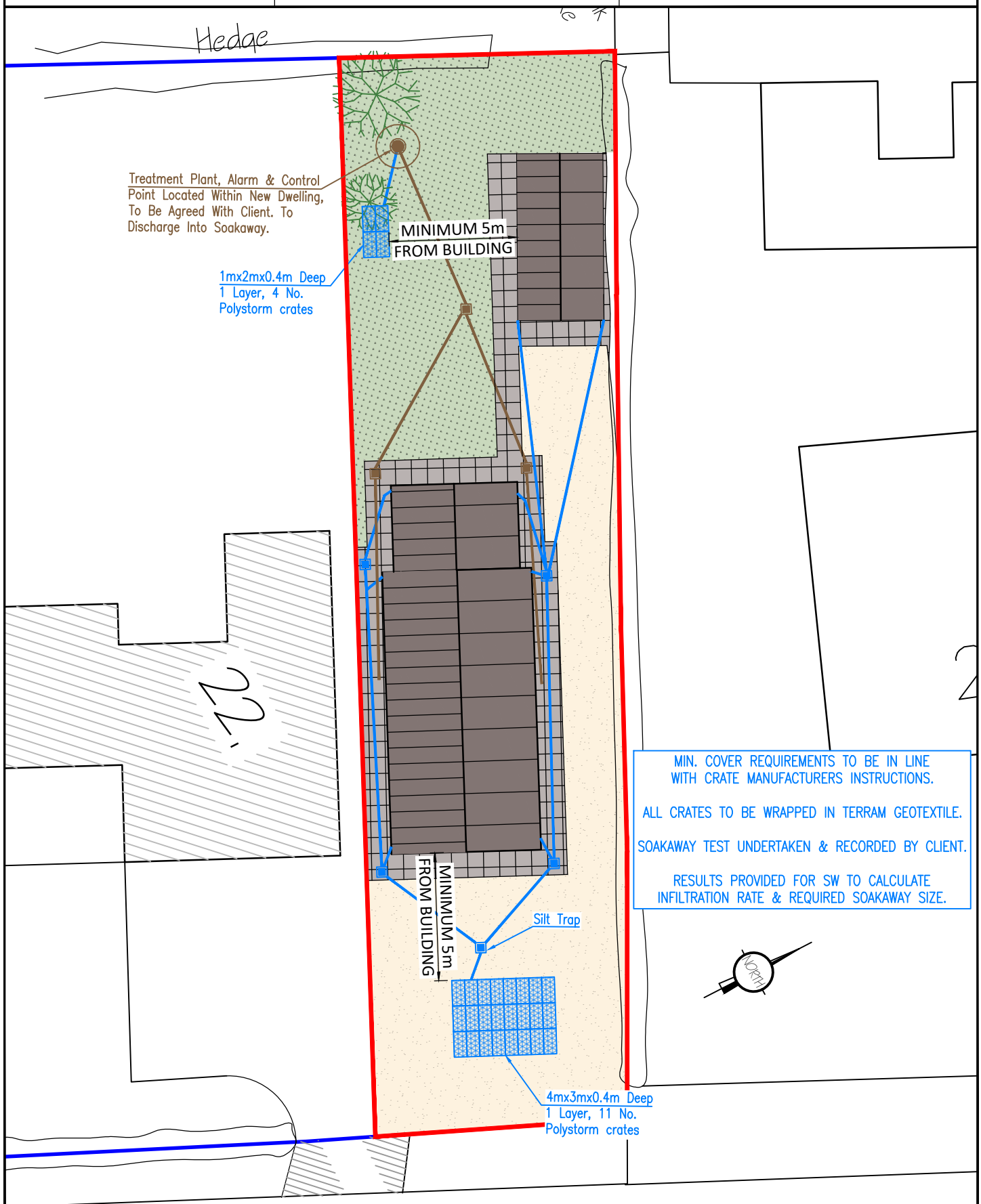


GROUND INVESTIGATION	Project: ADJ. 22 STATION ROAD, GEDNEY HILL	Date: JAN. '22	Designer: JL
Project No: SW 22-123	Subject:	Sheet No: SK02	Rev: -



Job Details SW22-123 - Drainage Design Adj. 22 Station Road, Gedney Hill, Spalding

Title Example Soakaway Sizing Calculation

Calculated Infiltration Rate (m/s)
0.0000048

Design Rainfall - R	
M5-240	Z1
0.02	1.48
M10-D	Z2
0.0296	1.24

R = 0.036704 m

Inflow To Soakaway

Area (m ²)	x	R
103		0.036704

Inflow = 3.780512 m³

Outflow From Soakaway

Internal SA (50%)	Infiltration Rate	Storm Duration (s)	
14.8	0.0000048	240	60
			14400

Outflow = 1.022976 m³

Storage Required

Inflow -	Outflow	
3.780512	1.022976	2.757536

Storage Volume With 30% Free (Required)
3.5847968

Actual Storage Volume
4.8

Soakaway Dimensions

Polystorm crates	Number	Total Lengths	Half Effective
Width	0.5	8	4
Length	1	3	3
Depth	0.4	1	0.4
			0.2

Internal Surface Area Not Including Base (50% depth)
14.8 m²

Storage Volume
4.8 m³

Soakaway Has Been Designed For A
10 Year Storm Of 240 Minute Duration

Half drain time = 7.4 OK

NB. Actual Storage Volume Needs To Be
Greater Than Storage Volume + 30%

Soak-Away Test SA 01

TEST 1	
SA01	
TIME (Mins)	DEPTH mm (d)
0	500
15	494
30	488
45	481
60	473
90	464
120	457
150	448
180	441
210	432

Trial Pit Dimensions	
A =	1.25 m
B =	0.95 m
C =	1.00 m

Plan Area of Trial Pit	
SA01 =	1.1875 m ²
Total Volume =	0.081 m ³
75% Volume =	0.061 m ³
25% Volume =	0.020 m ³

Time Taken From 75% Volume to 25% Volume	
105	Mins

Effective Depth From 75% Volume to 25% Volume	
0.034 m	

50% Effective Internal Surface Area Including Base Area	
1.3371 m ²	

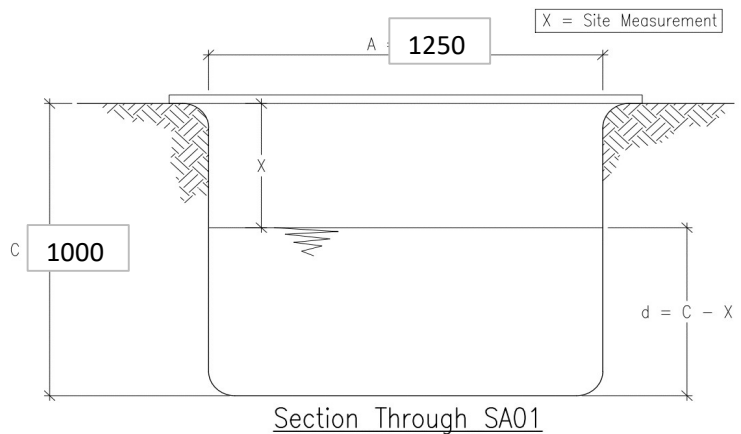
Soil Infiltration Rate, f	
4.79301E-06 m/s	
0.017254827 m/h	

Project Title

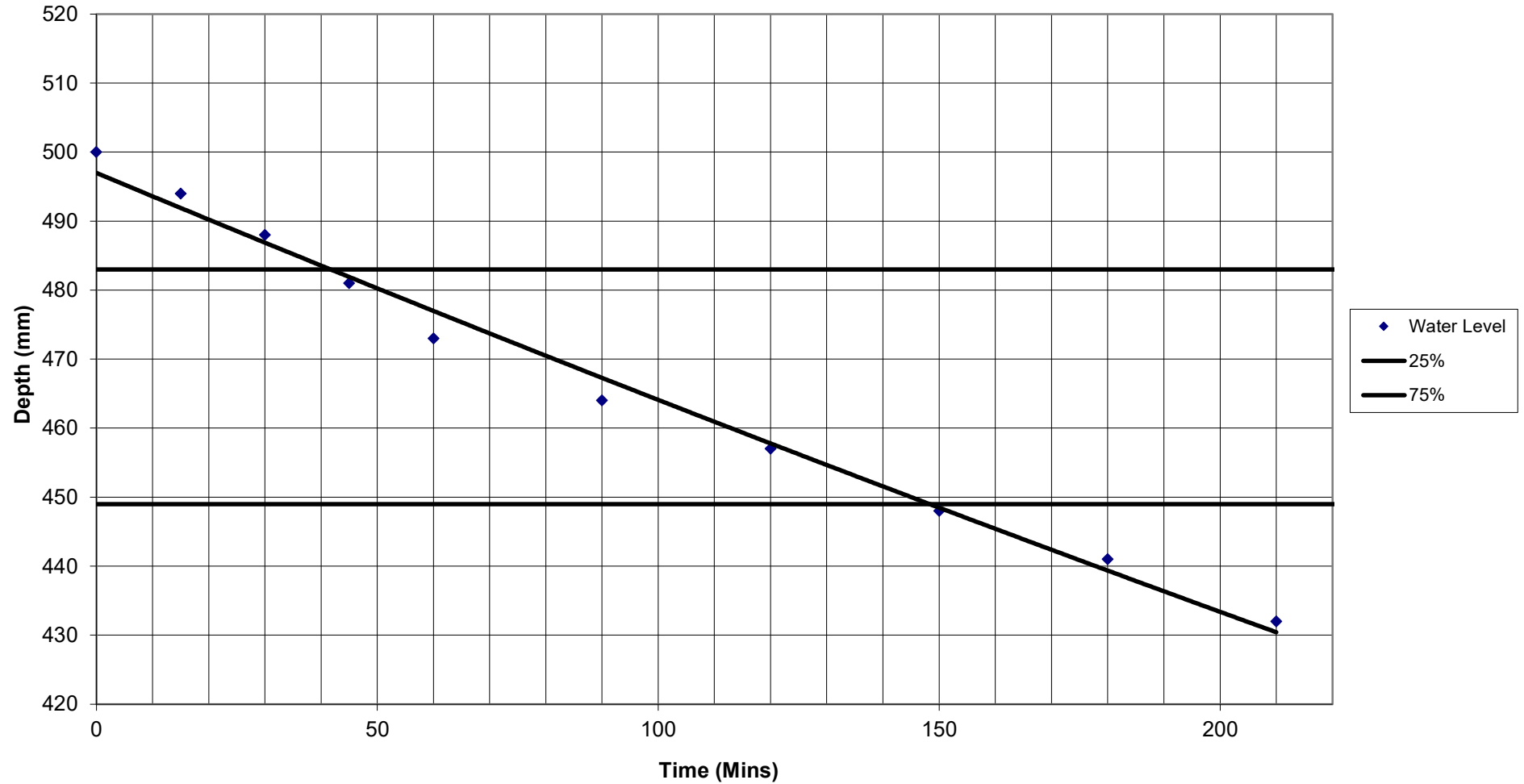
Proposed Dwelling Adj. 22 Station Road,
Gedney Hill, Spalding, Lincs, PE12 0NP

Project No. 22-123

Site Visit Date 18/01/2022



**Proposed Dwelling Adj. 22,
Station Road, Gedney Hill, Spalding, Lincs.
Project No. 22-123 18/01/2022
Plot showing water level against time for SA01 - TEST 1**



Soak-Away Test SA 01-2

TEST 1	
SA01	
TIME (Mins)	DEPTH mm (d)
0	500
15	495
30	489
45	483
60	476
90	466
120	458
150	450
180	440
210	433

Trial Pit Dimensions	
A =	1.25 m
B =	0.95 m
C =	1.00 m

Plan Area of Trial Pit	
SA01 =	1.1875 m ²
Total Volume =	0.080 m ³
75% Volume =	0.060 m ³
25% Volume =	0.020 m ³

Time Taken From 75% Volume to 25% Volume	
103	Mins

Effective Depth From 75% Volume to 25% Volume	
0.0335 m	

50% Effective Internal Surface Area Including Base Area	
1.3349 m ²	

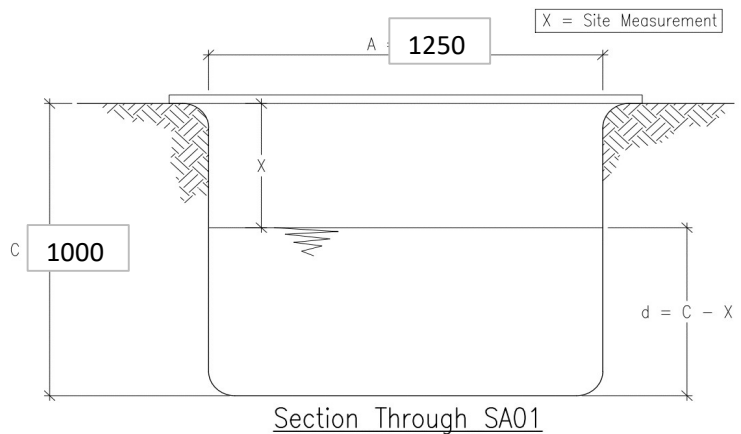
Soil Infiltration Rate, f	
4.82216E-06 m/s	
0.01735976 m/h	

Project Title

Proposed Dwelling Adj. 22 Station Road,
Gedney Hill, Spalding, Lincs, PE12 0NP

Project No. 22-123

Site Visit Date 18/01/2022



**Proposed Dwelling Adj. 22,
Station Road, Gedney Hill, Spalding, Lincs.
Project No. 22-123 18/01/2022
Plot showing water level against time for SA01 - TEST 2**

