

# SPT Calibration Report

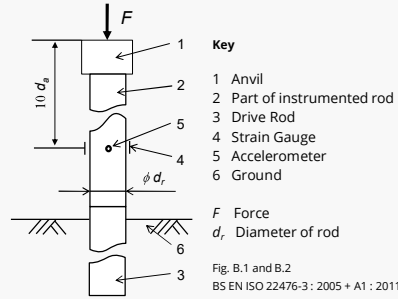
## Hammer Energy Measurement Report

Type of Hammer: SPT HAMMER  
Client: DAVE ROSENWOLD  
Test No: EQU2126

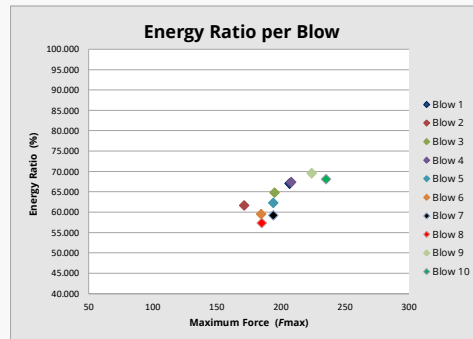
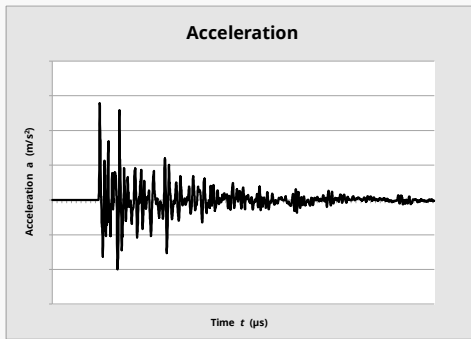
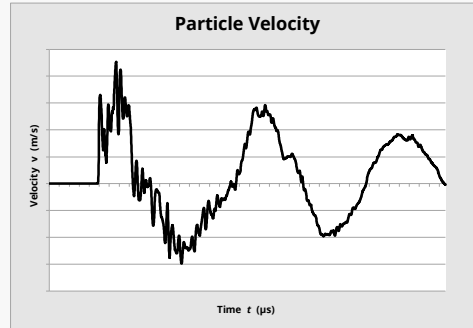
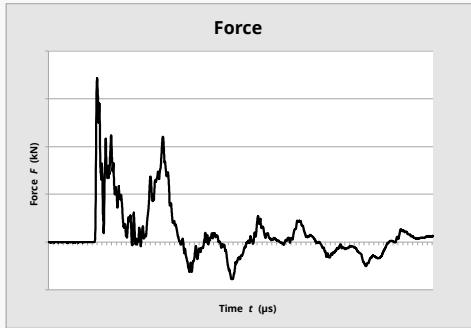
Test Depth (m): 8.70  
Mass of hammer:  $m = 63.5\text{kg}$   
Falling height:  $h = 0.76\text{m}$   
 $E_{\text{theor}} = m \times g \times h = 473\text{J}$

## Characteristics of the instrumented rod

Diameter:  $d_r = 0.052\text{ m}$   
Length of instrumented rod: 0.558 m  
Area:  $A = 11.61\text{ cm}^2$   
Modulus:  $E_s = 206843\text{ MPa}$



DATE OF TEST	VALID UNTIL	HAMMER ID
03/08/2018	03/08/2019	DR02



Observations:

1.

$E_{\text{meas}} = 0.300\text{ kN-m}$   
 $E_{\text{theor}} = 0.473\text{ kN-m}$

Energy Ratio =  $\frac{E_{\text{meas}}}{E_{\text{theor}}}$  **63.47%**  
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Equipe SPT Analyzer Operators: AF

Prepared by: *[Signature]* Checked by: *[Signature]* Date: 13/08/2018



## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH01	1.50	150		dry	4,3	150	4,9,4,6		N=23	GEH3-2019	02/02/2018	47	18	SPT(c)
	2.50	150	2.50	dry	3,8	150	6,5,5,5		N=21	GEH3-2019	02/02/2018	47	16	SPT(c)
	3.50	150	3.50	dry	2,2	150	2,3,3,4		N=12	GEH3-2019	02/02/2018	47	9	SPT(c)
	9.50	150	6.80	dry	1,3	150	4,4,5,6		N=19	GEH3-2019	02/02/2018	47	15	
	12.50	150	6.80	dry	2,4	150	4,5,6,8		N=23	GEH3-2019	02/02/2018	47	18	
	15.50	150	6.80	dry	4,5	150	6,7,8,9		N=30	GEH3-2019	02/02/2018	47	24	
	18.50	150	6.80	dry	4,6	150	6,7,9,10		N=32	GEH3-2019	02/02/2018	47	25	
	21.50	150	6.80	dry	5,6	150	7,9,10,12		N=38	GEH3-2019	02/02/2018	47	30	
	24.50	150	6.80	dry	5,7	150	8,10,12,14		N=44	GEH3-2019	02/02/2018	47	34	
	27.50	150	6.80	dry	5,6	150	9,11,14,16		N=50	GEH3-2019	02/02/2018	47	39	
	30.50	150	6.80	dry	6,6	150	9,10,17,14+	285	N=53*	GEH3-2019	02/02/2018	47	42	
	33.50	150	6.80	dry	7,9	150	15,16,19	225	N=67*	GEH3-2019	02/02/2018	47	52	
BH02	1.20			DRY	2,2	150	2,3,2,3		N=10	EQU2136-2018	26/09/2018	87.47	15	No Recovery
	2.00	150	1.50	DRY	2,2	150	3,2,3,3		N=11	EQU2136-2018	26/09/2018	87.47	16	
	9.50	150	1.50	DRY	3,4	150	5,6,6,7		N=24	EQU2136-2018	26/09/2018	87.47	35	
	12.50	150	5.00	DRY	3,5	150	6,8,8,9		N=31	EQU2136-2018	26/09/2018	87.47	45	
	15.50	150	5.00	DRY	3,6	150	7,8,9,10		N=34	EQU2136-2018	26/09/2018	87.47	50	

**Notes:**

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005, including amendment A1 (2011).
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

 <b>RSK Environment Ltd</b> 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By		Date	Contract Ref:
	<b>CSIBERRY</b>		<b>15.03.19</b>	<b>371654</b>
Contract:			Page: <b>1</b> of <b>10</b>	
<b>Ugly Brown Building</b>				



## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH02	18.50	150	5.00	DRY	5,6	150	8,9,11,12		N=40	EQU2136-2018	26/09/2018	87.47	58	
	21.50	150	5.00	DRY	5,5	150	7,8,10,13		N=38	EQU2136-2018	26/09/2018	87.47	55	
	24.50	150	5.00	DRY	5,7	150	10,11,12,14		N=47	EQU2136-2018	26/09/2018	87.47	69	
	27.80	150	5.00	DRY	9,10	150	11,13,15,11		N=50	EQU2136-2018	26/09/2018	87.47	73	
BH03	6.50	150	3.00	dry	6	150	5,5,5,7		N=22	HD02-2018	14/05/2018	72	26	
	9.50	150	7.50	dry	6	150	5,5,6,6		N=22	HD02-2018	14/05/2018	72	26	
	12.50	150	7.50	dry	9	150	5,7,7,8		N=27	HD02-2018	14/05/2018	72	32	
	15.50	150	7.50	dry	10	150	7,8,8,9		N=32	HD02-2018	14/05/2018	72	38	
	18.50	150	7.50	dry	11	150	7,9,11,12		N=39	HD02-2018	14/05/2018	72	47	
	21.50	150	7.50	dry	12	150	7,9,11,12		N=39	HD02-2018	14/05/2018	72	47	
	24.50	150	7.50	dry	15	150	9,10,10,13		N=42	HD02-2018	14/05/2018	72	50	
	27.50	150	7.50	dry	18	150	12,14,16,17		N=59	HD02-2018	14/05/2018	72	71	
	30.50	150	7.50	dry	14	150	12,15,15,16		N=58	HD02-2018	14/05/2018	72	70	
	33.50	150	7.50	dry	17	150	11,15,18,21		N=65	HD02-2018	14/05/2018	72	78	
	36.50	150	7.50	dry	25	50	50+	100	N=150*	HD02-2018	14/05/2018	72	180	
	39.50	150	7.50	dry	25	50	50	75	N=200*	HD02-2018	14/05/2018	72	240	

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## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH04	1.50	200	1.50	dry	2,6	150	4,4,4,3		N=15	GEH3-2019	02/02/2018	47	12	SPT(c)
	2.50	200	2.50	dry	50	45		0	NP	GEH3-2019	02/02/2018	47		SPT(c)
	10.50	150	6.60	dry	2,3	150	4,5,5,7		N=21	GEH3-2019	02/02/2018	47	16	
	13.50	150	6.60	dry	4,5	150	6,7,7,9		N=29	GEH3-2019	02/02/2018	47	23	
	16.50	150	6.60	dry	4,6	150	7,7,9,10		N=33	GEH3-2019	02/02/2018	47	26	
	19.50	150	6.60	dry	5,6	150	6,8,9,11		N=34	GEH3-2019	02/02/2018	47	27	
	22.50	150	6.60	dry	6,7	150	9,10,11,14		N=44	GEH3-2019	02/02/2018	47	34	
BH05	1.30	150		dry	2,2	150	2,2,3,3		N=10	EQU2136-2018	26/09/2018	87.47	15	
	8.50	150	1.50	dry	2,4	150	5,9,5,5		N=24	EQU2136-2018	26/09/2018	87.47	35	
	11.50	150	7.75	dry	3,3	150	4,5,6,6		N=21	EQU2136-2018	26/09/2018	87.47	31	
	14.50	150	7.75	dry	3,5	150	6,7,8,10		N=31	EQU2136-2018	26/09/2018	87.47	45	
	17.50	150	7.75	dry	3,6	150	8,9,10,12		N=39	EQU2136-2018	26/09/2018	87.47	57	
	20.50	150	7.75	dry	4,6	150	8,10,12,13		N=43	EQU2136-2018	26/09/2018	87.47	63	
	23.50	150	7.75	dry	4,6	150	9,10,10,13		N=42	EQU2136-2018	26/09/2018	87.47	61	
	26.50	150	7.75	dry	5,9	150	11,12,14,14		N=51	EQU2136-2018	26/09/2018	87.47	74	
	29.50	150	7.75	dry	5,8	150	10,12,15,13+	285	N=53*	EQU2136-2018	26/09/2018	87.47	77	
BH05	32.50	150	7.75	dry	7,10	150	11,13,17,9+	255	N=59*	EQU2136-2018	26/09/2018	87.47	86	

**Notes:**

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## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH06	1.50	150	1.50	dry	1,0	150	1,0,1,0		N=2	EQU2136-2018	26/09/2018	87.47	3	SPT(c)
	2.50	150	1.50	dry	1,0	150	0,0,0,0		N=0	EQU2136-2018	26/09/2018	87.47	0	SPT(c)
	9.00	150	7.50	dry	3,3	150	5,5,5,6		N=21	EQU2136-2018	26/09/2018	87.47	31	
	12.00	150	7.50	dry	3,5	150	6,7,8,8		N=29	EQU2136-2018	26/09/2018	87.47	42	
	15.00	150	7.50	dry	5,6	150	7,8,10,10		N=35	EQU2136-2018	26/09/2018	87.47	51	
	18.00	150	7.50	dry	5,7	150	8,9,11,12		N=40	EQU2136-2018	26/09/2018	87.47	58	
	21.00	150	7.50	dry	4,5	150	7,8,10,10		N=35	EQU2136-2018	26/09/2018	87.47	51	
	24.00	150	7.50	dry	5,7	150	9,11,12,13		N=45	EQU2136-2018	26/09/2018	87.47	66	
	27.00	150	7.50	dry	6,8	150	9,11,15,15+	290	N=52*	EQU2136-2018	26/09/2018	87.47	76	
	29.00	150	7.50	dry	7,10	150	11,14,16,9+	260	N=58*	EQU2136-2018	26/09/2018	87.47	85	
BH07	1.50				1,6	150	4,6,4,4		N=18	GEH3-2019	02/02/2018	47	14	SPT(c)
	2.50				2,6	150	5,5,4,3		N=17	GEH3-2019	02/02/2018	47	13	SPT(c)
	8.00				1,3	150	4,5,5,7		N=21	GEH3-2019	02/02/2018	47	16	
	11.00				2,4	150	5,6,7,8		N=26	GEH3-2019	02/02/2018	47	20	
	14.00				4,5	150	7,7,8,9		N=31	GEH3-2019	02/02/2018	47	24	
	17.00				4,6	150	7,9,9,10		N=35	GEH3-2019	02/02/2018	47	27	

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## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH07	20.00				5,6	150	7,9,10,12		N=38	GEH3-2019	02/02/2018	47	30	
	23.00				6,8	150	8,10,11,14		N=43	GEH3-2019	02/02/2018	47	34	
BH10	2.00				50	55		0	NP	GEH3-2019	02/02/2018	47		SPT(c)
	3.00				50	60		0	NP	GEH3-2019	02/02/2018	47		SPT(c)
	4.00				50	65		0	NP	GEH3-2019	02/02/2018	47		SPT(c)
	5.00				4,6	150	6,5,6,4		N=21	GEH3-2019	02/02/2018	47	16	
	5.50				1,3	150	4,4,5,6		N=19	GEH3-2019	02/02/2018	47	15	
	7.50				2,3	150	4,5,6,7		N=22	GEH3-2019	02/02/2018	47	17	
	9.50				3,4	150	5,6,6,8		N=25	GEH3-2019	02/02/2018	47	20	
	12.50				4,5	150	6,7,7,8		N=28	GEH3-2019	02/02/2018	47	22	
	15.50				4,6	150	7,7,8,9		N=31	GEH3-2019	02/02/2018	47	24	
	18.50				4,6	150	7,8,9,10		N=34	GEH3-2019	02/02/2018	47	27	
	21.50				5,6	150	8,9,11,12		N=40	GEH3-2019	02/02/2018	47	31	
	24.50				5,7	150	9,10,11,15		N=45	GEH3-2019	02/02/2018	47	35	
BH11	1.30	150		dry	1,1	150	2,1,2,1		N=6	EQU2136-2018	26/09/2018	87.47	9	SPT(c)
	8.00	150	8.00	dry	2,3	150	4,5,7,7		N=23	EQU2136-2018	26/09/2018	87.47	34	

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## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH11	11.00	150	8.00	dry	3,3	150	4,6,7,8		N=25	EQU2136-2018	26/09/2018	87.47	36	
	14.00	150	8.00	dry	4,5	150	7,8,10,10		N=35	EQU2136-2018	26/09/2018	87.47	51	
	17.00	150	8.00	dry	3,6	150	7,9,10,11		N=37	EQU2136-2018	26/09/2018	87.47	54	
	20.00	150	8.00	dry	5,7	150	8,10,10,13		N=41	EQU2136-2018	26/09/2018	87.47	60	
	23.00	150	8.00	dry	5,6	150	8,11,12,14		N=45	EQU2136-2018	26/09/2018	87.47	66	
	26.00	150	8.00	damp	7,8	150	10,12,14,14		N=50	EQU2136-2018	26/09/2018	87.47	73	
	29.00	125	27.00	dry	9,10	150	13,15,19	225	N=63*	EQU2136-2018	26/09/2018	87.47	92	
	32.00	125	27.00	dry	9,12	150	14,17,19+	210	N=71*	EQU2136-2018	26/09/2018	87.47	104	
	35.50	125	27.00	dry	8,12	150	15,18,17+	200	N=75*	EQU2136-2018	26/09/2018	87.47	109	
	37.50	125	27.00	dry	10,13	150	16,20,14+	180	N=83*	EQU2136-2018	26/09/2018	87.47	121	
	39.50	125	27.00	dry	13,12	105	25+,25+	100	N=150*	EQU2136-2018	26/09/2018	87.47	219	
BH12A	1.20			dry	2	150	1,0,1,2		N=4	HD02-2018	14/05/2018	72	5	SPT(c)
	2.00	150	1.50	dry	5	150	3,4,4,4		N=15	HD02-2018	14/05/2018	72	18	SPT(c)
	3.00	150	2.00	dry	4	150	2,1,1,2		N=6	HD02-2018	14/05/2018	72	7	SPT(c)
	11.00	150	3.00	dry	10	150	6,7,7,9		N=29	HD02-2018	14/05/2018	72	35	
	14.00	150	3.00	dry	12	150	7,9,10,10		N=36	HD02-2018	14/05/2018	72	43	
	17.00	150	3.00	dry	15	150	10,10,11,13		N=44	HD02-2018	14/05/2018	72	53	

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## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH12A	20.00	150	3.00	dry	14	150	11,11,12,14		N=48	HD02-2018	14/05/2018	72	58	
	23.00	150	3.00	dry	17	150	11,12,13,16		N=52	HD02-2018	14/05/2018	72	62	
	26.00	150	3.00	dry	19	150	12,14,14,17		N=57	HD02-2018	14/05/2018	72	68	
	29.00	150	3.00	dry	22	150	15,15,17,21		N=68	HD02-2018	14/05/2018	72	82	
BH13	1.20			dry	2,2	150	3,2,1,1		N=7	EQU2136-2018	26/09/2018	87.47	10	SPT(c)
	2.00	150	1.50	dry	2,1	150	2,1,2,1		N=6	EQU2136-2018	26/09/2018	87.47	9	SPT(c)
	5.00	200	5.00	4.00	3,3	150	2,2,3,3		N=10	EQU2136-2018	26/09/2018	87.47	15	SPT(c)
	7.00	150	5.00	dry	2,3	150	4,4,5,5		N=18	EQU2136-2018	26/09/2018	87.47	26	
	10.00	150	8.00	dry	4,4	150	5,7,8,8		N=28	EQU2136-2018	26/09/2018	87.47	41	
	13.00	150	8.00	dry	3,4	150	6,7,9,9		N=31	EQU2136-2018	26/09/2018	87.47	45	
	16.00	150	8.00	dry	5,5	150	7,8,9,11		N=35	EQU2136-2018	26/09/2018	87.47	51	
	19.00	150	8.00	dry	5,7	150	8,9,10,12		N=39	EQU2136-2018	26/09/2018	87.47	57	
	22.00	125	21.00	dry	6,7	150	9,10,12,13		N=44	EQU2136-2018	26/09/2018	87.47	64	
	25.00	125	21.00	dry	5,7	150	9,10,11,14		N=44	EQU2136-2018	26/09/2018	87.47	64	
	28.00	125	21.00	dry	6,9	150	10,12,15,13+	285	N=53*	EQU2136-2018	26/09/2018	87.47	77	
	31.00	125	21.00	dry	7,10	150	11,15,22	225	N=64*	EQU2136-2018	26/09/2018	87.47	93	
	32.50	125	21.00	dry	10,13	150	17,20,13+	195	N=77*	EQU2136-2018	26/09/2018	87.47	112	

**Notes:**

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005, including amendment A1 (2011).
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

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	<b>CSIBERRY</b>		<b>15.03.19</b>	
Contract: <b>Ugly Brown Building</b>			Page: <b>7 of 10</b> 	





## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
BH13	34.50	125	21.00	dry	9,14	150	18,23,9+	180	N=83*	EQU2136-2018	26/09/2018	87.47	121	
BH15	1.50				1,3	150	4,4,4,4		N=16	GEH3-2019	02/02/2018	47	13	SPT(c)
	2.50				2,1	150	1,1,1,2		N=5	GEH3-2019	02/02/2018	47	4	SPT(c)
	3.50				50	50		0	NP	GEH3-2019	02/02/2018	47		SPT(c)
	4.50				50	75		0	NP	GEH3-2019	02/02/2018	47		SPT(c)
	5.00				5,6	150	3,4,5,5		N=17	GEH3-2019	02/02/2018	47	13	SPT(c)
	7.00				2,4	150	4,5,6,6		N=21	GEH3-2019	02/02/2018	47	16	
	9.00				2,4	150	5,6,7,18		N=36	GEH3-2019	02/02/2018	47	28	
	12.00				3,4	150	5,6,8,8		N=27	GEH3-2019	02/02/2018	47	21	
	15.00				50	70		0	NP	GEH3-2019	02/02/2018	47		
	18.00				4,6	150	7,8,8,11		N=34	GEH3-2019	02/02/2018	47	27	
	21.00				5,6	150	8,10,11,13		N=42	GEH3-2019	02/02/2018	47	33	
	24.00				5,6	150	7,10,12,14		N=43	GEH3-2019	02/02/2018	47	34	
	27.00				6,8	150	9,11,12,15		N=47	GEH3-2019	02/02/2018	47	37	
	30.00				7,8	150	10,15,25	225	N=67*	GEH3-2019	02/02/2018	47	52	
WS01	1.20				2,1	150	2,2,1,3		N=8					

**Notes:**

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005, including amendment A1 (2011).
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

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Contract: <b>Ugly Brown Building</b>			Page: <b>8 of 10</b> 	


## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
WS01	2.00				2,3	150	5,5,5,6		N=21					
	3.00				4,4	150	4,4,5,6		N=19					
	4.00				4,4	150	4,6,5,4		N=19					
WS02	1.20				1,2	150	2,2,2,3		N=9					
	2.00				2,3	150	4,4,5,6		N=19					
	3.00				3,3	150	4,3,4,6		N=17					
	4.00				3,3	150	4,4,4,5		N=17					
WS03	1.20				2,1	150	1,1,1,2		N=5					
	2.00				4,4	150	4,4,4,6		N=18					
	3.00				3,3	150	3,4,4,5		N=16					
	4.00				3,3	150	4,5,6,7		N=22					
	5.00				3,4	150	3,4,4,6		N=17					
WS04	1.20				1,2	150	1,2,1,5		N=9					SPT(c)
	2.00				5,1	150	2,3,4,12		N=21					
	3.00				1,2	150	3,4,5,17		N=29					

**Notes:**

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005, including amendment A1 (2011).
2. Reported blows are for 75mm penetration unless indicated "+".
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4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
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<b>Ugly Brown Building</b>			<b>9</b>	<b>of 10</b>




## STANDARD PENETRATION TEST SUMMARY TABLE

Exploratory Position ID	Depth (m)	Hole Dia (mm)	Casing Depth (m)	Water Depth (m)	Seating Drive		Test Drive			Hammer ID	Calibration Date	Energy Ratio (%)	N <sub>60</sub>	Comments
					Blows	Pen (mm)	Blows	R (mm)	Result					
WS04	4.00				2,2	150	4,4,7,22		N=37					
	5.00				4,4	150	4,6,9,22		N=41					
WS05	1.20				4,5	150	6,5,5,4		N=20					SPT(c)
	2.00				50	65		0	NP					SPT(c)
WS06	1.20				6,7	150	7,14,27,9+	230	N=74*					SPT(c)
	1.40				25	25	47,3+	77	N=195*					SPT(c)

**Notes:**

1. Tests carried out in general accordance with BS EN ISO 22476-3:2005, including amendment A1 (2011).
2. Reported blows are for 75mm penetration unless indicated "+".
3. Where full test drive was not achieved, actual penetration (R) and total test drive blows are reported.
4. Tests carried out using a split spoon sampler unless noted as SPT(c) (denotes use of solid cone method) in the comments column.
5. Entries in the water depth column reflects the measured water depth at time of test.

$$N_{60} = (\text{Measured hammer energy ratio} / 60) \times N \text{ value}$$

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	Contract:			Page:
<b>Ugly Brown Building</b>			<b>10 of 10</b>	





**LEGEND**

— Section Line

GL - 0.45 Made Ground - Dark brown gravelly sandy clay gravel of fine to coarse sandy brick concrete and flint

0.45 - 1.10 Made Ground - Cemented red brown brick and concrete

1.10 - 1.96 Fine orange brown and brown clay

Rev.	Date	Amendment	Drawn	Chkd.	Appd.

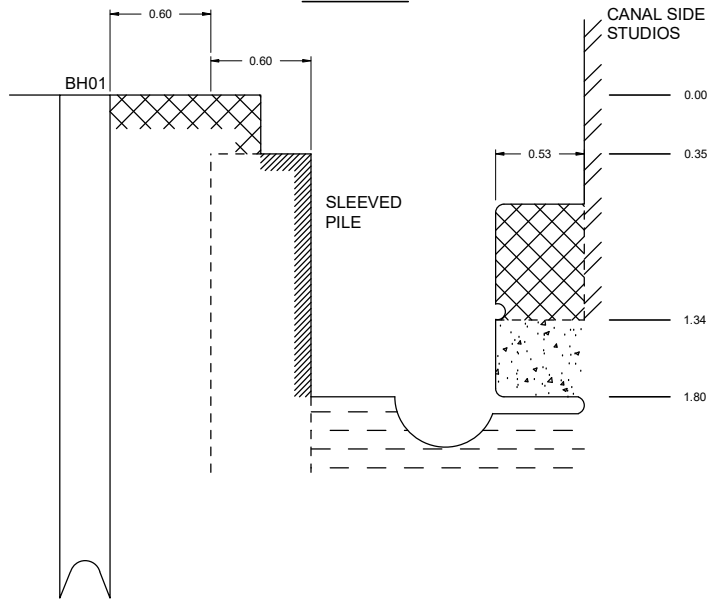


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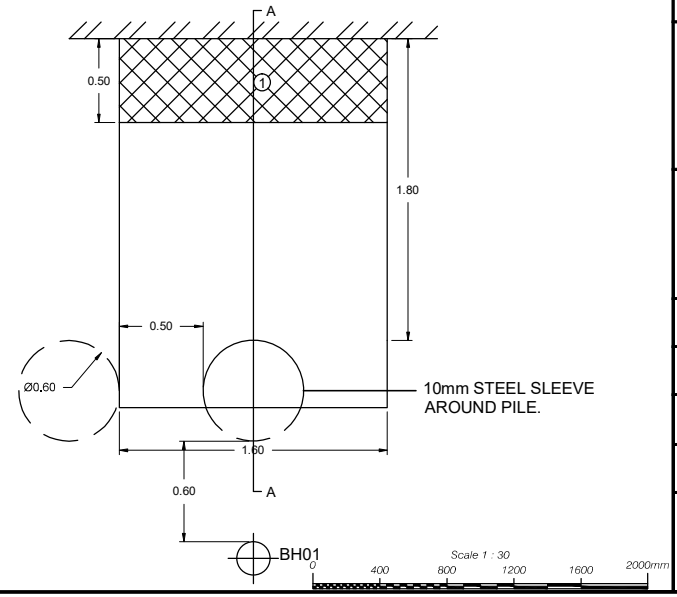
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Section View:  
(1:30)

**BH01**  
**SECTION A-A**



**PLAN VIEW**  
**2 - 6 ST PANCRAS**



Client  
**THE TRUSTEES OF THE ST. PANCRAS  
WAY BLOCK A UNIT TRUST & BIG  
LOBSTER**

Project Title  
**UGLY BROWN BUILDING**

Drawing Title  
**BOREHOLE  
DIAGRAM  
(BH01 A-A)**

Drawn	Date	Checked	Date	Approved	Date
RD	11.03.19	ASC	11.03.19	CS	11.03.19

Scale	Orig Size	Dimensions
AS SHOWN	A3	m

Project No.  
**371654 - R02 (00)**

Drawing File  
**371654 (R02-00) Fig 1.dwg**





Drawing No.  
**BH01 SECTION A-A**

Rev.  
**P1**

CANAL SIDE STUDIOS



LEGEND

-  Section Line
-  Wall
-  Concrete Pile
-  Made Ground - Dark brown slightly sandy slightly gravelly CLAY. Sand is fine to medium. gravel is fine to coarse sub angular to sub rounded flint and brick.

Rev.	Date	Amendment	Drawn	Chkd.	Appd.



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LOBSTER**

Project Title  
**UGLY BROWN BUILDING**

Drawing Title  
**BOREHOLE  
DIAGRAM  
(BH02 A-A)**

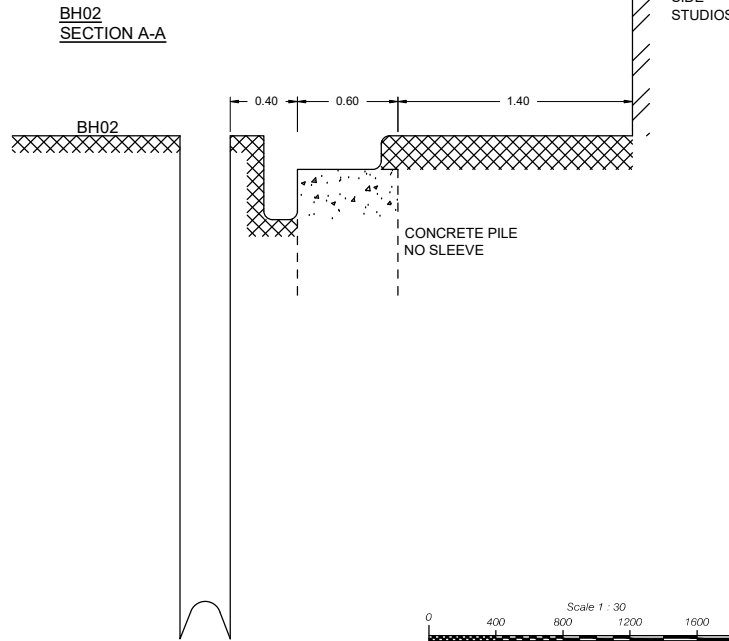
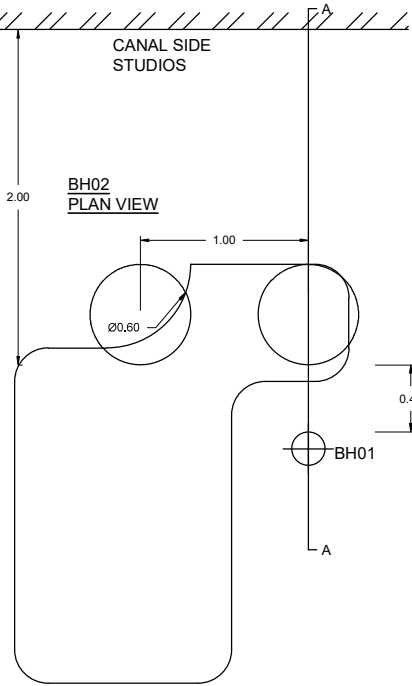
Drawn	Date	Checked	Date	Approved	Date
RD	11.03.19	ASC	11.03.19	CS	11.03.19

Scale	Orig Size	Dimensions
AS SHOWN	A3	m

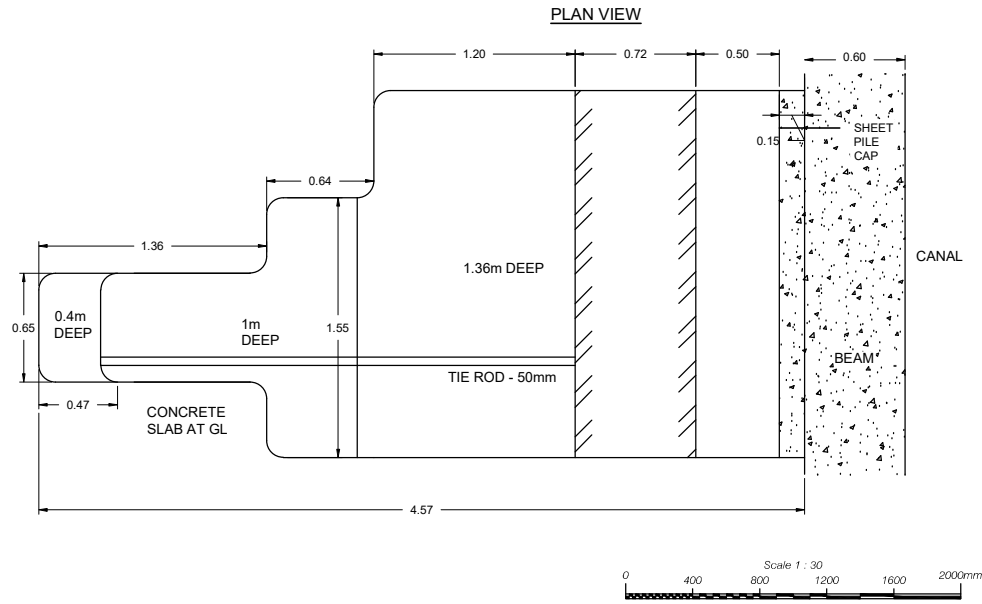
Project No.	Drawing File
371654 - R02 (00)	371654 (R02-00) Fig 1.dwg

Drawing No.	Rev.
BH02 SECTION A-A	P1





Section View:  
(1:30)



Plan View:  
(1:30)



**LEGEND**

-  Section Line
-  GL - 0.20: REINFORCED CONCRETE
-  Brick
-  Re - bar

0.20 - 0.37 MADE GROUND: Pale yellow red slightly clayey sandy fine to coarse subangular to sub rounded GRAVEL of flint, brick, concrete and charcoal. Sand is medium to coarse

0.37 - 0.50 MADE GROUND: Black clayey sub rounded to sub angular fine to coarse GRAVEL of brick and concrete with bitumen cement

0.50 - 1.36 MADE GROUND: Locally cemented yellowish red very sandy sub rounded to sub angular fine to coarse GRAVEL of brick, charcoal and flint with occasional cobbles of brick.

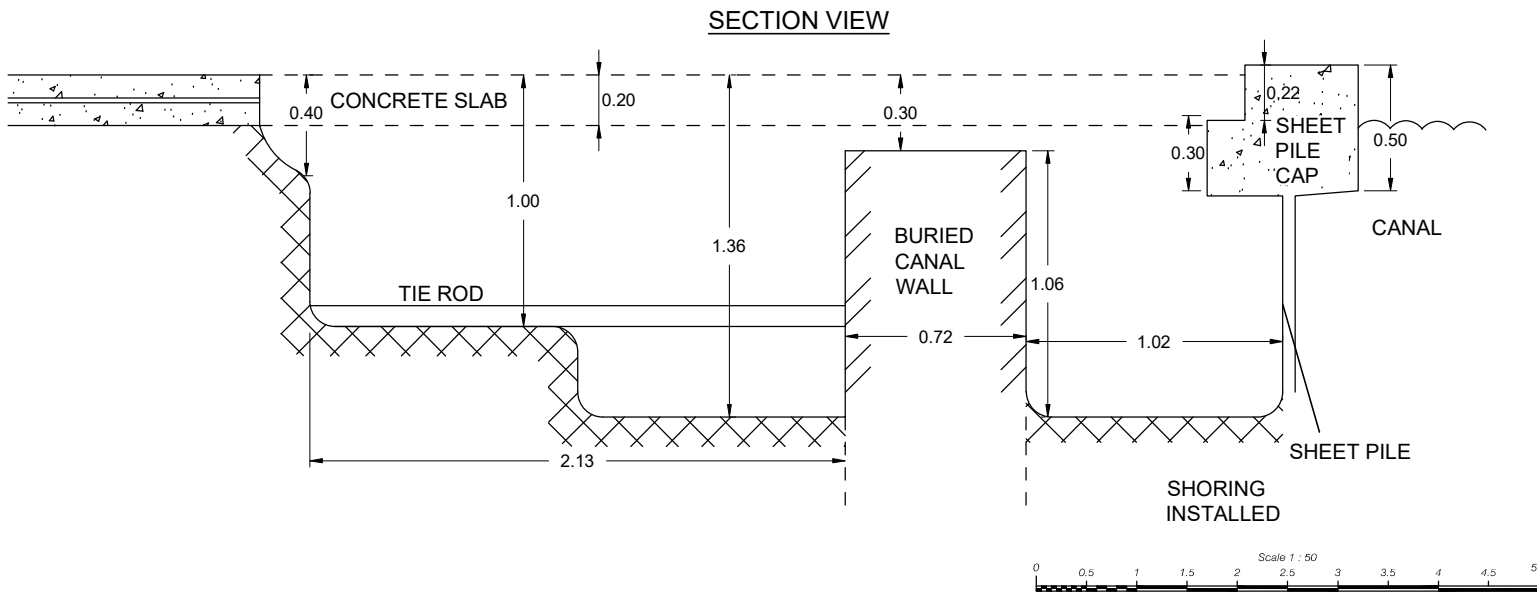
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Section View:  
(1:50)



Client  
**THE TRUSTEES OF THE ST. PANCRAS  
WAY BLOCK A UNIT TRUST & BIG  
LOBSTER**

Project Title  
**UGLY BROWN BUILDING**

Drawing Title  
**BOREHOLE  
DIAGRAM  
(BH04 - TP1)**

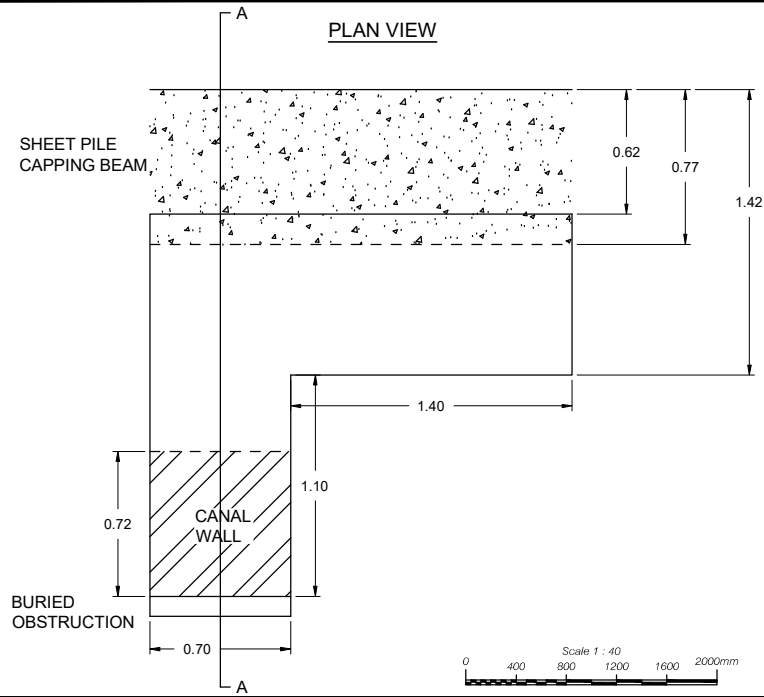
Drawn	Date	Checked	Date	Approved	Date
RD	11.03.19	ASC	11.03.19	CS	11.03.19

Scale	Orig Size	Dimensions
AS SHOWN	A3	m

Project No.	Drawing File
371654 - R02 (00)	371654 (R02-00) Fig 1.dwg

Drawing No.	Rev.
BH04 - TP1	P1




Plan View:  
(1:40)



REGENTS CANAL



**LEGEND**

-  Section Line
-  Reinforced Concrete  
-6mm rebar at 0.03m  
-12mm rebar at 0.12m
-  Made Ground: Brown very sandy fine to coarse subangular brick and concrete GRAVEL with small to large cobbles of concrete and brick, pieces of timber and rare pieces of metal

Rev.	Date	Amendment	Drawn	Chkd.	Appd.



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**THE TRUSTEES OF THE ST. PANCRAS  
WAY BLOCK A UNIT TRUST & BIG  
LOBSTER**

Project Title  
**UGLY BROWN BUILDING**

Drawing Title  
**BOREHOLE  
DIAGRAM  
(BH07 A-A)**

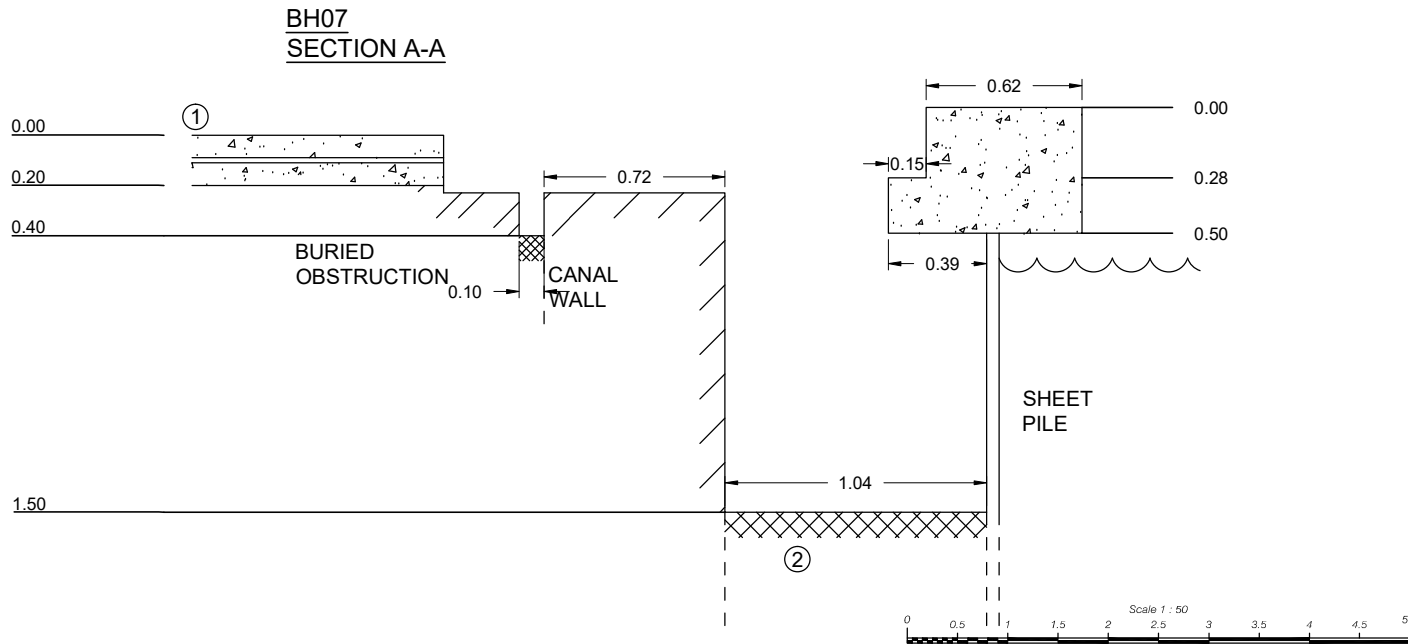
Drawn	Date	Checked	Date	Approved	Date
RD	11.03.19	ASC	11.03.19	CS	11.03.19

Scale	Orig Size	Dimensions
AS SHOWN	A3	m

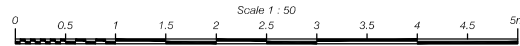
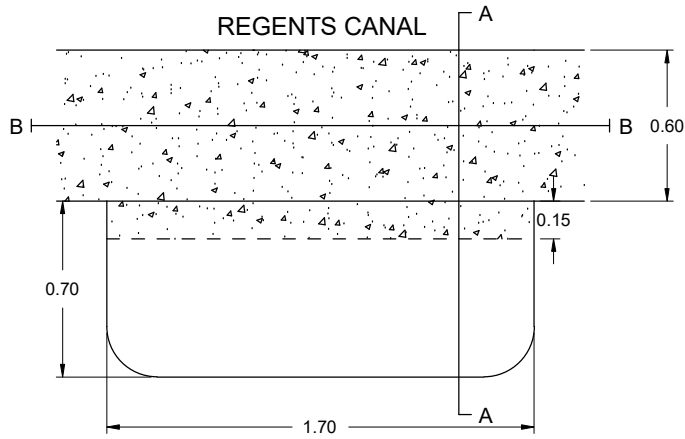
Project No.	Drawing File
371654 - R02 (00)	371654 (R02-00) Fig 1.dwg

Drawing No.	Rev.
BH07 SECTION A-A	P1

Section View:  
(1:50)



Plan View:  
(1:50)



**LEGEND**

— Section Line

GL - 0.20 Reinforced Concrete  
- 10mm Rebar at 0.10m

0.20 - 0.50 Weak Concrete

0.50 - 1.60 Made ground - loose whole and fragmented bricks with localized pockets of orange brown sandy gravel of fine to coarse concrete and brick



Rev.	Date	Amendment	Drawn	Chkd.	Appd.

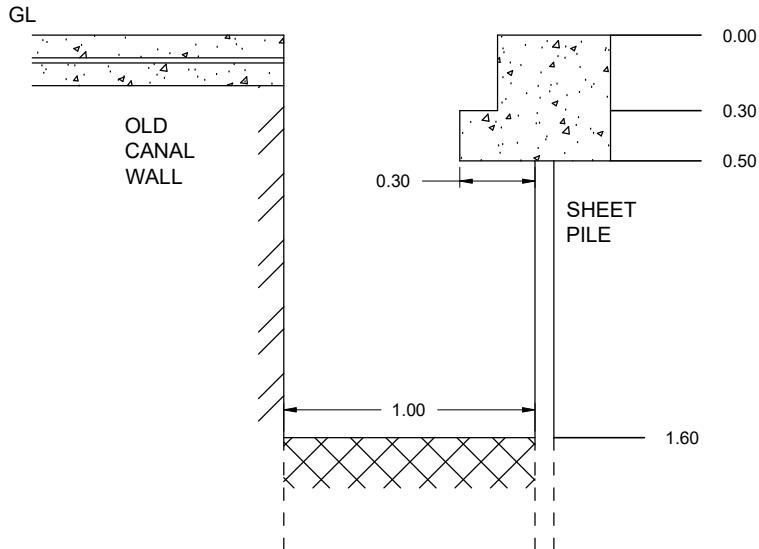


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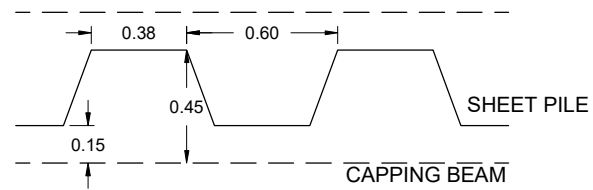
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Section View:  
(1:20)

**BH10  
SECTION A-A**



**BH10  
SECTION B-B**



Client  
**THE TRUSTEES OF THE ST. PANCRAS  
WAY BLOCK A UNIT TRUST & BIG  
LOBSTER**

Project Title  
**UGLY BROWN BUILDING**

Drawing Title  
**BOREHOLE  
DIAGRAM  
(BH10 A-A)**

Drawn	Date	Checked	Date	Approved	Date
RD	11.03.19	ASC	11.03.09	CS	11.03.19

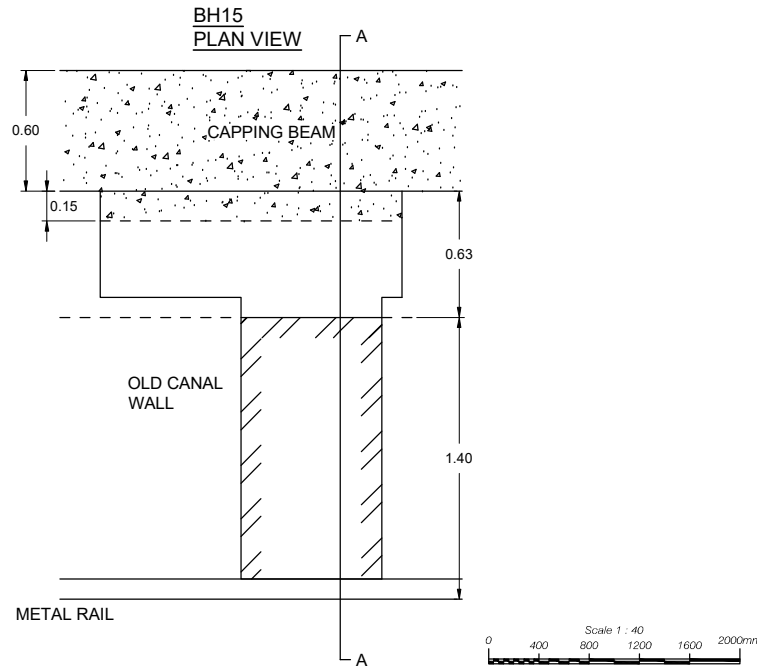
Scale	Orig Size	Dimensions
AS SHOWN	A3	m

Project No.	Drawing File
371654 - R02 (00)	371654 (R02-00) Fig 1.dwg

Drawing No.	Rev.
BH10	P1



Plan View:  
(1:40)



**LEGEND**

- Section Line
- GL - 0.20 Reinforced Concrete  
- 10mm Rebar at 0.10m
- 0.20 - 0.50 Weak Concrete
- 0.50 - 1.60 Made ground - loose whole and fragmented bricks with localized pockets of orange brown sandy gravel of fine to coarse concrete and brick

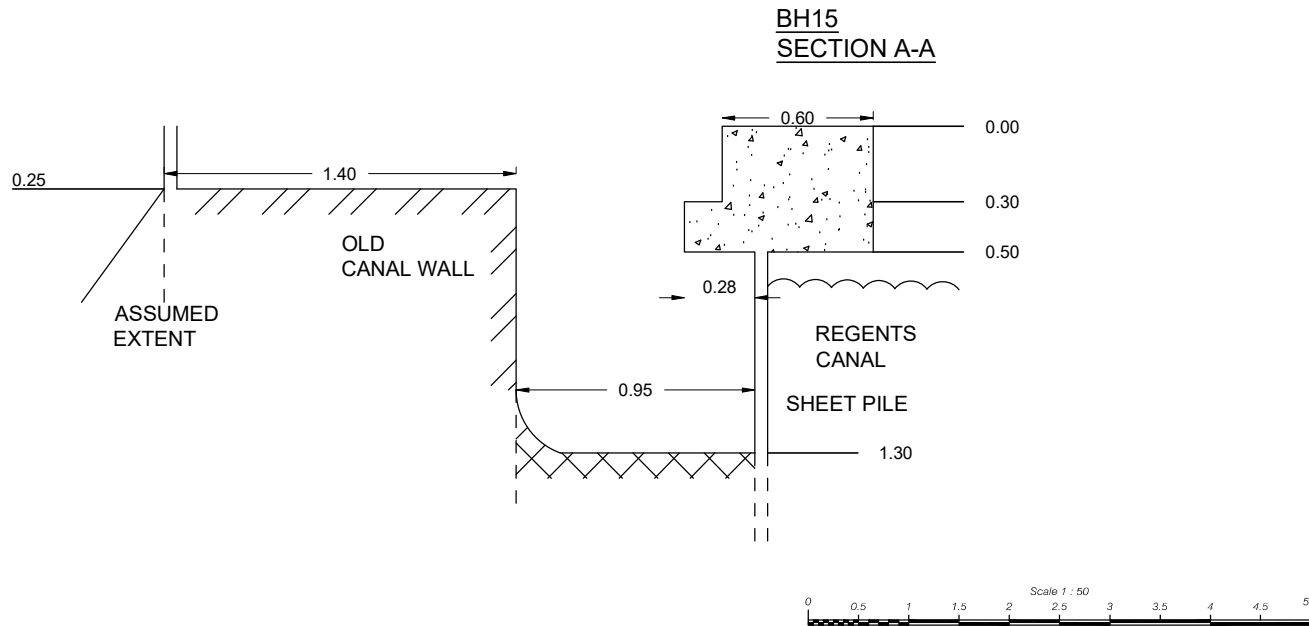
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Client  
**THE TRUSTEES OF THE ST. PANCRAS  
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Project Title  
**UGLY BROWN BUILDING**

Drawing Title  
**BOREHOLE  
DIAGRAM  
(BH15 - TP2)**

Drawn	Date	Checked	Date	Approved	Date
RD	11.03.19	ASC	11.03.19	CS	11.03.19

Scale	Orig Size	Dimensions
AS SHOWN	A3	m

Project No.	Drawing File
371654 - R02 (00)	371654 (R02-00) Fig 1.dwg

Drawing No.	Rev.
BH15 - TP2	P1



**LEGEND**

- Section Line
- Wall
- Concrete Pile
- Made Ground: Orange brown gravelly sandy CLAY with occasional pieces of plastic. Gravel is fine to coarse brick and concrete.
- Firm orange brown and brown CLAY with pockets of orange brown silt.

Rev.	Date	Amendment	Drawn	Chkd.	Appd.
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Client  
**THE TRUSTEES OF THE ST. PANCRAS  
WAY BLOCK A UNIT TRUST & BIG  
LOBSTER**

Project Title  
**UGLY BROWN BUILDING**

Drawing Title  
**TRIAL PIT  
DIAGRAM  
(TP3)**

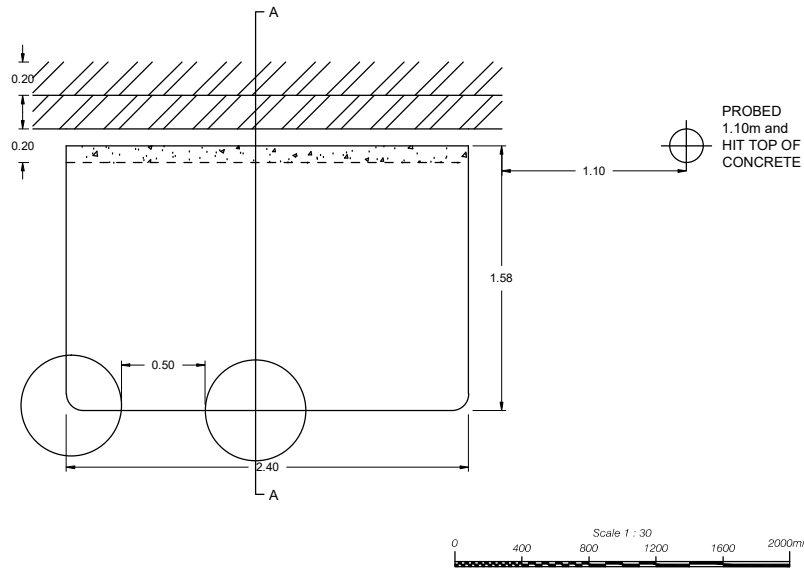
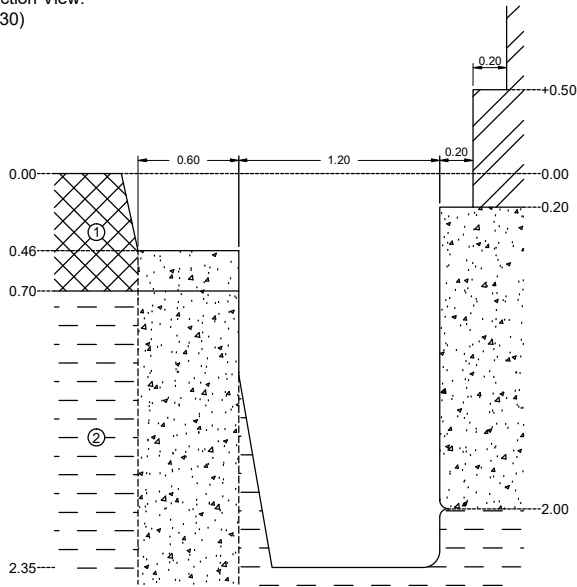
Drawn ASC	Date 05.03.19	Checked CS	Date 05.03.19	Approved CS	Date 05.03.19
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Scale AS SHOWN	Orig Size A3	Dimensions m
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Project No. 371654 - R02 (00)	Drawing File 371654 (R02-00) Fig 1.dwg
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Drawing No. TRIAL PIT 3	Rev. P1
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Section View:  
(1:30)



## SUMMARY OF CLEGG IMPACT SOIL TESTS

In accordance with manufacturer's guidance

Exploratory Position ID	Test Number	Test Depth (m)	Test Date (dd/mm/yyyy)	Critical Impact Value (IV)	Equivalent CBR (%)	
WS01	1	1.20	29/01/2019	13	17	
WS02	1	1.20	29/01/2019	10	12	
WS03	1	1.20	29/01/2019	12	15	
WS04	1	1.20	30/01/2019	11	13	
WS05	1	1.20	30/01/2019	5	4.8	
WS06	1	1.20	30/01/2019	8	8.5	

 <b>RSK Environment Ltd</b> 18 Frogmore Road Hemel Hempstead Hertfordshire HP3 9RT	Compiled By		Date	Contract Ref:
	<b>CSIBERRY</b>		<b>28.03.19</b>	<b>371654</b>
	Contract: <b>Ugly Brown Building</b>			Page: <b>1</b> of <b>1</b>

