

Project Ashley Road Depot, Ashley Road, London				TRIAL PIT No TP101
Job No J21294	Date 30-11-21	Ground Level (m OD) 9.56	Co-Ordinates () E 534,540.0 N 190,168.0	
Client Haringey Council		Engineer Civic Engineers		Sheet 1 of 1

SAMPLES & TESTS				Water	STRATA			
Depth	No	Type	Results		DESCRIPTION	Reduced Level	Depth (Thickness)	Legend
0.40	1	ES			CONCRETE	9.33	(0.23) 0.23	
					MADE GROUND (dark brown gravelly sand with metal, plastic, carbonaceous material, suspected ACM, glass, concrete, rare brick and occasional rootlets).	9.06	(0.27) 0.50	

GENERAL REMARKS

All sides of the pit remained stable throughout the investigation.
Trial pit measures 3.10 m long by 0.56 m wide.
Groundwater was not encountered.
Trial pit terminated at a depth of 0.50 m due to the presence of suspected asbestos containing materials.

All dimensions in metres Scale 1:25	Method/ Plant Used Hand excavated trial pit	Logged By JW
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Project Ashley Road Depot, Ashley Road, London				TRIAL PIT No TP102
Job No J21294	Date 30-11-21	Ground Level (m OD) 9.70	Co-Ordinates () E 534,526.0 N 190,170.0	
Client Haringey Council		Engineer Civic Engineers		Sheet 1 of 1

SAMPLES & TESTS				Water	STRATA			
Depth	No	Type	Results		DESCRIPTION	Reduced Level	Depth (Thickness)	Legend
0.40	1	ES			CONCRETE	9.45	(0.25) 0.25	
					MADE GROUND (dark brown very gravelly sand with whole brick, abundant brick fragments, glass, metal, carbonaceous material, suspected ACM, concrete and occasional rootlets).	9.20	(0.25) 0.50	

GENERAL REMARKS

All sides of the pit remained stable throughout the investigation.
Trial pit measures 4.50 m long by 0.48 m wide.
Groundwater was not encountered.
Trial pit terminated at a depth of 0.50 m due to the presence of suspected asbestos containing materials.

All dimensions in metres Scale 1:25	Method/ Plant Used Hand excavated trial pit	Logged By JW
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Project Ashley Road Depot, Ashley Road, London				TRIAL PIT No TP103
Job No J21294	Date 30-11-21	Ground Level (m OD) 9.72	Co-Ordinates () E 534,502.0 N 190,171.0	
Client Haringey Council		Engineer Civic Engineers		Sheet 1 of 1

[illegible]

GENERAL REMARKS

All sides of the pit remained stable throughout the investigation.
Trial pit measures 3.00 m long by 0.56 m wide.
Groundwater was not encountered.
Trial pit terminated at a depth of 0.90 m due to the presence of suspected asbestos containing materials.

All dimensions in metres Scale 1:25	Method/ Plant Used Hand excavated trial pit	Logged By JW
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GEA

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Herts | 01727 824666 Notts | 01509 674888

Trial Pit No

1

Site Ashley Road Depot, Tottenham

Client London Borough of Haringey

Engineer

Job Number

J21294

Sheet

1/15

Dates

Excavation Method

Manual

Dimensions

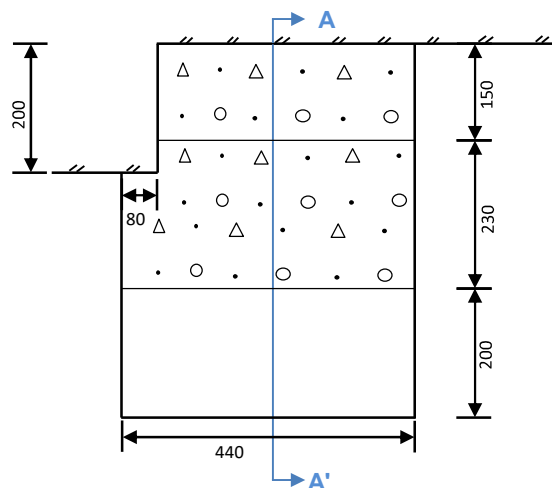
440 x 580 x 660

Ground Level (mOD)

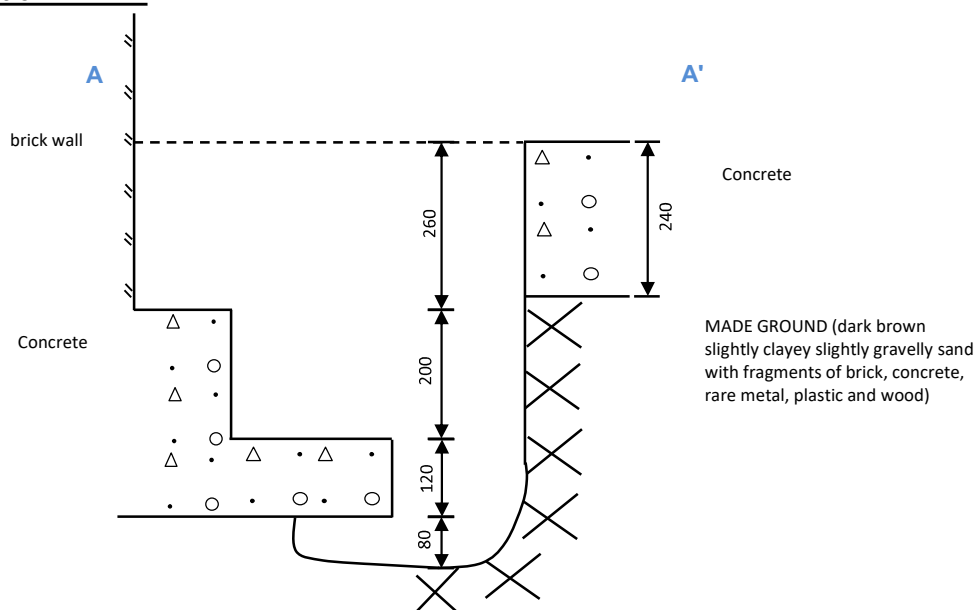
Location

Southeastern wall of building along northwestern extent of site

Plan: -



Section A - A': -



Remarks:

Trial pit backfilled upon completion

Scale:

Approx 1:10

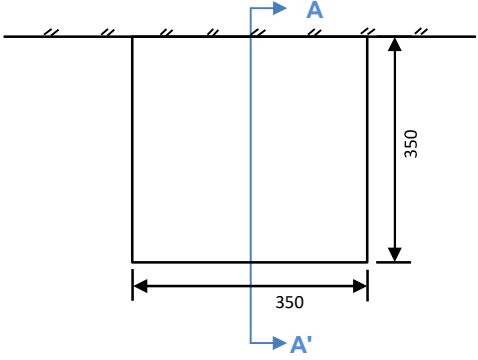
Logged by:

JW

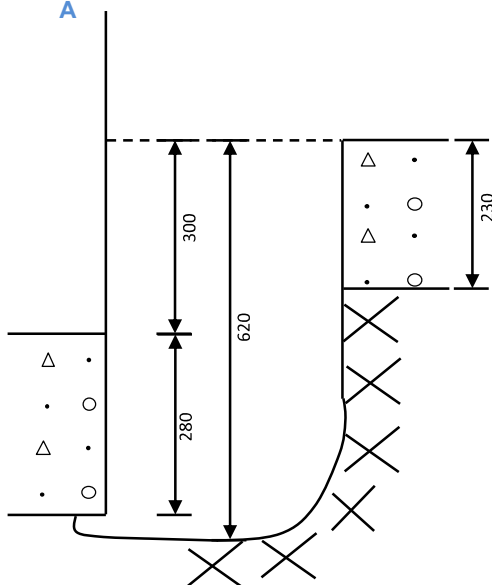
 GEA www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Trial Pit No 1	
Site Ashley Road Depot, Tottenham		Job Number J21294	
Client London Borough of Haringey		Sheet 2/15	
Engineer		Dates	
Excavation Method Manual	Dimensions 440 x 580 x 660	Ground Level (mOD)	Location Southeastern wall of building along northwestern extent of site
			
Remarks: Trial pit backfilled upon completion		Scale: Approx 1:10 Logged by: JW	

 GEA		www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Trial Pit No 2
Site Ashley Road Depot, Tottenham				Job Number J21294
Client London Borough of Haringey				Sheet 3/15
Engineer				Dates
Excavation Method Manual	Dimensions 350 x 350 x 620	Ground Level (mOD)	Location Southern wall of main workshop in north of site	

Plan: -



Section A - A': -



Concrete

MADE GROUND (dark brown slightly clayey, gravelly, sand with fragments of brick, concrete, glass, plastic, rare carbonised material, roots and rootlets)

Remarks: Trial pit backfilled upon completion	Scale: Approx 1:10
	Logged by: JW

		www.gea-ltd.co.uk		Trial Pit No
		Herts 01727 824666 Notts 01509 674888		2
Site	Ashley Road Depot, Tottenham			Job Number
Client	London Borough of Haringey			J21294
Engineer				Sheet
				4/15
				Dates
Excavation Method	Dimensions	Ground Level (mOD)	Location	
Manual	350 x 350 x 620		Southern wall of main workshop in north of site	
				
Remarks:				Scale:
				Approx 1:10
Trial pit backfilled upon completion				Logged by:
				JW



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Herts | 01727 824666 Notts | 01509 674888

Trial Pit No

3

Site Ashley Road Depot, Tottenham

Job Number

J21294

Client London Borough of Haringey

Sheet

5/15

Engineer

Dates

Excavation Method

Manual

Dimensions

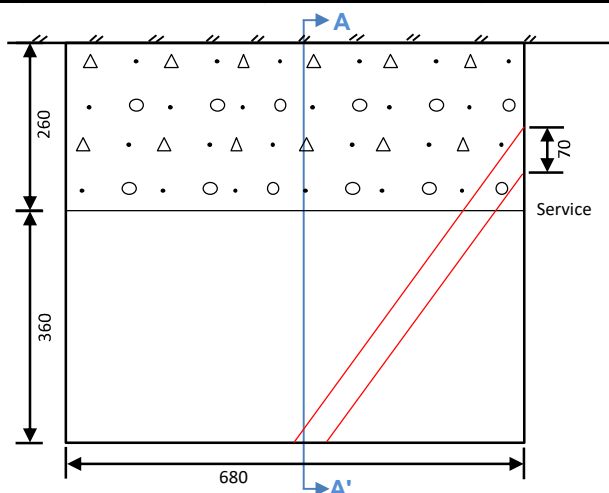
680 x 620 x 1010

Ground Level (mOD)

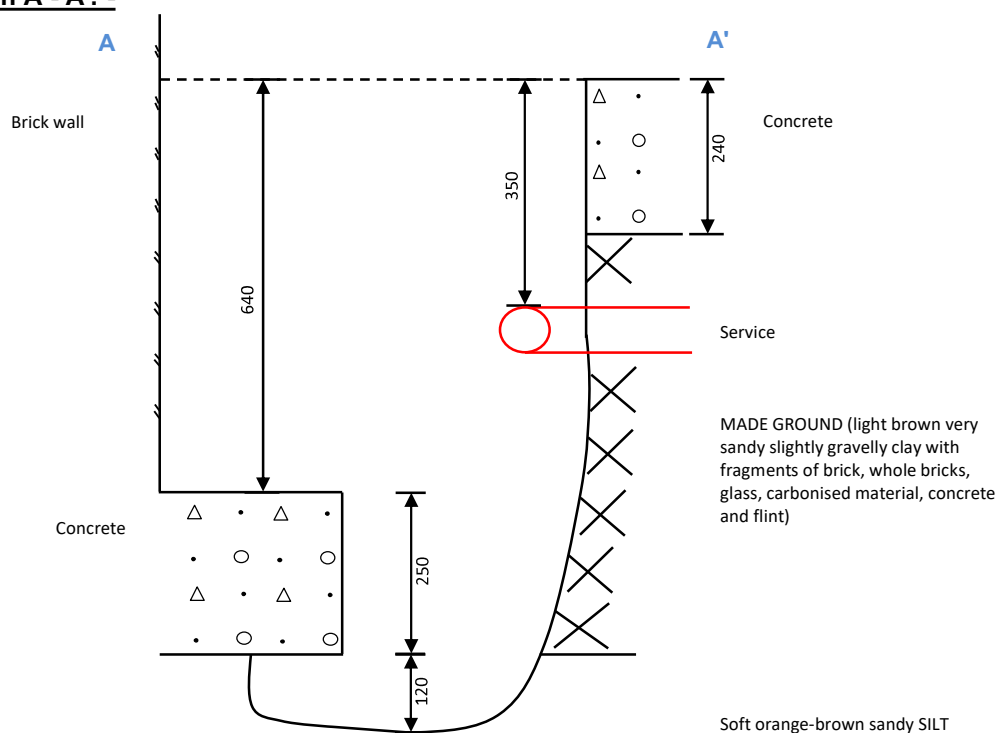
Location

Northern wall of office building extension

Plan: -



Section A - A': -



Remarks:

Trial pit backfilled upon completion

Scale:

Approx 1:10

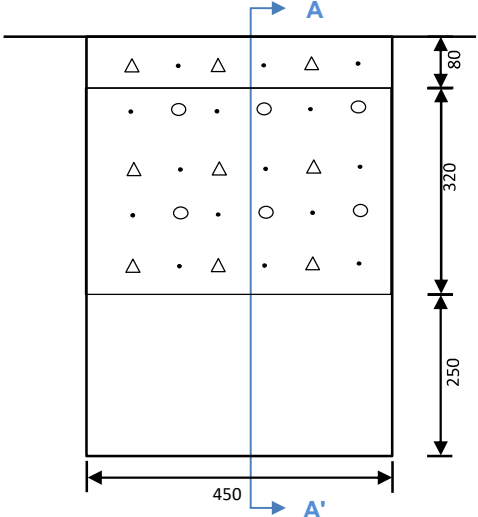
Logged by:

JW

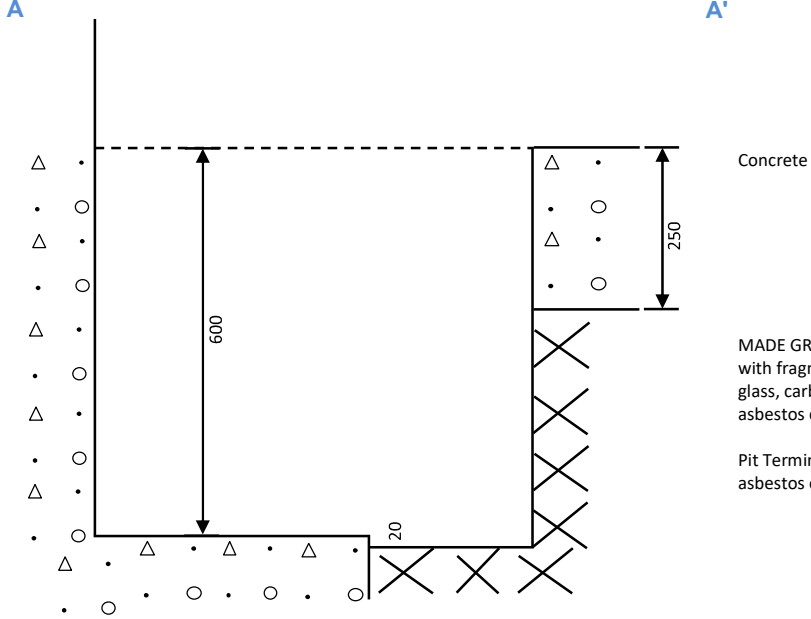
		www.gea-ltd.co.uk		Trial Pit No
		Herts 01727 824666 Notts 01509 674888		3
Site	Ashley Road Depot, Tottenham			Job Number
Client	London Borough of Haringey			J21294
Engineer				Sheet
				6/15
				Dates
Excavation Method	Dimensions	Ground Level (mOD)	Location	
Manual	680 x 620 x 1010		Northern wall of office building extension	
				
Remarks:				Scale:
				Approx 1:10
Trial pit backfilled upon completion				Logged by:
				JW

 GEA		www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Trial Pit No 4
Site Ashley Road Depot, Tottenham				Job Number J21294
Client London Borough of Haringey				Sheet 7/15
Engineer				Dates
Excavation Method Manual	Dimensions 450 x 650 x 620	Ground Level (mOD)	Location Concrete block associated with main workshop in north of site	

Plan: -



Section A - A': -



Concrete

MADE GROUND (dark brown gravelly, sand with fragments of brick, concrete, wood, glass, carbonised material and possible asbestos containing material)

Pit Terminated at 0.62 m due to suspected asbestos containing material

Remarks:	Scale:
	Approx 1:10
	Logged by:
Trial pit backfilled upon completion	JW

		www.gea-ltd.co.uk		Trial Pit No
		Herts 01727 824666 Notts 01509 674888		4
Site	Ashley Road Depot, Tottenham			Job Number
Client	London Borough of Haringey			J21294
Engineer				Sheet
				8/15
				Dates
Excavation Method	Dimensions	Ground Level (mOD)	Location	
Manual	450 x 650 x 620			
				
Remarks:				Scale:
				Approx 1:10
Trial pit backfilled upon completion				Logged by:
				JW



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Trial Pit No

5

Site Ashley Road Depot, Tottenham

Client London Borough of Haringey

Engineer

Job Number

J21294

Sheet

9/15

Dates

Excavation Method

Manual

Dimensions

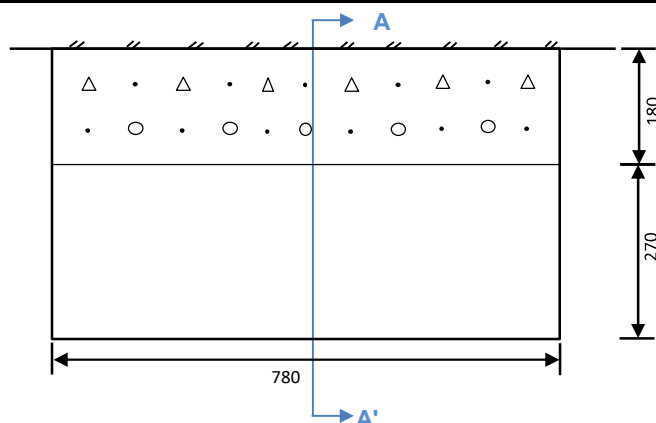
750 x 450 x 910

Ground Level (mOD)

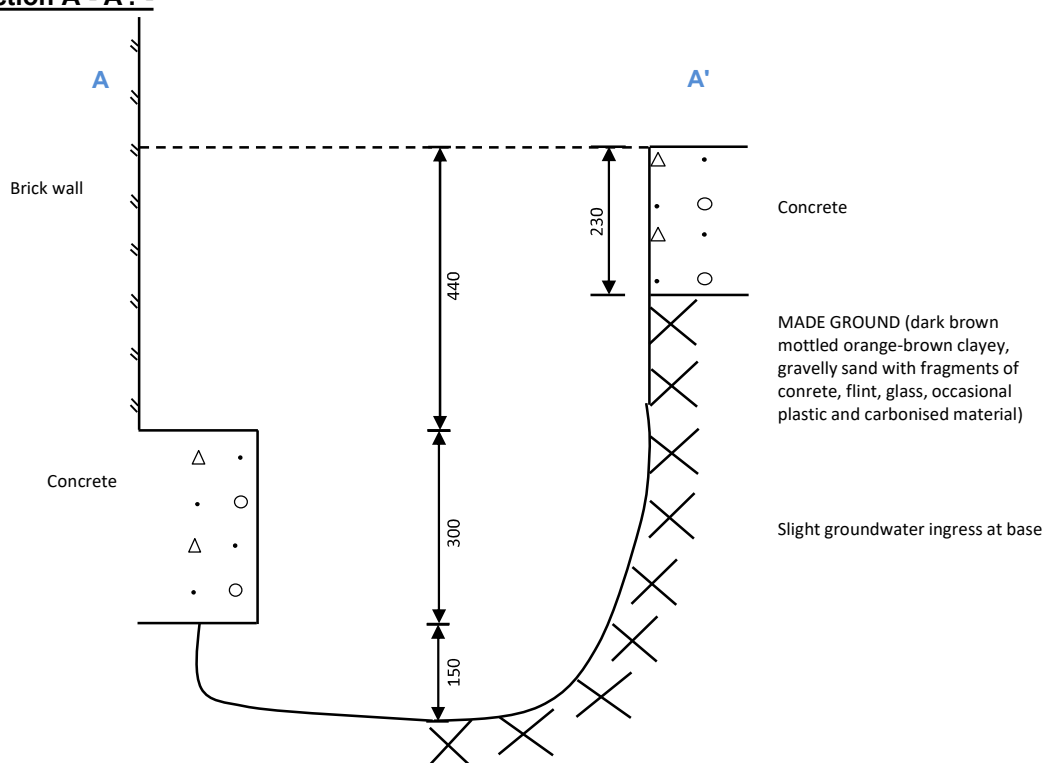
Location

Northern wall of office building

Plan: -



Section A - A': -



Remarks:

Trial pit backfilled upon completion

Scale:

Approx 1:10

Logged by:

JW

		www.gea-ltd.co.uk		Trial Pit No
		Herts 01727 824666 Notts 01509 674888		5
Site	Ashley Road Depot, Tottenham			Job Number
Client	London Borough of Haringey			J21294
Engineer				Sheet
				10/15
				Dates
Excavation Method	Dimensions	Ground Level (mOD)	Location	
Manual	750 x 450 x 910		Northern wall of office building	
				
Remarks:				Scale:
				Approx 1:10
Trial pit backfilled upon completion				Logged by:
				JW



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Herts | 01727 824666 Notts | 01509 674888

Trial Pit No

6

Site Ashley Road Depot, Tottenham

Client London Borough of Haringey

Engineer

Job Number

J21294

Sheet

11/15

Dates

Excavation Method

Manual

Dimensions

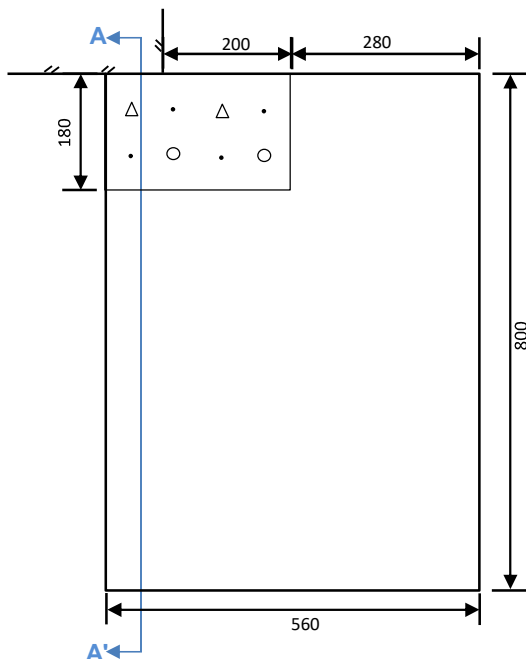
560 x 800 x 660

Ground Level (mOD)

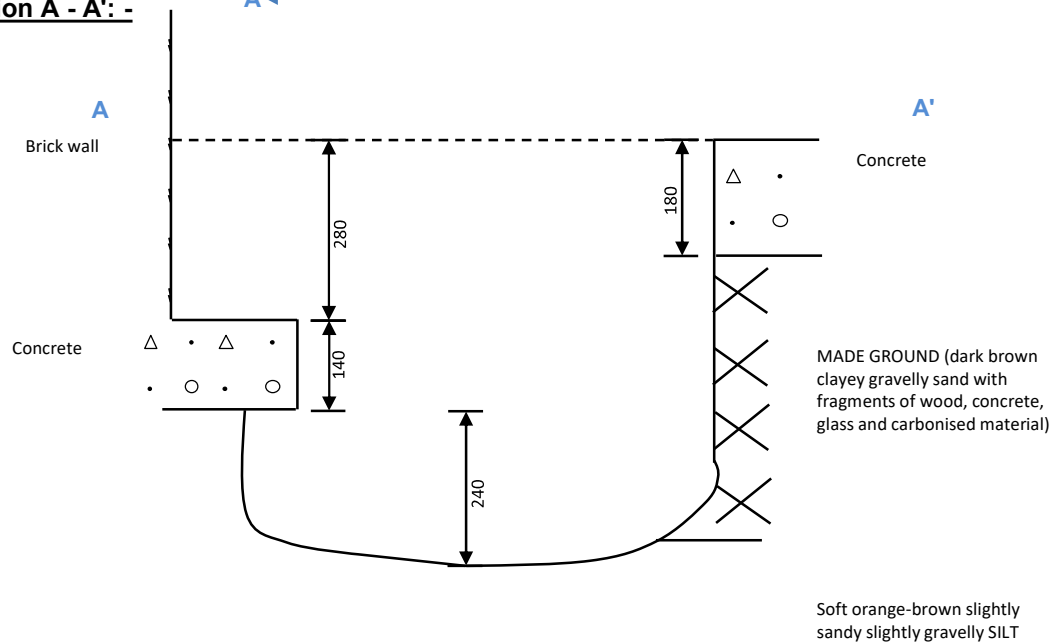
Location

Southwestern corner of office block in south of site

Plan: -



Section A - A': -



Remarks:

Trial pit backfilled upon completion

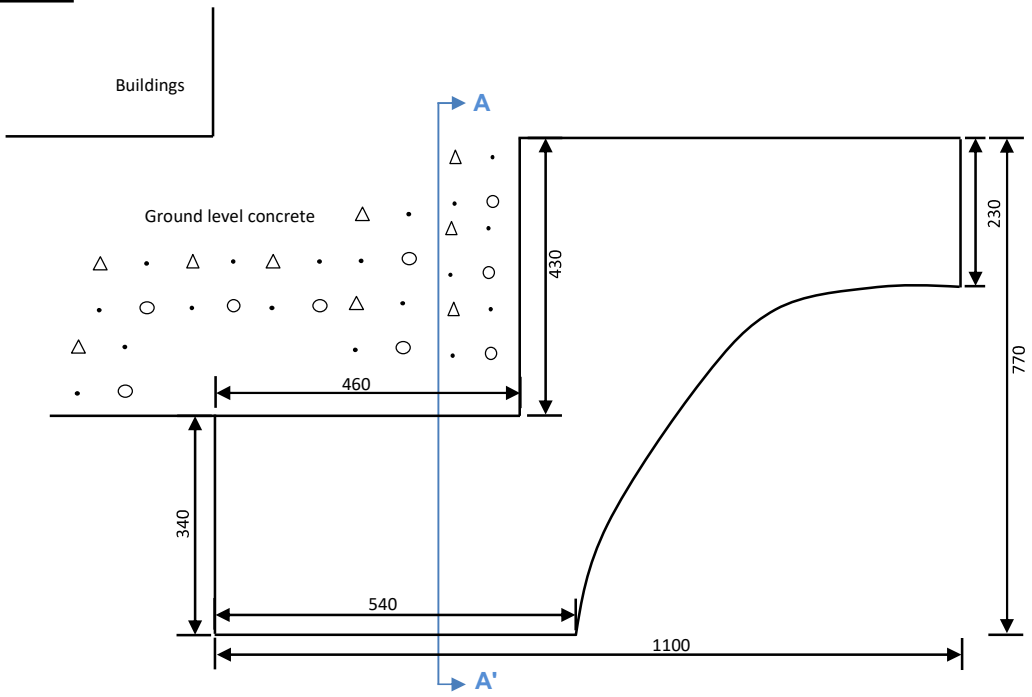
Scale:

Approx 1:10

Logged by:

JW

		www.gea-ltd.co.uk		Trial Pit No
		Herts 01727 824666 Notts 01509 674888		6
Site Ashley Road Depot, Tottenham				Job Number J21294
Client London Borough of Haringey				Sheet 12/15
Engineer				Dates
Excavation Method Manual	Dimensions 560 x 800 x 660	Ground Level (mOD)	Location Southwestern corner of office block in south of site	
				
Remarks: Trial pit backfilled upon completion				Scale: Approx 1:10 Logged by: JW

www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Trial Pit No 7
Site Ashley Road Depot, Tottenham	Job Number J21294	
Client London Borough of Haringey	Sheet 13/15	
Manual 		Dates
Dimensions 1100 x 770 x 1040	Ground Level (mOD)	Location Southeastern corner of office block in southeast of site
Plan: - 		
Remarks: Trial pit backfilled upon completion		Scale: Approx 1:10 Logged by: JW



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Herts | 01727 824666 Notts | 01509 674888

Trial Pit No

7

Site Ashley Road Depot, Tottenham

Client London Borough of Haringey

Engineer

Job Number

J21294

Sheet

14/15

Dates

Excavation Method

Manual

Dimensions

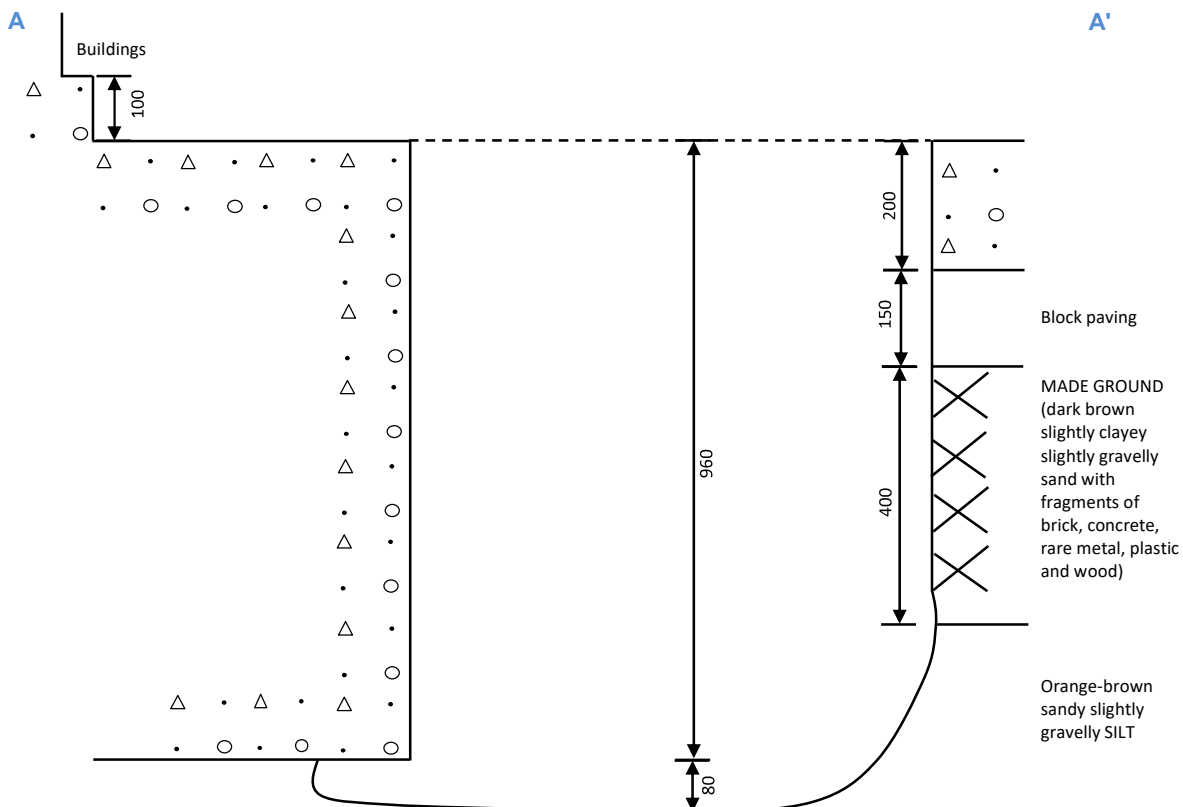
1100 x 770 x 1040

Ground Level (mOD)

Location

Southeastern corner of office block in southeast of site

Section A - A': -



Remarks:

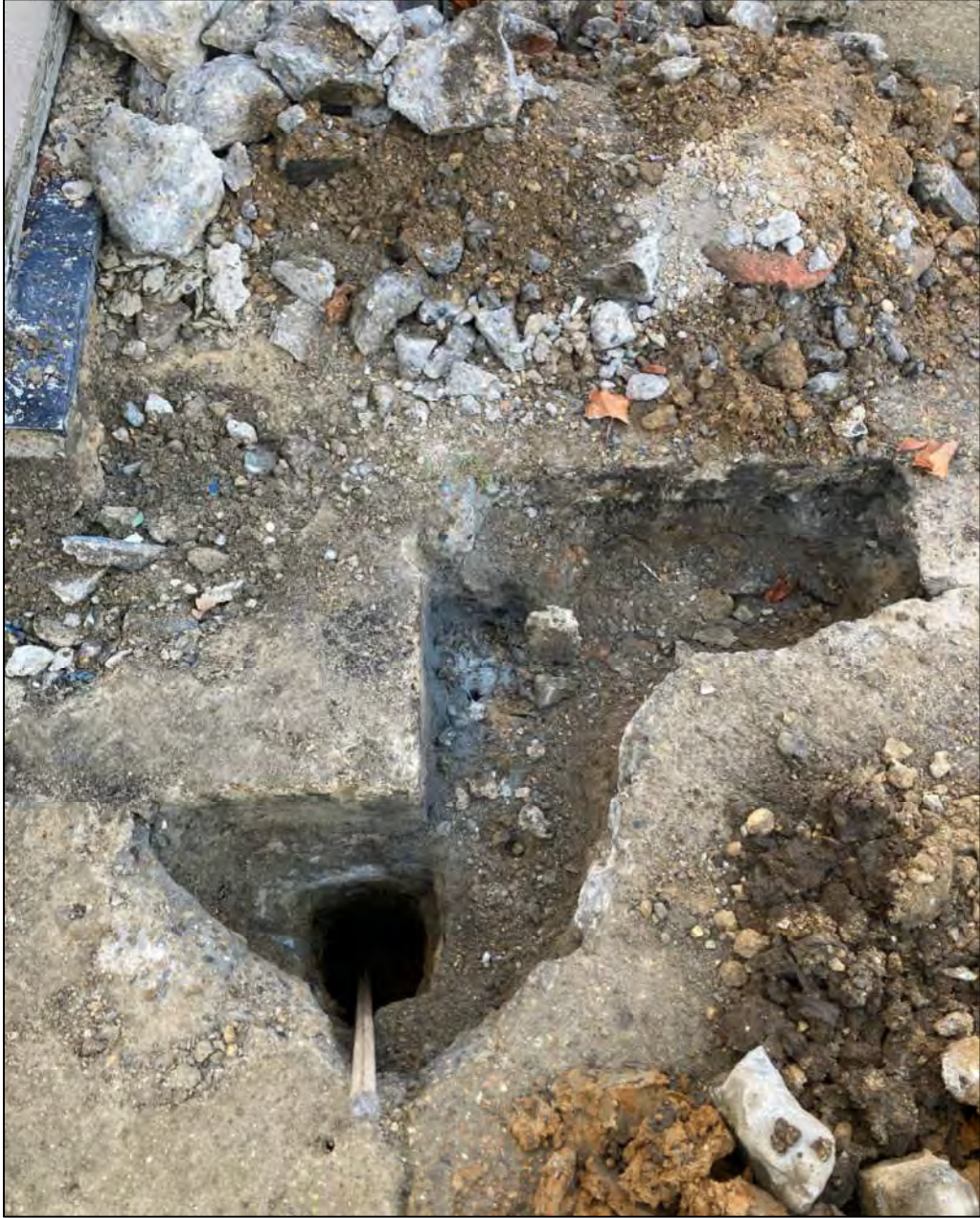
Trial pit backfilled upon completion

Scale:

Approx 1:10

Logged by:

JW

		www.gea-ltd.co.uk		Trial Pit No
		Herts 01727 824666 Notts 01509 674888		7
Site Ashley Road Depot, Tottenham				Job Number J21294
Client London Borough of Haringey				Sheet 15/15
Engineer				Dates
Excavation Method Manual	Dimensions 1100 x 770 x 1040	Ground Level (mOD)	Location Southeastern corner of office block in southeast of site	
				
Remarks:				Scale: Approx 1:10
Trial pit backfilled upon completion				Logged by: JW

	Excavation Method Manual	Dimensions	Ground Level (mOD)	Site www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888 Ashley Road Depot, London	Client London Borough of Haringey Location Far NE corner of site	Engineer Madlins Logged by JW	Sheet 1/1	Trial Pit No 101A Job Number J21294
				Dates 03/05/2022 - 09/05/2022				
Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.								

 Excavation Method Manual	www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Site Ashley Road Depot, London	Client London Borough of Haringey	Engineer Madlins		Trial Pit No 101A
	Dimensions	Ground Level (mOD)	Dates 03/05/2022 - 09/05/2022	Location Far NE corner of site	Logged by JW	Sheet 1/1	Job Number J21294

Root ID	Depth (mm)	Diameter (mm)	Additional Notes
1	730	48	Partially rotten, 86mm at widest point, and 48mm at thinnest
2	860	96 -	
3a	670	68	Root thins quickly from a to b, becoming deeper as it does so
3b	890	32	
4	670	108 -	
5	790	54 -	
6	570	35	Root rotten and broken
7	440	30 -	
8	230	20	Three 10 mm to 20 mm diameter roots directly under concrete
9	530	38 -	
10	420	4 -	
11	260	3 -	
12	850	7 -	

Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.

 www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888			Site		Client		Engineer		Trial Pit No	
Ashley Road Depot, London		London Borough of Haringey		Madlins				101A		
Ground Level (mOD)		Dates		Location		Scale		Job Number		
03/05/2022 - 09/05/2022		Far NE corner of site		1:20		1/1		J21294		

400

1100

600

700

1200

380

1000

1400

4300

Tree

0.0 - 0.23

0.23 - 1.20

Concrete

MADE GROUND (dark brown slightly clayey gravelly sand with abundant brick and concrete fragments, plastic, part burnt material, rare ACMs, flint gravel and roots and rootlets).

Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.

	Excavation Method Manual	Dimensions	Ground Level (mOD)	Site www.gea-ltd.co.uk Ashley Road Depot, London Herts 01727 824666 Notts 01509 674888	Client London Borough of Haringey Location Far NE corner of site	Engineer Madlins		Trial Pit No 102A
						Logged by JW	Sheet 1/1	
				Dates 03/05/2022 - 09/05/2022	Scale 1:20	Job Number J21294		



Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.

		www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Site Ashley Road Depot, London		Client London Borough of Haringey		Engineer Madlins		Trial Pit No 102A	
Excavation Method Manual		Dimensions		Ground Level (mOD)		Dates 03/05/2022 - 09/05/2022		Location Far NE corner of site		Job Number J21294	
								Logged by JW		Sheet 1/1	
								Scale 1:20			

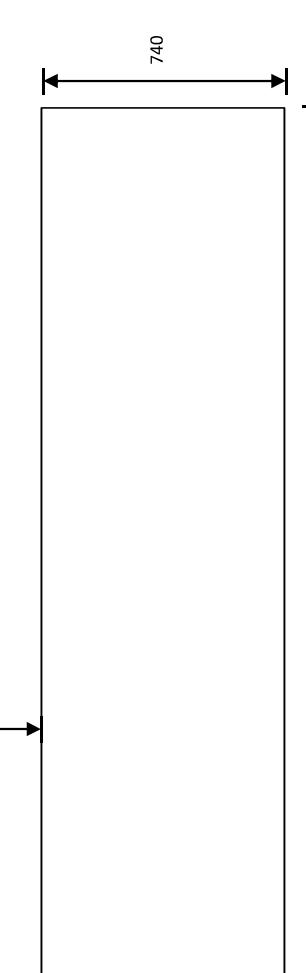


Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.

 Excavation Method Manual	www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Site Ashley Road Depot, London	Client London Borough of Haringey	Engineer Madlins		Trial Pit No 102A
	Dimensions	Ground Level (mOD)	Dates 03/05/2022 - 09/05/2022	Location Far NE corner of site	Logged by JW	Sheet 1/1	Job Number J21294

Root ID	Depth (mm)	Diameter (mm)	Additional Notes
1	1060	56 -	
2	1080	42 -	
3	560	115 -	
4	840	72	Extends deeper in south of pit to 1130 mm deep
5	1030	61 -	
6	980	68 -	
7	250	< 1 - 3	Area of fine rootlets below concrete max 3 mm diameter
8	540	55	Forks off and breaks, appears rotten
9	970	84	Three 10 mm to 20 mm diameter roots directly under concrete
10	230	< 1 - 3	Area of fine rootlets below concrete max 3 mm diameter
11	250	2	Area of fine rootlets below concrete max 2 mm diameter
12	230	3	Area of fine rootlets below concrete each around 3 mm diameter
13	230	< 1 - 3	Area of fine rootlets below concrete max 3 mm diameter

Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.

	www.gea-ltd.co.uk		Site Ashley Road Depot, London	Client London Borough of Haringey	Engineer Madlins	Trial Pit No TP102A
Excavation Method Manual	Dimensions	Ground Level (mOD)	Dates 03/05/2022 - 09/05/2022	Location Far NE corner of site	Logged by JW	Job Number J21294
 Pit could not be extended around tree due to suspected gas pipes						
Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.						

	www.gea-ltd.co.uk		Site		Client		Engineer		Trial Pit No		
	Herts 01727 824666 Notts 01509 674888		Ashley Road Depot, London		London Borough of Haringey		Madlins		TP103A		
Excavation Method Manual	Dimensions	Ground Level (mOD)		Dates		Location		Logged by		Sheet	
				03/05/2022 - 09/05/2022		Far NE corner of site		JW		1/1	
								Scale 1:20		Job Number J21294	
											
Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.											

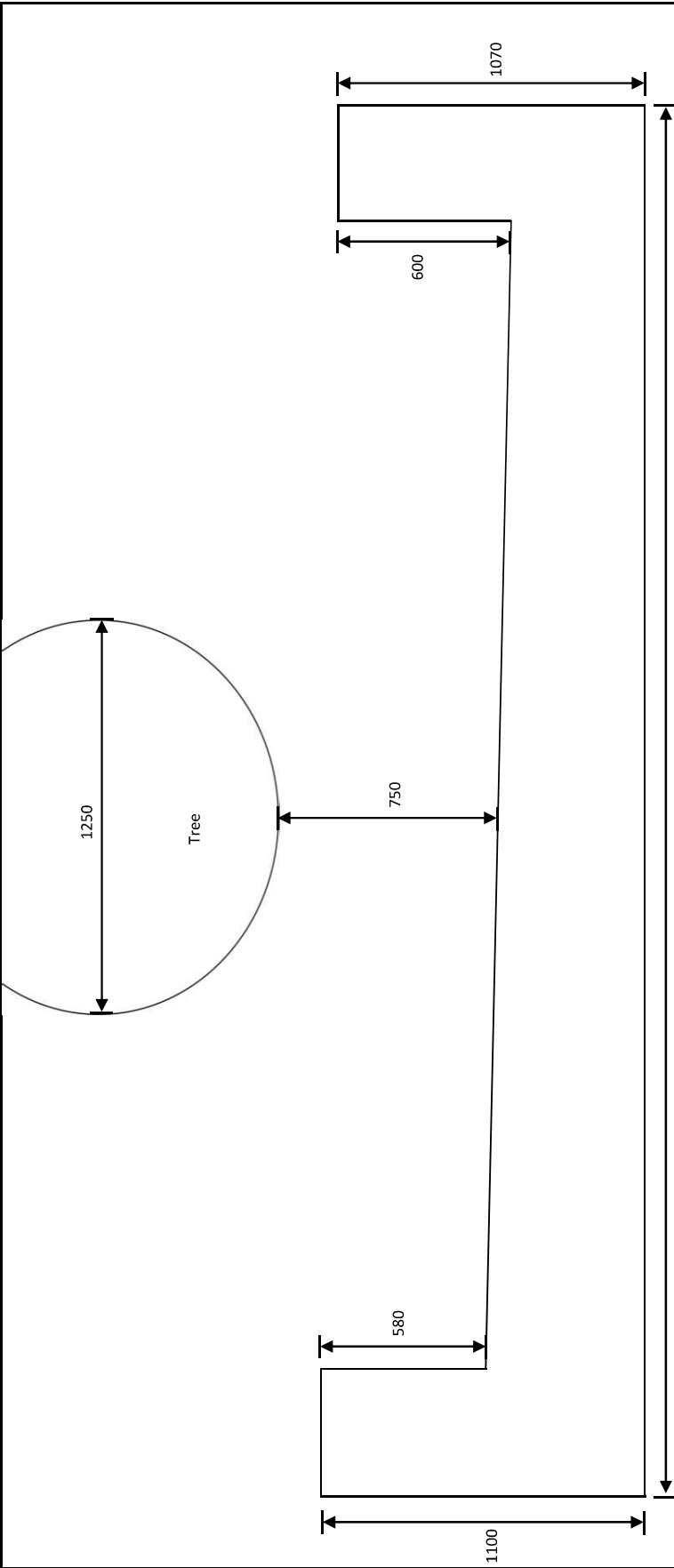
	www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Site Ashley Road Depot, London		Client London Borough of Haringey		Engineer Madlins		Trial Pit No TP103A	
	Excavation Method Manual		Dimensions	Ground Level (mOD)	Dates 03/05/2022 - 09/05/2022	Location Far NE corner of site	Logged by JW	Sheet 1/1	Job Number J21294	
										
Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.										

 Excavation Method Manual	 www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888	Site Ashley Road Depot, London Dates 03/05/2022 - 09/05/2022	Client London Borough of Haringey Location Far NE corner of site	Engineer Madlins Logged by JW	Trial Pit No 103A Job Number J21294

Root ID	Depth (mm)	Diameter (mm)	Additional Notes
1	580	85 -	
2	650	15	Curves beneath root 1
3	550	40	Has a fork at southern edge with root going up under concrete
4	430	76 -	
5	660	26	Largely beneath root 4
6	660	43 -	
7a	550	48	Root forks into 7a and 7b
7b	580	18	
8	410	62	Contains lots of fine roots (up to 3 mm diameter) forking off main
9	620	160	Thick clump of at least 4 separate roots
10	570	67 -	
11	400	38 -	
12	550	120	Area contains many thick roots - too difficult to excavate around
13	380	18 -	
14	360	3 - 8	Several fine roots 3 - 8 mm diameter below concrete to around 360

Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.

		www.gea-ltd.co.uk Herts 01727 824666 Notts 01509 674888		Site Ashley Road Depot, London		Client London Borough of Haringey		Engineer Madlins		Trial Pit No TP102A	
Excavation Method Manual		Dimensions		Ground Level (mOD)		Dates 03/05/2022 - 09/05/2022		Location Far NE corner of site		Scale 1:20	
								Logged by JW		Sheet 1/1	
										Job Number J21294	



Tree

1250

1100

580

750

600

1070

4400

0.0 - 0.23 Concrete

0.23 - 1.20 MADE GROUND (dark brown slightly clayey gravelly sand with abundant brick and concrete fragments, plastic, rare ACMs, flint gravel and roots and rootlets).

Remarks: All dimensions in millimetres. All sides of trial pit remained stable during the investigation. Groundwater was not encountered. Continuous asbestos air monitoring was carried out during excavation and backfilling.

SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH2	4.00	2	B	Dark grey/ish brown sandy flint GRAVEL with one cobble.															Particle Size Distribution
BH2	6.50		U	Very stiff fissured brown CLAY.	26.9					2.02	1.59	Undisturbed	130	224	112				
BH2	7.50	11	D	Dark brown slightly silty CLAY.	28.6	72	26	46	100										
BH2	8.00	12	D													8.0	0.27		
BH2	9.50	2	U	Very stiff fissured dark brown silty CLAY.	29.4					1.99	1.54	Undisturbed	190	238	119				
BH2	12.50	3	U	Very stiff fissured dark brown silty CLAY.	29.7					1.97	1.52	Undisturbed	250	268	134				
BH2	14.00	18	D	Dark brown slightly silty CLAY.	26.5	70	26	44	100										
BH2	15.50	4	U	Very stiff fissured dark brown silty CLAY.	21.6					2.01	1.65	Undisturbed	310	368	184				
BH2	18.50	5	U	Very stiff fissured dark brown silty CLAY.	28.8					2.00	1.55	Undisturbed	370	287	144				
BH2	24.00	29	D	Light grey/ish brown covered in dark brown slightly sandy slightly silty CLAY.	18.6	37	18	19	100										

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by


S Burke - Senior Technician
17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests				Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments	
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2.1 W/S SO4 g/L		W/S Mg mg/L
BH2	24.50	30	D	Grey slightly silty fine to medium SAND.	21.7												7.9	0.39	
BH5	2.00	2	B	Greyish brown very sandy flint GRAVEL.															Particle Size Distribution
BH5	6.50	1	U	Stiff fissured dark brown silty CLAY.	27.2					2.00	1.57	Undisturbed	130	204	102				
BH5	7.50	9	D	Brown slightly silty CLAY.	28.3	67	29	38	100										
BH5	9.50	2	U	Very stiff fissured dark brown silty CLAY.	29.3					1.97	1.52	Undisturbed	190	243	122				
BH5	10.50	12	D														8.0	0.73	
BH5	12.50	3	U	Very stiff fissured dark brown silty CLAY.	30.9					1.97	1.50	Undisturbed	250	199	99				
BH5	15.50	4	U	Very stiff fissured dark brown silty CLAY.	24.7					1.98	1.58	Undisturbed	310	298	149				
BH5	16.50	18	D	Dark brown slightly silty CLAY with rare gypsum.	28.0														
BH5	18.50	5	U	Very stiff fissured dark grey silty CLAY.	29.4					1.95	1.51	Undisturbed	370	382	191				

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by

S Burke - Senior Technician
17/12/2021

Project Number:

Project Name:

GEO / 34361

ASHLEY ROAD DEPOT
J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details																	Classification Tests				Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L												
BH5	21.50	6	U	Very stiff fissured dark brown silty CLAY with rare gypsum.	24.2					2.04	1.64	Undisturbed	430	553	276															
BH5	24.50		U	Very stiff fissured dark grey silty CLAY.	22.8					1.99	1.62	Undisturbed	490	750	375															
BH5	25.50	27	D														7.8	1.1												
BH5	26.00	28	D	Brown slightly silty slightly sandy slightly gravelly CLAY.	35.7	60	22	38	99																					
BH6	2.00	1	U	Medium dense orange brown clayey gravelly SAND	14.3					2.23	1.95	Undisturbed	40	127	63															
BH6	3.75	6	D	Brown very sandy GRAVEL.															Particle Size Distribution											
BH6	4.75	8	D														8.0	0.22												
BH6	5.00	2	U	Stiff fissured dark brown silty CLAY	34.3					1.95	1.45	Undisturbed	100	158	79															
BH6	6.00	9	D	Brown slightly silty CLAY.	31.2	68	27	41	100																					
BH6	8.00	3	U	Stiff fissured dark brown silty CLAY.	30.5					1.91	1.47	Undisturbed	160	231	115															

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by


S Burke - Senior Technician
17/12/2021

Project Number:

Project Name:

GEO / 34361

ASHLEY ROAD DEPOT

J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests					Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L	
BH6	11.00	4	U	Very stiff fissured dark brown silty CLAY.	27.8					1.98	1.55	Undisturbed	220	294	147				
BH6	14.00	5	U	Very stiff fissured dark brown silty CLAY.	24.3					1.99	1.50	Undisturbed	280	256	128				
BH6	15.50	19	D	Brown slightly silty CLAY.	24.2														
BH6	17.00	6	U	Very stiff fissured dark grey silty CLAY.	29.8					1.98	1.52	Undisturbed	340	258	129				
BH6	20.00	7	U	Very stiff fissured dark grey silty CLAY.	25.7					1.99	1.59	Undisturbed	400	203	102				
BH6	23.00	8	U	Very stiff fissured grey mottled red silty CLAY.	22.6					2.04	1.66	Undisturbed	460	332	166	9.4	0.015		
BH6	24.50	28	D																
BH6	26.00	30	D	Multi-coloured slightly sandy slightly silty CLAY.	18.5	61	20	41	100										
BH6	29.00	34	D	Light brown covered in brown slightly sandy CLAY.	14.2														
BH8	6.00	12	D	Brown slightly sandy gravelly CLAY.	22.8	61	23	38	86										

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by


S Burke - Senior Technician
17/12/2021

Project Number:

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ASHLEY ROAD DEPOT
J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests				Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments	
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L		W/S Mg mg/L
BH8	6.50	1	U	Stiff fissured dark brown silty CLAY.	30.4					1.96	1.50	Undisturbed	130	140	70				
BH8	8.00	14	D														8.3	0.25	
BH8	9.50	2	U	Stiff fissured dark brown silty CLAY.	30.1					1.95	1.50	Undisturbed	190	196	98				
BH8	12.50	3	U	Stiff fissured dark brown silty CLAY.	28.7					2.04	1.59	Undisturbed	250	360	180				
BH8	13.50	19	D	Brown slightly silty slightly sandy CLAY.	21.3														
BH8	15.50	4	U	Very stiff fissured dark grey silty CLAY	28.5					1.98	1.54	Undisturbed	310	303	152				
BH8	18.50	5	U	Very stiff fissured dark grey silty CLAY.	23.5					2.04	1.65	Undisturbed	370	506	253				
BH8	21.50	6	U	Very stiff fissured dark grey silty CLAY.	26.1					1.96	1.56	Undisturbed	430	512	256				
BH8	24.50	31	D	Brown slightly silty slightly gravelly CLAY.	37.0	51	22	29	77										
BH8	25.50	32	D														8.0	0.013	

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

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S Burke - Senior Technician
17/12/2021

Project Number:

Project Name:

GEO / 34361

ASHLEY ROAD DEPOT
J21294



PARTICLE SIZE DISTRIBUTION

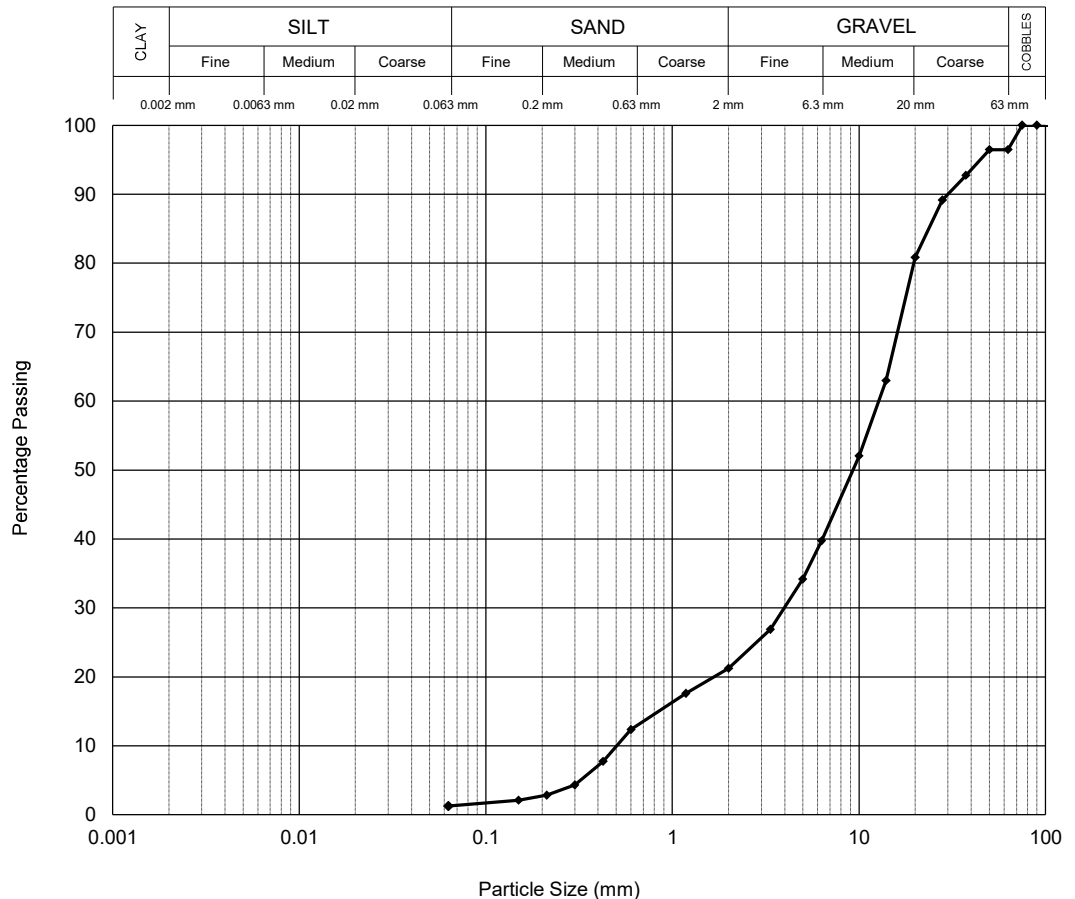
Location BH2
 Sample Ref 2
 Depth (m) 4.00
 Sample Type B

Description

Dark greyish brown sandy flint GRAVEL with one cobble.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	96
50.0 mm	96
37.5 mm	93
28.0 mm	89
20.0 mm	81
14.0 mm	63
10.0 mm	52
6.30 mm	40
5.00 mm	34
3.35 mm	27
2.00 mm	21
1.18 mm	18
600 µm	12
425 µm	8
300 µm	4
212 µm	3
150 µm	2
63 µm	1



Particle Proportions	
Cobbles	3.5
Gravel	75.2
Sand	20.0
Silt & Clay	1.3

Tested by AW
 Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



PARTICLE SIZE DISTRIBUTION

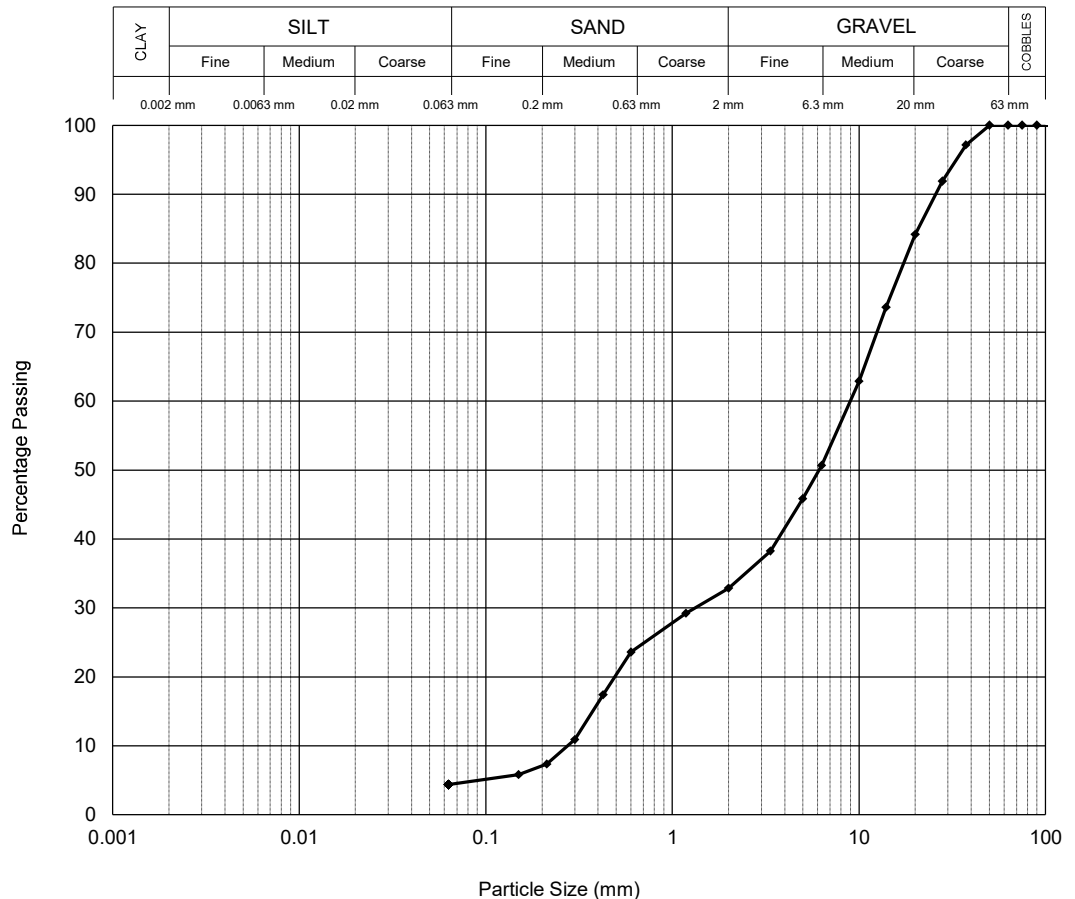
Location BH5
 Sample Ref 2
 Depth (m) 2.00
 Sample Type B

Description

Greyish brown very sandy flint GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	97
28.0 mm	92
20.0 mm	84
14.0 mm	74
10.0 mm	63
6.30 mm	51
5.00 mm	46
3.35 mm	38
2.00 mm	33
1.18 mm	29
600 µm	24
425 µm	17
300 µm	11
212 µm	7
150 µm	6
63 µm	4



Particle Proportions	
Cobbles	0.0
Gravel	67.2
Sand	28.5
Silt & Clay	4.3

Tested by AW
 Checked and Approved by

S Burke

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 17/12/2021

Project Number:

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Project Name:

ASHLEY ROAD DEPOT
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PARTICLE SIZE DISTRIBUTION

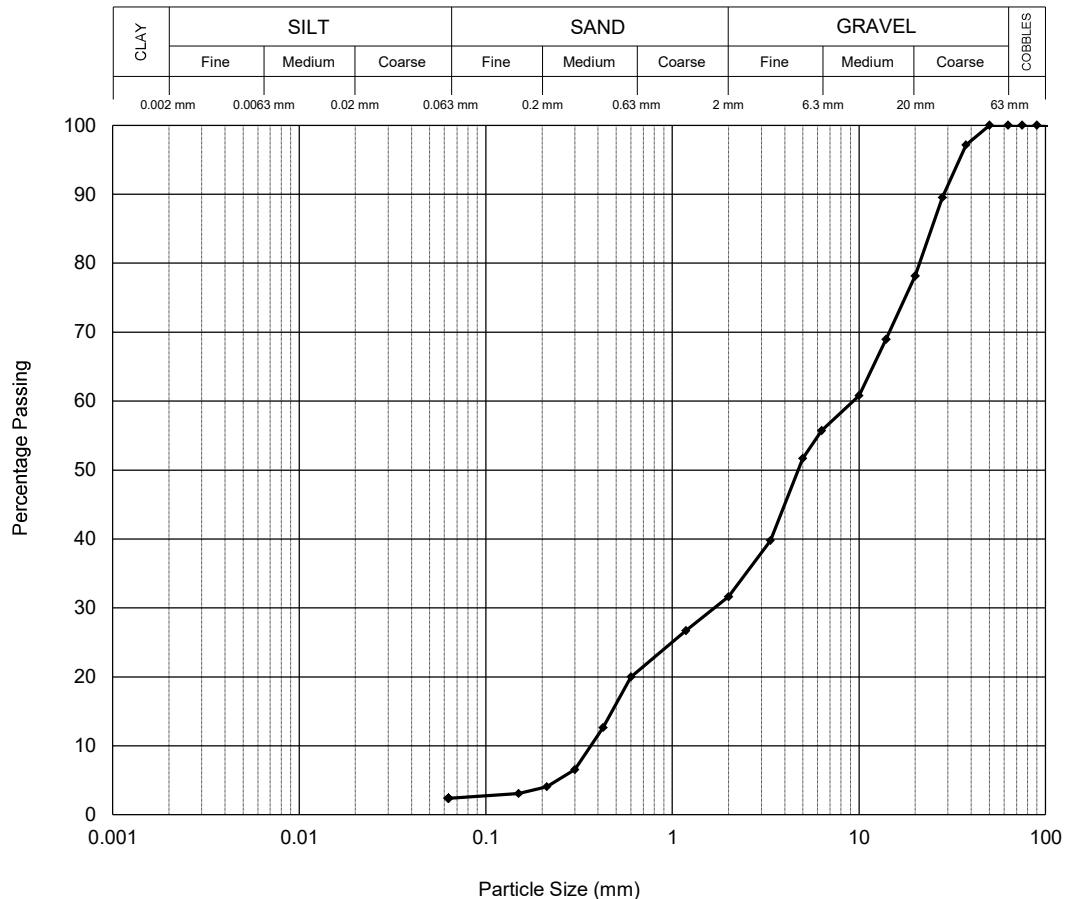
Location BH6
 Sample Ref 6
 Depth (m) 3.75
 Sample Type D

Description

Brown very sandy GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	97
28.0 mm	90
20.0 mm	78
14.0 mm	69
10.0 mm	61
6.30 mm	56
5.00 mm	52
3.35 mm	40
2.00 mm	32
1.18 mm	27
600 µm	20
425 µm	13
300 µm	7
212 µm	4
150 µm	3
63 µm	2



Particle Proportions	
Cobbles	0.0
Gravel	68.4
Sand	29.2
Silt & Clay	2.4

Tested by AW
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S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

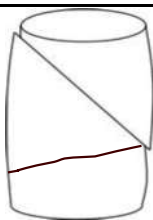
Location BH2
Depth (m) 6.50
Sample Type U

Description:

Very stiff fissured brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.2
Diameter (mm)	100.9
Moisture content (%)	26.9
Bulk density (Mg/m ³)	2.02
Dry density (Mg/m ³)	1.59
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.2
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	130
Strain at failure (%)	5.4
Maximum deviator stress (kPa)	224
Shear Stress Cu (kPa)	112

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

110

Tested by SB

Checked and Approved by

S Burke - Senior Technician
17/12/2021

Project Number:

GEO / 34361

Project Name:

**ASHLEY ROAD DEPOT
J21294**



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH2
 Sample Ref 2
 Depth (m) 9.50
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.8
Diameter (mm)	102.3
Moisture content (%)	29.4
Bulk density (Mg/m ³)	1.99
Dry density (Mg/m ³)	1.54
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.8
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	190
Strain at failure (%)	3.2
Maximum deviator stress (kPa)	238
Shear Stress Cu (kPa)	119

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	50

Tested by SB

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S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH2
 Sample Ref 3
 Depth (m) 12.50
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.5
Diameter (mm)	101.9
Moisture content (%)	29.7
Bulk density (Mg/m ³)	1.97
Dry density (Mg/m ³)	1.52
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.4
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	250
Strain at failure (%)	4.2
Maximum deviator stress (kPa)	268
Shear Stress Cu (kPa)	134

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	48

Tested by SB

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S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

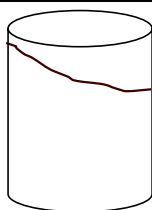
Location BH2
 Sample Ref 4
 Depth (m) 15.50
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.9
Diameter (mm)	101.6
Moisture content (%)	21.6
Bulk density (Mg/m ³)	2.01
Dry density (Mg/m ³)	1.65
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.8
Membrane correction (kPa)	0.6
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	310
Strain at failure (%)	8.4
Maximum deviator stress (kPa)	368
Shear Stress Cu (kPa)	184

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

28

Tested by SB

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S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

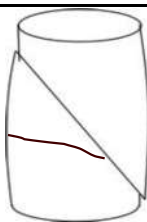
Location BH2
 Sample Ref 5
 Depth (m) 18.50
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.7
Diameter (mm)	102.5
Moisture content (%)	28.8
Bulk density (Mg/m ³)	2.00
Dry density (Mg/m ³)	1.55
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.7
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	370
Strain at failure (%)	6.4
Maximum deviator stress (kPa)	287
Shear Stress Cu (kPa)	144

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

15

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Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH5
 Sample Ref 1
 Depth (m) 6.50
 Sample Type U

Description:

Stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.0
Diameter (mm)	102.8
Moisture content (%)	27.2
Bulk density (Mg/m ³)	2.00
Dry density (Mg/m ³)	1.57
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.9
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	130
Strain at failure (%)	5.9
Maximum deviator stress (kPa)	204
Shear Stress Cu (kPa)	102

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	25

Tested by SB

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 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

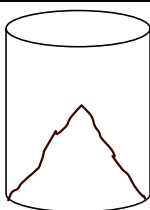
Location BH5
 Sample Ref 2
 Depth (m) 9.50
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.4
Diameter (mm)	102.8
Moisture content (%)	29.3
Bulk density (Mg/m ³)	1.97
Dry density (Mg/m ³)	1.52
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.4
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	190
Strain at failure (%)	6.9
Maximum deviator stress (kPa)	243
Shear Stress Cu (kPa)	122

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

89

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S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH5
 Sample Ref 3
 Depth (m) 12.50
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.2
Diameter (mm)	101.8
Moisture content (%)	30.9
Bulk density (Mg/m ³)	1.97
Dry density (Mg/m ³)	1.50
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.1
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	250
Strain at failure (%)	7.4
Maximum deviator stress (kPa)	199
Shear Stress Cu (kPa)	99

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	30

Tested by SB

Checked and Approved by

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 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH5
 Sample Ref 4
 Depth (m) 15.50
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.7
Diameter (mm)	102.4
Moisture content (%)	24.7
Bulk density (Mg/m ³)	1.98
Dry density (Mg/m ³)	1.58
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.6
Membrane correction (kPa)	0.6
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	310
Strain at failure (%)	8.4
Maximum deviator stress (kPa)	298
Shear Stress Cu (kPa)	149

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

28

Tested by SB

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S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH5
 Sample Ref 5
 Depth (m) 18.50
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.5
Diameter (mm)	103.6
Moisture content (%)	29.4
Bulk density (Mg/m ³)	1.95
Dry density (Mg/m ³)	1.51
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.4
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	370
Strain at failure (%)	6.9
Maximum deviator stress (kPa)	382
Shear Stress Cu (kPa)	191

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

34

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

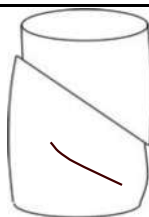
Location BH5
 Sample Ref 6
 Depth (m) 21.50
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY with rare gypsum.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.1
Diameter (mm)	102.5
Moisture content (%)	24.2
Bulk density (Mg/m ³)	2.04
Dry density (Mg/m ³)	1.64
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.9
Membrane correction (kPa)	0.7
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	430
Strain at failure (%)	11.4
Maximum deviator stress (kPa)	553
Shear Stress Cu (kPa)	276

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	28

Tested by SB

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 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH5
Depth (m) 24.50
Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	203.2
Diameter (mm)	103.2
Moisture content (%)	22.8
Bulk density (Mg/m ³)	1.99
Dry density (Mg/m ³)	1.62
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	203.1
Membrane correction (kPa)	0.7
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	490
Strain at failure (%)	11.8
Maximum deviator stress (kPa)	750
Shear Stress Cu (kPa)	375

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	50

Tested by SB
Checked and Approved by

S Burke - Senior Technician
17/12/2021

Project Number:

GEO / 34361

Project Name:

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH6
 Sample Ref 1
 Depth (m) 2.00
 Sample Type U

Description:

Medium dense orange brown clayey gravelly SAND

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	204.2
Diameter (mm)	100.6
Moisture content (%)	14.3
Bulk density (Mg/m ³)	2.23
Dry density (Mg/m ³)	1.95
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	204.2
Membrane correction (kPa)	0.8
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	40
Strain at failure (%)	12.2
Maximum deviator stress (kPa)	127
Shear Stress Cu (kPa)	63

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

30

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH6
 Sample Ref 2
 Depth (m) 5.00
 Sample Type U

Description:

Stiff fissured dark brown silty CLAY

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.5
Diameter (mm)	102.1
Moisture content (%)	34.3
Bulk density (Mg/m ³)	1.95
Dry density (Mg/m ³)	1.45
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.5
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	100
Strain at failure (%)	5.4
Maximum deviator stress (kPa)	158
Shear Stress Cu (kPa)	79

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

36

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH6
 Sample Ref 3
 Depth (m) 8.00
 Sample Type U

Description:

Stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.7
Diameter (mm)	101.7
Moisture content (%)	30.5
Bulk density (Mg/m ³)	1.91
Dry density (Mg/m ³)	1.47
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.7
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	160
Strain at failure (%)	4.9
Maximum deviator stress (kPa)	231
Shear Stress Cu (kPa)	115

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

18

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH6
 Sample Ref 4
 Depth (m) 11.00
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	203.7
Diameter (mm)	102.4
Moisture content (%)	27.8
Bulk density (Mg/m ³)	1.98
Dry density (Mg/m ³)	1.55
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	203.6
Membrane correction (kPa)	0.6
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	220
Strain at failure (%)	8.8
Maximum deviator stress (kPa)	294
Shear Stress Cu (kPa)	147

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

20

Tested by SB

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S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH6
 Sample Ref 5
 Depth (m) 14.00
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.1
Diameter (mm)	103.2
Moisture content (%)	24.3
Bulk density (Mg/m ³)	1.99
Dry density (Mg/m ³)	1.60
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.1
Membrane correction (kPa)	0.2
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	280
Strain at failure (%)	2.5
Maximum deviator stress (kPa)	256
Shear Stress Cu (kPa)	128

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

18

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

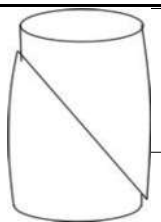
Location BH6
 Sample Ref 6
 Depth (m) 17.00
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.2
Diameter (mm)	102.3
Moisture content (%)	29.8
Bulk density (Mg/m ³)	1.98
Dry density (Mg/m ³)	1.52
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.0
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	340
Strain at failure (%)	4.9
Maximum deviator stress (kPa)	258
Shear Stress Cu (kPa)	129

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	34

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH6
 Sample Ref 7
 Depth (m) 20.00
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	203.2
Diameter (mm)	103.4
Moisture content (%)	25.7
Bulk density (Mg/m ³)	1.99
Dry density (Mg/m ³)	1.59
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	203.0
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	400
Strain at failure (%)	3.2
Maximum deviator stress (kPa)	203
Shear Stress Cu (kPa)	102

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	55

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH6
 Sample Ref 8
 Depth (m) 23.00
 Sample Type U

Description:

Very stiff fissured grey mottled red silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	203.7
Diameter (mm)	102.5
Moisture content (%)	22.6
Bulk density (Mg/m ³)	2.04
Dry density (Mg/m ³)	1.66
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	203.6
Membrane correction (kPa)	0.7
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	460
Strain at failure (%)	9.8
Maximum deviator stress (kPa)	332
Shear Stress Cu (kPa)	166

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	42

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH8
 Sample Ref 1
 Depth (m) 6.50
 Sample Type U

Description:

Stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.5
Diameter (mm)	102.4
Moisture content (%)	30.4
Bulk density (Mg/m ³)	1.96
Dry density (Mg/m ³)	1.50
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.5
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	130
Strain at failure (%)	7.4
Maximum deviator stress (kPa)	140
Shear Stress Cu (kPa)	70

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

16

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

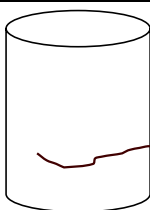
Location BH8
 Sample Ref 2
 Depth (m) 9.50
 Sample Type U

Description:

Stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.7
Diameter (mm)	101.7
Moisture content (%)	30.1
Bulk density (Mg/m ³)	1.95
Dry density (Mg/m ³)	1.50
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.6
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	190
Strain at failure (%)	5.9
Maximum deviator stress (kPa)	196
Shear Stress Cu (kPa)	98

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	26

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH8
 Sample Ref 3
 Depth (m) 12.50
 Sample Type U

Description:

Stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.9
Diameter (mm)	102.6
Moisture content (%)	28.7
Bulk density (Mg/m ³)	2.04
Dry density (Mg/m ³)	1.59
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.8
Membrane correction (kPa)	0.8
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	250
Strain at failure (%)	12.9
Maximum deviator stress (kPa)	360
Shear Stress Cu (kPa)	180

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

34

Tested by SB

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S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH8
 Sample Ref 4
 Depth (m) 15.50
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.3
Diameter (mm)	103.2
Moisture content (%)	28.5
Bulk density (Mg/m ³)	1.98
Dry density (Mg/m ³)	1.54
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.1
Membrane correction (kPa)	0.2
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	310
Strain at failure (%)	2.5
Maximum deviator stress (kPa)	303
Shear Stress Cu (kPa)	152

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

16

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

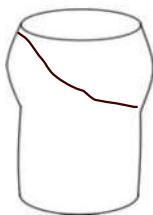
Location BH8
 Sample Ref 5
 Depth (m) 18.50
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.1
Diameter (mm)	102.5
Moisture content (%)	23.5
Bulk density (Mg/m ³)	2.04
Dry density (Mg/m ³)	1.65
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.0
Membrane correction (kPa)	0.9
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	370
Strain at failure (%)	15.3
Maximum deviator stress (kPa)	506
Shear Stress Cu (kPa)	253

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

40

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

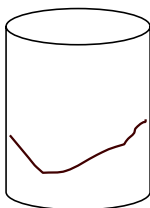
Location BH8
 Sample Ref 6
 Depth (m) 21.50
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.2
Diameter (mm)	103.3
Moisture content (%)	26.1
Bulk density (Mg/m ³)	1.96
Dry density (Mg/m ³)	1.56
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.2
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	430
Strain at failure (%)	7.4
Maximum deviator stress (kPa)	512
Shear Stress Cu (kPa)	256

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

16

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 17/12/2021

Project Number:

GEO / 34361

Project Name:

ASHLEY ROAD DEPOT
J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests				Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments	
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L		W/S Mg mg/L
BH1	1.75	4	D	Orangish brown and greyish brown sandy silty CLAY. Sand is fine.	23.4	42	19	23	100										
BH1	6.50-6.95	2	U	Stiff brown CLAY.	31.9					2.00	1.51	Undisturbed	130	97	49				
BH1	9.50-9.95	3	U	Stiff fissured dark brownish grey CLAY.	32.3					1.98	1.50	Undisturbed	190	138	69				
BH1	12.50-12.95	4	U	Very stiff dark grey silty CLAY.	32.3					1.95	1.48	Undisturbed	250	160	80				
BH1	15.50-15.95	5	U	Very stiff dark brownish grey silty CLAY.	23.9					2.01	1.62	Undisturbed	310	350	175				
BH1	18.50-18.95	6	U	Very stiff brown silty CLAY	27.8					2.03	1.59	Undisturbed	370	387	193				
BH1	21.50-21.95	7	U	Very stiff grey silty CLAY.	27.8					1.97	1.54	Undisturbed	430	247	124				
BH1	24.00	27	D	Dark grey silty CLAY.	24.5														
BH1	25.50	28	D														8.0	0.59	
BH1	27.50	31	D	Dark grey slightly gravelly sandy silty CLAY.															Particle Size Distribution

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by


S Burke - Senior Technician
02/02/2022

Project Number: GEO / 34598

Project Name: ASHLEY ROAD DEPOT J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests				Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments	
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L		W/S Mg mg/L
BH3	2.00-2.45	1	U	Soft to firm brown mottled grey gravelly CLAY.	18.5					2.09	1.76	Undisturbed	40	86	43				
BH3	6.50-6.95	2	U	Very stiff fissured dark brown silty CLAY.	29.4					1.98	1.53	Undisturbed	130	166	83				
BH3	9.50-9.95	3	U	Very stiff fissured dark brown silty CLAY.	31.2					1.94	1.48	Undisturbed	190	133	66				
BH3	12.50-12.95	4	U	Very stiff fissured dark brown silty CLAY.	31.2					1.96	1.49	Undisturbed	250	127	64				
BH3	15.50-15.95	5	U	Very stiff dark brown sandy silty CLAY.	28.9					1.96	1.52	Undisturbed	310	356	178				
BH3	18.50-18.95	6	U	Very stiff fissured dark grey silty CLAY.	24.8					1.96	1.57	Undisturbed	370	207	104				
BH3	21.00	24	D														8.2	0.81	
BH3	21.50-21.95	7	U	Very stiff fissured dark grey silty CLAY.	24.5					1.96	1.58	Undisturbed	430	295	148				
BH3	23.00	26	D	Dark grey sandy silty CLAY. Sand is fine.	21.6	51	23	28	100										
BH3	27.50	32	D	Dark grey slightly gravelly sandy silty CLAY. Gravel is fine to medium.															Particle Size Distribution

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by


S Burke - Senior Technician
02/02/2022

Project Number:

Project Name:

GEO / 34598

ASHLEY ROAD DEPOT
J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests				Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments	
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L		W/S Mg mg/L
BH4	3.00	2	B	Brown silty sandy GRAVEL.															
BH4	6.00	8	D	Dark grey silty CLAY.	33.0														
BH4	8.00-8.45	1	U	Very stiff brownish grey CLAY.	29.7					2.00	1.54	Undisturbed	160	145	73				
BH4	9.00	11	D	Dark grey slightly silty CLAY.	29.0														
BH4	11.00-11.45	2	U	Very stiff fissured dark brown silty CLAY.	24.1					2.01	1.62	Undisturbed	220	257	129				
BH4	14.00-14.45	3	U	Very stiff fissured dark grey silty CLAY.	25.6					2.01	1.60	Undisturbed	280	451	225				
BH4	17.00-17.45	4	U	Very stiff fissured dark grey silty CLAY.	21.2					2.05	1.69	Undisturbed	340	424	212				
BH4	20.00-20.45	5	U	Very stiff fissured dark grey silty CLAY.	26.2					1.93	1.53	Undisturbed	400	269	134				
BH4	22.45		D	Dark grey sandy silty CLAY. Sand is fine.	22.9														
BH7	6.50-6.95	1	U	Very stiff fissured dark grey silty CLAY.	28.4					1.93	1.50	Undisturbed	130	167	84				

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by


S Burke - Senior Technician
02/02/2022

Project Number: GEO / 34598

Project Name: ASHLEY ROAD DEPOT J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details																					
Location	Depth (m)	Sample Ref	Type	Description																	
					WC	LL	PL	PI	<425 µm	Classification Tests				Density Tests		Undrained Triaxial Compression			Chemical Tests		Other tests and comments
					%	%	%	%	%	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L	W/S Mg mg/L			
BH7	9.50-9.95	2	U	Very stiff fissured brown CLAY with rare medium gravel.	31.4					1.93	1.47	Undisturbed	190	159	79						
BH7	10.50	12	D	Dark grey sandy silty CLAY. Sand is fine.	27.9																
BH7	12.50-12.95	3	U	Very stiff dark grey silty CLAY.	30.4					1.95	1.49	Undisturbed	250	157	78						
BH7	14.00	16	D														8.5	0.30			
BH7	15.50-15.95	4	U	Very stiff grey silty CLAY.	22.8					2.02	1.64	Undisturbed	30	369	185						
BH7	18.50-18.95	5	U	Very stiff dark grey silty CLAY.	21.9					1.98	1.62	Undisturbed	370	386	193						
BH7	24.50	27	D	Dark grey sandy silty CLAY. Sand is fine.	37.7																
BH7	26.00	29	D	Dark grey sandy silty CLAY. Sand is fine to medium.	34.7	30	15	15	90												
BH7	29.00	33	D	Dark grey slightly gravelly sandy silty CLAY.																Particle Size Distribution	
BH9	1.90	2	D	Orangish brown mottled greyish brown gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	15.5	47	22	25	60												

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by


S Burke - Senior Technician
02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



SUMMARY OF GEOTECHNICAL TESTING

Sample details					Classification Tests				Density Tests		Undrained Triaxial Compression				Chemical Tests			Other tests and comments	
Location	Depth (m)	Sample Ref	Type	Description	WC %	LL %	PL %	PI %	<425 µm %	Bulk Mg/m³	Dry Mg/m³	Condition	Cell Pressure kPa	Deviator Stress kPa	Shear Stress kPa	pH	2:1 W/S SO4 g/L		W/S Mg mg/L
BH9	3.50	4	D	Yellowish brown silty very sandy GRAVEL.															Particle Size Distribution
BH10	2.30	2	D	Oranges brown and grey, pocket black gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	15.8	42	22	20	50										
BH11	2.50	2	D	Dark grey and black slightly gravelly sandy silty CLAY. Sand is fine. Gravel is fine to medium.	32.6														
BH11	5.40	5	D	Dark grey silty CLAY.	27.0														
BH12	1.60	2	D	Greyish brown mottled grey gravelly sandy silty CLAY. Sand and gravel are fine to medium..	19.5	37	17	20	75										
BH16A	1.80	2	D	Orangish brown mottled grey and brown gravelly sandy silty CLAY with rare rootlets. Sand is fine. Gravel is fine to medium.	16.8														
IT1	0.90		B	Multicoloured slightly sandy slightly gravelly CLAY. Gravel is fine to medium.															California Bearing Ratio
IT3	0.90		B	Brown mottled orangish brown slightly sandy slightly gravelly CLAY.															California Bearing Ratio

Sample type: B (Bulk disturb.), BLK (Block) C (Core) D (Disturbed) LB (Large Bulk dist.) U (Undisturbed)

Checked and Approved by


S Burke - Senior Technician
02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



PARTICLE SIZE DISTRIBUTION

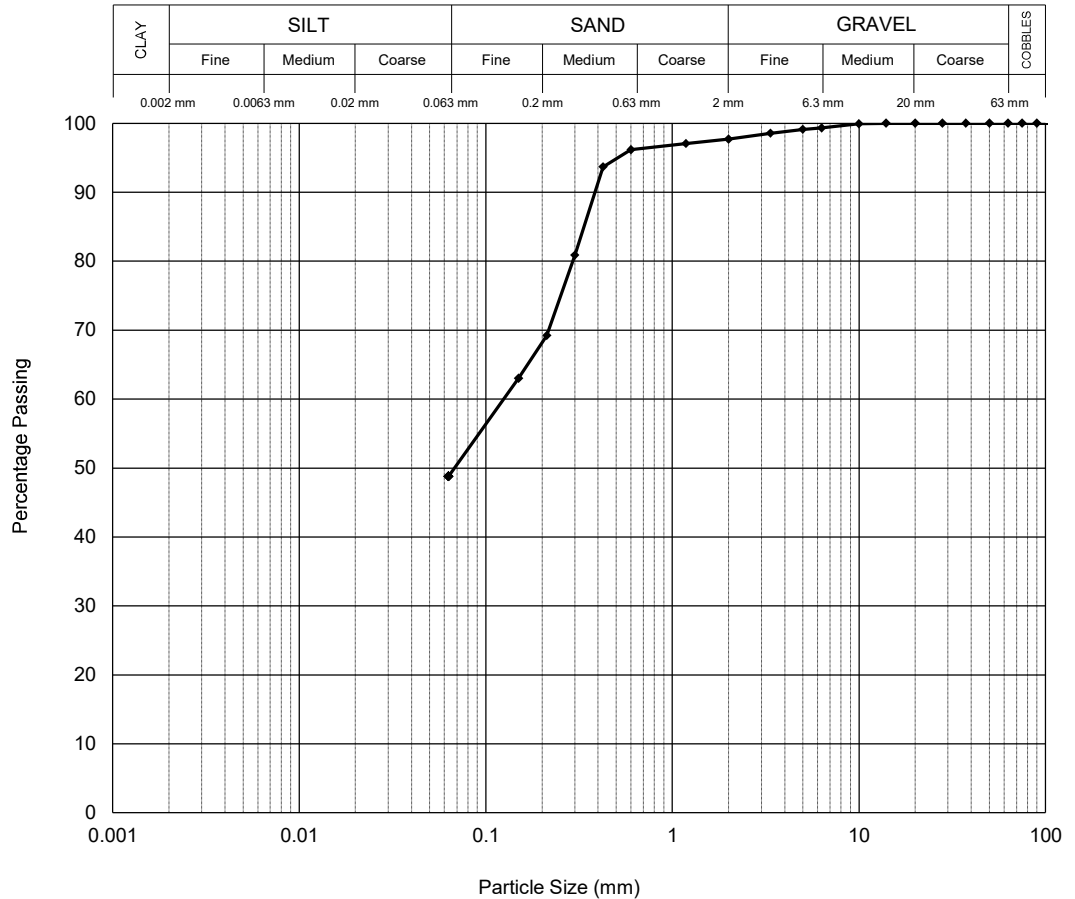
Location BH1
 Sample Ref 31
 Depth (m) 27.50
 Sample Type D

Description

Dark grey slightly gravelly sandy silty CLAY.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	100
14.0 mm	100
10.0 mm	100
6.30 mm	99
5.00 mm	99
3.35 mm	99
2.00 mm	98
1.18 mm	97
600 µm	96
425 µm	94
300 µm	81
212 µm	69
150 µm	63
63 µm	49



Particle Proportions	
Cobbles	0.0
Gravel	2.3
Sand	49.0
Silt & Clay	48.7

Tested by EM
 Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



PARTICLE SIZE DISTRIBUTION

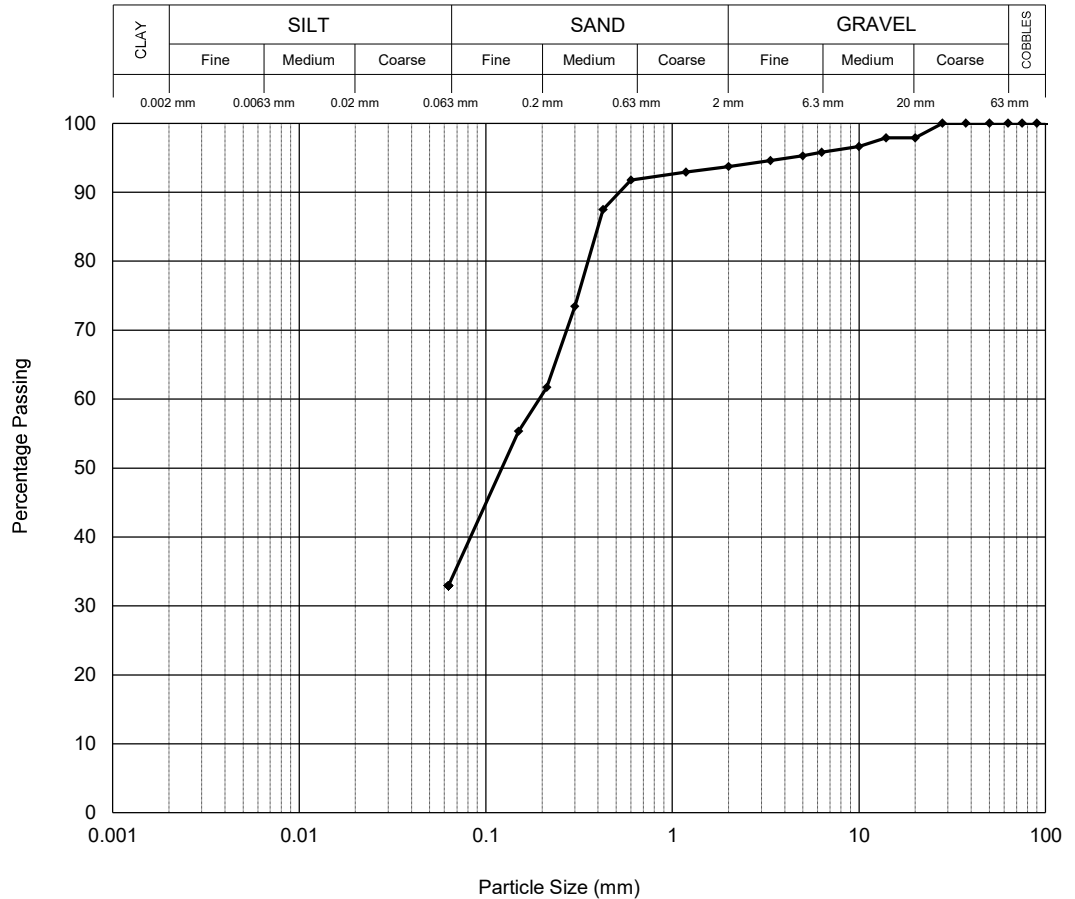
Location BH3
 Sample Ref 32
 Depth (m) 27.50
 Sample Type D

Description

Dark grey slightly gravelly sandy silty CLAY. Gravel is fine to medium.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	98
14.0 mm	98
10.0 mm	97
6.30 mm	96
5.00 mm	95
3.35 mm	95
2.00 mm	94
1.18 mm	93
600 µm	92
425 µm	87
300 µm	73
212 µm	62
150 µm	55
63 µm	33



Particle Proportions	
Cobbles	0.0
Gravel	6.3
Sand	60.8
Silt & Clay	32.9

Tested by EM
 Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
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PARTICLE SIZE DISTRIBUTION

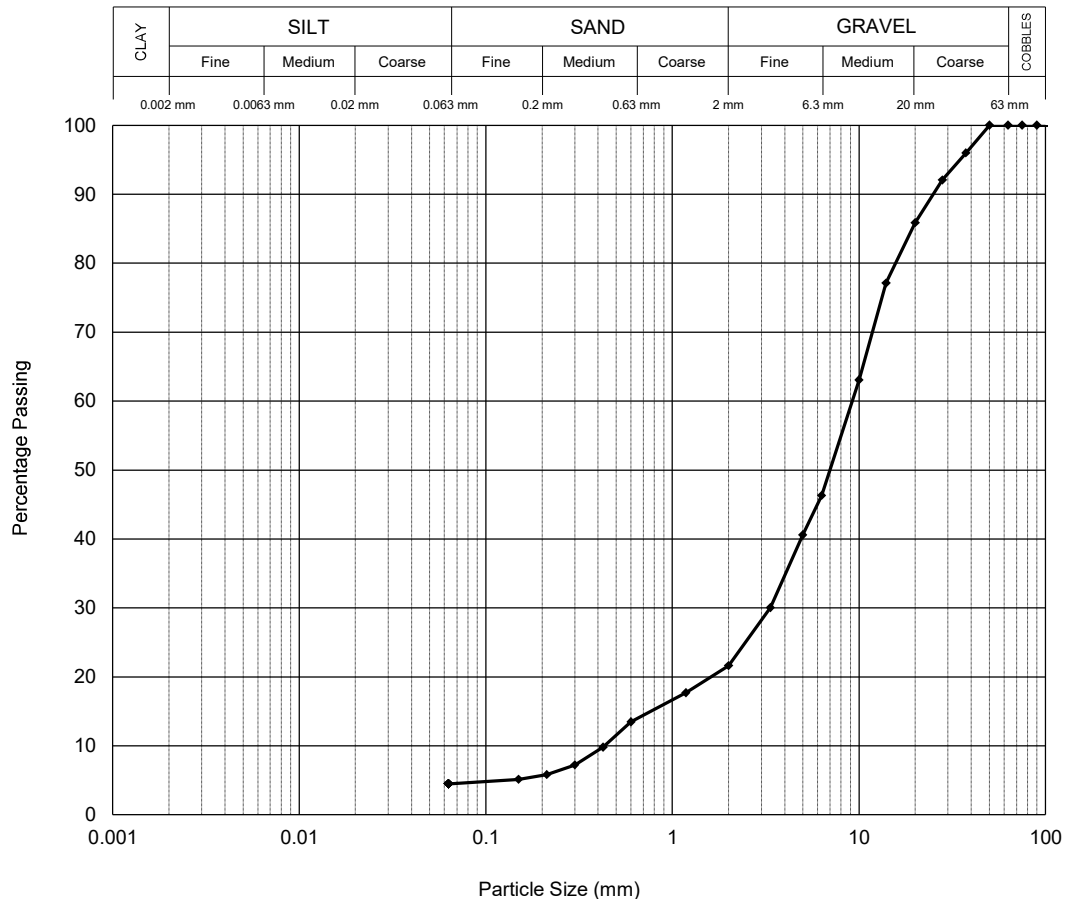
Location BH4
 Sample Ref 2
 Depth (m) 3.00
 Sample Type B

Description

Brown silty sandy GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	96
28.0 mm	92
20.0 mm	86
14.0 mm	77
10.0 mm	63
6.30 mm	46
5.00 mm	41
3.35 mm	30
2.00 mm	22
1.18 mm	18
600 µm	13
425 µm	10
300 µm	7
212 µm	6
150 µm	5
63 µm	4



Particle Proportions	
Cobbles	0.0
Gravel	78.4
Sand	17.1
Silt & Clay	4.5

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PARTICLE SIZE DISTRIBUTION

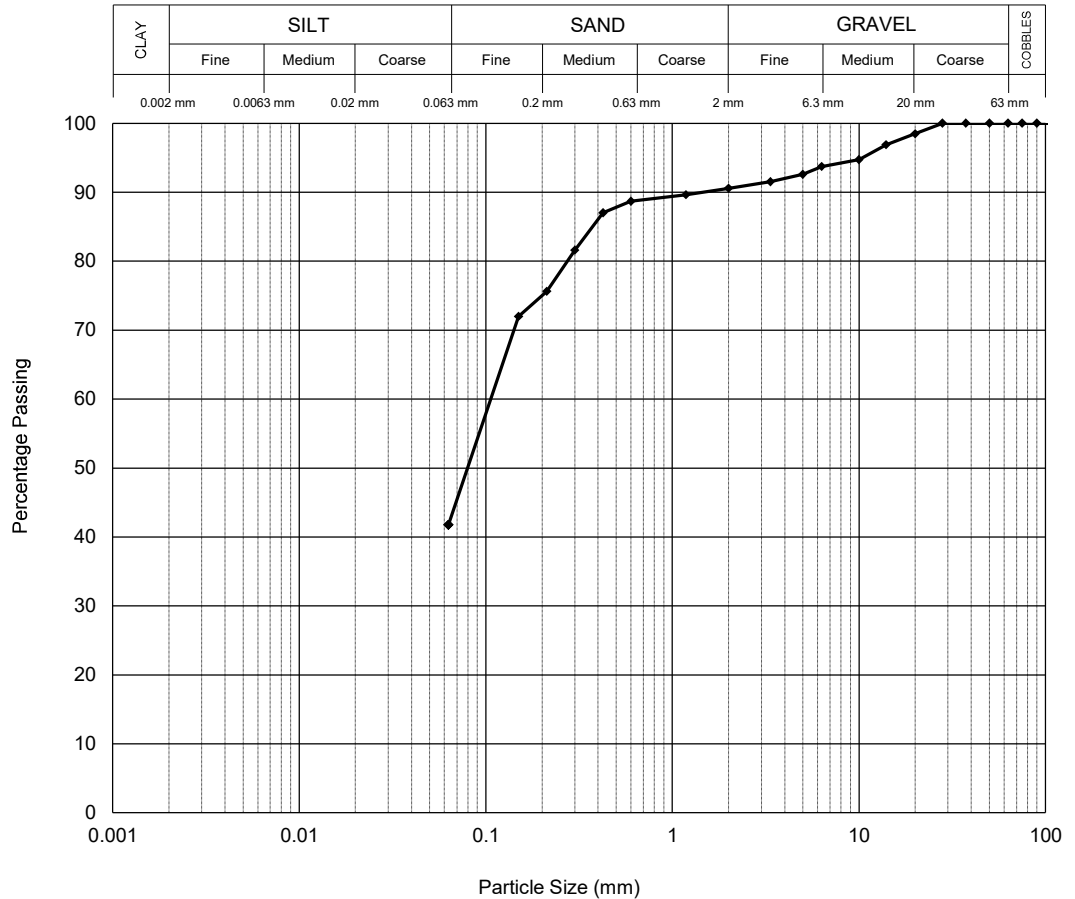
Location BH7
 Sample Ref 33
 Depth (m) 29.00
 Sample Type D

Description

Dark grey slightly gravelly sandy silty CLAY.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	98
14.0 mm	97
10.0 mm	95
6.30 mm	94
5.00 mm	93
3.35 mm	91
2.00 mm	91
1.18 mm	90
600 µm	89
425 µm	87
300 µm	82
212 µm	76
150 µm	72
63 µm	42



Particle Proportions	
Cobbles	0.0
Gravel	9.4
Sand	48.8
Silt & Clay	41.8

Tested by EM
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S Burke

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 02/02/2022

Project Number:

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PARTICLE SIZE DISTRIBUTION

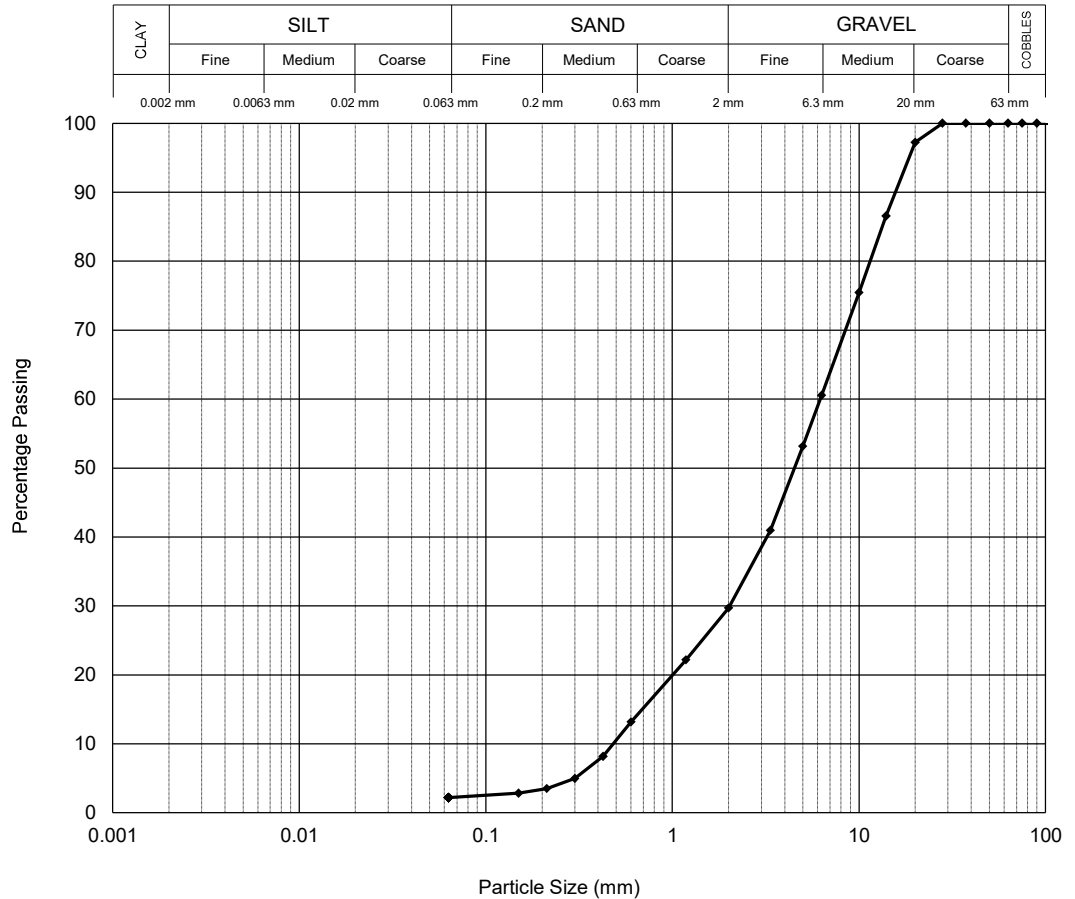
Location BH9
 Sample Ref 4
 Depth (m) 3.50
 Sample Type D

Description

Yellowish brown silty very sandy GRAVEL.

BS EN ISO 17892-4 : 2016 : Clause 5.2 - Wet Sieve

Sieve	
Size	% Pass
200.0 mm	100
125.0 mm	100
90.0 mm	100
75.0 mm	100
63.0 mm	100
50.0 mm	100
37.5 mm	100
28.0 mm	100
20.0 mm	97
14.0 mm	87
10.0 mm	75
6.30 mm	61
5.00 mm	53
3.35 mm	41
2.00 mm	30
1.18 mm	22
600 µm	13
425 µm	8
300 µm	5
212 µm	3
150 µm	3
63 µm	2



Particle Proportions	
Cobbles	0.0
Gravel	70.3
Sand	27.5
Silt & Clay	2.2

Tested by EM
 Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



CALIFORNIA BEARING RATIO

Location: IT1
 Depth (m): 0.90
 Sample Type: B

Description:

Multicoloured slightly sandy slightly gravelly CLAY. Gravel is fine to medium.

PREPARATION DETAILS

The specimen was soaked for 4 days, after which swelling equilibrium had been reached with 0.0 % vertical swell.

The specimen was prepared at its existing moisture content of 26%

The specimen was prepared by dynamic compaction using a 2.5 kg rammer

Soaked specimen bulk density 1.96 Mg/m³ (1.96 Mg/m³ before soaking)

Soaked specimen dry density 1.55 Mg/m³ (1.55 Mg/m³ before soaking)

0.0 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
 Seating load
 Water content

Top

10.0 kg
 10 N
 26 %

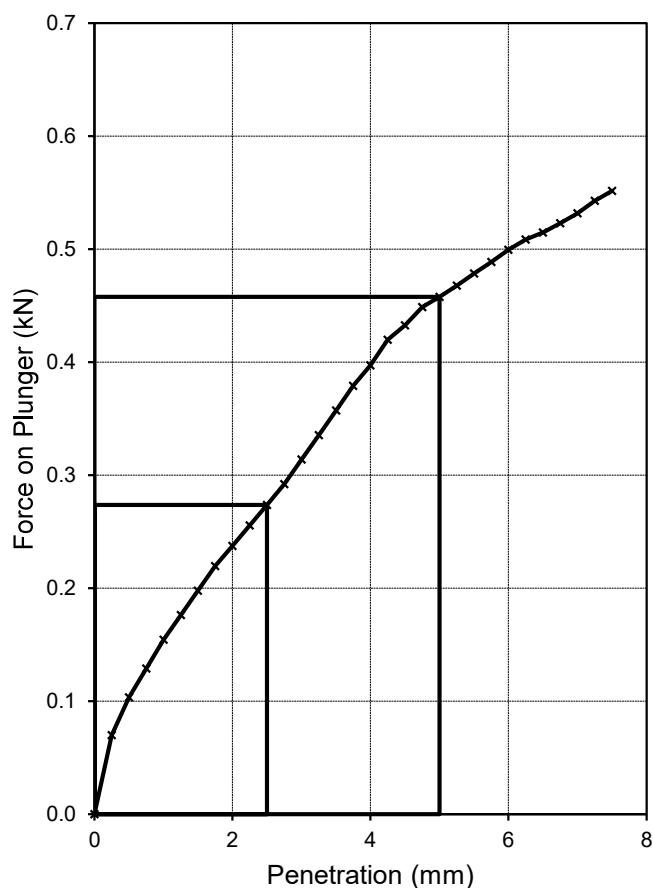
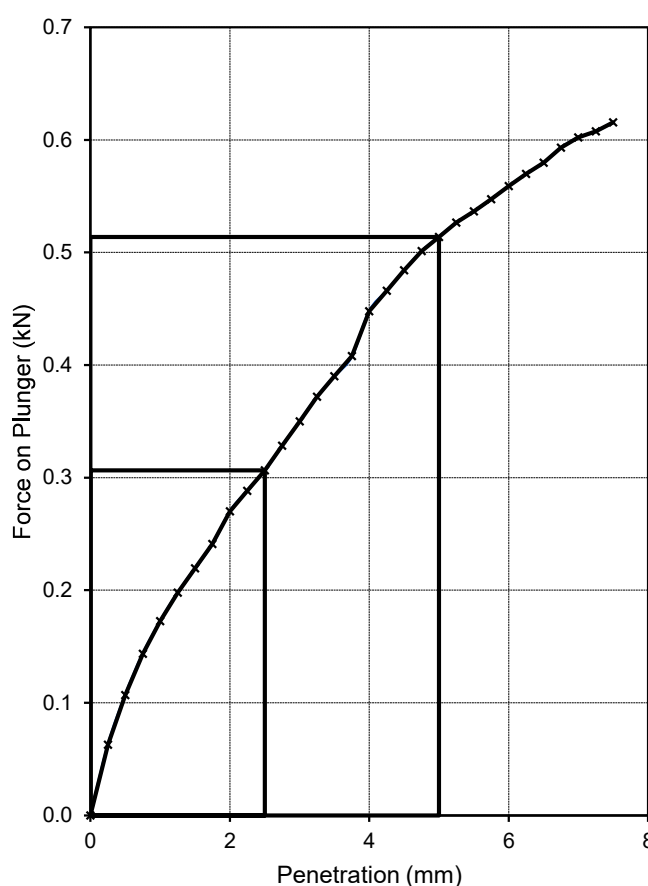
Base

10.0 kg
 10 N
 26 %

CBR Value

2.3 %

2.6 %

Top of Specimen**Base of Specimen**

Checked and Approved by:

S Burke

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

**ASHLEY ROAD DEPOT
 J21294**



CALIFORNIA BEARING RATIO

Location: IT3
 Depth (m): 0.90
 Sample Type: B

Description:

Brown mottled orange brown slightly sandy slightly gravelly
 CLAY.

PREPARATION DETAILS

The specimen was soaked for 4 days, after which swelling equilibrium had been reached with 0.0 % vertical swell.

The specimen was prepared at its existing moisture content of 22%

The specimen was prepared by dynamic compaction using a 2.5 kg rammer

Soaked specimen bulk density 2.00 Mg/m³ (1.99 Mg/m³ before soaking)

Soaked specimen dry density 1.63 Mg/m³ (1.63 Mg/m³ before soaking)

0.5 % of the sample was retained on a 20mm sieve

Test Details

Surcharge
 Seating load
 Water content

Top

10.0 kg
 10 N
 22 %

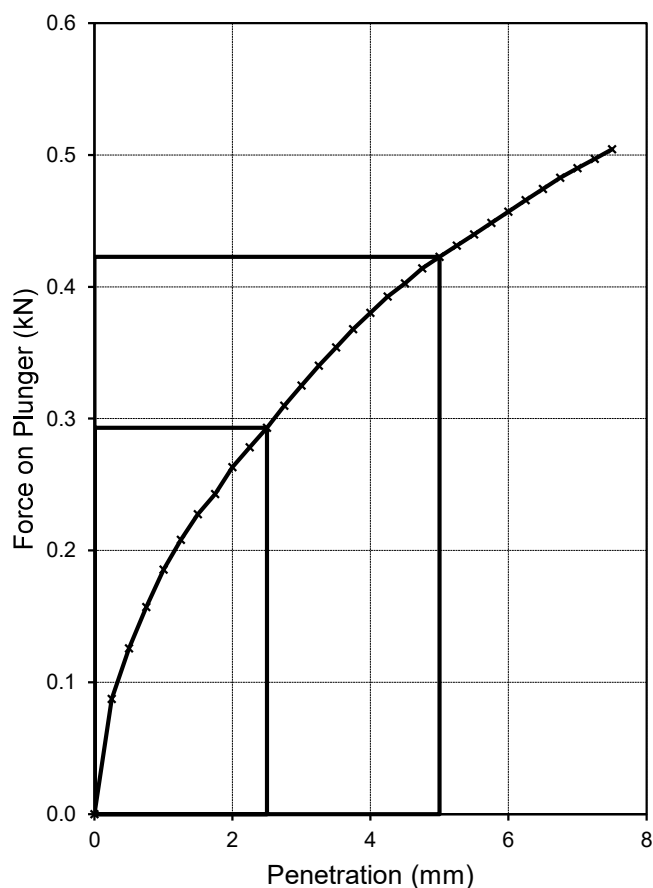
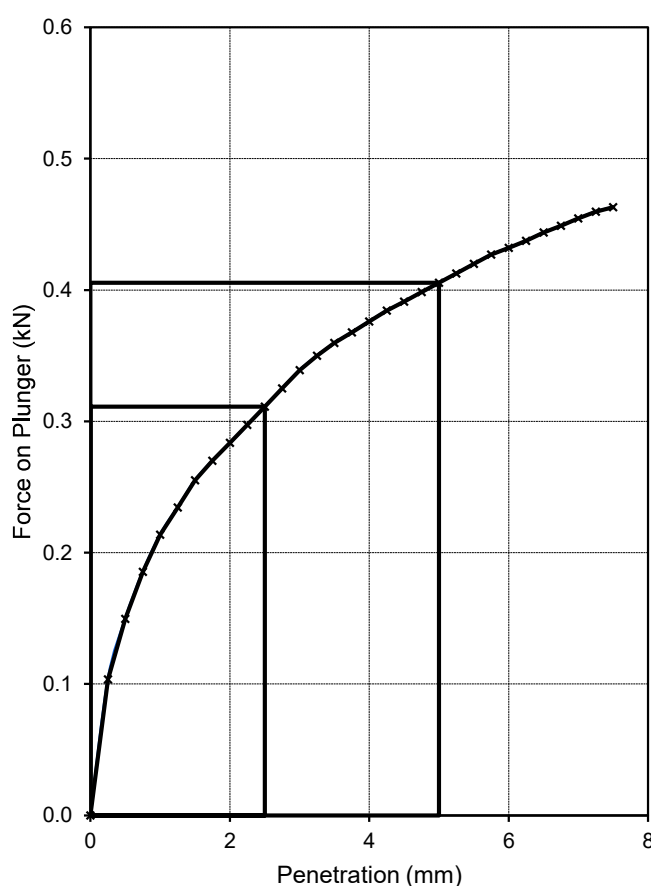
Base

10.0 kg
 10 N
 23 %

CBR Value

2.2 %

2.4 %

Top of Specimen**Base of Specimen**

Checked and Approved by:

S Burke

S Burke - Senior Technician
 02/02/2022

Project Number:

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Project Name:

**ASHLEY ROAD DEPOT
 J21294**



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH1
 Sample Ref 2
 Depth (m) 6.50-6.95
 Sample Type U

Description:
 Stiff brown CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.6
Diameter (mm)	102.3
Moisture content (%)	31.9
Bulk density (Mg/m ³)	2.00
Dry density (Mg/m ³)	1.51
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.6
Membrane correction (kPa)	0.6
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	130
Strain at failure (%)	8.0
Maximum deviator stress (kPa)	97
Shear Stress Cu (kPa)	49

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	30

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

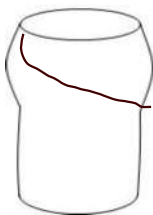
Location BH1
Sample Ref 3
Depth (m) 9.50-9.95
Sample Type U

Description:

Stiff fissured dark brownish grey CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.5
Diameter (mm)	101.9
Moisture content (%)	32.3
Bulk density (Mg/m ³)	1.98
Dry density (Mg/m ³)	1.50
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.5
Membrane correction (kPa)	0.8
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	190
Strain at failure (%)	12.5
Maximum deviator stress (kPa)	138
Shear Stress Cu (kPa)	69

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

50

Tested by SB

Checked and Approved by

S Burke - Senior Technician
02/02/2022

Project Number:

GEO / 34598

Project Name:

**ASHLEY ROAD DEPOT
J21294**

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH1
 Sample Ref 4
 Depth (m) 12.50-12.95
 Sample Type U

Description:

Very stiff dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.5
Diameter (mm)	102.4
Moisture content (%)	32.3
Bulk density (Mg/m ³)	1.95
Dry density (Mg/m ³)	1.48
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.4
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	250
Strain at failure (%)	5.5
Maximum deviator stress (kPa)	160
Shear Stress Cu (kPa)	80

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	95

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH1
 Sample Ref 5
 Depth (m) 15.50-15.95
 Sample Type U

Description:

Very stiff dark brownish grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.1
Diameter (mm)	102.5
Moisture content (%)	23.9
Bulk density (Mg/m ³)	2.01
Dry density (Mg/m ³)	1.62
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.9
Membrane correction (kPa)	0.7
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	310
Strain at failure (%)	10.4
Maximum deviator stress (kPa)	350
Shear Stress Cu (kPa)	175

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

40

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH1
 Sample Ref 6
 Depth (m) 18.50-18.95
 Sample Type U

Description:

Very stiff brown silty CLAY

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.2
Diameter (mm)	103.2
Moisture content (%)	27.8
Bulk density (Mg/m ³)	2.03
Dry density (Mg/m ³)	1.59
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.0
Membrane correction (kPa)	0.8
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	370
Strain at failure (%)	13.9
Maximum deviator stress (kPa)	387
Shear Stress Cu (kPa)	193

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

50

Tested by SB

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 02/02/2022

Project Number:

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Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

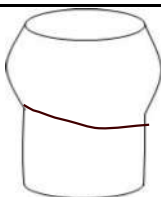
Location BH1
Sample Ref 7
Depth (m) 21.50-21.95
Sample Type U

Description:

Very stiff grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.4
Diameter (mm)	102.4
Moisture content (%)	27.8
Bulk density (Mg/m ³)	1.97
Dry density (Mg/m ³)	1.54
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.2
Membrane correction (kPa)	1.1
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	430
Strain at failure (%)	20.0
Maximum deviator stress (kPa)	247
Shear Stress Cu (kPa)	124

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	60

Tested by SB
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S Burke - Senior Technician
02/02/2022

Project Number:

GEO / 34598

Project Name:

**ASHLEY ROAD DEPOT
J21294**

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH3
 Sample Ref 1
 Depth (m) 2.00-2.45
 Sample Type U

Description:

Soft to firm brown mottled grey gravelly CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.5
Diameter (mm)	101.6
Moisture content (%)	18.5
Bulk density (Mg/m ³)	2.09
Dry density (Mg/m ³)	1.76
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.5
Membrane correction (kPa)	0.8
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	40
Strain at failure (%)	13.0
Maximum deviator stress (kPa)	86
Shear Stress Cu (kPa)	43

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	230

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 02/02/2022

Project Number:

GEO / 34598

Project Name:

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

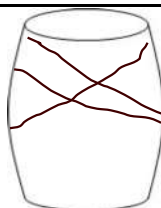
Location BH3
 Sample Ref 2
 Depth (m) 6.50-6.95
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.8
Diameter (mm)	101.9
Moisture content (%)	29.4
Bulk density (Mg/m ³)	1.98
Dry density (Mg/m ³)	1.53
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.8
Membrane correction (kPa)	0.6
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	130
Strain at failure (%)	9.4
Maximum deviator stress (kPa)	166
Shear Stress Cu (kPa)	83

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	60

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 02/02/2022

Project Number:

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Project Name:

ASHLEY ROAD DEPOT
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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH3
 Sample Ref 3
 Depth (m) 9.50-9.95
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	203.2
Diameter (mm)	102.8
Moisture content (%)	31.2
Bulk density (Mg/m ³)	1.94
Dry density (Mg/m ³)	1.48
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	203.2
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	190
Strain at failure (%)	4.9
Maximum deviator stress (kPa)	133
Shear Stress Cu (kPa)	66

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

66

Tested by SB

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 02/02/2022

Project Number:

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Project Name:

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UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

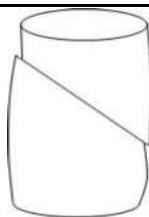
Location BH3
 Sample Ref 4
 Depth (m) 12.50-12.95
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.7
Diameter (mm)	102.1
Moisture content (%)	31.3
Bulk density (Mg/m ³)	1.96
Dry density (Mg/m ³)	1.49
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.5
Membrane correction (kPa)	0.4
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	250
Strain at failure (%)	5.4
Maximum deviator stress (kPa)	127
Shear Stress Cu (kPa)	64

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	32

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH3
 Sample Ref 5
 Depth (m) 15.50-15.95
 Sample Type U

Description:

Very stiff dark brown sandy silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.3
Diameter (mm)	104.2
Moisture content (%)	28.9
Bulk density (Mg/m ³)	1.96
Dry density (Mg/m ³)	1.52
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.1
Membrane correction (kPa)	0.9
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	310
Strain at failure (%)	14.4
Maximum deviator stress (kPa)	356
Shear Stress Cu (kPa)	178

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	55

Tested by SB

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S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH3
Sample Ref 6
Depth (m) 18.50-18.95
Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.7
Diameter (mm)	102.7
Moisture content (%)	24.8
Bulk density (Mg/m ³)	1.96
Dry density (Mg/m ³)	1.57
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.5
Membrane correction (kPa)	1.1
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	370
Strain at failure (%)	19.9
Maximum deviator stress (kPa)	207
Shear Stress Cu (kPa)	104

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

55

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S Burke - Senior Technician
02/02/2022

Project Number:

GEO / 34598

Project Name:

**ASHLEY ROAD DEPOT
J21294**

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

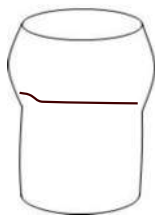
Location BH3
 Sample Ref 7
 Depth (m) 21.50-21.95
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.9
Diameter (mm)	103.0
Moisture content (%)	24.5
Bulk density (Mg/m ³)	1.96
Dry density (Mg/m ³)	1.58
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.7
Membrane correction (kPa)	1.0
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	430
Strain at failure (%)	16.3
Maximum deviator stress (kPa)	295
Shear Stress Cu (kPa)	148

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	70

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH4
 Sample Ref 1
 Depth (m) 8.00-8.45
 Sample Type U

Description:

Very stiff brownish grey CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	200.9
Diameter (mm)	101.4
Moisture content (%)	29.7
Bulk density (Mg/m ³)	2.00
Dry density (Mg/m ³)	1.54
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	200.8
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	160
Strain at failure (%)	3.2
Maximum deviator stress (kPa)	145
Shear Stress Cu (kPa)	73

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

35

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

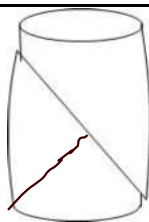
Location BH4
 Sample Ref 2
 Depth (m) 11.00-11.45
 Sample Type U

Description:

Very stiff fissured dark brown silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.6
Diameter (mm)	101.5
Moisture content (%)	24.1
Bulk density (Mg/m ³)	2.01
Dry density (Mg/m ³)	1.62
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.5
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	220
Strain at failure (%)	6.4
Maximum deviator stress (kPa)	257
Shear Stress Cu (kPa)	129

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	30

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

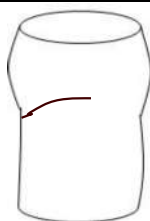
Location BH4
 Sample Ref 3
 Depth (m) 14.00-14.45
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.1
Diameter (mm)	102.5
Moisture content (%)	25.6
Bulk density (Mg/m ³)	2.01
Dry density (Mg/m ³)	1.60
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.9
Membrane correction (kPa)	0.7
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	280
Strain at failure (%)	10.4
Maximum deviator stress (kPa)	451
Shear Stress Cu (kPa)	225

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	130

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH4
 Sample Ref 4
 Depth (m) 17.00-17.45
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.2
Diameter (mm)	101.3
Moisture content (%)	21.2
Bulk density (Mg/m ³)	2.05
Dry density (Mg/m ³)	1.69
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.0
Membrane correction (kPa)	1.1
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	340
Strain at failure (%)	19.8
Maximum deviator stress (kPa)	424
Shear Stress Cu (kPa)	212

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	130

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH4
Sample Ref 5
Depth (m) 20.00-20.45
Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.6
Diameter (mm)	102.4
Moisture content (%)	26.2
Bulk density (Mg/m ³)	1.93
Dry density (Mg/m ³)	1.53
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.4
Membrane correction (kPa)	0.8
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	400
Strain at failure (%)	12.4
Maximum deviator stress (kPa)	269
Shear Stress Cu (kPa)	134

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	200

Tested by SB

Checked and Approved by

S Burke - Senior Technician
02/02/2022

Project Number:

GEO / 34598

Project Name:

**ASHLEY ROAD DEPOT
J21294**

UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

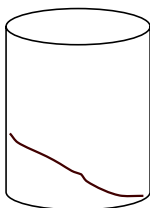
Location BH7
 Sample Ref 1
 Depth (m) 6.50-6.95
 Sample Type U

Description:

Very stiff fissured dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	203.4
Diameter (mm)	102.4
Moisture content (%)	28.4
Bulk density (Mg/m ³)	1.93
Dry density (Mg/m ³)	1.50
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	203.4
Membrane correction (kPa)	0.3
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	130
Strain at failure (%)	3.9
Maximum deviator stress (kPa)	167
Shear Stress Cu (kPa)	84

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	60

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

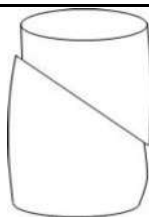
Location BH7
 Sample Ref 2
 Depth (m) 9.50-9.95
 Sample Type U

Description:

Very stiff fissured brown CLAY with rare medium gravel.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.3
Diameter (mm)	101.4
Moisture content (%)	31.4
Bulk density (Mg/m ³)	1.93
Dry density (Mg/m ³)	1.47
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.3
Membrane correction (kPa)	0.5
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	190
Strain at failure (%)	7.4
Maximum deviator stress (kPa)	159
Shear Stress Cu (kPa)	79

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	65

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH7
 Sample Ref 3
 Depth (m) 12.50-12.95
 Sample Type U

Description:

Very stiff dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.8
Diameter (mm)	101.9
Moisture content (%)	30.4
Bulk density (Mg/m ³)	1.95
Dry density (Mg/m ³)	1.49
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.7
Membrane correction (kPa)	0.9
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	250
Strain at failure (%)	14.4
Maximum deviator stress (kPa)	157
Shear Stress Cu (kPa)	78

Mode of failure

Orientation of the sample

Vertical

Distance from top of tube mm

95

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

Location BH7
 Sample Ref 4
 Depth (m) 15.50-15.95
 Sample Type U

Description:

Very stiff grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	201.5
Diameter (mm)	102.6
Moisture content (%)	22.8
Bulk density (Mg/m ³)	2.02
Dry density (Mg/m ³)	1.64
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	201.3
Membrane correction (kPa)	0.6
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	30
Strain at failure (%)	8.9
Maximum deviator stress (kPa)	369
Shear Stress Cu (kPa)	185

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	120

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



UNCONSOLIDATED UNDRAINED TRIAXIAL COMPRESSION

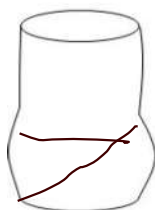
Location BH7
 Sample Ref 5
 Depth (m) 18.50-18.95
 Sample Type U

Description:

Very stiff dark grey silty CLAY.

Specimen Details

Specimen conditions	Undisturbed
Length (mm)	202.0
Diameter (mm)	102.0
Moisture content (%)	21.9
Bulk density (Mg/m ³)	1.98
Dry density (Mg/m ³)	1.62
Test Details	
Latex membrane thickness (mm)	0.3
Specimen height prior to shearing (mm)	202.0
Membrane correction (kPa)	1.0
Mean rate of shear (%/min)	2.0
Cell pressure (kPa)	370
Strain at failure (%)	16.3
Maximum deviator stress (kPa)	386
Shear Stress Cu (kPa)	193

Mode of failure

Orientation of the sample	Vertical
Distance from top of tube mm	40

Tested by SB

Checked and Approved by

S Burke - Senior Technician
 02/02/2022

Project Number:

GEO / 34598

Project Name:

ASHLEY ROAD DEPOT
J21294



® GEOLABS	Client		Geotechnical & Environmental Associates Limited		TEST RESTRICTION	
	Project No.		34598			
	Project Name		ASHLEY ROAD DEPOT			

The following tests have been scheduled on the above project and **CANNOT** be performed for the reason stated. If alternative samples are available for the restricted tests, please supply details.

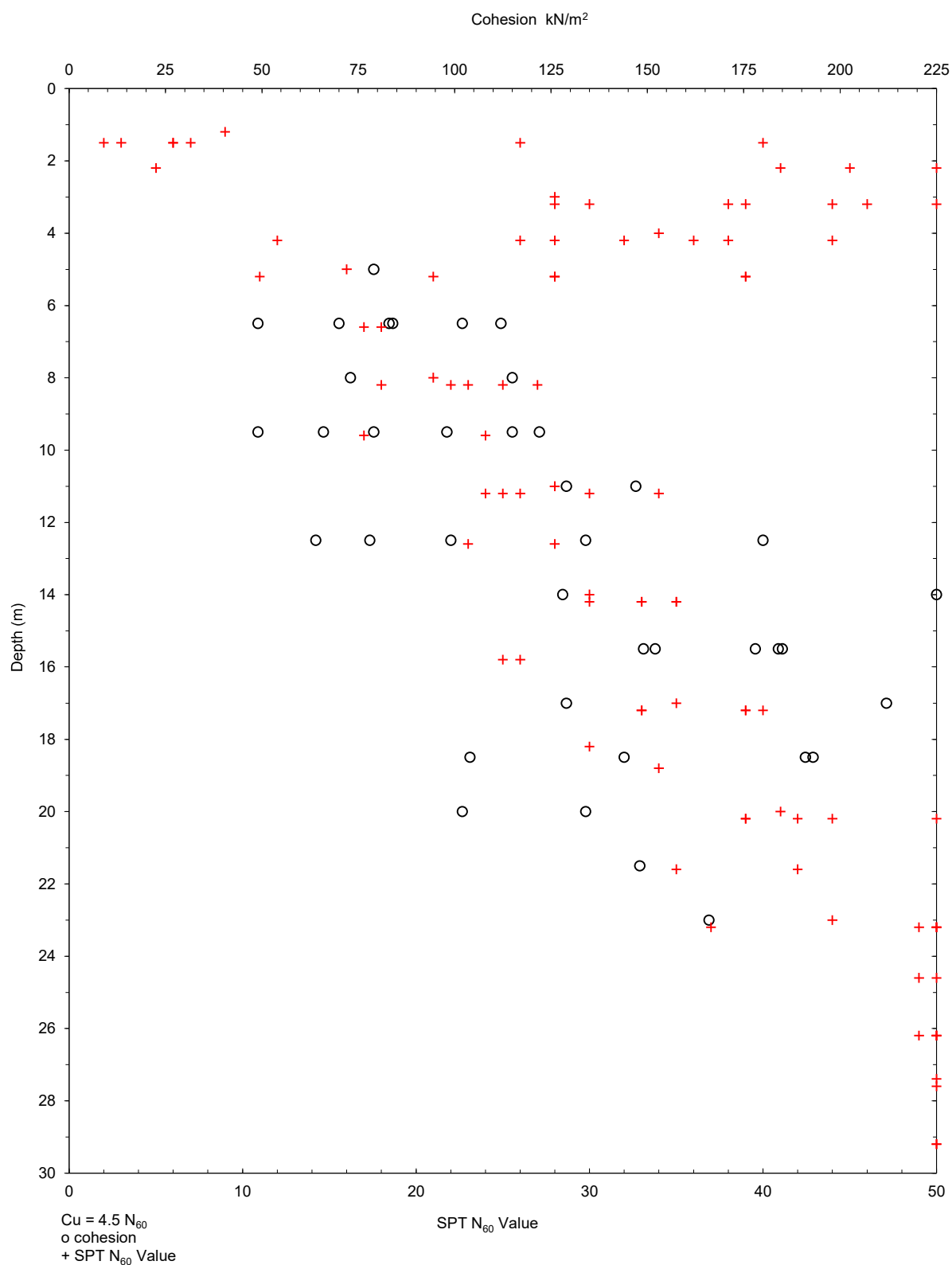
Laboratory ID	BH / TP No.	Sample Ref.	Depth (m)	Type	Test(s) Scheduled			Reason for Restriction	Description
425442	BH1		2.00	D		UU TXL		Sample provided in a bag broken up. Not suitable for testing.	Soft brown sandy CLAY with occasional fine to medium gravel.
Comments / remarks					Test restriction raised by 				

Site Ashley Road Depot, Ashley Road, London

Client Haringey Council

Engineer Civic Engineers

Job Number
J21294

Sheet
1 / 1




In Situ California Bearing Ratio (CBR)

Job Ref 31192
CBR No. CBR1

Site Name Ashley Road Depot, Ashley Road, Tottenham N17 9AZ
Depth m 0.40
Project No. J21294 Client GEA Date of Test 07/12/2021

Soil Description Reddish brown sandy GRAVEL (gravel comprising of fmc brick fragments)

Test Method BS1377 : Part 9 : 1990, clause 4.3 CBR Test Number 1

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

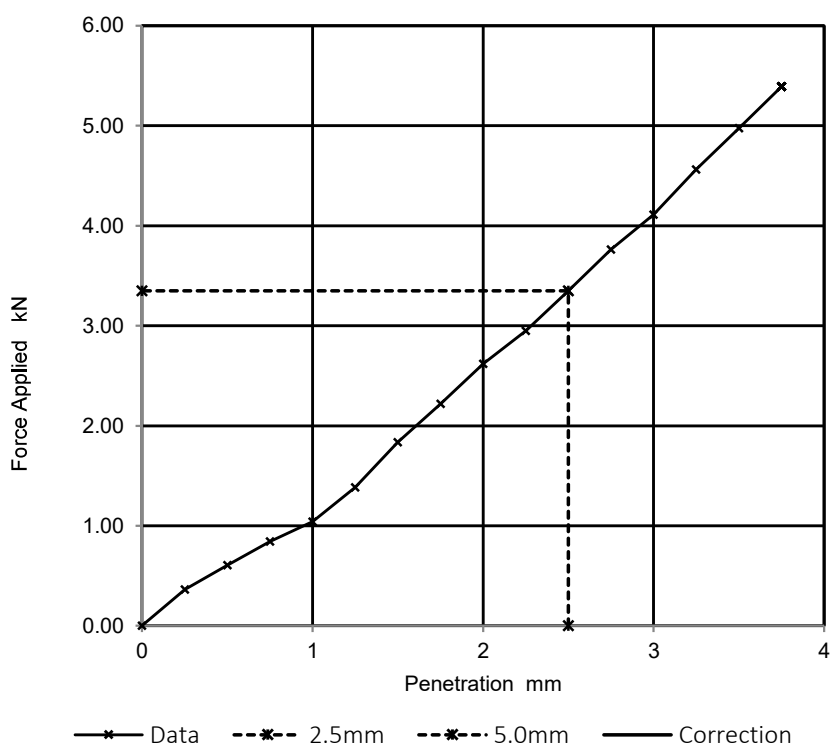
Rate of Strain 1.00 mm/min
Mass of Surcharge 4.5 kg
Proving Ring Factor 7.14 N/div

Temperature 5 °C
Environmental Conditions Overcast, slightly rain

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	51	0.36
0.50	85	0.61
0.75	118	0.84
1.00	146	1.04
1.25	194	1.39
1.50	257	1.83
1.75	311	2.22
2.00	367	2.62
2.25	413	2.95
2.50	469	3.35
2.75	527	3.76
3.00	576	4.11
3.25	639	4.56
3.50	697	4.98
3.75	755	5.39
4.00		
4.25		
4.50		
4.75		
5.00		
5.25		
5.50		
5.75		
6.00		
6.25		
6.50		
6.75		
7.00		
7.25		
7.50		

Force versus Penetration Plot



Remarks

Maximum kentledge reached

Results

Curve correction applied	CBR Values, %			Moisture Content
	Penetration		CBR Value	
	2.5mm	5mm		%
No	25	-	25	20



Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU

Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 14/12/2021



In Situ California Bearing Ratio (CBR)

Job Ref 31192
CBR No. CBR1

Site Name Ashley Road Depot, Ashley Road, Tottenham N17 9AZ
Depth m 0.60
Project No. J21294 Client GEA Date of Test 07/12/2021

Soil Description Brown gravelly SAND (gravel is fmc and sub-angular to rounded)

Test Method BS1377 : Part 9 : 1990, clause 4.3 CBR Test Number 2

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

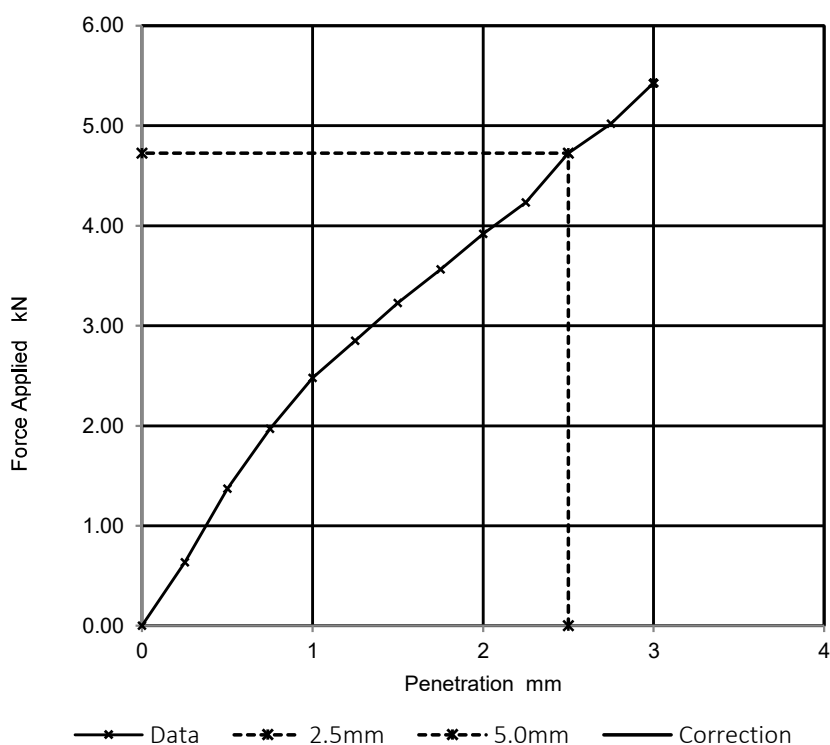
Rate of Strain 1.00 mm/min
Mass of Surcharge 4.5 kg
Proving Ring Factor 7.14 N/div

Temperature 5 °C
Environmental Conditions Overcast, slightly rain

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	89	0.64
0.50	192	1.37
0.75	276	1.97
1.00	347	2.48
1.25	399	2.85
1.50	452	3.23
1.75	499	3.56
2.00	549	3.92
2.25	593	4.23
2.50	662	4.73
2.75	703	5.02
3.00	760	5.43
3.25		
3.50		
3.75		
4.00		
4.25		
4.50		
4.75		
5.00		
5.25		
5.50		
5.75		
6.00		
6.25		
6.50		
6.75		
7.00		
7.25		
7.50		

Force versus Penetration Plot



Remarks

Maximum kentledge reached

Results

Curve correction applied	CBR Values, %			Moisture Content
	Penetration		CBR Value	
	2.5mm	5mm		%
No	36	-	36	26



Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU

Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 14/12/2021



In Situ California Bearing Ratio (CBR)

Job Ref 31192
CBR No. CBR2

Site Name Ashley Road Depot, Ashley Road, Tottenham N17 9AZ Depth m 0.40

Project No. J21294 Client GEA Date of Test 07/12/2021

Soil Description Dark grey sandy GRAVEL with frequent clinker and metal fragments (gravel is fmc and sub-angular)

Test Method BS1377 : Part 9 : 1990, clause 4.3 CBR Test Number 3

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

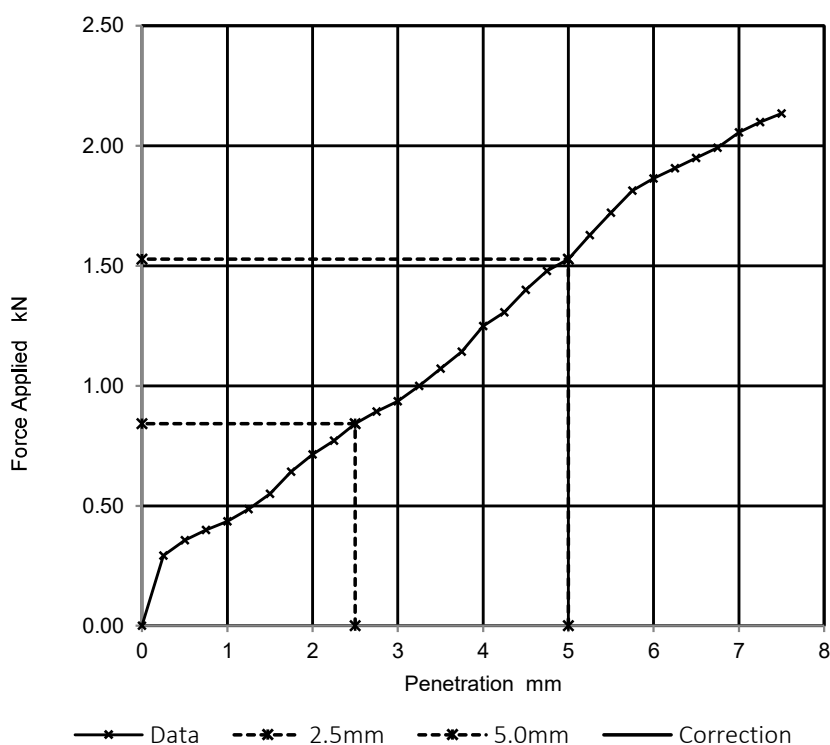
Rate of Strain 1.00 mm/min
Mass of Surcharge 4.5 kg
Proving Ring Factor 7.14 N/div

Temperature 5 °C
Environmental Conditions Overcast, slightly rain

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	41	0.29
0.50	50	0.36
0.75	56	0.40
1.00	61	0.44
1.25	68	0.49
1.50	77	0.55
1.75	90	0.64
2.00	100	0.71
2.25	108	0.77
2.50	118	0.84
2.75	125	0.89
3.00	131	0.94
3.25	140	1.00
3.50	150	1.07
3.75	160	1.14
4.00	175	1.25
4.25	183	1.31
4.50	196	1.40
4.75	207	1.48
5.00	214	1.53
5.25	228	1.63
5.50	241	1.72
5.75	254	1.81
6.00	261	1.86
6.25	267	1.91
6.50	273	1.95
6.75	279	1.99
7.00	288	2.06
7.25	294	2.10
7.50	299	2.13

Force versus Penetration Plot



Remarks

Results

Curve correction applied	CBR Values, %			Moisture Content
	Penetration		CBR Value	
	2.5mm	5mm		%
No	6.4	7.6	7.6	22



Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU

Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 14/12/2021



In Situ California Bearing Ratio (CBR)

Job Ref	31192
CBR No.	CBR2

Site Name	Ashley Road Depot, Ashley Road, Tottenham N17 9AZ			Depth m	0.60
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Project No.	J21294	Client	GEA	Date of Test	07/12/2021
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Soil Description	Dark grey sandy GRAVEL with frequent clinker and metal fragments (gravel is fmc and sub-angular)				
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Test Method	BS1377 : Part 9 : 1990, clause 4.3	CBR Test Number	4
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Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

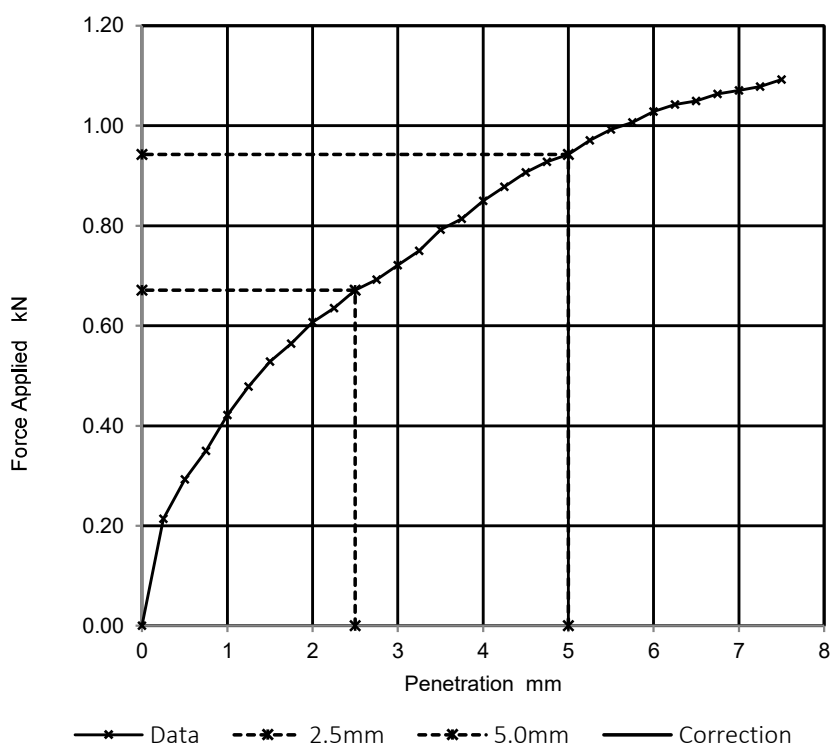
Rate of Strain	1.00	mm/min
Mass of Surcharge	4.5	kg
Proving Ring Factor	7.14	N/div

Temperature	5	0C
Environmental Conditions	Overcast, slightly rain	

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	30	0.21
0.50	41	0.29
0.75	49	0.35
1.00	59	0.42
1.25	67	0.48
1.50	74	0.53
1.75	79	0.56
2.00	85	0.61
2.25	89	0.64
2.50	94	0.67
2.75	97	0.69
3.00	101	0.72
3.25	105	0.75
3.50	111	0.79
3.75	114	0.81
4.00	119	0.85
4.25	123	0.88
4.50	127	0.91
4.75	130	0.93
5.00	132	0.94
5.25	136	0.97
5.50	139	0.99
5.75	141	1.01
6.00	144	1.03
6.25	146	1.04
6.50	147	1.05
6.75	149	1.06
7.00	150	1.07
7.25	151	1.08
7.50	153	1.09

Force versus Penetration Plot



Remarks

Results

Curve correction applied	CBR Values, %			Moisture Content
	Penetration		CBR Value	
	2.5mm	5mm		%
No	5.1	4.7	5.1	24



Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU

Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 14/12/2021



In Situ California Bearing Ratio (CBR)

Job Ref 31192
CBR No. CBR3

Site Name Ashley Road Depot, Ashley Road, Tottenham N17 9AZ

Depth m 0.60

Project No. J21294 Client GEA Date of Test 07/12/2021

Soil Description Brown sandy GRAVEL with occasional lumps of brown silty clay (gravel is fmc and sub-angular to sub-rounded)

Test Method BS1377 : Part 9 : 1990, clause 4.3 CBR Test Number 5

Note: Test only applicable when maximum particle size beneath the plunger does not exceed 20mm

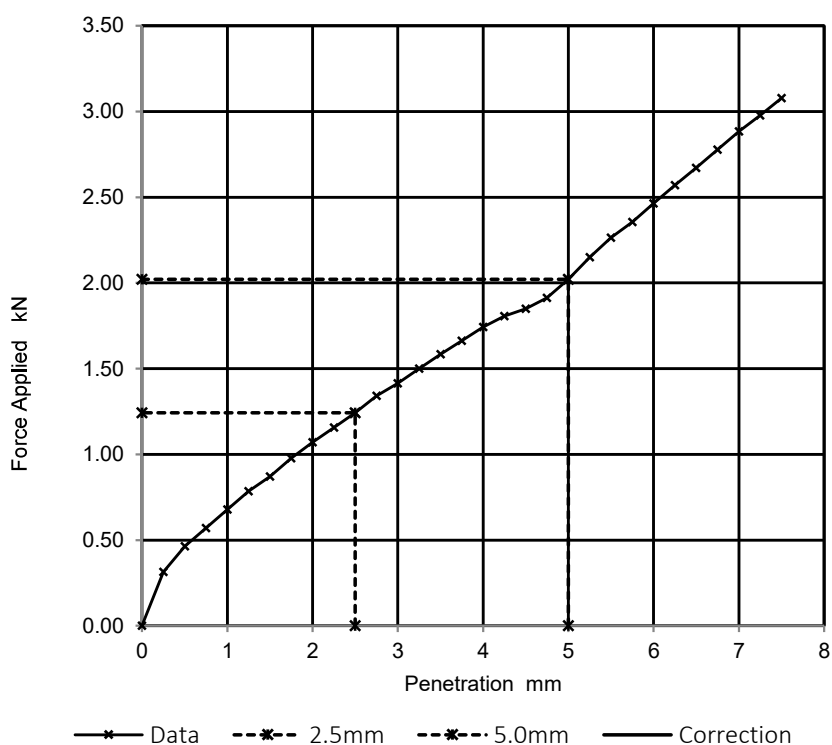
Rate of Strain 1.00 mm/min
Mass of Surcharge 4.5 kg
Proving Ring Factor 7.14 N/div

Temperature 5 °C
Environmental Conditions Overcast, slightly rain

Readings

Penetration of Plunger mm	Force on Plunger	
	Dial Reading	Load kN
0.00	0	0.00
0.25	44	0.31
0.50	65	0.46
0.75	80	0.57
1.00	95	0.68
1.25	110	0.79
1.50	122	0.87
1.75	137	0.98
2.00	150	1.07
2.25	162	1.16
2.50	174	1.24
2.75	188	1.34
3.00	198	1.41
3.25	210	1.50
3.50	222	1.59
3.75	233	1.66
4.00	244	1.74
4.25	253	1.81
4.50	259	1.85
4.75	268	1.91
5.00	283	2.02
5.25	301	2.15
5.50	317	2.26
5.75	330	2.36
6.00	345	2.46
6.25	360	2.57
6.50	374	2.67
6.75	389	2.78
7.00	404	2.88
7.25	417	2.98
7.50	431	3.08

Force versus Penetration Plot



Remarks

Results

Curve correction applied	CBR Values, %			Moisture Content
	Penetration		CBR Value	
	2.5mm	5mm		%
No	9.4	10	10	13



Test Report by K4 SOILS LABORATORY
Unit 8 Olds Close Olds Approach
Watford Herts WD18 9RU

Tel: 01923 711 288
Email: James@k4soils.com

Checked and Approved

Initials: J.P

Date: 14/12/2021

Soakage Test Results

Site Ashley Road Depot, Ashley Road, Tottenham

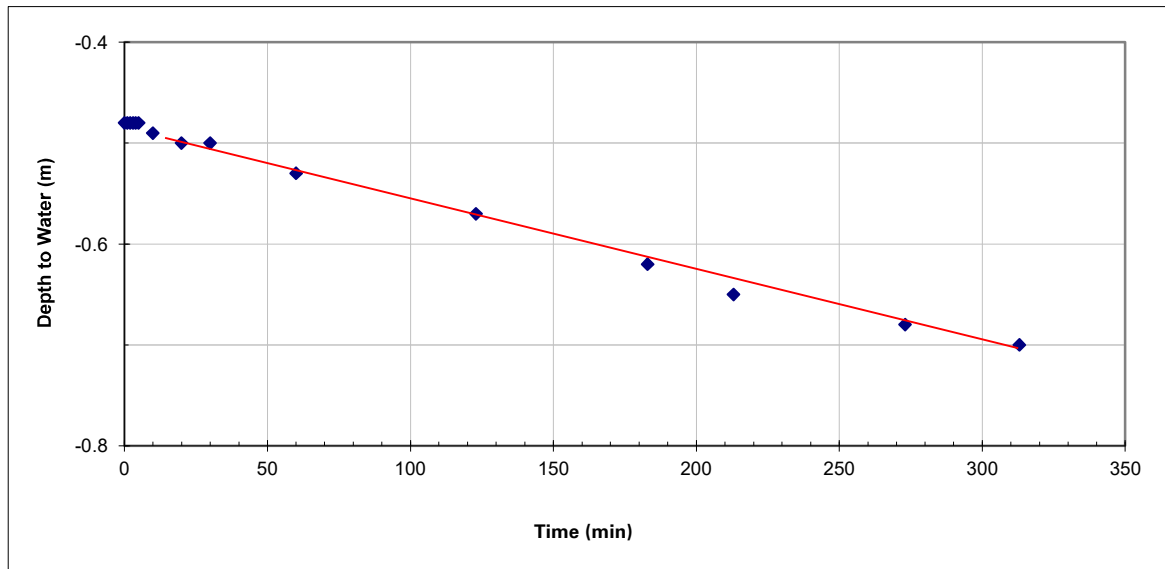
Client Haringey Council

Engineer Madlins

Job Number
J21294

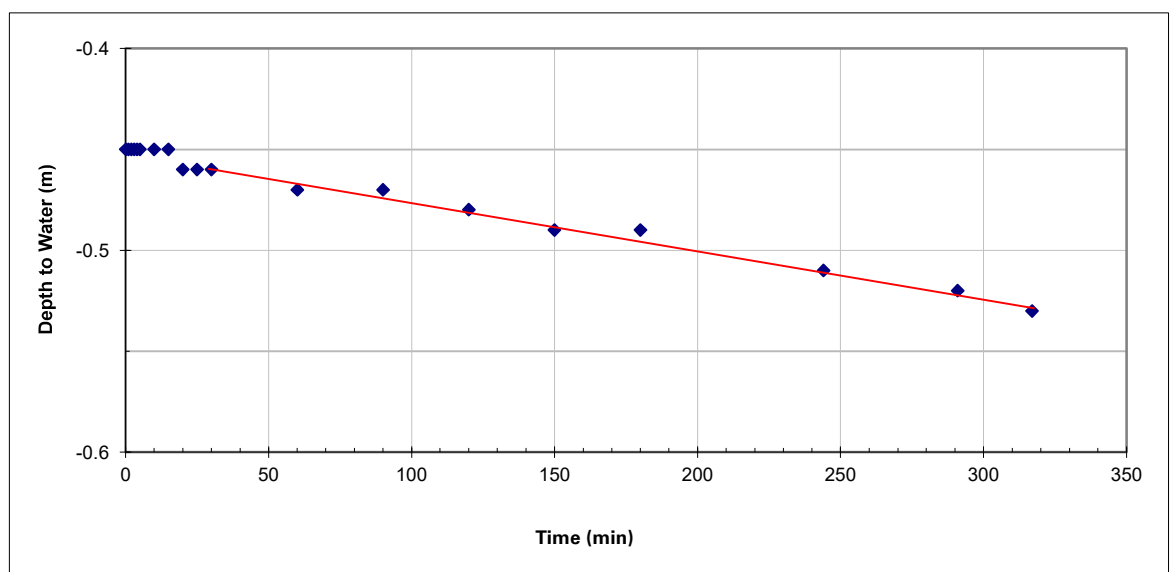
Sheet
1 / 2

Trial Pit No. IT1 Soakage Test No. 1
Pit Length (m) 1.00 Pit Width (m) 1.00 Pit Depth (m) 1.00



Design Soakage Rate 4.3E-06 m/s (based on linear portion of graph as shown)
0.37 m/day

Trial Pit No. IT1 Soakage Test No. 2
Pit Length (m) 1.00 Pit Width (m) 1.00 Pit Depth (m) 1.00



Design Soakage Rate 1.3E-06 m/s (based on linear portion of graph as shown)
0.12 m/day

Soakage Test Results

Site Ashley Road Depot, Ashley Road, Tottenham

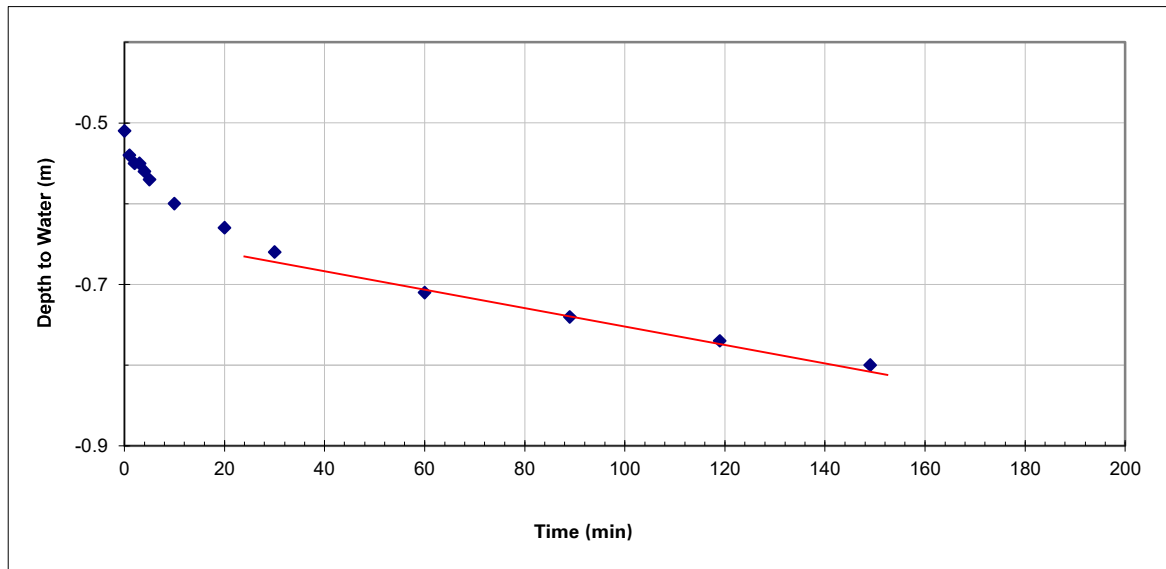
Client Haringey Council

Engineer Madlins

Job Number
J21294

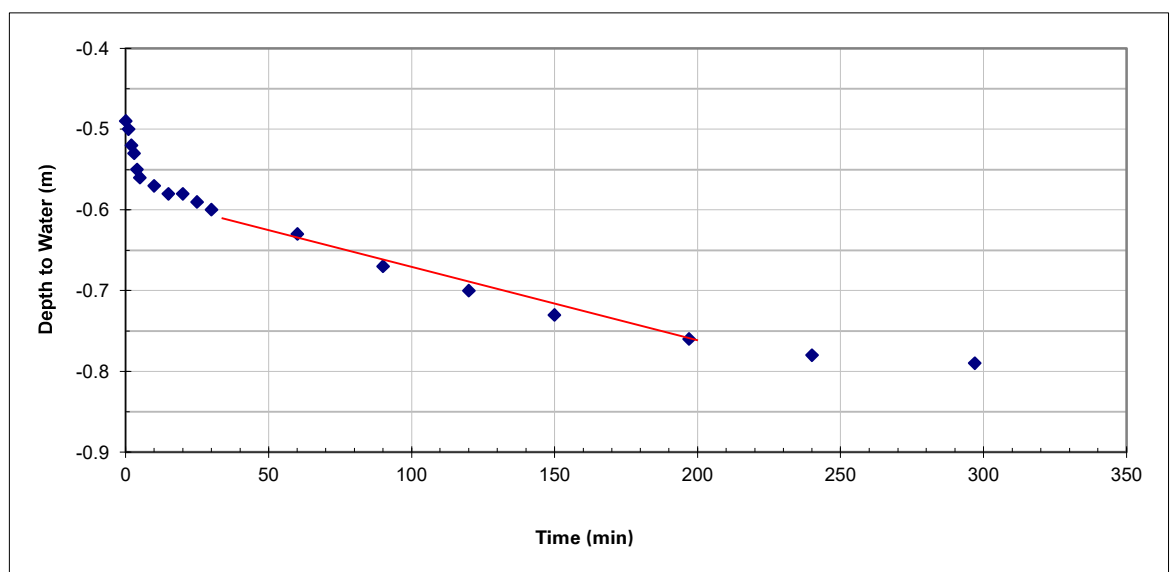
Sheet
1 / 2

Trial Pit No. IT2 Soakage Test No. 1
Pit Length (m) 1.00 Pit Width (m) 1.00 Pit Depth (m) 1.00



Design Soakage Rate 9.4E-06 m/s (based on linear portion of graph as shown)
0.81 m/day

Trial Pit No. IT2 Soakage Test No. 2
Pit Length (m) 1 Pit Width (m) 1 Pit Depth (m) 1



Design Soakage Rate 6.4E-06 m/s (based on linear portion of graph as shown)
0.55 m/day

Soakage Test Results

Site	Ashley Road Depot, Ashley Road, Tottenham
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Client	Haringey Council
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Engineer Madlins

Job Number	J21294
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Sheet
1 / 2

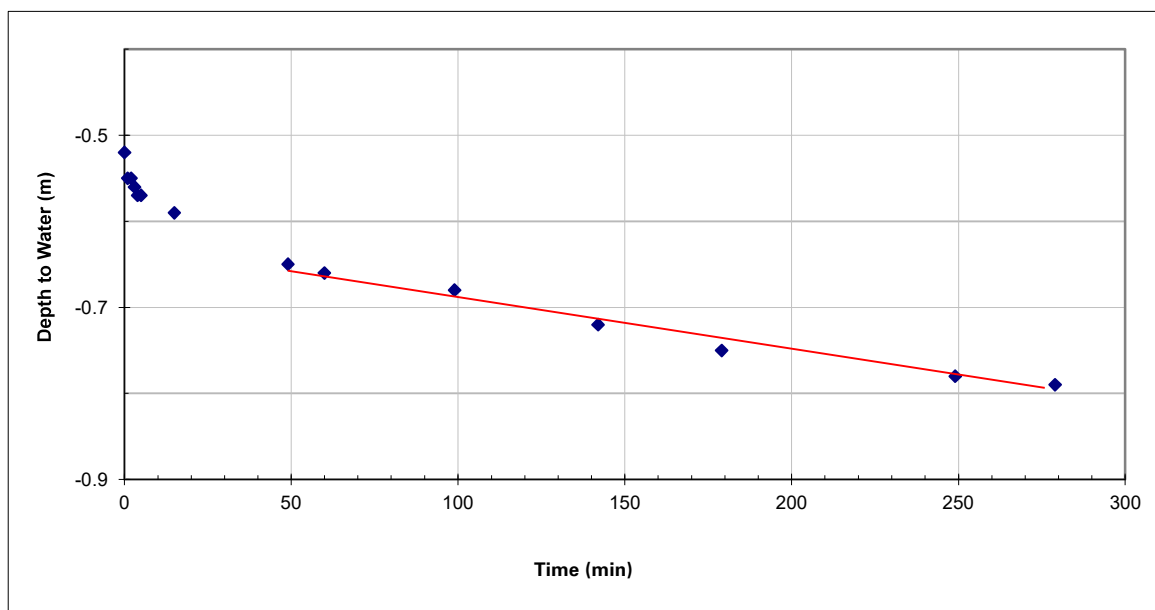
Trial Pit No. IT2

Soakage Test No. 3

Pit Length (m)	1.00
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Pit Width (m)	1.00
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Pit Depth (m)	1.00
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Design Soakage Rate	4.5E-06	m/s	(based on linear portion of graph as shown)
	0.39	m/day	

Soakage Test Results

Site Ashley Road Depot, Ashley Road, Tottenham

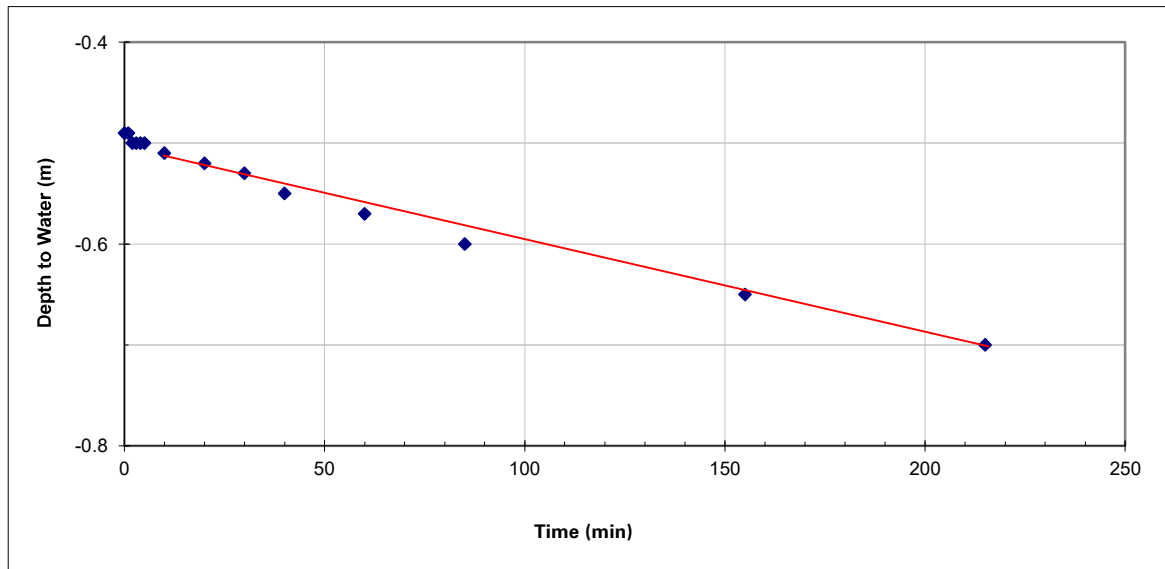
Client Haringey Council

Engineer Madlins

Job Number
J21294

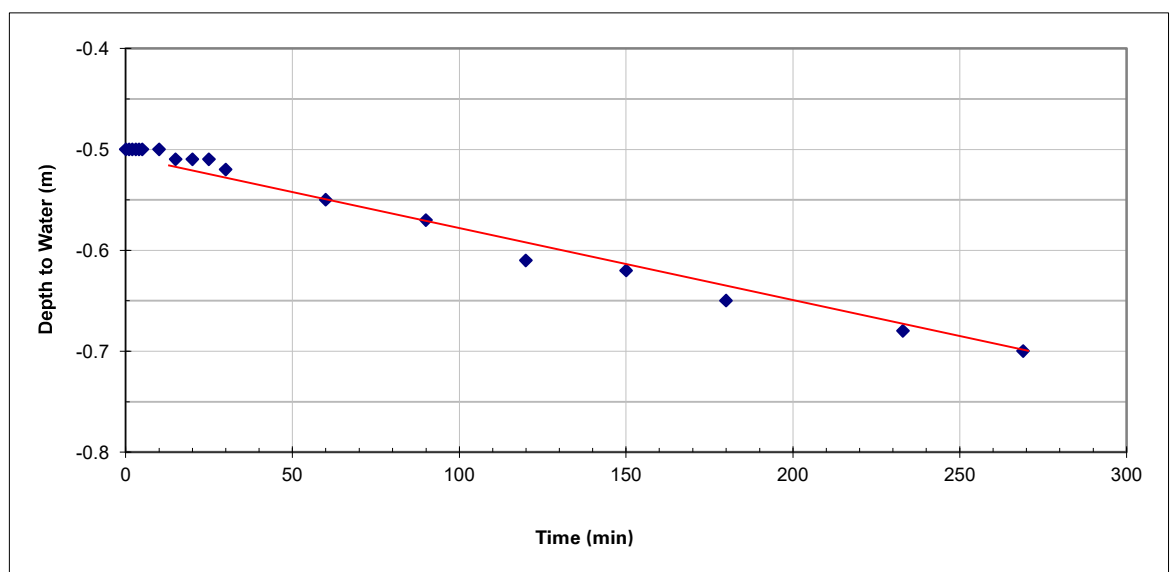
Sheet
1 / 2

Trial Pit No. IT3 Soakage Test No. 1
Pit Length (m) 1.00 Pit Width (m) 1.00 Pit Depth (m) 1.00



Design Soakage Rate 6.3E-06 m/s (based on linear portion of graph as shown)
0.54 m/day

Trial Pit No. IT3 Soakage Test No. 2
Pit Length (m) 1.00 Pit Width (m) 1.00 Pit Depth (m) 1.00



Design Soakage Rate 4.7E-06 m/s (based on linear portion of graph as shown)
0.41 m/day

Soakage Test Results

Site Ashley Road Depot, Ashley Road, Tottenham

Client Haringey Council

Engineer Madlins

Job Number
J21294

Sheet
1 / 2

Trial Pit No. IT3

Soakage Test No. 3

Pit Length (m)

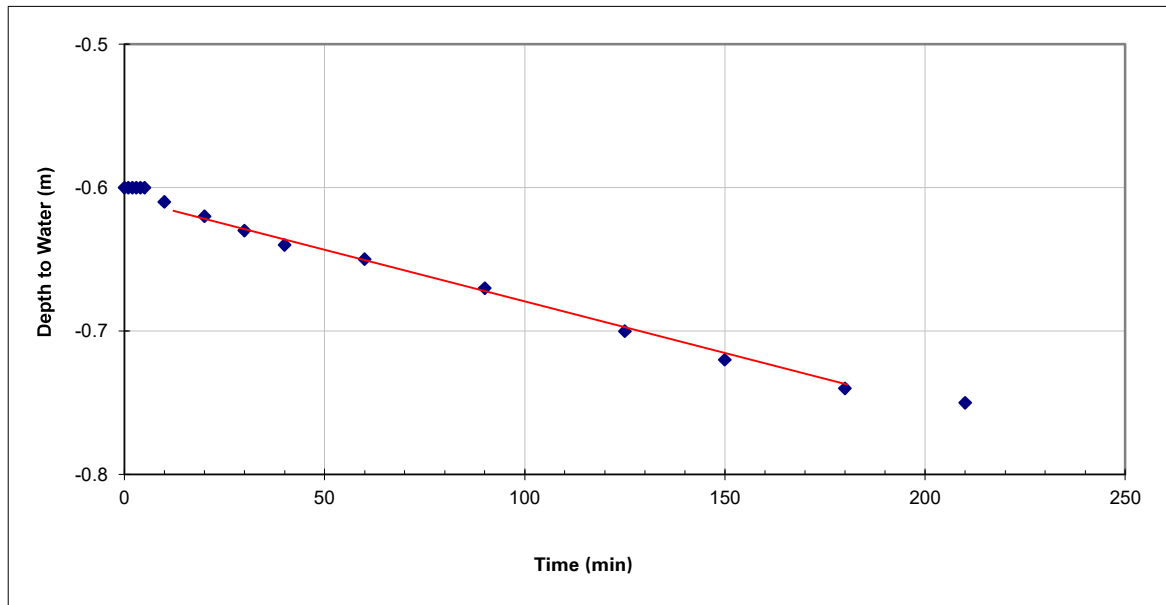
1.00

Pit Width (m)

1.00

Pit Depth (m)

1.00



Design Soakage Rate

4.7E-06

m/s

(based on linear portion of graph as shown)

0.41

m/day