

Surface Water Drainage Trench Soakaway Design

**For
Land Adjacent to Twinham,
34 Hurst Road,
Hassocks,
East Sussex,
BN6 9NL**

**Date: June 2025
Project No: 63770**



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BELMONT DESIGNS
ARCHITECTURAL PRACTICE

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NOTES

DO NOT SCALE OFF THIS DRAWING.

CHECK ALL DIMENSIONS ON SITE BEFORE ANY WORK IS COMMENCED.
ALL GOODS MATERIALS AND WORKMANSHIP MUST CONFORM WITH CURRENT BUILDING REGULATIONS, BRITISH STANDARDS AND CODES OF PRACTICE.

Rev	Date	By	Amendment

Client
Mr & Mrs J Bullivant

Site Address

Land adjacent to Twinham
34 Hurst Road
Hassoeks
BN6 9NL

Project
**Proposed detached dwelling
with parking**

Drawing Title
Proposed Location and Block Plans - Planning

Date	Scale	Drawn By JM
Dec 2024	1:100@A1	Checked By JTM
Job No B.043.24	Dwg No 05	Rev *

B | D

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A	26/02/2025	JM	Drainage
Rev	Date	By	Amendment

Client
Mr & Mrs J Bullivant

Site Address
Land adjacent to Twinham
34 Hurst Road
Hassocks
BN6 9NL

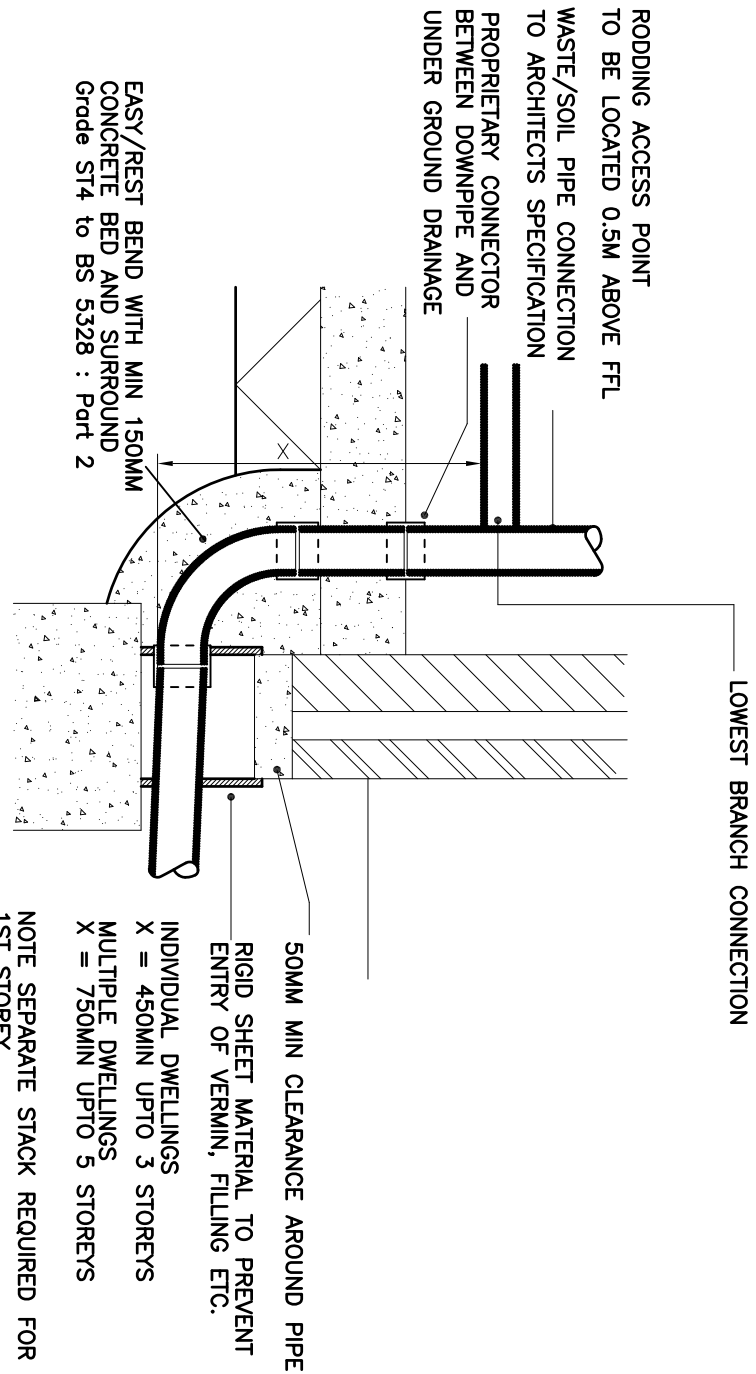
Project
Proposed detached dwelling
with parking

Drawing Title
Site Layout Plan - Planning

Date Dec 2024	Scale 1:100@A1	Drawn By JM
		Checked By JTM
Job No B043.24	Dwg No 01	Rev A

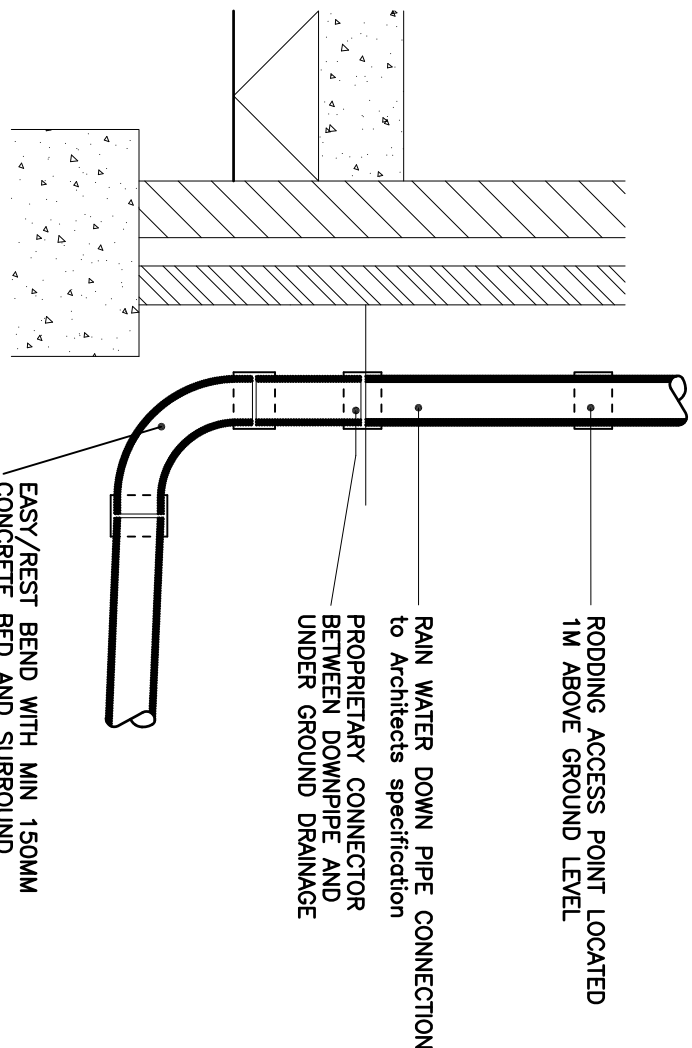
PROPOSED SITE LAYOUT PLAN





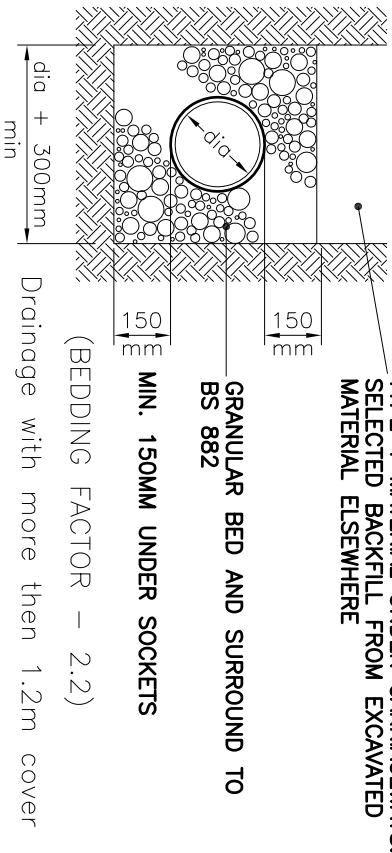
TYPICAL SOIL VENT PIPE DETAILS

SCALE 1:20



TYPICAL RAIN WATER DOWNPIPE DETAIL

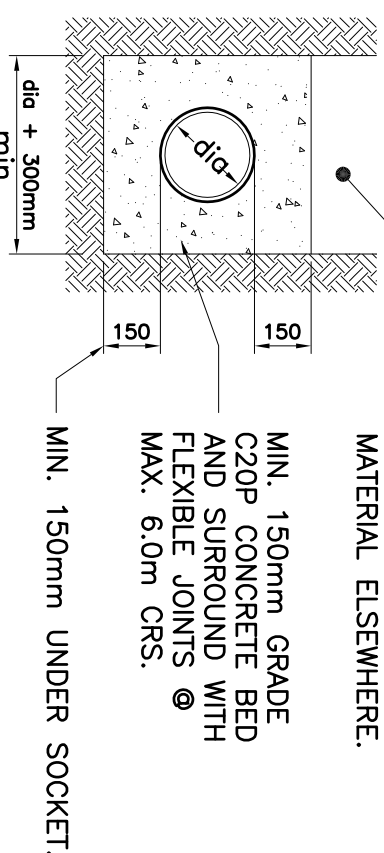
SCALE 1:20



TYPE 'S'

COMPACTED TYPE 1 GRANULAR SUB-BASE MATERIAL UNDER CARRIAGEWAY

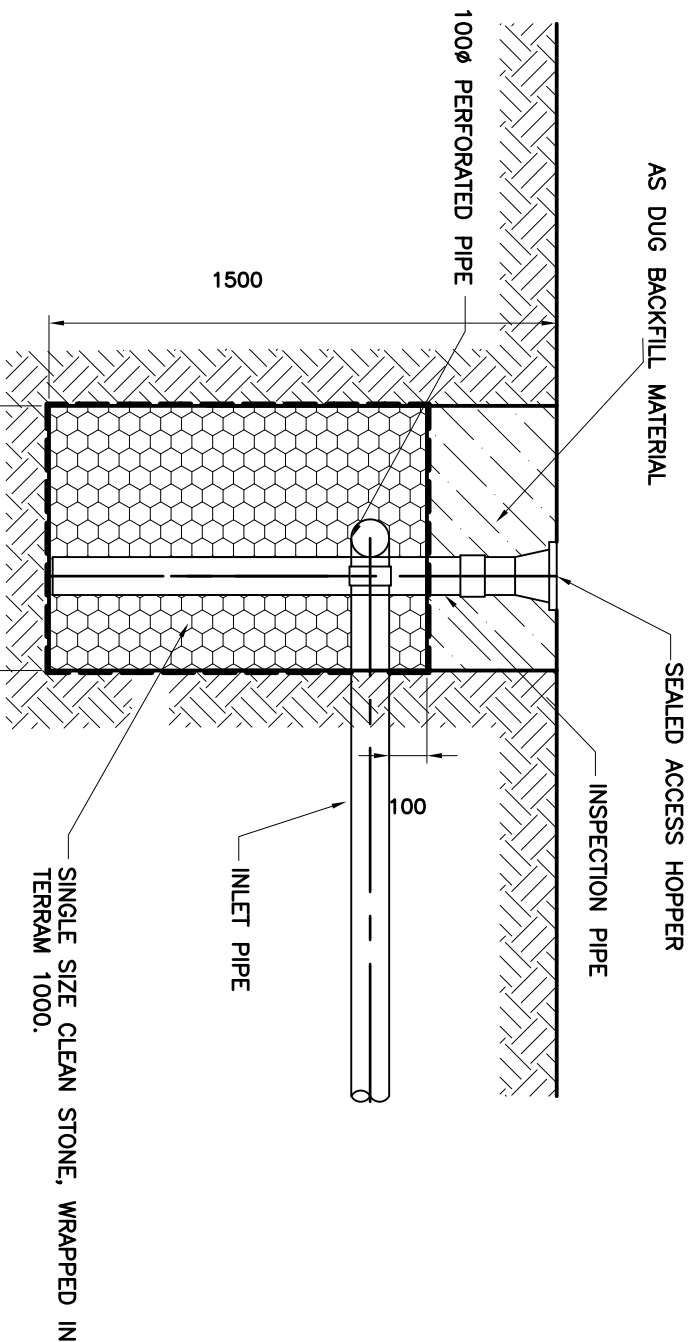
SELECTED BACKFILL FROM EXCAVATED MATERIAL ELSEWHERE.



CONCRETE PIPE BEDDING

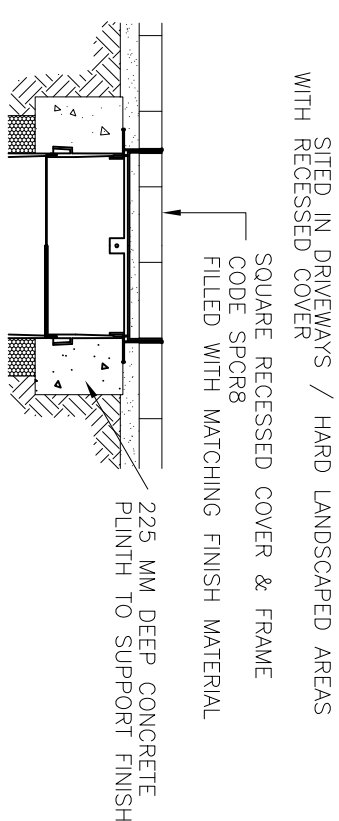
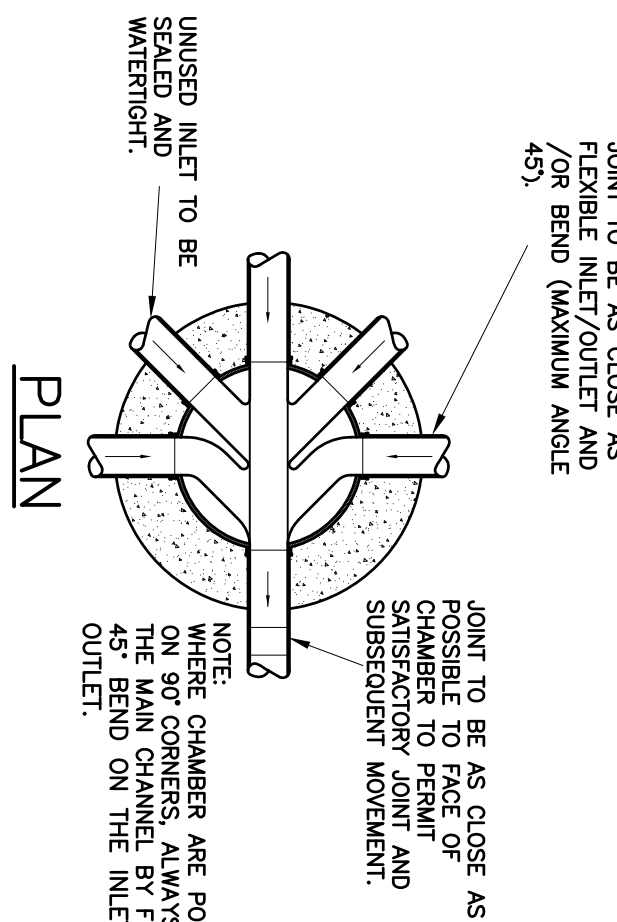
PIPE BEDDING DETAIL

SCALE 1:20

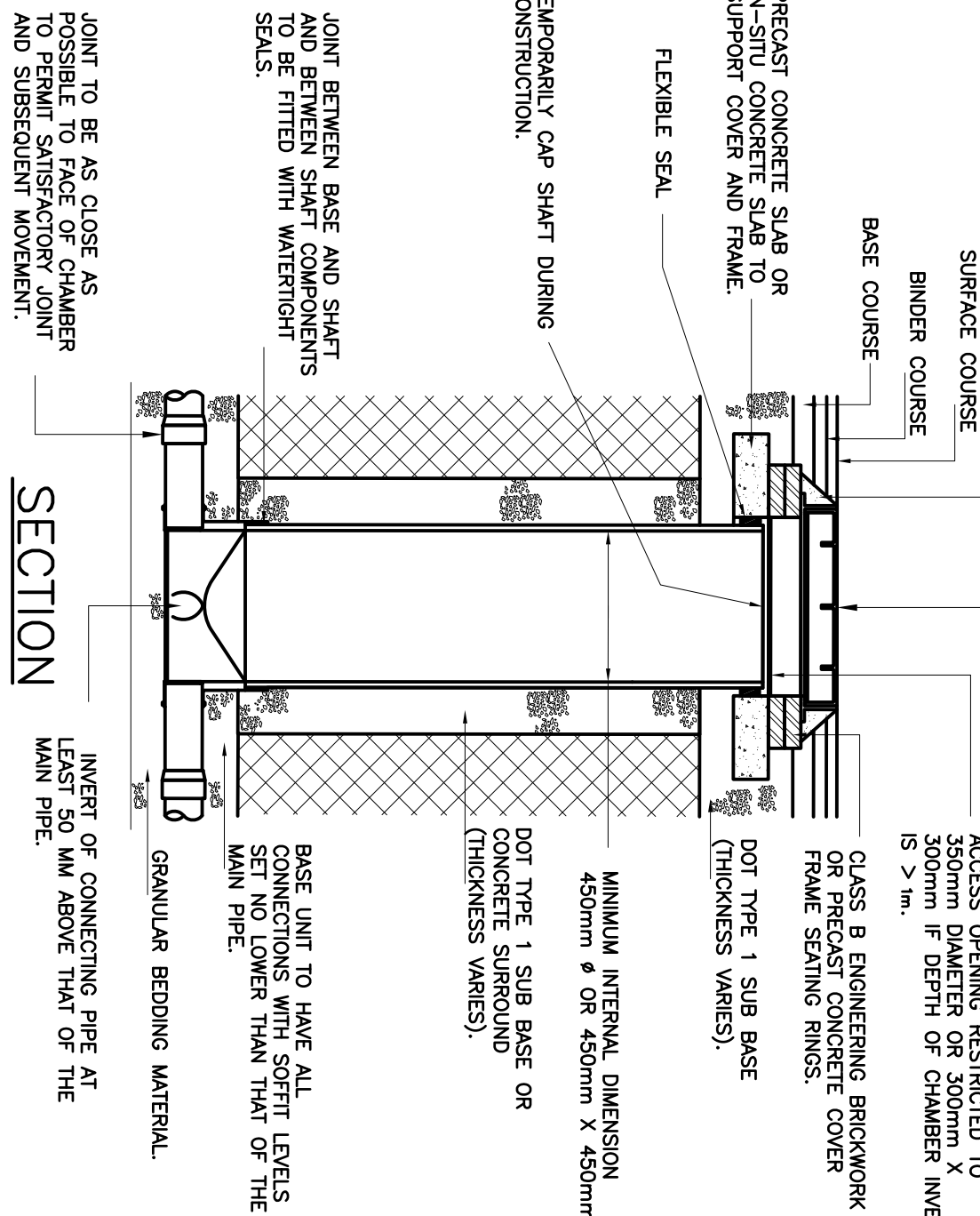


TRENCH SOAKAWAY DETAIL

SCALE 1:20



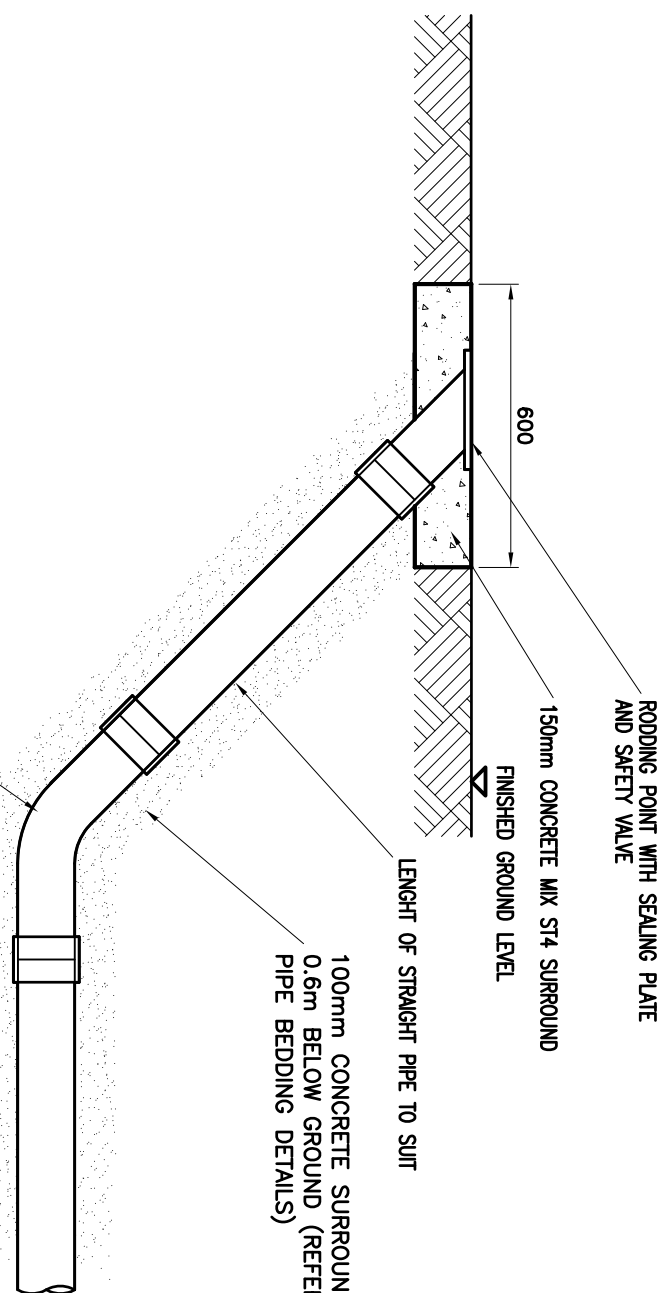
SECTION



TYPE 3 – 450P POLYPROPYLENE INSPECTION CHAMBER (MAX. DEPTH 3.0M TO PIPE SOFFIT).

SCALE 1:20

NOTE: PLASTIC CHAMBERS AND RING SHALL COMPLY WITH BS EN 13598-1 AND BS EN 13598-2 OR HAVE EQUIVALENT INDEPENDENT APPROVAL.

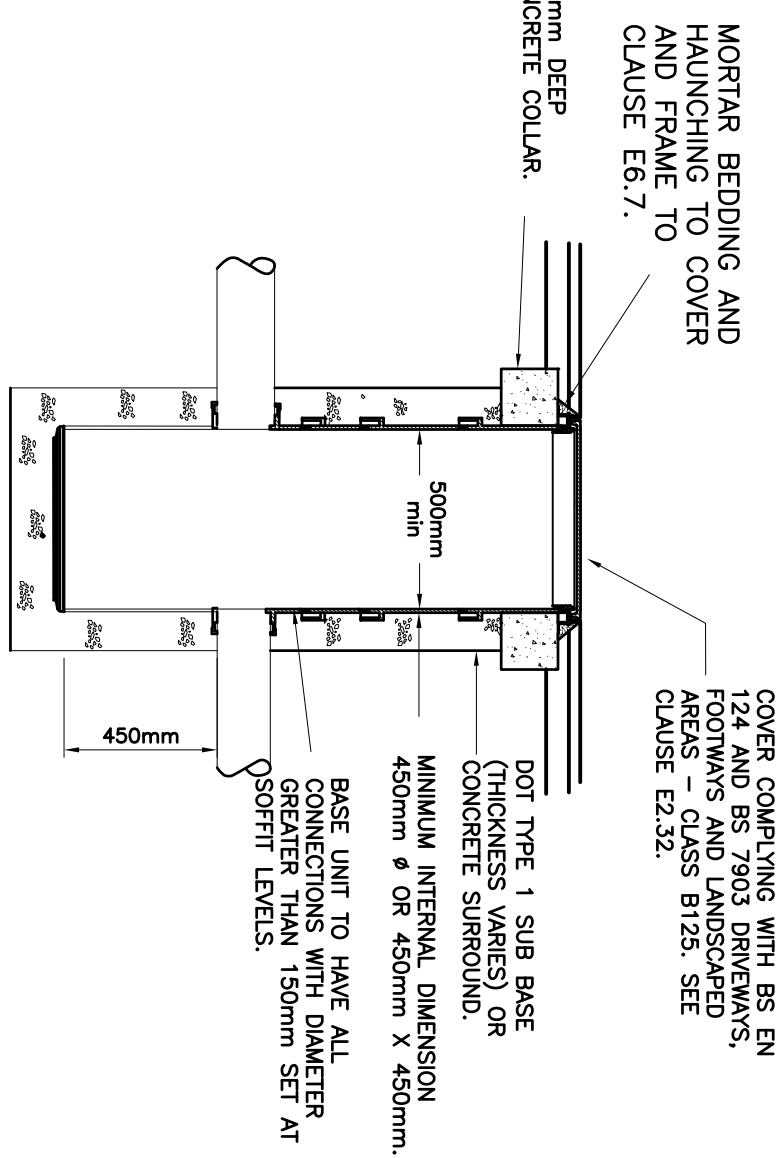


RODDING EYE ACCESS POINT DETAIL

SCALE 1:20

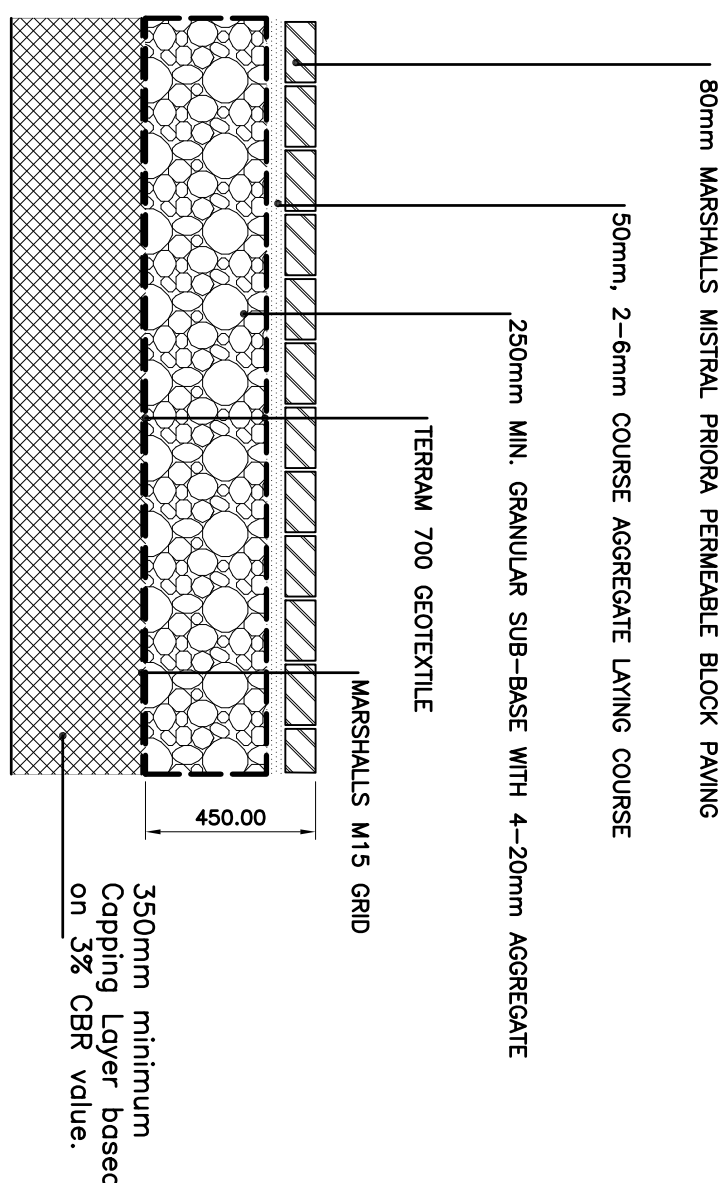
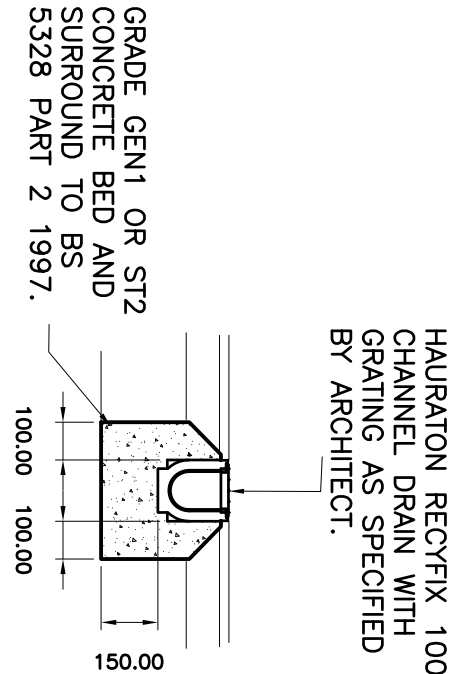
TYPE 3A–500P POLYPROPYLENE SILT TRAP INSPECTION CHAMBER.

SCALE 1:20



RECYFIX CHANNEL DRAIN (250KN)

SCALE 1:20



PERMEABLE BLOCK PAVING PARKING BAY CONSTRUCTION DETAIL

SCALE 1:20

In addition to these notes, reference shall be made to the specification of works and the relevant Architect's and Specialist's drawings and specifications. The Contractor is responsible for verifying all site dimensions before commencing work.

All dimensions are in millimetres unless noted otherwise.

This drawing has been produced electronically and may have been photo reduced or otherwise reproduced. Dimensions are given to the nearest millimetre unless otherwise stated. Work only to be carried out if the dimensions are correct. Errors or omissions are to be reported to the engineer immediately. Levels are in metres unless noted otherwise to Ordnance Survey datum. The Contractor is responsible for the stability of the building whilst the works are in progress.

NOTES

- THIS DRAWING IS BASED ON DRAWING NO. B04.3.24 BY BELMONT DESIGNS ARCHITECTURE PRACTICE LIMITED.
- THIS DRAWING IS TO BE READ IN CONJUNCTION WITH THE FOLLOWING DRAWING:
63770/10 DRAINAGE LAYOUT

- CONTRACTOR IS TO TAKE NECESSARY PRECAUTIONS TO ENSURE THAT TRENCHES ARE KEPT CLEAR OF GROUND WATER DURING CONSTRUCTION.
- ALL DRAINAGE WORKS TO BE ADOPTED 7TH EDITION.
- ALL ADOPTED PIPEWORK TO BE 100Ø VITRIFIED CLAY UNLESS NOTED OTHERWISE.
- ALL PIPEWORK THROUGH WALLS TO BE IN ACCORDANCE WITH THE BUILDING REGULATIONS.
- ALL PIPEWORK UNDER ROADS WITH LESS THAN 900MM COVER TO HAVE 150MM CONCRETE SURROUND.
- MINIMUM GRADIENT TO DRAINS TO BE 1:40 FOR 110Ø OR 110Ø FN AND 1:100 FOR 110Ø SM.
- ALL ADOPTED PIPEWORK, DRAINAGE LATRALS, OR PIPE CONNECTION TO THE PUBLIC SHALL BE VITRIFIED CLAY (VC) PIPE MATERIAL TO SOUTHERN WATER APPROVAL.
- POSITIONS OF MANHOLES SHOWN ON THIS DRAWING ARE INDICATIVE ONLY. ACTUAL LOCATIONS TO BE FINALIZED ON SITE.
- PROVIDE CONCRETE LINTELS OVER OPENINGS WHERE PIPES PASS THROUGH WALLS. ALLOW FOR 150MM CLEARANCE ALL ROUND PIPE.

ALL DIMENSIONS AND LEVELS TO BE CHECKED AND CONFIRMED BY THE ARCHITECT PRIOR TO CONSTRUCTION.

REV	ORIGINAL	ISSUE	DATE	BY
0	ORIGINAL	ISSUE	05/06/25	JS
REV	DESCRIPTION	DATE	BY	

DIXON HURST

CONSULTING CIVIL & STRUCTURAL ENGINEERS

HEGERSHAM HOUSE, 18–22 BOUNDARY ROAD, HOVE, BN3 4EF
T: (01273) 421444 F: (01273) 420008 E: hove@dih.co.uk
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Registered in England No. 3438720 – Registered Office 4 Frederick Terrace, Brighton BN1 1XK

LAND ADJACENT TO TWINHAM
34 HURST ROAD,
HASSOCKS, BN6 9NL

DRAINAGE DETAILS

DRAWING No.	63770 / 11	REV	0	CHECKED
SCALE	1:20@ A1	DATE	JUN 25	DRAWN
AutoCAD Ref:	63770-10.dwg		JS	APPROVED

This drawing is produced using AutoCAD. Only written dimensions are to be respected.

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Dixon Hurst Kemp			Page 1		
Victoria Court 22 St Pancras West Sussex PO19 7GD		Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design			
Date June 25		Designed by JS			
File TRENCH DESIGN 1 IN 10...		Checked by			
Elstree Computing Ltd		Source Control W.12.6			
Summary of Results for 1 year Return Period (+45%)					
Half Drain Time : 112 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	62.503	0.203	0.2	1.1	0 K
30 min Summer	62.556	0.256	0.2	1.4	0 K
60 min Summer	62.601	0.301	0.2	1.7	0 K
120 min Summer	62.627	0.327	0.2	1.9	0 K
180 min Summer	62.634	0.334	0.2	1.9	0 K
240 min Summer	62.635	0.335	0.2	1.9	0 K
360 min Summer	62.625	0.325	0.2	1.9	0 K
480 min Summer	62.613	0.313	0.2	1.8	0 K
600 min Summer	62.599	0.299	0.2	1.7	0 K
720 min Summer	62.585	0.285	0.2	1.6	0 K
960 min Summer	62.558	0.258	0.2	1.5	0 K
1440 min Summer	62.510	0.210	0.2	1.2	0 K
2160 min Summer	62.452	0.152	0.1	0.8	0 K
2880 min Summer	62.410	0.110	0.1	0.6	0 K
4320 min Summer	62.360	0.060	0.1	0.2	0 K
5760 min Summer	62.346	0.046	0.1	0.2	0 K
7200 min Summer	62.340	0.040	0.1	0.1	0 K
8640 min Summer	62.338	0.038	0.1	0.1	0 K
10080 min Summer	62.336	0.036	0.1	0.1	0 K
15 min Winter	62.528	0.228	0.2	1.3	0 K
30 min Winter	62.587	0.287	0.2	1.6	0 K
60 min Winter	62.642	0.342	0.2	2.0	0 K
120 min Winter	62.673	0.373	0.2	2.2	0 K
180 min Winter	62.681	0.381	0.2	2.2	0 K
Storm Event	Rain (mm/hr)		Time-Peak (mins)		
15 min Summer	42.867		24		
30 min Summer	28.558		36		
60 min Summer	18.560		62		
120 min Summer	11.847		100		
180 min Summer	9.076		134		
240 min Summer	7.499		170		
360 min Summer	5.677		238		
480 min Summer	4.658		308		
600 min Summer	3.996		376		
720 min Summer	3.526		442		
960 min Summer	2.895		574		
1440 min Summer	2.194		826		
2160 min Summer	1.659		1192		
2880 min Summer	1.362		1556		
4320 min Summer	1.032		2216		
5760 min Summer	0.848		2936		
7200 min Summer	0.726		3672		
8640 min Summer	0.639		4400		
10080 min Summer	0.574		5136		
15 min Winter	42.867		24		
30 min Winter	28.558		37		
60 min Winter	18.560		62		
120 min Winter	11.847		108		
180 min Winter	9.076		144		
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Dixon Hurst Kemp		Page 2
Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
Date June 25	Designed by JS	
File TRENCH DESIGN 1 IN 10...	Checked by	
Elstree Computing Ltd	Source Control w.12.6	

Summary of Results for 1 year Return Period (+45%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
240 min Winter	62.680	0.380	0.2	2.2	OK
360 min Winter	62.661	0.361	0.2	2.1	OK
480 min Winter	62.638	0.338	0.2	2.0	OK
600 min Winter	62.615	0.315	0.2	1.8	OK
720 min Winter	62.593	0.293	0.2	1.7	OK
960 min Winter	62.551	0.251	0.2	1.4	OK
1440 min Winter	62.481	0.181	0.2	1.0	OK
2160 min Winter	62.404	0.104	0.1	0.5	OK
2880 min Winter	62.357	0.057	0.1	0.2	OK
4320 min Winter	62.341	0.041	0.1	0.1	OK
5760 min Winter	62.337	0.037	0.1	0.1	OK
7200 min Winter	62.334	0.034	0.1	0.1	OK
8640 min Winter	62.332	0.032	0.1	0.1	OK
10080 min Winter	62.331	0.031	0.1	0.1	OK

Storm Event	Rain (mm/hr)	Time-Peak (mins)
240 min Winter	7.499	182
360 min Winter	5.677	258
480 min Winter	4.658	332
600 min Winter	3.996	402
720 min Winter	3.526	472
960 min Winter	2.895	608
1440 min Winter	2.194	866
2160 min Winter	1.659	1224
2880 min Winter	1.362	1532
4320 min Winter	1.032	2208
5760 min Winter	0.848	2936
7200 min Winter	0.726	3544
8640 min Winter	0.639	4280
10080 min Winter	0.574	5048

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Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
Date June 25	Designed by JS	
File TRENCH DESIGN 1 IN 10...	Checked by	
Elstree Computing Ltd	Source Control w.12.6	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	1	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.347	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time / Area Diagram

Total Area (ha) 0.016

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.005	4-8	0.005	8-12	0.005

Dixon Hurst Kemp		Page 4
Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
Date June 25	Designed by JS	
File TRENCH DESIGN 1 IN 10...	Checked by	
Elstree Computing Ltd	Source Control w.12.6	

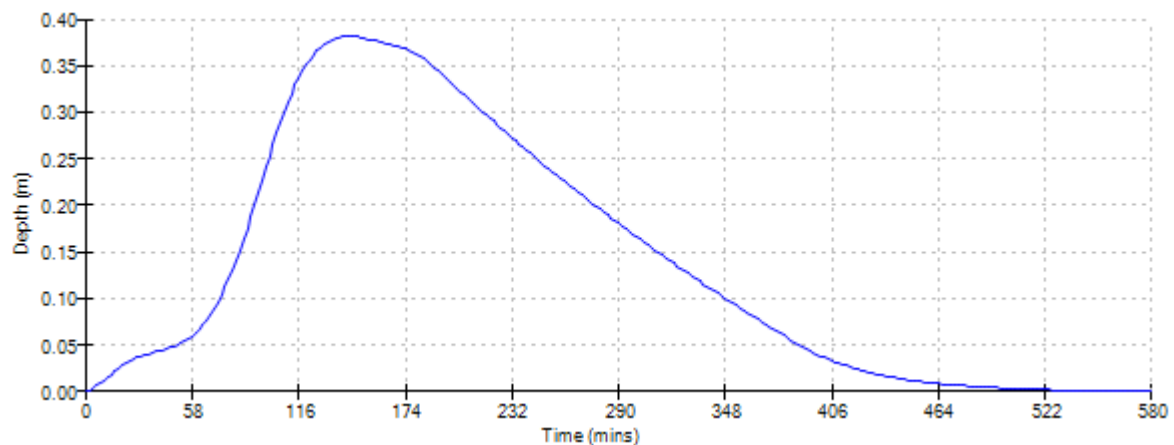
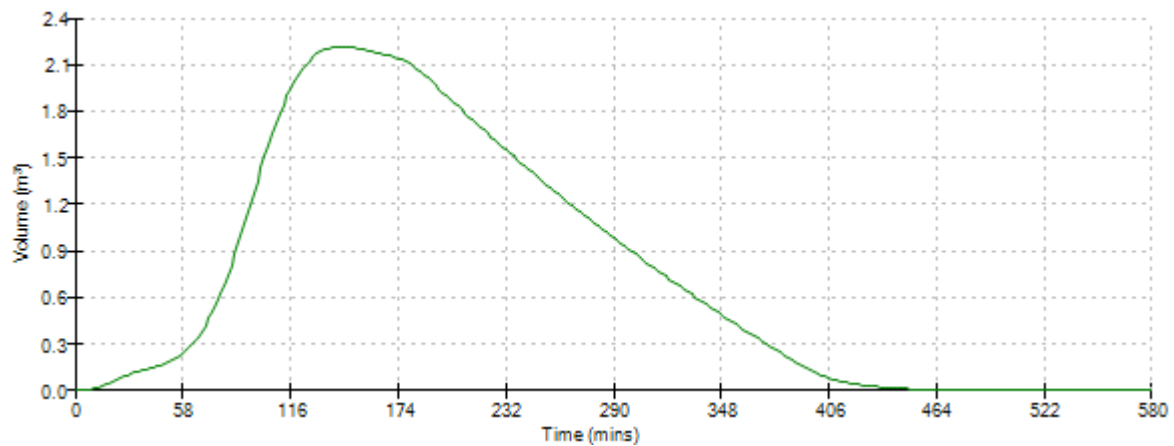
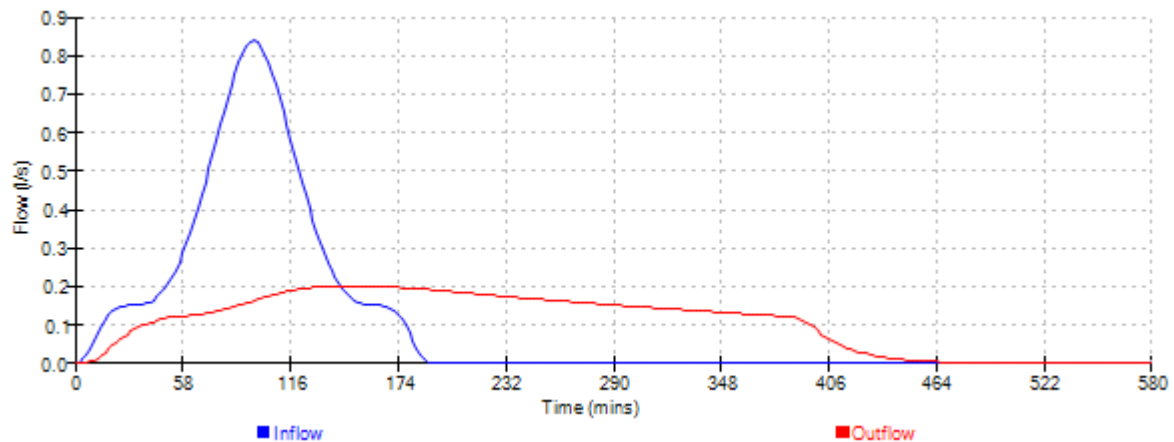
Model Details

Storage is Online Cover Level (m) 63.800

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.04000	Trench Width (m)	1.0
Infiltration Coefficient Side (m/hr)	0.04000	Trench Length (m)	20.5
Safety Factor	2.0	Slope (1:X)	500.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	62.300	Cap Infiltration Depth (m)	0.000

Event: 180 min Winter



Dixon Hurst Kemp		Page 1			
Victoria Court	Twinham 34 Hurst Road Hass...				
22 St Pancras	Surface Water Drainage				
West Sussex PO19 7GD	Trench Soakaway Design				
Date June 25	Designed by JS				
File TRENCH DESIGN 1 IN 10...	Checked by				
Elstree Computing Ltd	Source Control W.12.6				
<u>Summary of Results for 30 year Return Period (+45%)</u>					
Half Drain Time : 180 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	62.795	0.495	0.2	2.9	0 K
30 min Summer	62.938	0.638	0.3	3.8	0 K
60 min Summer	63.066	0.766	0.3	4.6	0 K
120 min Summer	63.147	0.847	0.3	5.1	0 K
180 min Summer	63.163	0.863	0.3	5.2	0 K
240 min Summer	63.164	0.864	0.3	5.2	0 K
360 min Summer	63.149	0.849	0.3	5.1	0 K
480 min Summer	63.124	0.824	0.3	4.9	0 K
600 min Summer	63.096	0.796	0.3	4.8	0 K
720 min Summer	63.069	0.769	0.3	4.6	0 K
960 min Summer	63.017	0.717	0.3	4.3	0 K
1440 min Summer	62.924	0.624	0.3	3.7	0 K
2160 min Summer	62.811	0.511	0.2	3.0	0 K
2880 min Summer	62.722	0.422	0.2	2.5	0 K
4320 min Summer	62.592	0.292	0.2	1.7	0 K
5760 min Summer	62.502	0.202	0.2	1.1	0 K
7200 min Summer	62.438	0.138	0.1	0.7	0 K
8640 min Summer	62.392	0.092	0.1	0.4	0 K
10080 min Summer	62.363	0.063	0.1	0.3	0 K
15 min Winter	62.855	0.555	0.2	3.3	0 K
30 min Winter	63.017	0.717	0.3	4.3	0 K
60 min Winter	63.165	0.865	0.3	5.2	0 K
120 min Winter	63.267	0.967	0.3	5.8	0 K
180 min Winter	63.283	0.983	0.3	5.9	0 K
Storm Event	Rain (mm/hr)	Time-Peak (mins)			
15 min Summer	105.082	25			
30 min Summer	70.021	38			
60 min Summer	44.676	66			
120 min Summer	27.642	120			
180 min Summer	20.622	150			
240 min Summer	16.674	182			
360 min Summer	12.359	250			
480 min Summer	9.980	320			
600 min Summer	8.449	390			
720 min Summer	7.371	458			
960 min Summer	5.939	594			
1440 min Summer	4.374	856			
2160 min Summer	3.217	1240			
2880 min Summer	2.585	1616			
4320 min Summer	1.896	2340			
5760 min Summer	1.521	3064			
7200 min Summer	1.282	3760			
8640 min Summer	1.116	4496			
10080 min Summer	0.992	5144			
15 min Winter	105.082	25			
30 min Winter	70.021	38			
60 min Winter	44.676	64			
120 min Winter	27.642	120			
180 min Winter	20.622	160			
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Dixon Hurst Kemp		Page 2
Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
Date June 25	Designed by JS	
File TRENCH DESIGN 1 IN 10...	Checked by	
Elstree Computing Ltd	Source Control w.12.6	

Summary of Results for 30 year Return Period (+45%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
240 min Winter	63.283	0.983	0.3	5.9	0 K
360 min Winter	63.261	0.961	0.3	5.8	0 K
480 min Winter	63.223	0.923	0.3	5.5	0 K
600 min Winter	63.179	0.879	0.3	5.3	0 K
720 min Winter	63.136	0.836	0.3	5.0	0 K
960 min Winter	63.057	0.757	0.3	4.5	0 K
1440 min Winter	62.924	0.624	0.3	3.7	0 K
2160 min Winter	62.771	0.471	0.2	2.8	0 K
2880 min Winter	62.658	0.358	0.2	2.1	0 K
4320 min Winter	62.503	0.203	0.2	1.1	0 K
5760 min Winter	62.405	0.105	0.1	0.5	0 K
7200 min Winter	62.350	0.050	0.1	0.2	0 K
8640 min Winter	62.344	0.044	0.1	0.1	0 K
10080 min Winter	62.340	0.040	0.1	0.1	0 K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
240 min Winter	16.674	192
360 min Winter	12.359	268
480 min Winter	9.980	344
600 min Winter	8.449	418
720 min Winter	7.371	492
960 min Winter	5.939	634
1440 min Winter	4.374	906
2160 min Winter	3.217	1300
2880 min Winter	2.585	1676
4320 min Winter	1.896	2420
5760 min Winter	1.521	3112
7200 min Winter	1.282	3672
8640 min Winter	1.116	4408
10080 min Winter	0.992	5064

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Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	30	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.347	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time / Area Diagram

Total Area (ha) 0.016

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.005	4-8	0.005	8-12	0.005

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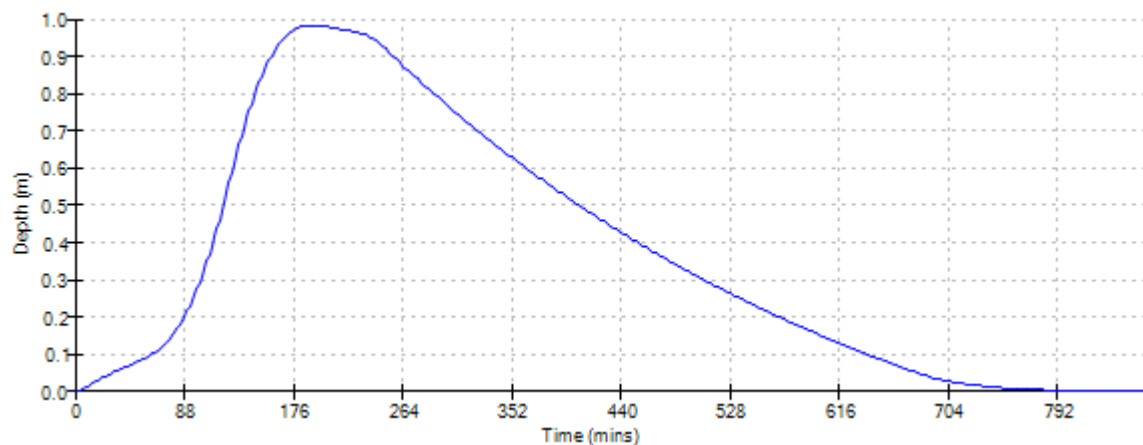
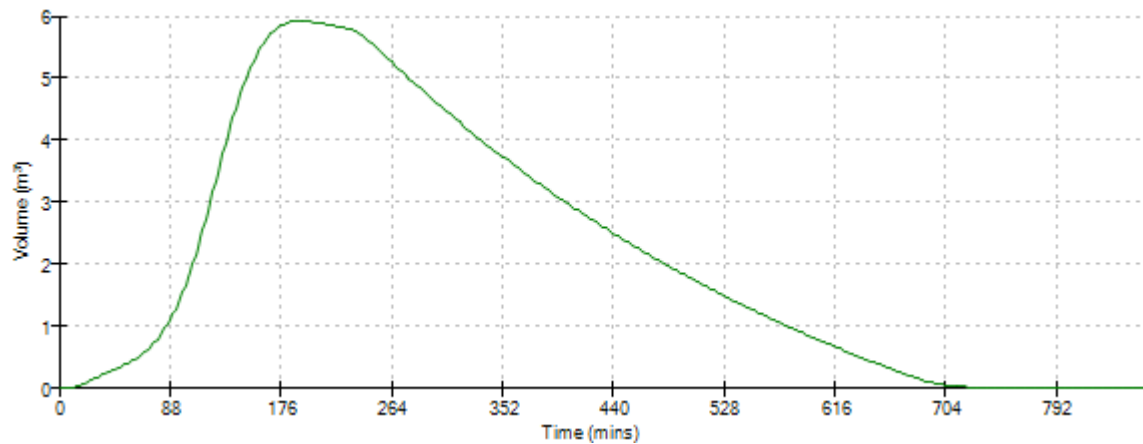
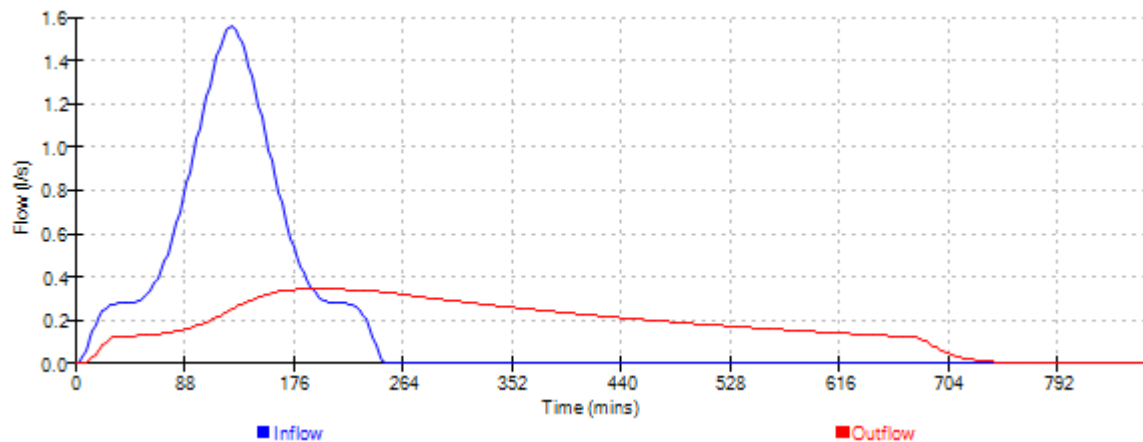
Model Details

Storage is Online Cover Level (m) 63.800

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.04000	Trench Width (m)	1.0
Infiltration Coefficient Side (m/hr)	0.04000	Trench Length (m)	20.5
Safety Factor	2.0	Slope (1:X)	500.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	62.300	Cap Infiltration Depth (m)	0.000

Event: 240 min Winter



Dixon Hurst Kemp				Page 1		
Victoria Court		Twinham 34 Hurst Road Hass...				
22 St Pancras		Surface Water Drainage				
West Sussex PO19 7GD		Trench Soakaway Design				
Date June 25		Designed by JS				
File TRENCH DESIGN 1 IN 10...		Checked by				
Elstree Computing Ltd		Source Control W.12.6				
Summary of Results for 100 year Return Period (+45%)						
Half Drain Time : 204 minutes.						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
15 min Summer	62.942	0.642	0.3	3.8	0 K	
30 min Summer	63.138	0.838	0.3	5.0	0 K	
60 min Summer	63.319	1.019	0.4	6.1	0 K	
120 min Summer	63.439	1.139	0.4	6.9	0 K	
180 min Summer	63.461	1.161	0.4	7.0	0 K	
240 min Summer	63.461	1.161	0.4	7.0	0 K	
360 min Summer	63.446	1.146	0.4	6.9	0 K	
480 min Summer	63.415	1.115	0.4	6.7	0 K	
600 min Summer	63.379	1.079	0.4	6.5	0 K	
720 min Summer	63.342	1.042	0.4	6.3	0 K	
960 min Summer	63.272	0.972	0.3	5.9	0 K	
1440 min Summer	63.152	0.852	0.3	5.1	0 K	
2160 min Summer	63.008	0.708	0.3	4.2	0 K	
2880 min Summer	62.896	0.596	0.3	3.5	0 K	
4320 min Summer	62.731	0.431	0.2	2.5	0 K	
5760 min Summer	62.616	0.316	0.2	1.8	0 K	
7200 min Summer	62.533	0.233	0.2	1.3	0 K	
8640 min Summer	62.470	0.170	0.1	0.9	0 K	
10080 min Summer	62.422	0.122	0.1	0.6	0 K	
15 min Winter	63.019	0.719	0.3	4.3	0 K	
30 min Winter	63.241	0.941	0.3	5.7	0 K	
60 min Winter	63.449	1.149	0.4	6.9	0 K	
120 min Winter	63.596	1.296	0.4	7.8	0 K	
180 min Winter	63.621	1.321	0.4	8.0	0 K	
Storm Event	Rain (mm/hr)		Time-Peak (mins)			
15 min Summer	136.149		25			
30 min Summer	91.587		39			
60 min Summer	58.739		66			
120 min Summer	36.305		120			
180 min Summer	26.955		154			
240 min Summer	21.679		186			
360 min Summer	15.967		254			
480 min Summer	12.831		322			
600 min Summer	10.820		392			
720 min Summer	9.407		462			
960 min Summer	7.537		596			
1440 min Summer	5.504		862			
2160 min Summer	4.010		1244			
2880 min Summer	3.199		1620			
4320 min Summer	2.322		2376			
5760 min Summer	1.848		3104			
7200 min Summer	1.549		3816			
8640 min Summer	1.341		4504			
10080 min Summer	1.188		5248			
15 min Winter	136.149		25			
30 min Winter	91.587		38			
60 min Winter	58.739		66			
120 min Winter	36.305		120			
180 min Winter	26.955		170			
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Dixon Hurst Kemp		Page 2
Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
Date June 25	Designed by JS	
File TRENCH DESIGN 1 IN 10...	Checked by	
Elstree Computing Ltd	Source Control w.12.6	

Summary of Results for 100 year Return Period (+45%)

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
240 min Winter	63.619	1.319	0.4	8.0	0 K
360 min Winter	63.594	1.294	0.4	7.8	0 K
480 min Winter	63.548	1.248	0.4	7.6	0 K
600 min Winter	63.496	1.196	0.4	7.2	0 K
720 min Winter	63.441	1.141	0.4	6.9	0 K
960 min Winter	63.337	1.037	0.4	6.2	0 K
1440 min Winter	63.166	0.866	0.3	5.2	0 K
2160 min Winter	62.973	0.673	0.3	4.0	0 K
2880 min Winter	62.830	0.530	0.2	3.1	0 K
4320 min Winter	62.634	0.334	0.2	1.9	0 K
5760 min Winter	62.507	0.207	0.2	1.1	0 K
7200 min Winter	62.420	0.120	0.1	0.6	0 K
8640 min Winter	62.362	0.062	0.1	0.3	0 K
10080 min Winter	62.347	0.047	0.1	0.2	0 K

Storm Event	Rain (mm/hr)	Time-Peak (mins)
240 min Winter	21.679	194
360 min Winter	15.967	270
480 min Winter	12.831	346
600 min Winter	10.820	422
720 min Winter	9.407	494
960 min Winter	7.537	636
1440 min Winter	5.504	912
2160 min Winter	4.010	1304
2880 min Winter	3.199	1696
4320 min Winter	2.322	2428
5760 min Winter	1.848	3168
7200 min Winter	1.549	3888
8640 min Winter	1.341	4496
10080 min Winter	1.188	5088

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Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
Date June 25	Designed by JS	
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Elstree Computing Ltd	Source Control w.12.6	

Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.347	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+45

Time / Area Diagram

Total Area (ha) 0.016

Time (mins)	Area (ha)	Time (mins)	Area (ha)	Time (mins)	Area (ha)
0-4	0.005	4-8	0.005	8-12	0.005

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Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
Date June 25	Designed by JS	
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Elstree Computing Ltd	Source Control w.12.6	

Model Details

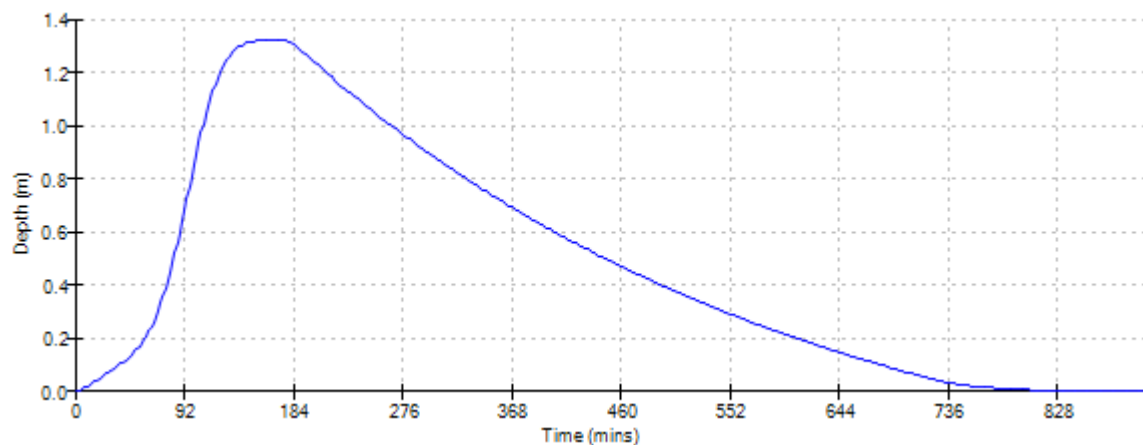
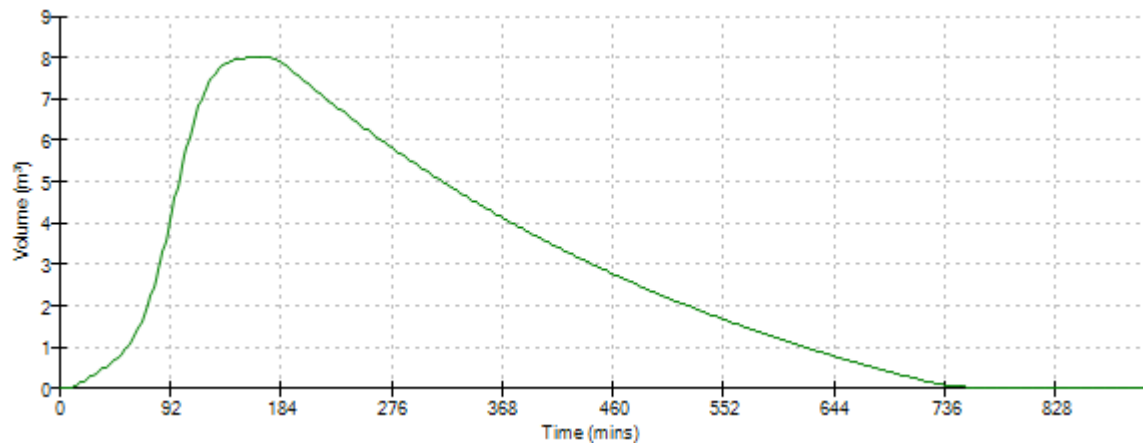
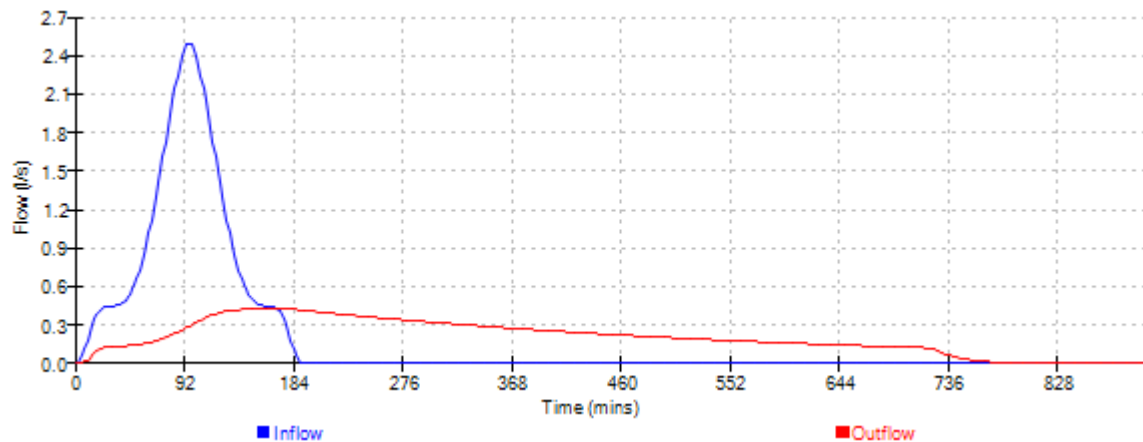
Storage is Online Cover Level (m) 63.800

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.04000	Trench Width (m)	1.0
Infiltration Coefficient Side (m/hr)	0.04000	Trench Length (m)	20.5
Safety Factor	2.0	Slope (1:X)	500.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	62.300	Cap Infiltration Depth (m)	0.000

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Victoria Court 22 St Pancras West Sussex PO19 7GD	Twinham 34 Hurst Road Hass... Surface Water Drainage Trench Soakaway Design	
Date June 25	Designed by JS	
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Event: 180 min Winter



Service And Maintenance Report

SITE

SITE
Twinham

SERVICE TIME
10:35am on 24/12/2024

OPERATIVE
Engineer 1

General - Pumping Station

✓ Cut grass and overhanging bushes

✓ Clean all kiosks, covers and tank lids

✓ Check primary sludge levels

Visual effluent quality: N/A

Notes:
None

✓ Tidy site removing rubbish

✓ Check safety of system

✓ Ensure manhole covers are secure

Overall system operation: Ok



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Pumping Station

- | | |
|---|--|
| ✓ Control floats operation normal | ✓ Pump 1 operation normal |
| ✓ Alarm system OK if applicable | ✓ Check weeds in and around |
| ✓ Pump 2 operation normal (if applies) | ✓ Electrical system clean and safe |
| ✓ Kiosk condition acceptable | ✓ Wet well pipe / guide rails OK |
| ✓ Check control panel - electrics working OK and safe (no sparking, secure) | ✓ Wet well clean and scum removed |
| ✓ Control floats clean and secure (hang right, working) | ✓ Auto controls and electrics acceptable |
| ✓ Non-return valves normal | ✓ Wet well pipe work |
| ✓ Guide rails - not rusted, secure and pumps able to slide up and down | ✓ Chains and pipe work OK |
| ✓ Non return valves - condition / working | ✓ Pump down wet well |
| ✓ Pumps seated correctly | Sludge level: Good |
| Pump 1 megger reading: ok | Pump 1 operation: Good |
| Pump 2 megger reading: n/a | Pump 2 operation: n/a |
| Amp readings pump 1: ok | Amp readings pump 2: n/a |



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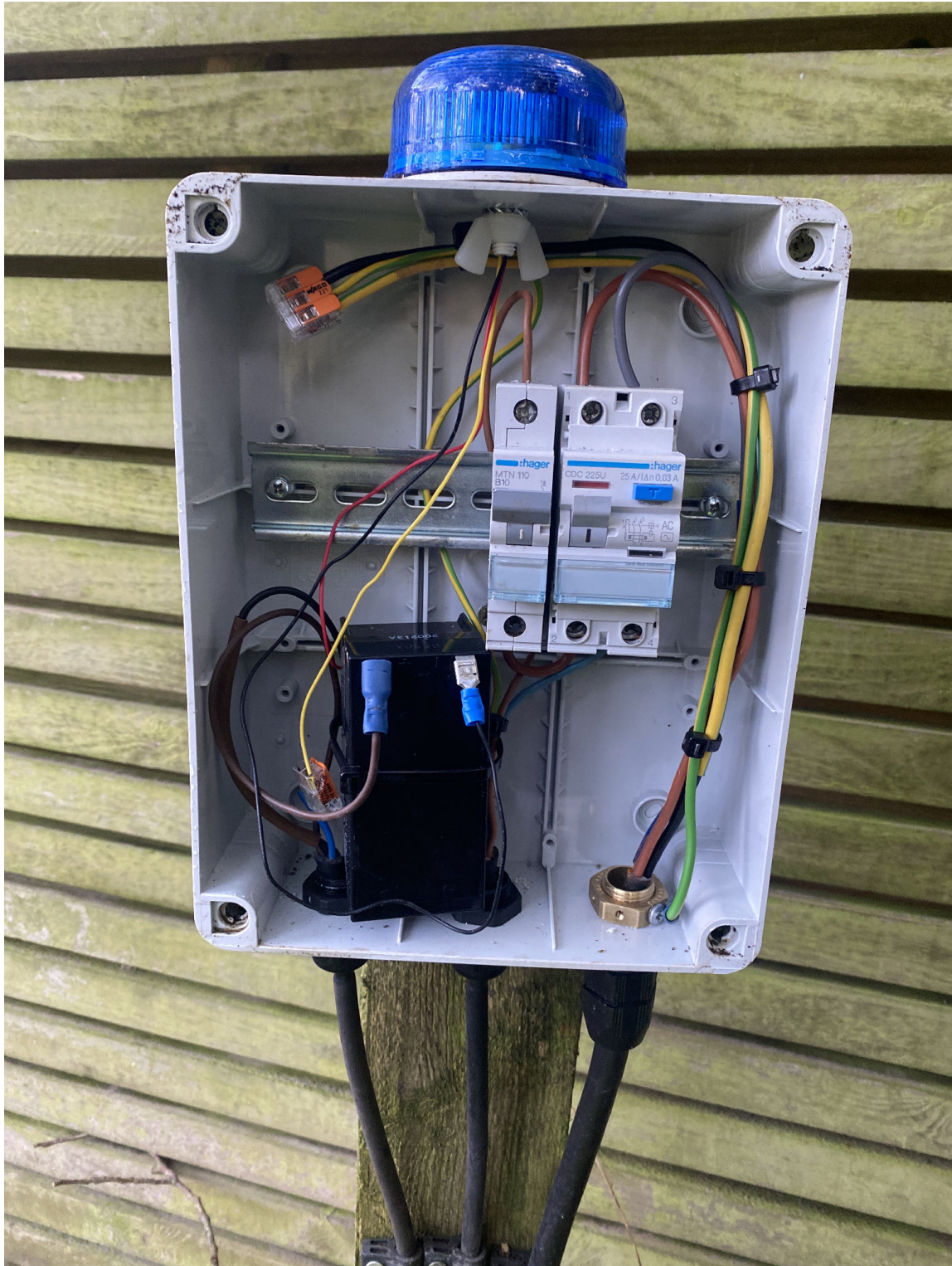
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**LAND ADJACENT TO TWINHAM 34 HURST ROAD, HASSOCKS,
EAST SUSSEX, BN6 9NL.
PROPOSED MAINTENANCE & INSPECTION SCHEDULE FOR BELOW GROUND DRAINAGE
(FOUL WATER AND SURFACE WATER) INCLUDING SUSTAINABLE DRAINAGE SYSTEMS (SuDS)**

Item	Required Maintenance/Monitoring	Suggested Frequency	Responsibility
Foul Water Drainage	Check inspection chambers and manholes for damage, condition and function.	Every six months	Property Owner
	Undertake a CCTV drainage survey of the drainage network to establish condition.	Every ten years	Specialist
	Replace or repair malfunctioning parts or structures	As required	Specialist
Surface Water Drainage	Check inspection chambers and manholes for damage, condition and function	Every six months	Property Owner
	Undertake a CCTV drainage survey of the drainage network to establish condition.	Every ten years	Property Owner
	Replace or repair malfunctioning parts or structures.	As required	Specialist
Gullies and Channel Drains	Check gullies and channel drains for damage, condition and function.	Every six months	Property Owner
	Remove sediment, oil/grease, litter and debris.	As necessary	Property Owner
	Replace or repair malfunctioning parts or structures.	As required	Specialist
Surface Water Soakaway	Check silt traps and inspection chambers, and note the rate of sediment accumulation.	Every month for the first year and then annually, or as conditions require	Property Owner
	Undertake a CCTV drainage survey of tanks and soakaway chambers. Note sediment build up and remove sediment/debris if present.	Every five years, or as conditions require	Specialist
Petrol Interceptor	Inspection in accordance with manufacturer's requirements.	Every six months	Specialist
	Full service and general inspection with separator system emptied.	Every 5 years	
Permeable Block Paving	Sweep clean of debris and inspect integrity of bedding grit. Replace bedding grit locally if required.	Every six months	Property Owner
	Lift blocks and remove bedding grit and replace and re-bed paving.	Full bedding replacement currently recommended by manufacturers every 20 years	Specialist
Bioretention areas	Inspect infiltration surfaces for silting and ponding, record drain down time to monitor performance.	Quarterly	Property Owner

**LAND ADJACENT TO TWINHAM 34 HURST ROAD, HASSOCKS,
EAST SUSSEX, BN6 9NL.
PROPOSED MAINTENANCE & INSPECTION SCHEDULE FOR BELOW GROUND DRAINAGE
(FOUL WATER AND SURFACE WATER) INCLUDING SUSTAINABLE DRAINAGE SYSTEMS (SuDS)**

General	Check underdrains are free flowing and inlets/outlets are blockage free.	Quarterly	Property Owner
	Assess plants for health and invasive weed growth replace/remove as necessary.	Quarterly	Property Owner
	Remove litter and general detritus.	Quarterly and after heavy storms	Property Owner
	Remove and replace filter medium and vegetation	As required – SuDS Manual recommends every 20 years	Specialist
	Remove sediment, litter, debris and vegetation from the surface of pathways areas	As necessary and after heavy rainfall	Property Owner
Flood Flow Routes	Ensure flood flow routes are not obstructed (i.e. lower lying portions of the land that will direct surface water runoff away from vulnerable assets in the event of drainage failure).	Every six months and during periods of heavy rainfall	Property Owner

NOTES

The property owners will be responsible for the implementation of the maintenance schedule for below ground drainage or appoint appropriate persons and/or sub-consultants that are qualified to undertake these operations.

Maintenance is to be carried out by the property owners or by a specialist contractor, as noted in Responsibility column above.

This maintenance schedule has been produced with reference to the guidelines outlined in 'The SuDS Manual' (CIRIA C753: 2015). The suggested frequency of maintenance is considered a guide, and should not replace the guidance from manufacturers of proprietary systems.

Refer to Engineering drawings for location and details of below ground drainage assets and SuDS features.