brown slightly sandy CLAY	
								Firm becoming stiff orange mottled grey slightly gravelly CLAY. Gravel is fine subrounded quartzite	
		2.00	SPT	N=16 (3,3/4,4,4,4)	3.10			Firm brown slightly sandy silty CLAY.	3
		3.00	SPT	N=20 (4,4/5,5,5,5)	4.00			Borehole terminated at 4.000m	4
		4.00	SPT	N=28 (5,5/6,7,7,8)					5
									6
									7
									8
									9
									10

Hole Diameter		Casing Diameter		Borehole Stability.		Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.		Groundwater encountered at 3.00m.	

Remarks

1. Exploratory hole terminated due to reaching target depth.

2. No visual or olfactory evidence of contamination identified.

Window Sample Drilling Log

Project Name: Lutterworth Road, Burbage				Client: Davidsons Homes				Date: 05/07/2022			
Project No. : PJSG21-58				Co-ords: E444674.24 N291985.55				Equipment: Premier Compact 110			
WS101				Level		Logged By		Scale		Page Number	
						OS		1:50		Sheet 1 of 1	

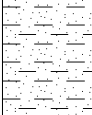
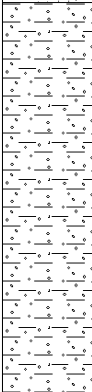
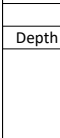
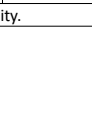
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.40			Brown sandy TOPSOIL with frequent rootlets.	
		1.00	SPT	N=11 (2,3/3,2,3,3)				Firm brown sandy slightly gravelly CLAY. Gravel is fine to medium rounded of quartzite and chalk. Containing pockets of sand.	1
		2.00	SPT	N=14 (3,3/3,4,4,3)					2
		3.00	SPT	N=23 (4,5/5,6,6,6)	3.20			Firm greyish brown slightly gravelly CLAY. Gravel is fine to medium well rounded quartzite.	3
		4.00	SPT	N=27 (6,6/6,7,7,7)	4.00			Borehole terminated at 4.000m	4
									5
									6
									7
									8
									9
									10

Hole Diameter		Casing Diameter		Borehole Stability.		Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.		Groundwater encountered at 3.00m.	

Remarks 1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.		
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Window Sample Drilling Log

Project Name: Lutterworth Road, Burbage		Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58		Co-ords: E444672.14 N292027.86		Equipment: Premier Compact 110	
WS102	Level	Logged By	Scale	Page Number	
		OS	1:50	Sheet 1 of 1	

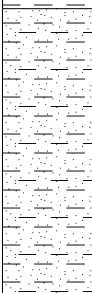
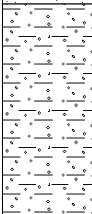
Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00	SPT	N=10 (2,2/3,3,2,2)	0.30 0.60 1.40			Brown sandy TOPSOIL.	1
								Firm brown sandy CLAY.	
								Firm to Stiff brown slightly sandy CLAY	
								Stiff grey mottled brown slightly gravelly CLAY. Gravel is fine to medium subangular to subrounded quartzite.	
		2.00	SPT	N=16 (2,2/3,4,4,5)	4.00			Borehole terminated at 4.000m	2
		3.00	SPT	N=26 (5,5/6,7,7,6)					3
		4.00	SPT	N=30 (6,6/7,7,8,8)					4
									5
									6
									7
									8
									9
									10

Hole Diameter		Casing Diameter		Borehole Stability.		Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.		No groundwater encountered.	

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Window Sample Drilling Log

Project Name: Lutterworth Road, Burbage		Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58		Co-ords: E444721.24 N292094.94		Equipment: Premier Compact 110	
WS103	Level	Logged By	Scale	Page Number	
		OS	1:50	Sheet 1 of 1	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description		
		Depth (m)	Type	Results						
		1.00	SPT	N=13 (2,2/3,3,3,4)	0.20			Brown sandy TOPSOIL.	1	
					0.70			Firm brown slightly sandy gravelly CLAY with occasional rootlets. Gravel is fine to medium angular to subrounded of quartzite.		
		2.00	SPT	N=19 (4,4/5,5,4,5)	2.60			Stiff reddish brown slightly sandy CLAY, containing pockets of SAND.		
		3.00	SPT	N=25 (5,5/6,6,6,7)			Stiff grey gravelly. Gravel is fine to medium subangular to subrounded quartzite and chalk.			
		4.00	SPT	N=28 (5,6/6,7,7,8)	4.00			Borehole terminated at 4.000m	4	
									5	
									6	
									7	
									8	
									9	
									10	
Hole Diameter		Casing Diameter		Borehole Stability.			Groundwater Remarks			
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.			No groundwater encountered.			

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	



Window Sample Drilling Log

Project Name: Lutterworth Road, Burbage				Client: Davidsons Homes				Date: 05/07/2022			
Project No. : PJSG21-58				Co-ords: E444731.27 N291941.97				Equipment: Premier Compact 110			
WS105				Level		Logged By		Scale		Page Number	
						OS		1:50		Sheet 1 of 1	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.20			Brown sandy TOPSOIL.	
					0.50			Brown sandy CLAY.	
		1.00	SPT	N=13 (2,2/3,3,3,4)				Firm to Stiff brown mottled grey slightly gravelly CLAY Gravel is fine to medium subrounded of quartzite.	1
		2.00	SPT	N=18 (4,4/4,5,5,4)					2
		3.00	SPT	N=23 (5,5/6,6,5,6)				Becoming slightly silty at 2.50m.	3
		4.00	SPT	N=27 (6,5/6,7,7,7)	4.00			Borehole terminated at 4.000m	4
									5
									6
									7
									8
									9
									10

Hole Diameter		Casing Diameter		Borehole Stability.		Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.		No groundwater encountered.	

Remarks 1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.		
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Window Sample Drilling Log

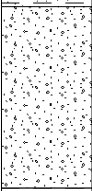
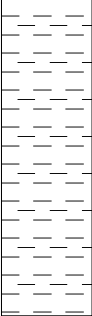
Project Name: Lutterworth Road, Burbage		Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58		Co-ords: E444712.44 N291910.58		Equipment: Premier Compact 110	
WS106	Level	Logged By	Scale	Page Number	
		OS	1:50	Sheet 1 of 1	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00	SPT	N=11 (2,2/3,2,3,3)	0.20			Brown sandy TOPSOIL.	1
					0.50			Firm brown sandy gravelly CLAY. Gravel is fine to coarse rounded of quartzite.	
		2.00	SPT	N=18 (3,4/4,4,5,5)	3.00			Stiff brown mottled grey very gravelly CLAY. Gravel is fine to coarse subrounded to subangular of quartzite, chalk and sandstone.	2
								Pockets of fine to coarse sand between 2.00m - 2.20m.	
		3.00	SPT	N=25 (5,5/6,7,6,6)	4.00		Stiff grey gravelly CLAY. Gravel is fine to medium subrounded to subangular sandstone and quartzite.	3	
		4.00	SPT	N=27 (6,6/6,7,7,7)			Borehole terminated at 4.000m	4	
									5
									6
									7
									8
									9
									10
Hole Diameter		Casing Diameter		Borehole Stability.				Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.				No groundwater encountered.	

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	

Window Sample Drilling Log

Project Name: Lutterworth Road, Burbage		Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58		Co-ords: E444788.81 N291922.96		Equipment: Premier Compact 110	
WS107	Level	Logged By	Scale	Page Number	
		OS	1:50	Sheet 1 of 1	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
		1.00	SPT	N=11 (3,3/4,3,2,2)	0.30			Brown sandy TOPSOIL.	1
					0.70			Firm brown slightly sandy CLAY	
		2.00	SPT	N=12 (2,2/3,3,3,3)	1.90			Medium dense brown slightly gravelly slightly clayey SAND. Gravel is fine to medium well rounded quartzite. Poor recovery noted between 1.00m - 2.00m.	
								Firm to stiff orangish brown CLAY	
		3.00	SPT	N=26 (5,5/6,6,7,7)					3
		4.00	SPT	N=27 (6,6/7,6,7,7)	4.00				4
								Borehole terminated at 4.000m	5
									6
									7
									8
									9
									10

Hole Diameter		Casing Diameter		Borehole Stability.		Groundwater Remarks	
Depth Base	Diameter	Depth Base	Diameter	No borehole instability noted.		No groundwater encountered.	

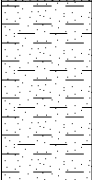
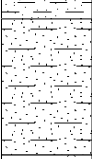
Remarks

1. Exploratory hole terminated due to reaching target depth.

2. No visual or olfactory evidence of contamination identified.

Window Sample Drilling Log

Project Name: Lutterworth Road, Burbage		Client: Davidsons Homes		Date: 05/07/2022	
Project No. : PJSG21-58		Co-ords: E444671.31 N291955.52		Equipment: Premier Compact 110	
WS108	Level	Logged By	Scale	Page Number	
		OS	1:50	Sheet 1 of 1	

Well	Water Strikes	Sample and In Situ Testing			Depth (m)	Level (m)	Legend	Stratum Description	
		Depth (m)	Type	Results					
					0.40			Brown sandy TOPSOIL.	
		1.00	SPT	N=4 (2,2/1,1,1,1)				Soft orange mottled brown sandy CLAY. Black organic staining noted throughout strata.	1
		2.00	SPT	N=9 (1,2/2,3,2,2)	1.70			Fragments of organic wood noted at 1.60m. Loose wet clayey silty SAND.	2
		3.00	SPT	N=14 (3,3/3,3,4,4)	2.60 3.00			Stiff greyish brown slightly silty CLAY	3
								Borehole terminated at 3.000m	4 5 6 7 8 9 10

Hole Diameter		Casing Diameter		Borehole Stability.	Groundwater Remarks
Depth Base	Diameter	Depth Base	Diameter		
				No borehole instability noted.	Groundwater encountered at 3.00m.

Remarks	
1. Exploratory hole terminated due to reaching target depth. 2. No visual or olfactory evidence of contamination identified.	



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