

10 May, 2017

Mr E Newlyn
Rydon Homes Ltd
Rydon House
Forest Row
East Sussex
RH18 5DW

Dear Mr Newlyn

**LAND SOUTH OF WATER LANE, ANGMERING
WATER LEVEL MONITORING – NOVEMBER 2016 TO MARCH 2017**

Rydon Homes and Gleeson Strategic Land propose to develop an area of land located to the South of Water Lane in Angmering for residential development purposes. The proposed development comprises residential units with private and adopted highways, soft landscaping and associated roads and parking. Idom Merebrook Limited (Merebrook) has been commissioned by Rydon Homes and Gleeson Strategic Land to undertake preliminary site investigation works and to advise on the geo-environmental implications of the redevelopment of the site for the proposed end use.

A Phase 1 (Non-intrusive Investigation) and a Phase 2a (Preliminary Exploratory Investigation) have been undertaken by Merebrook for the subject site. These are presented in Merebrook report reference GEA-19495-16-306revB dated May 2017.

In addition a soakage investigation was undertaken by Southern Testing / ST Consult for the westernmost section of land, report reference '*Soakage Test Report - Weavers Hill, Angmering*' P0791 dated 4 June 2014 which has been provided to Merebrook for review. Relevant information including ground conditions encountered has been included in the GEA report.

A Flood Risk Assessment has also been undertaken by Merebrook, report reference FRA-19495-16-139 R2 dated May 2017. The FRA includes an indicative drainage strategy. In order to assess the potential for infiltration as a disposal method for surface water management, Merebrook installed seven boreholes (MBH01 to MBH07) to a maximum depth of 10 metres below ground level (m bgl) across the southern land parcel. The locations are indicated on drawing 19495-304-003 attached, together with exploratory hole records. Water levels were monitored over the winter period (November 2016 to March 2017) and results are reported below.

Groundwater level monitoring was undertaken on 11 November and 2 December 2016, 16 February and 10 March 2017.

Location	Monitoring Results – depths below ground level (m)							
	11/11/16		02/12/16		16/02/17		10/03/17	
	DTW*	DTB*	DTW	DTB	DTW	DTB	DTW	DTB
MBH01	10.02	10.10	10.00	10.03	10.03	10.08	10.04	10.06
MBH02	DRY	9.98	DRY	9.70	DRY	9.71	DRY	9.69
MBH03	DRY	10.00	DRY	9.86	DRY	9.89	DRY	9.87
MBH04	8.15	9.95	8.02	9.84	7.98	9.78	7.94	9.90
MBH05	7.34	9.99	4.14	9.85	2.83	9.84	3.10	9.83

AN  GROUP COMPANY

Idom Merebrook Ltd Cranford Mills, Mill Lane, Melton, Derbyshire, DE4 3BQ

offices London Kent Derbyshire Cardiff Manchester Sirling

	Monitoring Results – depths below ground level (m)							
	11/11/16		02/12/16		16/02/17		10/03/17	
Location	DTW*	DTB*	DTW	DTB	DTW	DTB	DTW	DTB
MBH06	9.21	9.85	9.07	9.70	8.90	9.69	8.91	9.69
MBH07	DRY	8.45	DRY	8.22	DRY	8.23	DRY	8.22

*DTW – depth to water

*DTB – depth to base

With the exception of MBH05, results were generally consistent (within 0.3 m), however in MBH05 levels ranged from 2.83 m bgl to 7.34 m bgl.

I trust this meets your requirements, however please give me a call with any queries.

Yours sincerely



Siobhan Jackson
For Idom Merebrook Ltd

cc File

enc Drawing 19495-304-003
Exploratory hole records



Legend

-  Southern parcel boundary
-  Merebrook cable percussion borehole installed for groundwater level monitoring

First issue	10-05-2017		-
	EMP	SJ	SJ
Issue Details	Dwn	Chd	App'd

Client/Project

Rydon Homes & Gleeson Strategic Land

Land South Of Water Lane, Angmering

Dwg Title

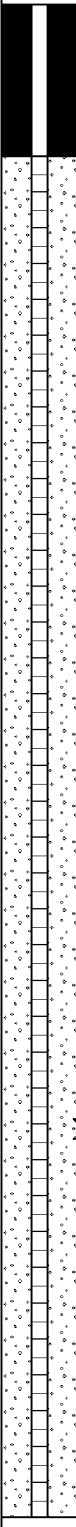
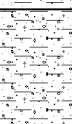
Approximate Borehole Locations

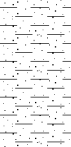
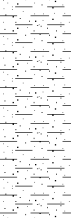
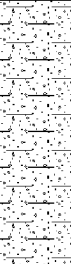
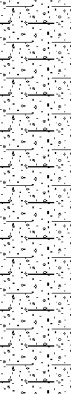
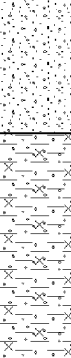
Job No.	Dwg No.	Revision
19495	304-003	-
Scale	Date	Frame Dimensions mm
1:2500	May 2017	(A3) 400 x 280
Drawn	Checked	Approved
EMP	SJ	SJ

- London
- Kent
- Derby
- Cardiff
- Manchester



East Mill, Bridgeton, Selper, Derbyshire, England. DE98 2UA
tel +44(0)1773 829036 fax +44(0)1773 625093 email info@merebrook.co.uk

Idom Merebrook Ltd, East Mill, Bridgefoot, Belper, Derbyshire, DE56 2UA										Idom merebrook AN IDOM GROUP COMPANY offices London Kent Derby Cardiff Manchester Moray			Borehole Log			Borehole No.	
MBH02																	
Sheet 1 of 1																	
Project Name: Water Lane					Project No. 19495		Co-ords:			Hole Type CP							
Location: Angmering					Level: 0.00					Scale 1:50							
Equipment: Cable percussion rig					Dates: 31/10/2016					Logged By JSS							
Well	Wtr Strk	Sample and In Situ Testing			Coring				Depth (m)	Level (m)	Legend	Stratum Description					
		Depth (m)	Type	Results	FI	TCR	SCR	RQD									
		0.40							0.00		Dry and friable light brown sandy CLAY.	1					
		1.40							-0.40		Dry and friable light brown sandy gravelly CLAY. Gravels are fine to coarse, angular to subrounded flint. The occasional flint cobble was observed. <u>Chalk gravels observed</u>						
		1.50	SPT(C)	50 (15,10/50 for 170mm)								Orangish brown slightly sandy gravelly CLAY. Sand is fine to coarse. Gravels are fine to coarse, angular to subrounded flint and chalk.	2				
		3.00	SPT(C)	N=28 (5,3/3,6,10,9)									3				
		4.50	SPT(C)	50 (16,9/50 for 50mm)									5				
		6.00	SPT(C)	N=30 (4,3/6,7,7,10)									6				
		7.50	SPT(C)	N=36 (4,9/7,9,9,11)									8				
		8.20															
		8.90	SPT(C)	N=36 (6,9/8,9,8,11)										9			
		10.00												10			
D = small disturbed sample (tub) J = organic sample (amber glass jar) V = volatile sample (amber glass vial) B = bulk bag sample SPT(C) = Standard Penetration Test (Cone) SPT(S) = Standard Penetration Test (Split Spoon) HSV = hand shear vane (kPa) PP = pocket penetrometer (kg.cm2) PID = photoionisation detector (ppm) FI = fracture index TCR = total core recovery SCR = solid core recovery RQD = rock quality designation										Remarks							

Idom Merebrook Ltd, East Mill, Bridgefoot, Belper, Derbyshire, DE56 2UA										Idom merebrook offices LondonKentDerbyCardiffManchesterMoray Borehole Log				Borehole No.	
														MBH03	
														Sheet 1 of 1	
Project Name: Water Lane						Project No. 19495				Co-ords:				Hole Type CP	
Location: Angmering										Level: 0.00				Scale 1:50	
Equipment: Cable percussion rig										Dates: 01/11/2016				Logged By JSS	
Well	Wtr Strk	Sample and In Situ Testing			Coring				Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results	FI	TCR	SCR	RQD							
									1.00	0.00		Dry and friable light brown sandy CLAY. Occasional fine to medium, subangular to subrounded flint noted.	1		
												Stiff fissured orangish brown slightly sandy CLAY.	2		
		2.00	SPT(C)	N=22 (3,5/4,5,6,7)					2.50	-1.00		Orangish brown slightly clayey gravelly SAND. Sand is fine to coarse, gravels are fine to coarse, angular to subangular flint.	3		
												Light orangish brown very gravelly CLAY. Gravels are fine to coarse, angular to subangular flint.	4		
		3.50	SPT(C)	N=39 (10,8/11,9,9,10)					4.30	-2.50		Orangish brown slightly clayey gravelly SAND. Sand is fine to coarse, gravels are fine to coarse, angular to subangular flint.	5		
									4.50	-4.30		Orangish brown slightly clayey gravelly SAND. Sand is fine to coarse, gravels are fine to coarse, angular to subangular flint.	6		
		4.90	SPT(C)	N=28 (10,10/8,6,6,8)								Orangish brown gravelly SAND. Sand is fine to coarse, gravels are fine to coarse, angular to subangular flint. Occasional flint cobbles noted.	7		
		6.50	SPT(C)	N=21 (4,5/5,4,6,6)					7.50	-4.50		Brown very gravelly cobbly CLAY. Gravels are fine to coarse, subangular to subrounded flint. Cobbles are also flint.	8		
		8.00	SPT(C)	N=38 (10,7/8,9,11,10)					8.40	-7.50			9		
		10.00	SPT(C)	N=23 (6,6/5,4,7,7)					10.00	-8.40		End of Borehole at 10.00m	10		
D = small disturbed sample (tub) J = organic sample (amber glass jar) V = volatile sample (amber glass vial) B = bulk bag sample SPT(C) = Standard Penetration Test (Cone) SPT(S) = Standard Penetration Test (Split Spoon) HSV = hand shear vane (kPa) PP = pocket penetrometer (kg.cm2) PID = photoionisation detector (ppm) FI = fracture index TCR = total core recovery SCR = solid core recovery RQD = rock quality designation										Remarks					

idom idom merebrook offices London Kent Derby Cardiff Manchester Moray Idom Merebrook Ltd, East Mill, Bridgefoot, Belper, Derbyshire, DE56 2UA										Borehole Log				Borehole No. MBH04 Sheet 1 of 1	
Project Name: Water Lane						Project No. 19495		Co-ords:		Hole Type CP					
Location: Angmering						Level: 0.00		Scale 1:50		Logged By JSS					
Equipment: Cable percussion rig						Dates: 02/11/2016									
Well	Wtr Strk	Sample and In Situ Testing			Coring				Depth (m)	Level (m)	Legend	Stratum Description			
		Depth (m)	Type	Results	FI	TCR	SCR	RQD							
		1.50	SPT(C)	N=17 (4,6/7,4,4,2)					0.80	0.00		Dry and friable light brown slightly gravelly sandy CLAY. Gravels are fine to coarse, angular to subrounded flint with the occasional cobble noted.	1		
		3.00	SPT(C)	50 (7,18/50 for 152mm)					3.90	-0.80		Light brown slightly clayey gravelly SAND. Sand is fine to coarse. Gravels are fine to medium angular to subangular flint fragments.	2		
		4.50	SPT(C)	N=16 (2,2/3,4,4,5)								Firm fissured orangish brown slightly sandy CLAY.	3		
		6.00	SPT(C)	N=16 (2,2/3,4,5,4)									4		
		7.50	SPT(C)	N=25 (5,8/6,5,7,7)					7.40	-3.90		Brown gravelly cobbly CLAY. Gravels are fine to coarse, subangular to subrounded flint. Cobbles are also flint.	5		
		9.00	SPT(C)	N=50 (5,8/50 for 245mm)					8.90	-7.40		Stiff light grey very sandy CLAY.	6		
									9.50	-8.90		Very stiff light grey mottled orangush brown very sandy CLAY. Sand is fine.	7		
									9.80	-9.50		Dense light grey clayey fine SAND.	8		
									10.00	-9.80		End of Borehole at 10.00m	9		
														10	
D = small disturbed sample (tub) J = organic sample (amber glass jar) V = volatile sample (amber glass vial) B = bulk bag sample SPT(C) = Standard Penetration Test (Cone) SPT(S) = Standard Penetration Test (Split Spoon) HSV = hand shear vane (kPa) PP = pocket penetrometer (kg.cm2) PID = photoionisation detector (ppm) FI = fracture index TCR = total core recovery SCR = solid core recovery RQD = rock quality designation									Remarks						

