

## Mineral Safeguarding Report



**Proposal: Outline Application for Development of up To 125 Dwellings**

**Location: Land at Newgate Lane (South), Fareham**

**Client: Bargate Homes**

Report Title: Mineral Safeguarding Report  
Client: Bargate Homes  
Proposal: Outline Application for Development of up To 125 Dwellings

Date: 26<sup>th</sup> July 2019

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Job Reference: 2019.30.56

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Prepared by: Chris Jarvis MRTPI

Reviewed by:

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Version: Draft for Client

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**RTPI**

Chartered Town Planner

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Borehole Record SU50SE230

Borehole Record SU50SE231

Borehole Record SU50SE211

Borehole Record SU50SE211

## Drawings

2019.30.56/A - Superficial Geology

2019.30.56/B - BGS MRM Extract

## 1. Introduction

- 1.1 This report accompanies an application for outline planning permission (all matters except access reserved) for the development of the land at Newgate Lane (South), Fareham for the erection of up to 125 dwellings (the proposed development).
- 1.2 The application site lies within a Mineral Consultation Area and Mineral Safeguarding Area a set out in the Hampshire Minerals Local Plan. The requirements of the relevant planning policy are set out below and this report is submitted to address those requirements.
- 1.3 The report is based upon a review of publicly available information including the records of the British Geological Survey and Hampshire County Council Local Aggregate Assessments.
- 1.4 The site only considers the possibility of sterilisation of a mineral resource, it does not attempt to qualify or quantify that resource or the potential uses to which any mineral may be put.

## 2. Site Location and Description of Development

### Site Location

- 2.1 The application The site is located 200m from the settlement of Bridgemary, approximately 1km from the settlement of Stubbington and approximately 3km from Fareham Town Centre at approximate grid location 457118;103103.
- 2.2 The site is bounded by Newgate Lane to the west and the new Newgate Lane relief road to the east.
- 2.3 Further to the west, beyond Newgate Lane, lies the Peel Common Waste Water treatment Works. Beyond the relief road to the east lies agricultural land which forms part of a local plan allocation for residential development.

### Site Description

- 2.4 The site comprises an area of approximately 6.08 ha of land used for agriculture and equestrian use, which is dissected by the River Alver running north/south. The site boundaries and internal field boundaries are made up of hedgerows and mature trees. There are three disused agricultural buildings located within the application site.

### 3. Site Geology

- 3.1. The superficial and bedrock geology are shown on the attached plans.

#### Superficial Geology

- 3.2. British Geological Survey (BGS) 1:625000 mapping indicates that superficial deposits comprise brickearth silts. 1:50000 mapping indicates that the majority of the application site is underlain by River Terrace Deposits largely comprising sand, silt and clay. Mapping indicates that these superficial deposits are found in the north-eastern part of the application site. The mapping notes that there are no superficial deposits found in the south-western corner of the site adjacent Newgate Lane and Woodcote Lane.

#### Bedrock Geology

- 3.3. BGS Mapping indicates that the application site is comprised of two different bedrock units which cross the application site. The majority of the site comprises the Wittering Formation which forms part of the Brecklesham Group and is described by the BGS as *“Greyish brown laminated clay; wavy- to lenticular-bedded sand interbedded with clay in equal proportions; and fine- to medium-grained sparsely glauconitic sand.”* The BGS records that the Wittering Formation has a typical thickness of between 40-53m and rests upon London Clay.
- 3.4. The remainder of the site is reported to be underlain by the Whitecliff Sand Formation described by the BGS as a *“Buff, clayey, fine grained sand”* and part of the London Clay formation with typical depths of around 8m.

#### Other Data Sources

- 3.5. Alongside the published BGS mapping, other data sources have been consulted including available borehole data and the BGS Mineral Resource Map for Hampshire.
- 3.6. Borehole data within or immediately adjacent to the application site is limited to four records, two along the southern boundary, one along the River Alver in the south eastern corner of the site and a further record take on Newgate Lane. The information contained within these records is discussed further below.
- 3.7. Borehole Record SU50SE231 (undated) is located along the southern boundary of the application site the southern and records topsoil to a depth of 0.4m below ground level (BGL). Soft brown silty sandy CLAY is encountered to a depth of 2.3mbgl underlain by sandy SILT with silty SAND to a depth of 5.0mbgl. The borehole then records very silty SAND to a depth of 10mbgl followed by sandy CLAY to a depth of 15mbgl.

- 3.8. Borehole Record SU50SE230 (undated) indicates topsoil to a depth of 0.4mbgl underlain by sandy CLAY to a depth of 1.7mbgl, silty CLAY to 2.7mbgl, sandy CLAY to a depth of 4.5mbgl, very silty SAND to 10mbgl and clayey very silty SAND to 15m.
- 3.9. Borehole Record SU50SE212 (21/12/76) indicates topsoil to a depth of 0.30mbgl underlain by silty SAND and flint GRAVEL and silty CLAY to a depth of at least 6.0mbgl. The borehole record also indicates that groundwater was encountered at 1.10mbgl.
- 3.10. Borehole Record SU50SE211 (22/12/76) indicates made ground to a depth of 1.50mbgl underlain by flint GRAVEL to 2.7mbgl and silty CLAY to at least 6.0mbgl. Groundwater was encountered at 1.50mbgl.
- 3.11. The BGS Mineral Resource Map (2003) for Hampshire is understood to have been used as the basis for defining minerals safeguarding areas. An extract from the resource map is included with this report and indicates that the north-eastern part of the site falls within an area identified as the Whitecliff Sand Member. No other part of the application site is located in an area identified on the plan as comprising mineral resources. The report accompanying the Mineral Resource Map identifies that the sands of the Whitecliff Sand Member *“are much finer grained (mean grain size typically about 0.2mm) than those of the Poole Formation, which significantly limits their commercial use. They are of local importance and are currently only worked at Fair Oak, Eastleigh for construction sand”*.

#### **4. Aggregate Mineral Working in Hampshire**

- 4.1. The current state of the aggregate minerals supply is set out in the Hampshire Local Aggregates Assessment (2018)(LAA). The LAA indicates that the geology of Hampshire gives rise to sharp sand and gravel, soft sand and silica sand. Recycled and Marine Sand and Gravel make an important contribution to aggregates supply in the County.
- 4.2. The LAA highlights that there are currently 9 active quarries within the County, none of which are located in close proximity to the application site or within Fareham Borough.
- 4.3. The LAA identifies that over the last 10 years, sales of sand and gravel have been just over 0.9million tonnes per year with total permitted reserves as of 31<sup>st</sup> December 2017 of 7.92 million tonnes. Depending upon the method of calculation this provides a land bank of between 5.08 and 8.70 years. However, this masks a distinct shortfall in the reserves of soft sand which have been calculated at 0.57 million tonnes or a land bank of between 2.04 and 3.56 years.
- 4.4. The LAA identifies that sites allocated in the Hampshire Minerals and Waste Local Plan and recently approved but, at the time, unimplemented permissions, would have the benefit of increasing the land bank of permitted reserves. When these sites are included in the

land bank capacity increases to provide a land bank of between 12.80 years and 21.95 years.

## 5. Relevant Planning Policy

- 5.1. Planning policy for minerals is set out in the National Planning Policy framework and, at the local level, in the Hampshire Minerals and Waste Local Plan.

### National Planning Policy Framework

- 5.2. The National Planning Policy Framework (NPPF) was published in February 2019 and sets out the government's planning policies for England and how these are expected to be applied.
- 5.3. Chapter 17 of the NPPF sets out those policies that the Government believes will enable the sustainable use of minerals.
- 5.4. Paragraph 204 (c) identifies that planning policies should “*safeguard mineral resources by defining Mineral Safeguarding Areas; and adopt appropriate policies so that known locations of specific minerals resources of local and national importance are not sterilised by non-mineral development where this should be avoided (whilst not creating a presumption that the resources defined will be worked).*”
- 5.1. Paragraph 206 requires that local planning authorities should not normally permit other development proposals in Mineral Safeguarding Areas if it might constrain future use for mineral working.
- 5.2. Paragraph 207(f) requires that mineral planning authorities should plan for a steady and adequate supply of aggregates by “*maintaining land banks of at least 7 years for sand and gravel...*”

### Local Planning Policy

- 5.1. The requirements of Paragraph 204(c) are transposed into the Hampshire Minerals and Waste Local Plan at Policy 15 which states:

*Hampshire's sand and gravel (sharp sand and gravel and soft sand), silica sand and brick-making clay resources are safeguarded against needless sterilisation by non-minerals development, unless 'prior extraction' takes place.*

*Safeguarded mineral resources are defined by a Mineral Safeguarding Area illustrated on the Policies Map.*

*Development without the prior extraction of mineral resources in the Mineral Safeguarding Area may be permitted if:*

- a. it can be demonstrated that the sterilisation of mineral resources will not occur; or*
- b. it would be inappropriate to extract mineral resources at that location, with regards to the other policies in the Plan; or*
- c. the development would not pose a serious hindrance to mineral development in the vicinity; or*
- d. the merits of the development outweigh the safeguarding of the mineral.*

*The soft sand / potential silica sand resources at Whitehill & Bordon (Inset Map 5), further illustrated on the Policies Map are included within the MSA and are specifically identified for safeguarding under this policy.*

5.2. Hampshire County Council has also prepared and adopted a supplementary planning document (SPD) setting out how it anticipates mineral safeguarding to be addressed in planning applications for non-mineral uses. The SPD advises that the starting assumption is that largescale extraction would take place and that it is up to the developer to justify why a lower level of extraction (medium to smaller scale of incidental) should be accepted.

5.3. The SPD defines the various scales of extraction as follows:

- *Larger scale extraction: There may be an opportunity to extract the full mineral resource or a significant proportion. This will be the option most favoured by the MWPA as it will maximise the extraction of the resource and avoid its sterilisation. However, there will be no presumption that the mineral will be worked in full. Extraction would likely be a separate activity to the non-minerals or waste development and may include restoration of the land to make it suitable for future non-minerals-or-waste development.*
- *Medium to smaller scale extraction: Where there is no opportunity for a more comprehensive extraction of the mineral resources present, it may be possible to conduct prior extraction as an integral part of the development (such as during the preparation of the land for the development). The material could then either be processed and used on site or exported to a suitable site.*
- *Incidental extraction: Any preparation of the site for the development may result in the extraction of suitable mineral that could be processed and used on site. This is the minimum level of prior extraction that the MWPA would seek as part of any non-minerals-or-waste development in the MWCA, as these activities are likely to occur with any relevant proposed development. This may include excavating the foundations and footings or landscaping works associated with the development.*



## 6. Assessment

- 6.1 Taking account of the foregoing, this section sets out an assessment of the likelihood of the proposed development sterilising viable mineral resources.
- 6.2 The planning application seeks outline permission for the erection of 125 dwellings.
- 6.3 The application site is located in the Borough of Fareham, there are currently no active mineral working sites within the Borough, although it is acknowledged that there are a number of wharves and depots handling recycled and marine won sand and gravels.
- 6.4 The application site falls partially within the Whitecliff Sand Member which is identified in the Hampshire Minerals and Waste Local Plan as a Minerals Safeguarding Area. The Minerals Safeguarding Area covers an area of between 1-1.5 hectares at the north-eastern end of the application site. The majority of the application site lies outside any areas identified as having the potential to hold economically viable aggregate mineral resources.
- 6.5 Borehole data indicates that groundwater is likely to be encountered at between 1.1 - 1.5mbgl. Any mineral working would therefore be undertaken either wet or following de-watering. Any resulting void would also fill with water. It would therefore be necessary to restore levels back to at or near ground levels to ensure that properties were protected from ground water. This would require the importation of additional material.
- 6.6 Given the likely limited extent of possible mineral reserves within the application site alongside the likely groundwater levels, it is considered impractical to undertake either large scale or medium to smaller scale extraction as set out in the Hampshire Minerals Safeguarding SPD. It is therefore recommended that, when considering the reserved matters, the applicant implements a programme of incidental extraction, making use of any minerals that arise during the construction process.

**References:**

HAMPSHIRE MINERALS & WASTE PLAN Minerals & Waste Safeguarding in Hampshire Supplementary Planning Document; Hampshire County Council; 2016

HAMPSHIRE MINERALS & WASTE PLAN; Hampshire County Council; 2013

HAMPSHIRE MINERALS & WASTE PLAN Local Aggregate Assessment; Hampshire County Council; 2018

B3385 NEWGATE LANE – SOUTHERN SECTION Environmental Statement Volume 1; WSP/Parsons Brinkerhoff; June 2015

Mineral Resource Information in Support of National, Regional and Local Planning; Hampshire (comprising Hampshire, City of Portsmouth and City of Southampton. British Geological Survey Commissioned Report CR/02/129N; McEvoy F,M, and 7 others; 2003

# Holst Soil Engineering Limited

Borehole No.  
**ah1**

Contract No. **F3523**

## BOREHOLE LOG

Sheet **1** of **1**

Location **Gosport**

Client **Southern Water Authority**

**SUSOSE-211**

Chainage.....

Method of Boring **Percussion**

Ground Level..... m.A.O.D.

Diameter of Borehole **150mm**

**5701,0312**

Date **22.12.76**

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.O.D.%	Daily Progress
MADEGROUND: Dark grey silty clay with chalk and flint fragments		1.50					
Medium dense sandy flint GRAVEL in a clayey matrix		2.70				'30'	
firm to stiff dark grey silty CLAY		6.00					

Type of Sample

- Is S.P.T.  Undisturbed
- Ic. C.P.T.  Vane
- O Jar  Water
- Bulk  Piezometer

Remarks (Observations of Ground Water etc.)

Groundwater struck at 1.50m depth, casing depth 1.5m  
 Groundwater sealed by casing at 3.00m  
 Standpipe installed to 4.0m depth  
 Standing water level at 1.10m depth

British Geological Survey

# Holst Soil Engineering Limited

Borehole No.  
**ah2**

Contract No. **F3523**

## BOREHOLE LOG

British Geological Survey

Location **Gosport**

Sheet **1** of **1**

Client **Southern Water Authority SUSOSE 212**

Chainage.....

Method of Boring **Percussion**

Ground Level..... m.A.O.D.

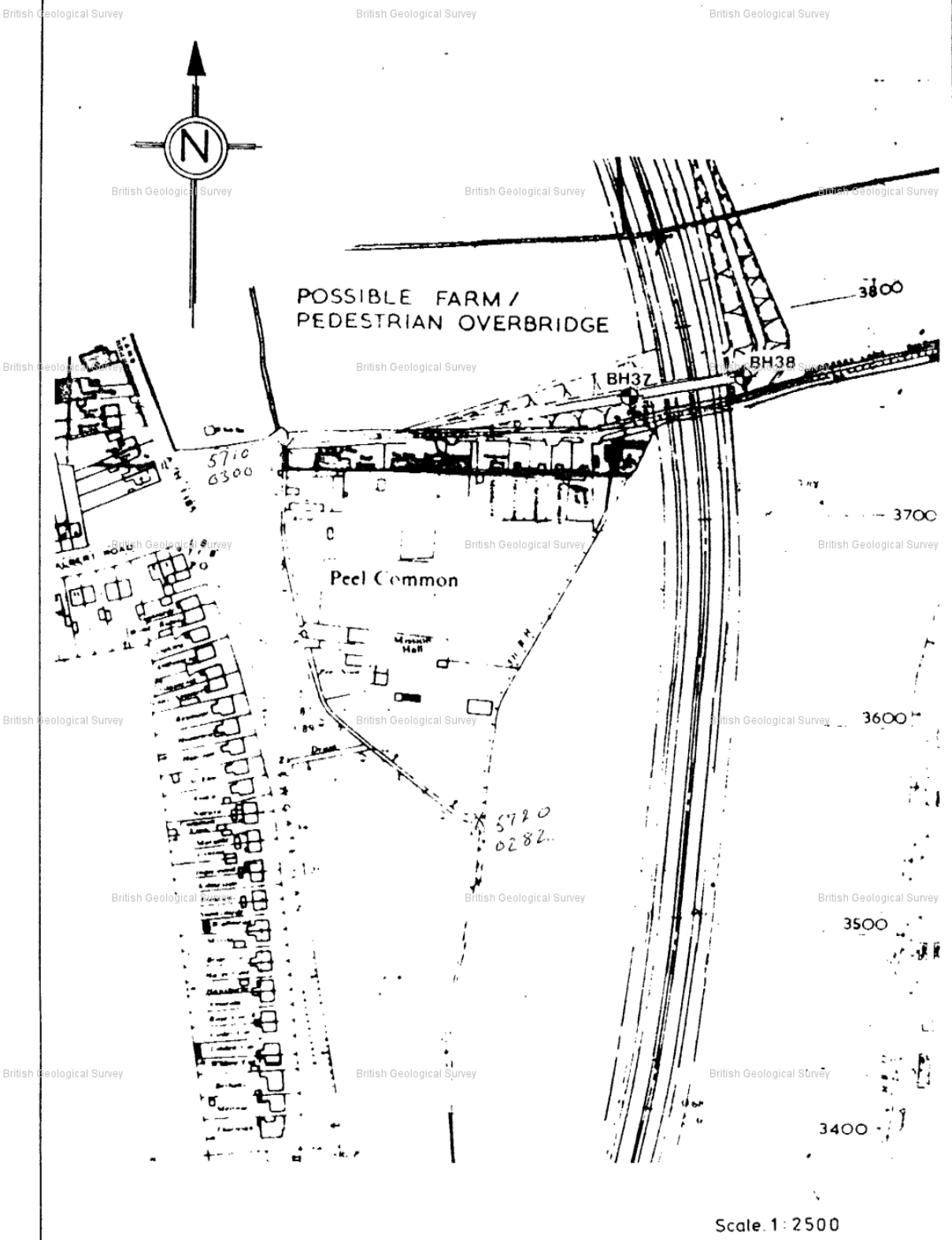
Diameter of Borehole **150mm** **5710,0303**

Date **21.12.76**

Description of Strata	Legend	Depth Below G.L. (m)	O.D. Level (m)	Casing Depth at Sampling	Sampling and Coring	"N"/R.Q.D.%	Daily Progress
<b>TOPSOIL</b>		0.30					
Firm grey brown mottled clayey sandy SILT with some flint gravel		1.10					
Medium dense silty SAND and flint GRAVEL in a clayey matrix		3.20			2.50	"15"	
Firm grey and orange brown mottled silty CLAY with occasional flint fragments.		5.00			3.50		

<p>Type of Sample</p> <p>Is S.P.T. <input type="checkbox"/> Undisturbed</p> <p>Ic. C.P.T. <input checked="" type="checkbox"/> Vane</p> <p>O Jar <input type="checkbox"/> Water</p> <p>● Bulk <input checked="" type="checkbox"/> Piezometer</p>	<p>Remarks (Observations of Ground Water etc.)</p> <p>Groundwater struck at 1.10m depth casing depth 1.00m</p> <p>Sealed by casing at 3.50m depth</p> <p>Standpipe installed at 4.00m depth</p> <p>Standing water level at 0.30m depth</p>
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SU 50 SE / 230 - 231



Scale 1:2500

<b>Borehole Location Plan</b>	<b>Project</b>	Contract S1259/4
<b>exploration associates</b>	Hampshire County Council Fareham - Gosport Relief Road	<b>Figure</b> 31

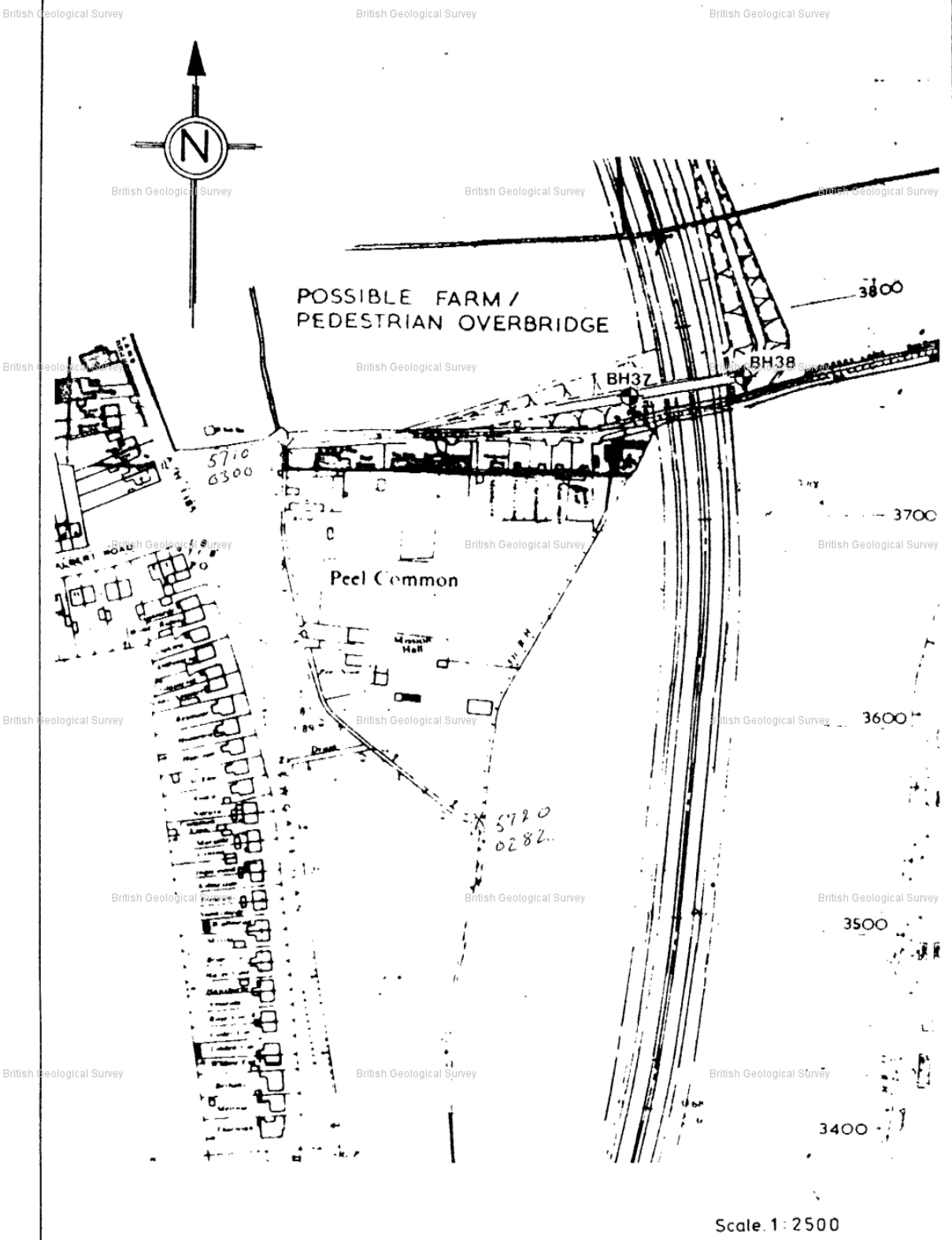
30505E 230

Sampling		Properties			Strata						
Depth	Type	Strength kN.m <sup>2</sup>	w %	SPT N	Description	Depth	Level	Legend			
					Continued from 10.0.	10.0	-1.6				
10.8	D										
11.0-11.5	U(25)	240	25		Dense/very dense dark grey mottled light grey green clayey very silty SAND tending to very sandy SILT in part.						
11.5-12.0	D.S			90							
12.5	D										
13.0-13.5	U(30)		23								
14.3	D										
14.5-15.0	U(30)	150	25								
15.0	D										
					End of Borehole.	15.0	-6.6				
<b>Drilling</b>					<b>Ground Water</b>						
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water
Shell and Auger.	10.0	15.0						31.10.75	Piezometer		1.35
								30.12.75	Piezometer		0.94
								29.1.76	Piezometer		1.07
<b>Remarks</b> Piezometer installed to 15.0.											
<b>Borehole Record</b>					<b>Project</b> Hampshire County Council Fareham - Gosport Relief Road				<b>Contract</b> S1259/4		
<b>exploration associates</b>									<b>Borehole</b> 37 Sheet 2 of 2		

SUSO230

Sampling		Properties			Strata						
Depth	Type	Strength kN/m <sup>2</sup>	w %	SPT N	Description	Depth	Level	Legend			
					Topsoil.	G.L.	8.4				
0.5-1.0	U(50)					0.4	8.0				
1.0	D				Firm-stiff brown sandy CLAY with abundant chalk and flint fragments.						
1.5-2.0	U(20)	95	22	22		1.7	6.7				
2.0	D				Firm-stiff light brown mottled grey very silty CLAY.						
2.4	W			22		2.7	5.7				
2.5-3.0	U(12)	120		22							
3.0	D				Firm-stiff dark grey very silty sandy CLAY becoming very sandy towards base.						
3.5-4.0	U(10)	75	18								
4.0	D					4.5	3.9				
4.5	D			28							
5.0-5.5	D.S			14	Dense/very dense dark grey clayey very silty SAND.						
6.0-6.5	U(20)	22		26							
6.5	D				Stiff grey fissured silty CLAY present						
6.5-7.0	D.S			39	9.5-10.0.						
7.5	D										
8.0-8.5	D.S			65							
9.0	D			26							
9.3-9.8		85		24							
9.8-10.3	D.S			74	Continued from 10.0.	10.0	-1.6				
<b>Drilling</b>					<b>Ground Water</b>						
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water
Shell and Auger.	G.L.	10.0	0.15		4.50	Rose to 2.4 in 1 hour	-	2.9.75	-	-	-
						Ingress throughout borehole.		2.9.75	15.0	14.0	14.2
								12.9.75	Piezometer		1.65
<b>Remarks</b>											
<b>Borehole Record</b>					<b>Project</b>				<b>Contract</b>		
exploration associates					Hampshire County Council Fareham - Gosport Relief Road				S1259/4		
									<b>Borehole</b> 37		
									Sheet 1 of 2		

SU 50 SE / 230 - 231



Scale 1:2500

<b>Borehole Location Plan</b>	<b>Project</b>	Contract S1259/4
<b>exploration associates</b>	Hampshire County Council Fareham - Gosport Relief Road	<b>Figure</b> 31



505050 231

Sampling		Properties			Strata						
Depth	Type	Strength kN/m <sup>2</sup>	w %	SPT N	Description	Depth	Level	Legend			
					Topsoil.	G.L.	8.4				
0.5-1.0	U(20)					0.4	8.0				
1.0	D				Soft - firm light brown becoming brown silty sandy CLAY with abundant gravel towards base. Carbonaceous inclusions present in upper regions.						
1.5-2.0	U(38)	45	19								
2.0	D				Medium dense/dense light brown slightly clayey sandy SILT with silty SAND.						
2.2	W					2.3	6.1				
2.5-3.0	U(15)	140	25								
3.0	D										
3.5-4.0	D.S			14							
4.5-5.0	D.S			18	Dense/very dense grey clayey very silty SAND with occasional laminated clay zones.						
5.5-6.0	D.S			22		35					
6.5-7.0	D.S			40		5.0	3.4				
7.3	D				Continued from 10.0.						
7.5-8.0	U(30)	290	20								
8.0-8.5	D.S			34							
9.5-10.0	D.S			17	43	10.0	-1.6				
<b>Drilling</b>					<b>Ground Water</b>						
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water
Shell and Auger.	G.L	10.0	0.15		2.50	Medium ingress		3.9.75	-	-	-
						Ingress throughout borehole.					
<b>Remarks</b>											
<b>Borehole Record</b>					<b>Project</b> Hampshire County Council Fareham - Gosport Relief Road.				<b>Contract</b> S1259/4		
<b>exploration associates</b>									<b>Borehole</b> 38 Sheet 1 of 2		

505032281

Sampling		Properties			Strata						
Depth	Type	Strength kN/m <sup>2</sup>	w %	SPT N	Description	Depth	Level	Legend			
					Continued from 10.0.	10.0	-1.6				
10.3	D	200	20	21	Very stiff dark grey mottled grey with occasional light grey veins very silty sandy CLAY, tending to clayey silt and sand in part.						
10.5-11.0	U(25)										
11.0	D										
11.5	D	20									
12.0-12.5	U(25)										
12.5	D										
13.0	D										
13.5-14.0	U(35)	240	25								
14.0	D										
14.5-15.0	U(35)	300	23	23							
15.0	D			23	End of Borehole.	15.0	-6.6				
<b>Drilling</b>					<b>Ground Water</b>						
Type	From	To	Size	Fluid	Struck	Behaviour	Sealed	Date	Hole	Cased	Water
Shell and Auger.	10.0	15.0	0.15								
<b>Remarks</b>											
<b>Borehole Record</b>					<b>Project</b> Hampshire County Council Fareham - Gosport Relief Road				<b>Contract</b> S1259/4		
<b>exploration associates</b>									<b>Borehole</b> 38 Sheet 2 of 2		



Title:  
Superficial Geology

Client:  
Bargate Homes Ltd



15 Queen Square  
Leeds  
West Yorkshire  
LS2 8AJ

 Approximate Site Boundary

Project:  
Newgate Lane

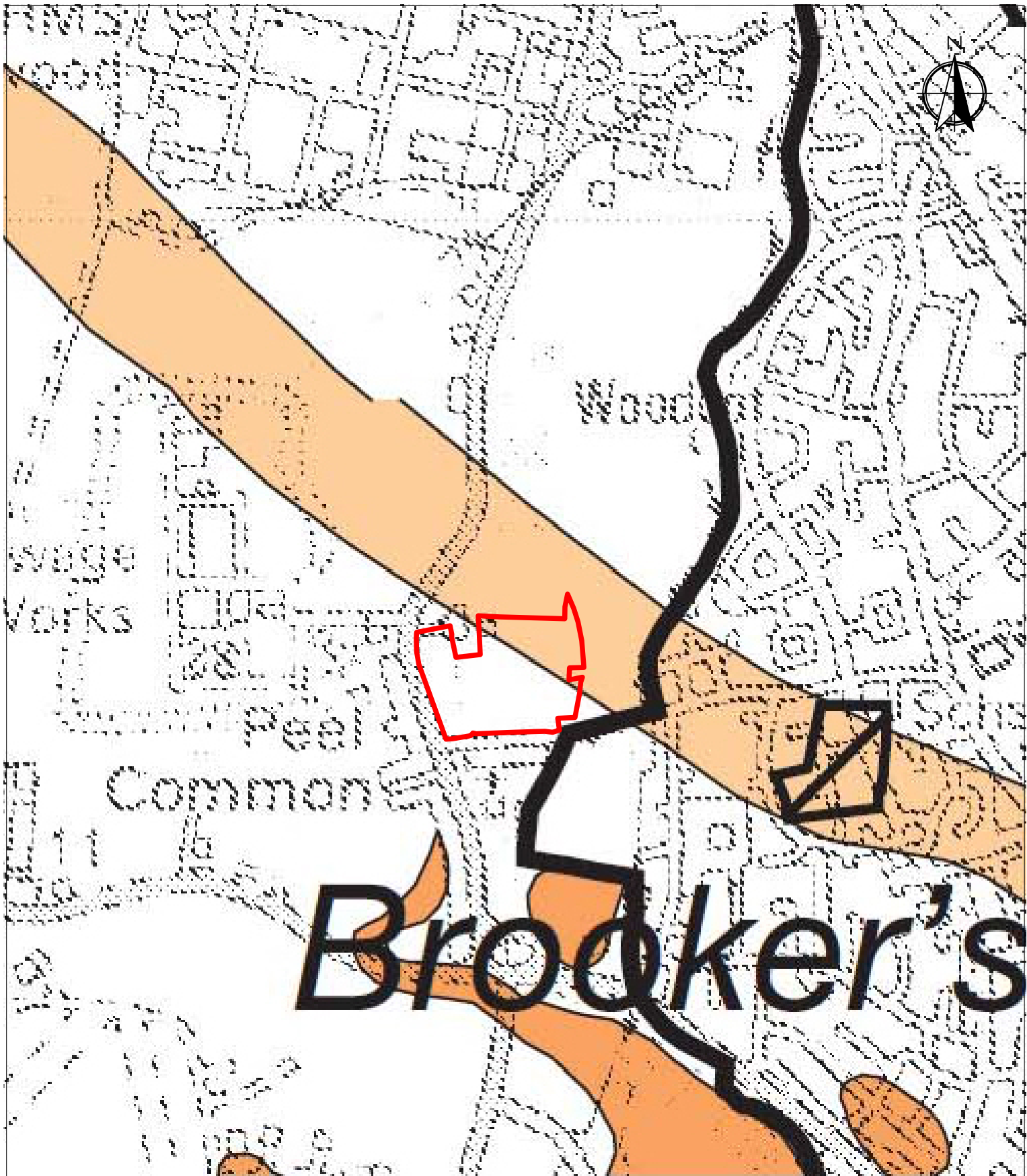
Planning and Development Consultant

Drawing Ref:  
2019.30.56/A

Scale@A4:  
NTS

Drawn by:  
CJ

Date:  
26th July 2019



Title:  
BGS Mineral Resource Map Extract

Client:  
Bargate Homes Ltd



15 Queen Square  
Leeds  
West Yorkshire  
LS2 8AJ

 Approximate Site Boundary

Project:  
Newgate Lane

Planning and Development Consultant

Drawing Ref:  
2019.30.56/B

Scale@A4:  
NTS

Drawn by:  
CJ

Date:  
26th July 2019