



Phone: 01508570594

Address:
Noahs Ark, Cuckoofield Lane, Bracon Ash,
Norfolk NR14 8EJ

Appendix E

Helical Screw Pile Capacity Design and Supporting Ground Data

Phone: 01508570594



Address:
Noahs Ark, Cuckoofield Lane, Bracon Ash,
Norfolk NR14 8EJ

CONTRACT: CHOCOLATE FACTORY BLOCK E1
JOB NUMBER: JPSE25-040
ELEMENT: 114.3mm PILE TYPE C - 6 FLIGHTS - 12m LENGTH - SWL 247kN (compression) 125kN (tension)

PILE TYPE : C

REVISION: B1

SHEET: 1

DATE: Jul-26

DESIGN OF HELICAL SCREW PILES

SOIL PROFILE: ARC ENVIRONMENTAL /THE BROWNFIELD Ground Investigation Report

SPT N - Only used for chalk soils

DEPTH TO GROUND WATER (m) 1.000

	DEPTH TO TOP OF STRATUM	DEPTH TO UNDERSIDE OF STRATUM	DESCRIPTION	SOIL DESCRIPTION	COHESION	ϕ	Bulk Unit Weight	Submerged Unit Weight	SPT N VALUE	N_q / N_c	AFFECTED BY GROUND WATER
UNITS	(m)	(m)			(kN/m ²)	(°)	(kN/m ³)	(kN/m ³)			
LAYER 1	0.000	0.800	MADE GROUND	Fill		10	16.0	6.0		2.5	NO
LAYER 2	0.800	2.000	FIRM LONDON CLAY	Cohesive	50		19.0	9.0		9.0	NO
LAYER 3	2.000	6.800	FIRM LONDON CLAY	Cohesive	80		19.0	9.0		9.0	NO
LAYER 4	6.800	7.000	STIFF LONDON CLAY	Cohesive	100		19.0	9.0		9.0	NO
LAYER 5	7.000	7.800	STIFF LONDON CLAY	Cohesive	120		19.0	9.0		9.0	NO
LAYER 6	7.800	15.000	STIFF LONDON CLAY	Cohesive	130		19.0	9.0		9.0	NO
LAYER 7	15.000	15.000	STIFF LONDON CLAY	Cohesive	150		19.0	9.0		9.0	NO
LAYER 8	15.000	20.000	VERY STIFF LONDON CLAY	Cohesive	200		19.0	9.0		9.0	NO
LAYER 9	20.000							0.0		0.0	NO

critical depth below ground level 7.800 m (DEPTH OF MADE GROUND + 20*MAX HELIX DIAMETER)

PILE PROFILE:

Self Weight of Pile (kN)	3.85
Pile Length (m)	12.000
Pile Diameter (m)	114.3
Pile Wall Thickness (mm)	10.0
Number of Helix	6

Top of Pile Below Ground Level (m)	0.000
Tip of Pile Relative to Ground Level (m)	12.000
K_T (compression) (m ⁻¹)	18
K_T (tension) (m ⁻¹)	16
Disturbance Factor λ_s	0.87

Design Life (years)	60
Galv thickness (µm)	0
Helix thickness (mm)	12
Helix pitch (mm)	150
Steel FoS (mm)	1.50

PILE SHAFT CAPACITY:

LAYER	LENGTH OF EFFECTIVE PILE WITHIN LAYER (m)	DESCRIPTION	SURFACE AREA OF PILE SHAFT (m ²)	COHESION (kN/m ²)	SHAFT ADHESION (kN/m ²)	SOIL DENSITY (kN/m ³)	ϕ (°)	AVG OVERBURDEN PRESSURE (kN/m ²)	AFFECTED BY GROUND WATER	ULS SHAFT CAPACITY (kN)	SWL SHAFT CAPACITY (kN)
Layer 1	0.800	MADE GROUND	0.287	0	0.0	16	10	6.40	NO	0.0	0.0
Layer 2	1.200	FIRM LONDON CLAY	0.431	50	33.3	19	0	24.20	NO	14.4	4.8
Layer 3	4.300	FIRM LONDON CLAY	1.544	80	53.3	19	0	72.00	NO	82.3	27.4

PILE BASE CAPACITY:

PILE DIAMETER (m)	DIST. BELOW GROUND (m)	DESCRIPTION	AREA OF PILE BASE (m ²)	COHESION (kN/m ²)	N_q / N_{chalk}	DENSITY (kN/m ³)	OVERBURDEN PRESSURE (kN/m ²)	AFFECTED BY GROUND WATER	ULS BASE CAPACITY (kN)	SWL BASE CAPACITY (kN)
0.1143	12.000	LAYER 6	0.010	130	9.0	19	108.40	NO	12.0	4.8

PILE HELIX CAPACITY:

HELIX REFERENCE	HELIX DIAMETER (mm)	HELIX RADIUS (m)	NETT HELIX AREA (m ²)	HELIX FROM TIP (m)	DIST. BELOW GROUND (m)	DENSITY (kN/m ³)	SHEAR STRENGTH (kN/m ²)	N_q / N_c	OVERBURDEN PRESSURE (kN/m ²)	AFFECTED BY GROUND WATER	ULS HELIX CAPACITY (kN) *1	SWL HELIX CAPACITY (kN) *1
Helix 1	350	0.175	0.086	0.100	11.900	19.0	130.0	9.0	108.40	NO	65.4	40.2
Helix 2	350	0.175	0.086	1.150	10.850	19.0	130.0	9.0	108.40	NO	65.4	40.2
Helix 3	350	0.175	0.086	2.200	9.800	19.0	130.0	9.0	108.40	NO	65.4	40.2
Helix 4	350	0.175	0.086	3.250	8.750	19.0	130.0	9.0	108.40	NO	68.1	42.9
Helix 5	350	0.175	0.086	4.300	7.700	19.0	120.0	9.0	76.90	NO	66.2	37.9
Helix 6	350	0.175	0.086	5.350	6.650	19.0	80.0	9.0	67.45	NO	61.9	30.6

MAXIMUM ϕ 350 mm

		TENSION		COMPRESSION		TENSION		COMPRESSION			
ULS SHAFT CAPACITY	96.7	kN	£ ULS CAPACITY (including shaft)	425.5	497.2	kN	SWL FOR PILE (inc. shaft)	234	265	kN	
ULS BASE CAPACITY	12.0	kN	£ ULS CAPACITY (excluding shaft)	341.3	400.5	kN	SWL FOR PILE (exc. shaft)	206	233	kN	
ULS Σ HELIX CAPACITY * ¹	392.3	kN	SOIL FoS (bearing)* ¹	2.5			REQUIRED TORQUE (inc shaft)	25.8	27.1	kNm	
* ¹ non-corroded		* default chalk bearing FoS=3.5; chalk shaft FoS=1.5, cohesive/non-cohesive shaft FoS=3.0									
SUMMARY		COMPRESSION		TENSION		REQUIRED TORQUE (exc shaft)		20.7		21.9	kNm
PILE LENGTH	12m	PILE DIAMETER	114.3mm	K _T	18m-1	16m-1	CONVERT SWL to TORQUE (SWL+18.2)*0.114 (SWL+18.2)*0.104 m				
HELIX DIAMETERS	350mm	350mm	350mm	350mm	350mm	350mm	CORRODED PILE S.W.L.	125	247	kN	

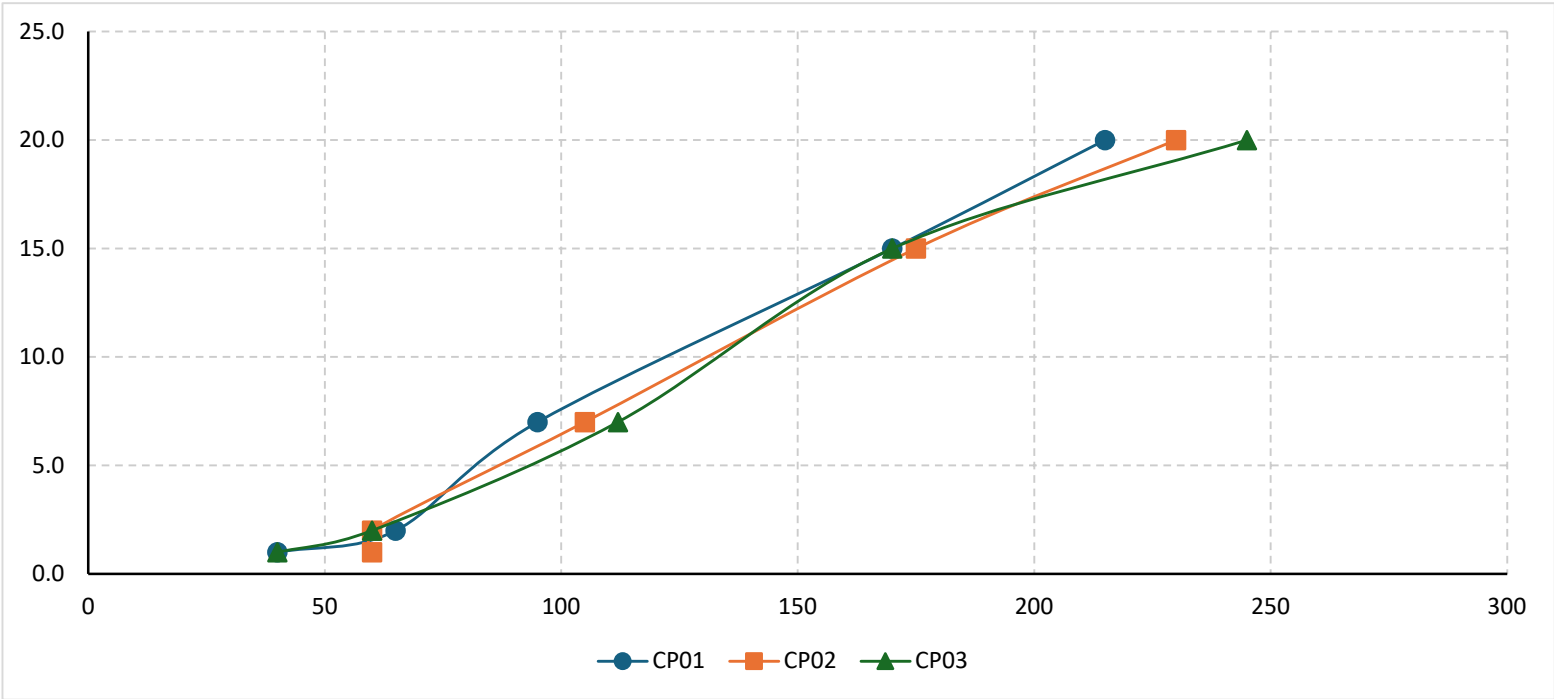
NOTES:

- Our design is based upon information received from others. This information has been relied upon in good faith and we have not been asked to confirm the validity of the same. In the event that conditions are found to vary on site, we shall need to be contacted immediately in order that our design can be checked and it's validity confirmed.
- Our design/advice is issued on the understanding that the works are completed by a suitably qualified and experienced civil engineering contractor in accordance with current codes of practice, design standards and to generally accepted and approved methods of working.

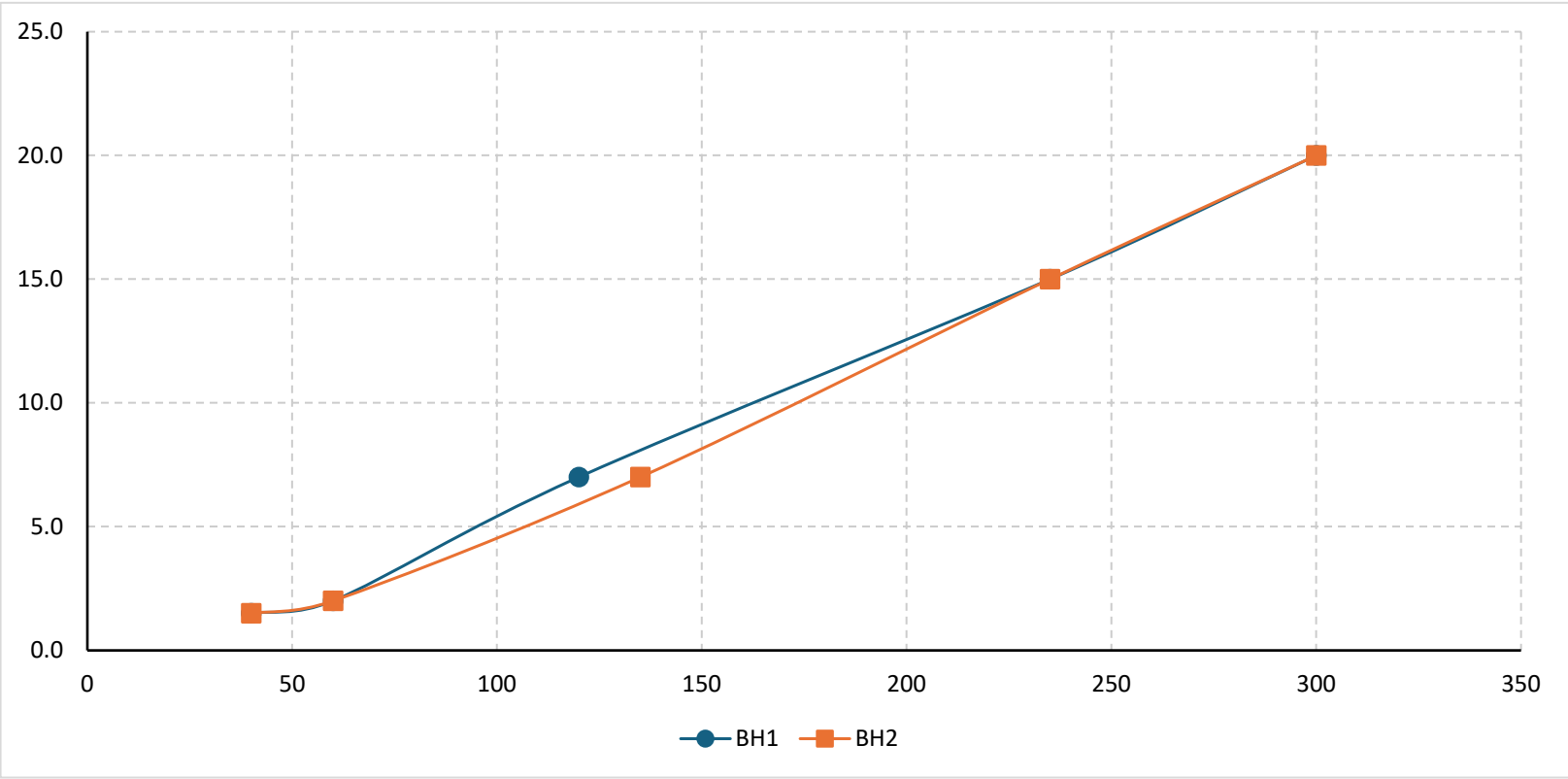
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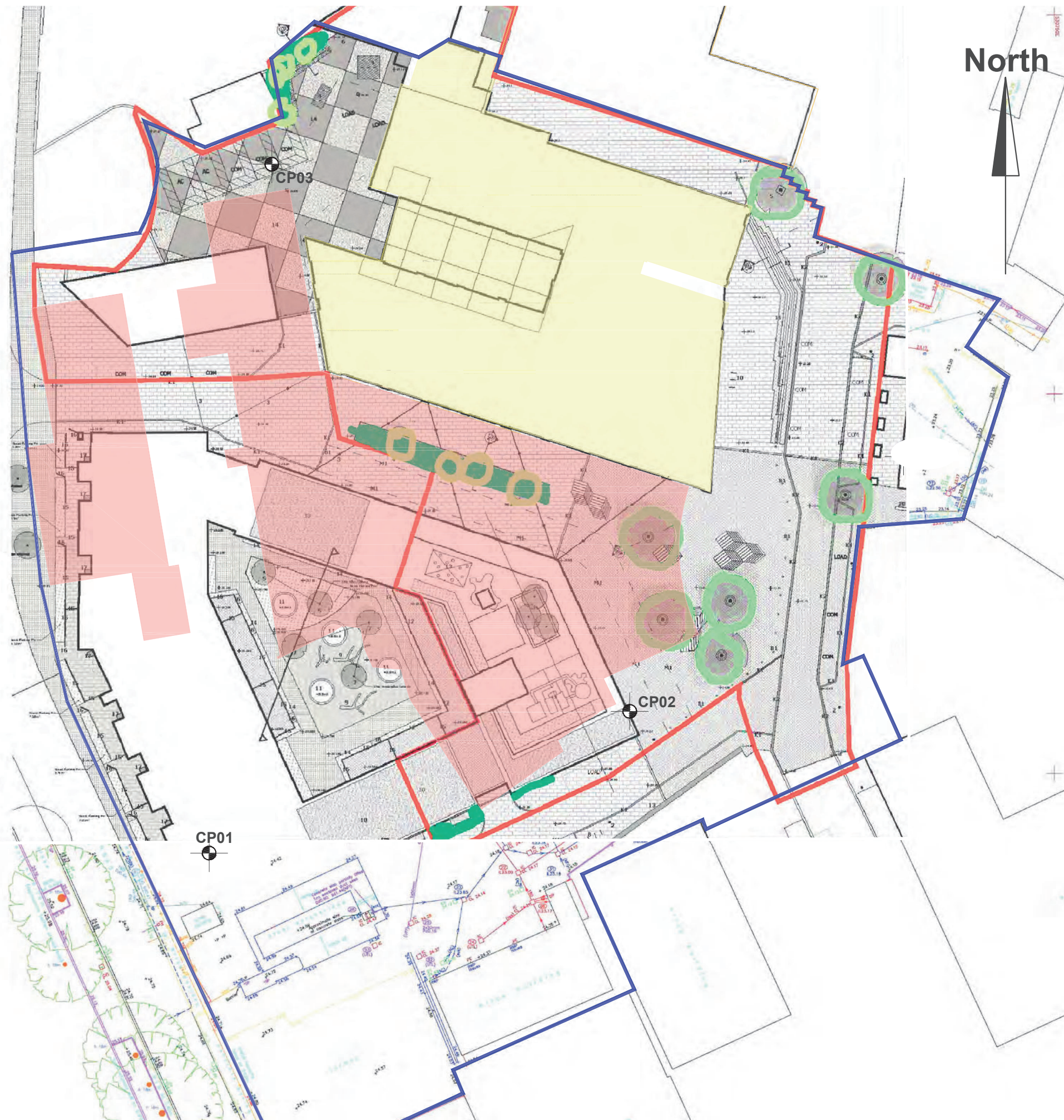
BS8002 (Code of Practice - Earth Retaining Structures)
BS8004 (Code of Practice - Foundations)
BS5950-1 (Code of Practice - Structural Use of Steel in Building)
CIRIA Report C574 (Engineering in Chalk)
Helical Piles - A Practical Guide to Design and Installation (Wiley, Howard A. Perko)
BD12/01 Volume 2 Section 2 Part 6 (DMRB)
Electrical Resistivity Model of Great Britain (British Geological Survey)
Quick Design Guide for Screw-Piles and Helical Anchors (ISHF, Alan J. Lutenegeger)

ARC ENVIRONMENTAL LTD Ground Investigation Report				
Depth (m)	CP01 (kN/m²)	CP02 (kN/m²)	CP03 (kN/m²)	AVERAGE
1.0	40	60	40	47
2.0	65	60	60	62
7.0	95	105	112	104
15.0	170	175	170	172
20.0	215	230	245	230



THE BROWNFIELD Ground Investigation Report			
Depth (m)	BH1 (kN/m²)	BH2 (kN/m²)	AVERAGE
1.5	40	40	40
2.0	60	60	60
7.0	120	135	128
15.0	235	235	235
20.0	300	300	300





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web: www.arc-environmental.com

The contractor shall check all dimensions on site before commencement of any works. No dimensions to be scaled off this drawing.
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LEGEND	
	SOLID BLUE LINE DENOTES APPROXIMATE SITE / INVESTIGATION BOUNDARY
	SOLID RED LINE BOUNDARY AS DETAILED ON SOFT LANDSCAPING PLAN RECEIVED FOLLOWING COMPLETION OF SI WORKS
	SHADING DENOTES AREA OF EXISTING BUILDINGS TO BE RETAINED AND REDEVELOPED
	SHADING DENOTES AREA OF EXISTING BUILDINGS TO BE DEMOLISHED
	CABLE PERCUSSIVE BOREHOLE POSITION

rev.	date	amendments	drawn	chkd

Client:
FURNESS PARTNERSHIP

Project Title:
The Chocolate Factory
Clarendon Road
Wood Green, N22 6XJ

Drawing Title:
Borehole Location Plan

Scale at A3: NTS @ A3	Date: 26.10.21	Drawn by: P.D	Approved by: J.P.D
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Job Ref: 21-500	Drg no: —	Rev: —
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BOREHOLE LOG

Project The Chocolate Factory & Parma House Wood Green				BOREHOLE No CP01
Job No 21-500	Date 01-09-21	Ground Level (m)	Co-Ordinates ()	
Contractor Arc Environmental Ltd				Sheet 1 of 2

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
0.30	J/D					0.25	Concrete (MADE GROUND)		
0.70	J/D					0.50	Light brown sandy gravel (hardcore) with some brick fragments (MADE GROUND)		
1.20-1.65	S/D	N=7					Firm (medium strength) becoming stiff (high strength) light brown silty CLAY (LONDON CLAY)		
2.00-2.45	U	65kN/m ²							
3.00-3.45	S/B/D	N=11							
4.00-4.45	U	30 blows							
4.00	V	66kN/m ²							
5.00-5.45	S/B/D	N=16							
6.00-6.45	U	79kN/m ²							
7.50-7.95	S/B/D	N=19							
9.00-9.45	U	111kN/m ²							
10.50-10.95	S/D	N=29							

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Water Observations: BH remained dry.
All dimensions in metres Scale 1:75			Client Furness (London) / Workspace Group PLC			Method/ Plant Used Cable Percussive			Logged By MH		

AGS3 UK BH LOGS.GPJ AGS3_ALL.GDT 27/10/21



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BOREHOLE LOG

Project The Chocolate Factory & Parma House Wood Green				BOREHOLE No CP01	
Job No 21-500	Date 01-09-21	Ground Level (m)	Co-Ordinates ()		
Contractor Arc Environmental Ltd				Sheet 2 of 2	

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
12.00-12.45 12.00	U V	40 blows 110kN/m ²					Stiff (high strength) bluish grey silty CLAY (LONDON CLAY) (continued)		
13.50-13.95	S/B/D	N=29							
15.00-15.45	U	170kN/m ²				15.50	Becomes very stiff (very high strength) from c.15m		
16.50-16.95	S/D	N=37					Very stiff bluish grey silty CLAY (LONDON CLAY)		
18.00-18.45	U/B	NR 50 blows				(4.45)			
19.50-19.95	S/D	N=43				19.95			
							Borehole terminated at 19.95m DAYWORKS: Break out surfacing 30mins, erect fencing 30mins, install standpipe 1hr		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
01-09-21	00.00	19.95	1.50	150mm							Water Observations: BH remained dry.
All dimensions in metres Scale 1:75			Client Furness (London) / Workspace Group PLC			Method/ Plant Used Cable Percussive			Logged By MH		

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BOREHOLE LOG

Project The Chocolate Factory & Parma House Wood Green				BOREHOLE No CP02
Job No 21-500	Date 02-09-21	Ground Level (m)	Co-Ordinates ()	
Contractor Arc Environmental Ltd				Sheet 1 of 2

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
0.25-0.80	J/B					0.25	Concrete (MADE GROUND)		
						0.80	Light brown sandy gravel (hardcore) with many brick fragments (MADE GROUND)		
1.25-1.65	S/B/D	N=12					Firm becoming stiff (high strength) light brown silty CLAY (LONDON CLAY)		
2.00-2.45	U/B	NR 23 blows							
3.00-3.45	S/D	N=12							
4.00-4.95	U/B	NR 40 blows				(6.20)			
5.00-5.45	S/D	N=14							
6.00-6.45	U	85kN/m ²				7.00			
7.50-7.95	S/B/D	N=21					Stiff (high strength) bluish grey silty CLAY (LONDON CLAY)		
9.00-9.45	U	45 blows							
9.00	V	112kN/m ²							
10.50-10.95	S/D	N=23				(8.00)			

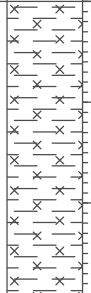
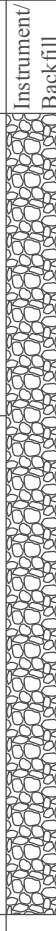
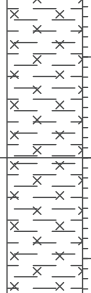
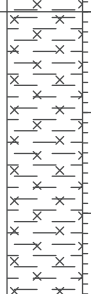
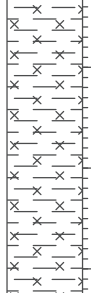
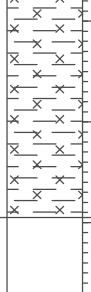
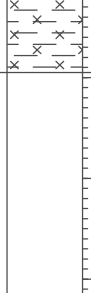
Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Water Observations: BH remained dry.
All dimensions in metres Scale 1:75			Client	Furness (London) / Workspace Group PLC			Method/ Plant Used	Cable Percussive		Logged By MH	

AGS3 UK BH LOGS.GPJ AGS3_ALL.GDT 27/10/21



BOREHOLE LOG

Project The Chocolate Factory & Parma House Wood Green				BOREHOLE No CP02
Job No 21-500	Date 02-09-21	Ground Level (m)	Co-Ordinates ()	
Contractor Arc Environmental Ltd				Sheet 2 of 2

SAMPLES & TESTS			Water	STRATA			Geology	Instrument/ Backfill	
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick- ness)			DESCRIPTION
12.00- 12.45	U/B	NR 47 blows				15.00	Stiff (high strength) bluish grey silty CLAY (LONDON CLAY) <i>(continued)</i>		
13.50- 13.95	S/B/D	N=24							
15.00- 15.45	U	175kN/m ²					Very stiff (very high strength) bluish grey silty CLAY (LONDON CLAY)		
16.50- 16.95	S/D	N=41				(4.95)			
18.00- 18.45	U/B	60 blows							
19.50- 19.95	S/D	N=46				19.95			
							Borehole terminated at 19.95m DAYWORKS: Break out surfacing 30mins, erect fencing 30mins, install standpipe 1hr, tidy spoil 1hr		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
All dimensions in metres Scale 1:75		Client	Furness (London) / Workspace Group PLC			Method/ Plant Used	Cable Percussive				Logged By MH

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BOREHOLE LOG

Project The Chocolate Factory & Parma House Wood Green				BOREHOLE No CP03
Job No 21-500	Date 31-08-21	Ground Level (m)	Co-Ordinates ()	
Contractor Arc Environmental Ltd				Sheet 1 of 2

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
0.20-1.00	J/B					0.20	Concrete (MADE GROUND)		
						(1.30)	Dark grey 'wet' sandy concrete and brick rubble (MADE GROUND)		
1.00-1.50	B					1.50			
2.00-3.00	B						Firm light brown silty CLAY (LONDON CLAY)		
3.00-4.00	B								
4.00-4.45	U/B	NR 50blows				(5.50)			
5.00-5.45	S/B/D	N=23							
6.00-6.45	S/D	N=19							
7.50-7.95	U	112kN/m ²				7.00	Stiff (high strength) bluish grey silty CLAY. Occasional silt laminations (LONDON CLAY)		
9.00-9.45	S/B/D	N=16							
10.50-10.95	U	39 blows							
10.50	V	120kN/m ²				(9.00)			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Water Observations: Heavy water ingress c.0.50m.
All dimensions in metres Scale 1:75			Client Furness (London) / Workspace Group PLC			Method/ Plant Used Cable Percussive			Logged By MH		

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BOREHOLE LOG

Project The Chocolate Factory & Parma House Wood Green				BOREHOLE No CP03	
Job No 21-500	Date 31-08-21	Ground Level (m)	Co-Ordinates ()		
Contractor Arc Environmental Ltd				Sheet 2 of 2	

SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
12.00-12.45	S/D	N=25					Stiff (high strength) bluish grey silty CLAY. Occasional silt laminations (LONDON CLAY) (<i>continued</i>)		
13.50-13.95	U	50 blows							
15.00-15.45	S/D	N=28				16.00			
16.50-16.95	U/B	NR 70 blows					Very stiff bluish grey silty CLAY (LONDON CLAY)		
18.00-18.45	S/D	N=47				(3.95)			
19.50-19.95	S/B/D	N=49				19.95			
							Note, pushed concrete cobble to c.4.00m. Borehole terminated at 19.95m DAYWORKS: Break out surfacing 30mins, erect fencing 30mins, install standpipe 1hr, tidy spoil 1hr		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											Water Observations: Heavy water ingress c.0.50m.
All dimensions in metres Scale 1:75			Client	Furness (London) / Workspace Group PLC			Method/ Plant Used	Cable Percussive		Logged By MH	

AGS3 UK BH LOGS.GPJ AGS3_ALL.GDT 27/10/21

BLOCK E, THE CHOCOLATE FACTORY

EXPLORATORY HOLE LOCATION PLAN



BOREHOLE LOG

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No WS1
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 1 of 1

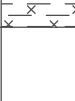
SAMPLES & TESTS			Water	STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
0.10	ES					0.10	Reinforced Concrete. (MADE GROUND)		
0.25	ES					0.25	Grey sandy GRAVEL of subangular and subrounded fine to coarse brick, concrete, flint, clinker and yellow brick. (MADE GROUND)		
						(0.35)	Soft greenish grey and grey slightly sandy slightly gravelly CLAY. Gravel is subangular and subrounded fine to coarse flint. (MADE GROUND)		
						0.60			
						(0.40)	Soft brown mottled orange brown silty CLAY with black speckling. (MADE GROUND)		
0.90	ES	N6 0,0/ 1,2,1,2			(0.40)	Soft brown mottled orange brown silty CLAY with black speckling. (MADE GROUND)			
1.00					1.00	Soft becoming firm brown and blue silty CLAY with patches of orange brown sand and selenite crystals. (LONDON CLAY)			
									
									
									
1.60	HV	60kPa			(1.50)				
1.80	HV	75kPa							
1.90	HV	65kPa							
2.00	D	N9 1,2/ 2,2,2,3							
2.00									
									
									
									
2.70	HV	95kPa				Firm becoming stiff fissured brown locally blue grey silty CLAY with patches of light brown fine sand. and selenite crystals. (LONDON CLAY)			
2.90	HV	120kPa							
3.00	D	N11 1,1/ 2,3,3,3							
3.00									
									
									
									
4.00		N18 4,3/ 4,4,4,6							
									
									
									
									
					4.45				
						Borehole terminated at target depth. Groundwater not encountered.			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											50mm standpipe installed.
All dimensions in metres Scale 1:37.5			Client Formation D&B			Method/ Plant Used Dynamic Sampling Rig			Logged By JT		

BROWNFIELD DS LOG CHOCOLATE LOGS.GPJ GINT STD AGS 3.1.GDT 27/5/22

BOREHOLE LOG

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No WS2
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 1 of 1

SAMPLES & TESTS			STRATA					Geology	Instrument/ Backfill	
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION			
0.20	ES	N6 0,0/ 1,1,2,2				0.15	Reinforced Concrete. (MADE GROUND)			
							(0.35) 0.50	Red brown sandy GRAVEL of angular to subrounded fine to coarse brick. One whole brick at the base of the deposit. (MADE GROUND)		
0.50	ES						0.60	Red brown and black subrounded COBBLES in a matrix of clay and sand. One small piece of plastic. Two small pieces of black leather. (MADE GROUND)		
							(0.40) 1.00	Soft brown silty CLAY with black speckling. (LONDON CLAY)		
1.00	D						(1.00) 2.00	Soft becoming firm brown and blue silty CLAY with patches of orange brown sand and selenite crystals. (LONDON CLAY)		
1.00										
										
										
2.00				N7 0,1/ 1,2,2,2			(2.45) 4.45	Soft becoming firm fissured brown locally blue grey silty CLAY with occasional patches of light brown fine sand and selenite crystals. (LONDON CLAY)		
										
										
										
3.00		N10 2,1/ 2,2,3,3								
										
										
3.70	HV	90kPa								
3.90	HV	95kPa								
4.00	D	N10 1,2/ 2,2,2,4								
4.00										
							Borehole terminated at target depth. Groundwater not encountered.			

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											50mm standpipe installed.
All dimensions in metres Scale 1:37.5			Client Formation D&B			Method/ Plant Used Dynamic Sampling Rig			Logged By JT		

BROWNFIELD DS LOG CHOCOLATE LOGS.GPJ GINT STD AGS 3.1.GDT 27/5/22

BOREHOLE LOG

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No WS3	
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()		
Contractor The Brownfield Consultancy Ltd				Sheet 1 of 1	

SAMPLES & TESTS			STRATA					Geology	Instrument/ Backfill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick- ness)	DESCRIPTION		
0.50	ES					(0.40) 0.40	Reinforced Concrete. (MADE GROUND)		
						0.60	Grey sandy GRAVEL of subangular and subrounded fine to coarse brick, concrete, flint, slate and yellow brick. (MADE GROUND)		
							Rapid ingress of groundwater at 0.60m. Borehole abandoned. WS3A re-drilled 2m south.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.
All dimensions in metres Scale 1:37.5			Client Formation D&B			Method/ Plant Used Dynamic Sampling Rig			Logged By JT		

BOREHOLE LOG

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No WS3A
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 1 of 1

SAMPLES & TESTS			STRATA					Geology	Instrument/ Backfill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)	DESCRIPTION		
						(0.50)	Reinforced Concrete. (MADE GROUND)		
						0.50			
0.60	ES					0.60	Brown SAND and GRAVEL. Gravel is subangular fine to coarse flint. (MADE GROUND)		
0.80	ES					0.80	Soft dark grey locally black sandy CLAY. (MADE GROUND)		
							1.00	Soft brown silty CLAY. (LONDON CLAY)	
1.00		N8 1,2/ 2,2,2,2						Soft becoming firm brown and blue silty CLAY with patches of orange brown sand and selenite crystals. (LONDON CLAY)	
							(1.00)		
1.60	HV	70kPa							
1.80	HV	80kPa							
1.95	HV	80kPa					2.00		
2.00	D	N10 1,1/ 2,2,3,3					Firm fissured brown locally blue grey silty CLAY with occasional patches of light brown fine sand and selenite crystals. (LONDON CLAY)		
2.70	HV	105kPa							
3.00	D	N12 1,1/ 2,3,3,4				(2.45)			
3.70	HV	110kPa							
3.90	HV	110kPa							
4.00	D	N13 1,1/ 3,3,3,4				4.45			
							Borehole terminated at target depth. Water at 0.60m on completion.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											50mm standpipe installed.
All dimensions in metres Scale 1:37.5			Client Formation D&B			Method/ Plant Used Dynamic Sampling Rig			Logged By JT		

BOREHOLE LOG

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No WS4
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 1 of 1

SAMPLES & TESTS			STRATA					Geology	Instrument/ Backfill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
0.30	ES					(0.30) 0.30	Lightly reinforced Concrete. (MADE GROUND)		
0.60	ES					0.50	Grey sandy GRAVEL of subangular and subrounded fine to coarse brick and concrete. (MADE GROUND)		
0.80	ES					(0.40) 0.90	Red brown sandy GRAVEL of angular to subrounded fine to coarse brick. (MADE GROUND)		
0.90	HV	50kPa N7 1,1/ 2,1,2,2				(0.90)	Soft brown and blue silty CLAY with patches of orange brown sand and selenite crystals. (LONDON CLAY)		
1.00						1.80			
1.70	HV	90kPa					Soft becoming firm fissured brown locally blue grey silty CLAY with occasional patches of light brown fine sand and selenite crystals. (LONDON CLAY)		
1.90	HV	80kPa N6 1,1/ 1,1,2,2							
2.00									
2.80	HV	95kPa				(2.65)			
3.00		N9 1,1/ 1,3,2,3							
4.00		N12 2,1/ 2,3,4,3				4.45			
							Borehole terminated at target depth. Groundwater not encountered.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Casing Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.
All dimensions in metres Scale 1:37.5			Client Formation D&B			Method/ Plant Used Dynamic Sampling Rig			Logged By JT		

BROWNFIELD DS LOG CHOCOLATE LOGS.GPJ GINT STD AGS 3.1.GDT 27/5/22

BOREHOLE LOG

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No BH1
Job No BC608	Date 12-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 1 of 4

SAMPLES & TESTS			STRATA					Geology	Instrument/ Backfill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
						0.20	Reinforced Concrete. (MADE GROUND)		
0.30	ES					0.40	Grey sandy GRAVEL of subangular and subrounded fine to coarse brick, concrete, flint, slate and yellow brick. One rusted nail. (MADE GROUND)		
0.50	ES					0.45			
						(0.55)			
						1.00	Concrete. (MADE GROUND)		
1.00	ES					1.35	Grey locally clayey sandy GRAVEL of subangular and subrounded fine to coarse brick, concrete, flint, tarmac, slate and yellow brick. (MADE GROUND)		
1.50	D	N7 1,1/ 1,2,2,2				(1.15)	Red brown and dark brown sandy locally clayey GRAVEL of angular and subangular fine to coarse red brick. (MADE GROUND)		
1.50							Soft brown and blue silty CLAY with patches of orange brown sand and selenite crystals. (LONDON CLAY)		
						2.50			
2.50	D	N11 1,2/ 2,2,3,4					Firm fissured brown locally blue grey silty CLAY with patches of light brown fine sand. (LONDON CLAY)		
2.50									
3.40	HV	95kPa							
3.50	D						3.50 - 4.50 Patches of selenite crystals.		
3.50		N13 1,2/ 3,3,3,4 90kPa							
4.00	HV								
4.50	D						4.50 Stiff.		
4.50		N15 2,2/ 2,4,4,5 105kPa				(5.00)			
4.70	HV								
5.90	HV	115kPa							
6.00	D								
6.00		N17 2,3/ 4,4,4,5							
7.20	HV	120kPa							
7.50	D					7.50	Stiff fissured grey silty CLAY. (LONDON CLAY)		
							7.50 - 8.30 Locally slightly sandy.		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.
All dimensions in metres Scale 1:50			Client Formation D&B			Method/ Plant Used Dando 2000			Logged By JT		

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No BH1
Job No BC608	Date 12-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 2 of 4

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Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.

All dimensions in metres Scale 1:50	Client	Formation D&B	Method/ Plant Used	Dando 2000	Logged By	JT
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BROWNFIELD CHOCOLATE LOGS.GPJ GINT STD AGS 3 1.GDT 27/5/22

BOREHOLE LOG

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No BH1
Job No BC608	Date 12-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 3 of 4

SAMPLES & TESTS			STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)		
16.50 16.50	D	N34 5,7/ 7,8,9,10					Very stiff fissured grey silty CLAY. (LONDON CLAY)(continued)	
18.00 18.00	D	N45 8,10/ 10,10,10,15						
19.50 19.50	D	N40 6,9/ 10,10,9,11				(9.45)		
21.00 21.00	D	N38 7,8/ 8,9,10,11						
22.50 22.50	D	N44 8,8/ 10,11,11,12						

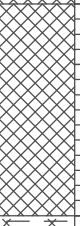
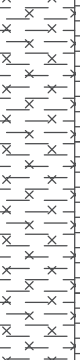
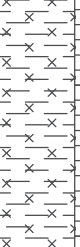
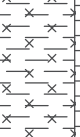
Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.
All dimensions in metres Scale 1:50			Client Formation D&B			Method/ Plant Used Dando 2000			Logged By JT		

All dimensions in metres Scale 1:50	Client	Formation D&B	Method/ Plant Used	Dando 2000	Logged By	JT
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BROWNFIELD CHOCOLATE LOGS.GPJ GINT STD AGS 3 1.GDT 27/5/22

BOREHOLE LOG

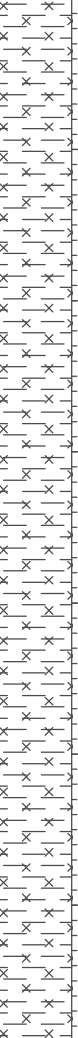
Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No BH2	
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()		
Contractor The Brownfield Consultancy Ltd				Sheet 1 of 4	

SAMPLES & TESTS			STRATA					Geology	Instrument/ Backfill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thickness)	DESCRIPTION		
0.60	ES					(0.60) 0.60	Reinforced Concrete. (MADE GROUND)		
1.50 1.50	D	N6 1,1/ 1,1,2,2				(1.40) 2.00	Soft brown sandy gravelly CLAY. Gravel is angular to subrounded fine to coarse brick, flint and rare concrete. (MADE GROUND)		
2.50 2.50	D	N9 1,1/ 2,2,2,3				(5.00)	Firm fissured brown locally blue grey silty CLAY with patches of light brown fine sand. (LONDON CLAY)		
3.50 3.50	D	N11 1,2/ 2,2,3,4							
4.50 4.50	D	N14 2,2/ 2,4,4,4							
6.00 6.00	D	N18 3,3/ 4,4,5,5				7.00	6.00 Stiff.		
7.50	D						Stiff fissured grey silty CLAY. (LONDON CLAY)		

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.
All dimensions in metres Scale 1:50			Client Formation D&B			Method/ Plant Used Dando 2000			Logged By JT		

BROWNFIELD CHOCOLATE LOGS.GPJ GINT STD AGS 3.1.GDT 27/5/22

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No BH2
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 2 of 4

SAMPLES & TESTS			Water	STRATA			Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick- ness)		
7.50	D	N20 3,4/ 4,5,5,6			(8.00)	Stiff fissured grey silty CLAY. (LONDON CLAY)(continued)		
9.00								
9.00								
10.50	D	N22 3,4/ 5,5,6,6						
10.50								
12.00	D	N27 4,5/ 6,7,7,7						
12.00								
13.50	D	N29 4,4/ 6,7,8,8						
13.50								
15.00	D	N32 3,6/ 6,8,9,9						
15.00								

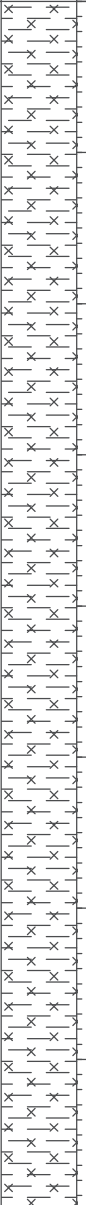
Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.

All dimensions in metres Scale 1:50	Client	Formation D&B	Method/ Plant Used	Dando 2000	Logged By	JT
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BROWNFIELD CHOCOLATE LOGS.GPJ GINT STD AGS 3 1.GDT 27/5/22

BOREHOLE LOG

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No BH2
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 3 of 4

SAMPLES & TESTS			STRATA				Geology	Instrument/ Backfill
Depth	Type No	Test Result	Water	Reduced Level	Legend	Depth (Thick-ness)		
16.50 16.50	D	N35 4,5/ 7,9,9,10					Very stiff fissured grey silty CLAY. (LONDON CLAY)(continued)	
18.00 18.00	D	N41 5,8/ 10,11,10,10						
19.50 19.50	D	N41 4,6/ 10,10,10,11				(10.45)		
21.00 21.00	D	N42 5,7/ 9,10,11,12						
22.50 22.50	D	N43 4,8/ 9,11,11,12						

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.
All dimensions in metres Scale 1:50			Client Formation D&B			Method/ Plant Used Dando 2000			Logged By JT		

BROWNFIELD CHOCOLATE LOGS.GPJ GINT STD AGS 3.1.GDT 27/5/22

Project Block E, The Chocolate Factory, 5 Clarendon Road, Wood Green, N22 6XJ				BOREHOLE No BH2
Job No BC608	Date 13-04-22	Ground Level (m)	Co-Ordinates ()	
Contractor The Brownfield Consultancy Ltd				Sheet 4 of 4

SAMPLES & TESTS			Water	STRATA			Geology	Instrument/ Backfill
Depth	Type No	Test Result		Reduced Level	Legend	Depth (Thick- ness)		
24.00 24.00	D	N45 5,8/ 9,12,12,12						

Boring Progress and Water Observations						Chiselling			Water Added		GENERAL REMARKS
Date	Time	Depth	Casing Depth	Dia. mm	Water Dpt	From	To	Hours	From	To	
											Backfilled with arisings.

All dimensions in metres
Scale 1:50

Client	Formation D&B
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Method/ Plant Used

Dando 2000

Logged By
