

Sandhill Lane, Crawley Down

5169-DD-XX-XX-RP-D-0001-S4-01

Proposed Drainage Strategy

First Issue

Version 1.0

Document prepared on behalf of Adrian Kirkpatrick

DOCUMENT CONTROL

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Client:	Adrian Kirkpatrick
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1.0 INTRODUCTION

1.1 PURPOSE OF THIS REPORT

The Drainage Designers have been appointed by Adrian Kirkpatrick to prepare a design for foul water and Surface water drainage with calculations for surface water storage and attenuation requirements for a development of a single two bedroom caravan located at Sandhill Lane, Crawley Down.

1.2 SCOPE OF THE REPORT

The drainage strategy will consider all the relevant published code and guidance, including the Ciria SuDS manual C753, the Department for Environment, Food and Rural Affairs Sustainable Drainage Systems: Non-statutory technical standards for sustainable drainage systems, and Drainage and waste disposal: Approved Document H.

1.3 LIMITATIONS OF THIS REPORT

This report has been prepared by The Drainage Designers on behalf of the client in connection with the scope of the report, as described in Section 1.1 above and considering the particular instructions and requirements set out in the fee proposal, and the Client's acceptance. It is not intended for and should not be relied on by any third party and no responsibility is undertaken to any third party.

The Drainage Designers accepts no duty or responsibility (including in negligence) to any party other than the Client and disclaims all liability of any nature whatsoever to any such party in respect of this report.

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2.0 SITE DESCRIPTION

2.1 EXISTING SITE

A location plan is included in Appendix A.

The site was previously part of the rear garden of Sandhill Farmhouse.

There is no mains foul drainage in the vicinity, there is a functioning, maintained, septic tank system with drainage field to which the plot has access, currently used by the neighbouring farmhouse, however the farmhouse is due to be disconnected from this septic tank soon.

No mains surface water is in the vicinity, however a water course runs down the edge of Sandhill Lane which flows into the River Medway after approximately 400 m

2.2 SOIL INFILTRATION TESTS

Two infiltration test pits were dug, and filled with water (see Appendix B, however after several days the lower drainage mark had not been reached. Infiltration is not an option at this location.

3.0 EXISTING SITE SURFACE WATER DRAINAGE

3.1 EXISTING SURFACE WATER DRAINAGE

This site has no surface water provision and should be considered as a greenfield site.

The greenfield runoff for the site for a 1 in 1 year storm using HR Wallingford's greenfield runoff estimation tool is calculated as 0.5 l/s (see Appendix C). In line with normal practice we will limit the discharge rate for the new development to 0.5 l/s for all storm events up to a 1 in 100 year storm plus 40% for climate change.

4.0 PROPOSED DEVELOPMENT

The proposed development involves the construction of a new development comprising of a 2 bedroom caravan. The proposed site plan is included in Appendix D.

4.1 PROPOSED SUDS STRATEGY

The surface water discharge hierarchy has been considered in accordance with Ciria C753 guidelines, as outlined below:

- Used as a resource, where appropriate.
- Infiltration to the maximum extent that is practical.
- Discharge to watercourse.
- Discharge to surface water sewer.
- Discharge to combined sewer (last resort)

Used as a resource (rainwater harvesting)

As there is no requirement for rainwater harvesting, this option has not been considered.

Infiltration to the maximum extent that is practical

It has been demonstrated that infiltration is impractical.

Discharge to watercourse

It is practical to use a watercourse running to the side of Sandhill Lane

Discharge to surface water sewer

Not applicable as a higher discharge hierarchy has been met.

Discharge to combined sewer

Not applicable as a higher discharge hierarchy has been met.

4.2 PROPOSED SURFACE WATER DISCHARGE STRATEGY

Roof drainage is to be attenuated and discharged to the above identified water course at no more than 0.5 l/s. Attenuation be in the form of “storm crates” and a flow control chamber comprising a guarded 15 mm diameter orifice will restrict the flow.

4.3 PROPOSED FOUL DISCHARGE STRATEGY

The new development will keep foul and surface water system separate. A connection will be made to a new chamber that will be built over the existing foul drain that runs from the farmhouse to the septic tank, the farmhouse is making a new, separate, provision for its foul water. The existing septic tank is in good order and regularly maintained. The Tank and drainage field was installed professionally by Karlin Environmental Drainage in July 2000. The tank size has a design capacity of 9 people (7 bed house), the unit has sufficient capacity to cope with input from the proposed development. As far as we can determine, the general binding rules for small sewage discharge to the ground appear to be complied with.

5.0 PROPOSED SURFACE WATER DESIGN

Considering the strategy outlined above the proposed drainage design for the new development is included in the appendices as follows

- Appendix E Proposed Drainage Drawings
- Appendix F Foul and surface water chamber and pipe schedules
- Appendix G Proposed Surface Water Hydraulic Analysis

6.0 MANAGEMENT AND MAINTENANCE

The property owner will maintain the drainage infrastructure in line with the following maintenance requirements as a minimum:

Item	Maintenance	Frequency per year
Foul Water Inspection Chambers	- Manholes covers checked for operation/damage – seating's re-greased or replaced as required. - Check for blockages and or damage to invert channel/inlets – jetting pipe runs if blocked, any damage to be repaired.	1
Surface Water Inspection chambers	- As Above - All catch pits/Flow control chambers and catch pits to have silt/solid accumulation removed & base jetted clean.	1
Attenuation Tanks / Soakaways	Inspect for sediment and debris in pre-treatment components, check free flow/ flow through to /from attenuation tank.	1
Attenuation Tanks / Soakaways	If annual inspection shows signs of blockage, jet through attenuation tank to remove accumulated silt/debris	As required

Table 1 - Below-ground Drainage Maintenance Plan

7.0 CONCLUSIONS

We have demonstrated that surface water drainage can be significantly attenuated to 1 in 1 year greenfield runoff rates for all storm events up to a 1:100 year storm event (+ 40% CC). Hydraulic Analysis demonstrates no surcharging for a 1 in 1 year storm event and no flooding for all storm events up to 1 in 100 year + 40% CC.

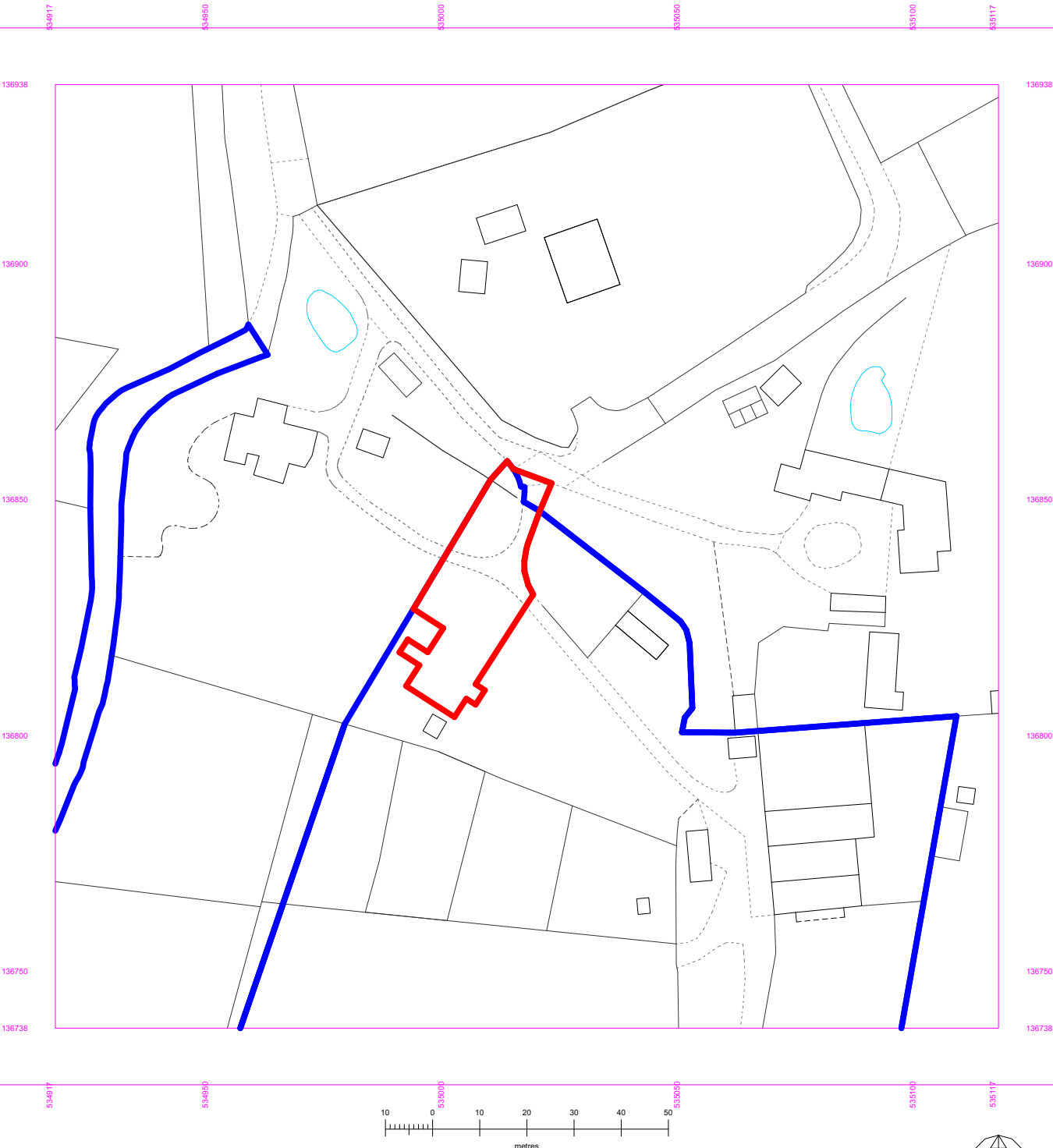
8.0 APPENDICES

APPENDIX A

LOCATION PLAN

LOCATION PLAN

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1:1250 scale print at A4

APPENDIX B

INFILTRATION TESTING

Trial pits 1 & 2. Water failed to drain after several days.



APPENDIX C

GREENFIELD RUNOFF REPORT

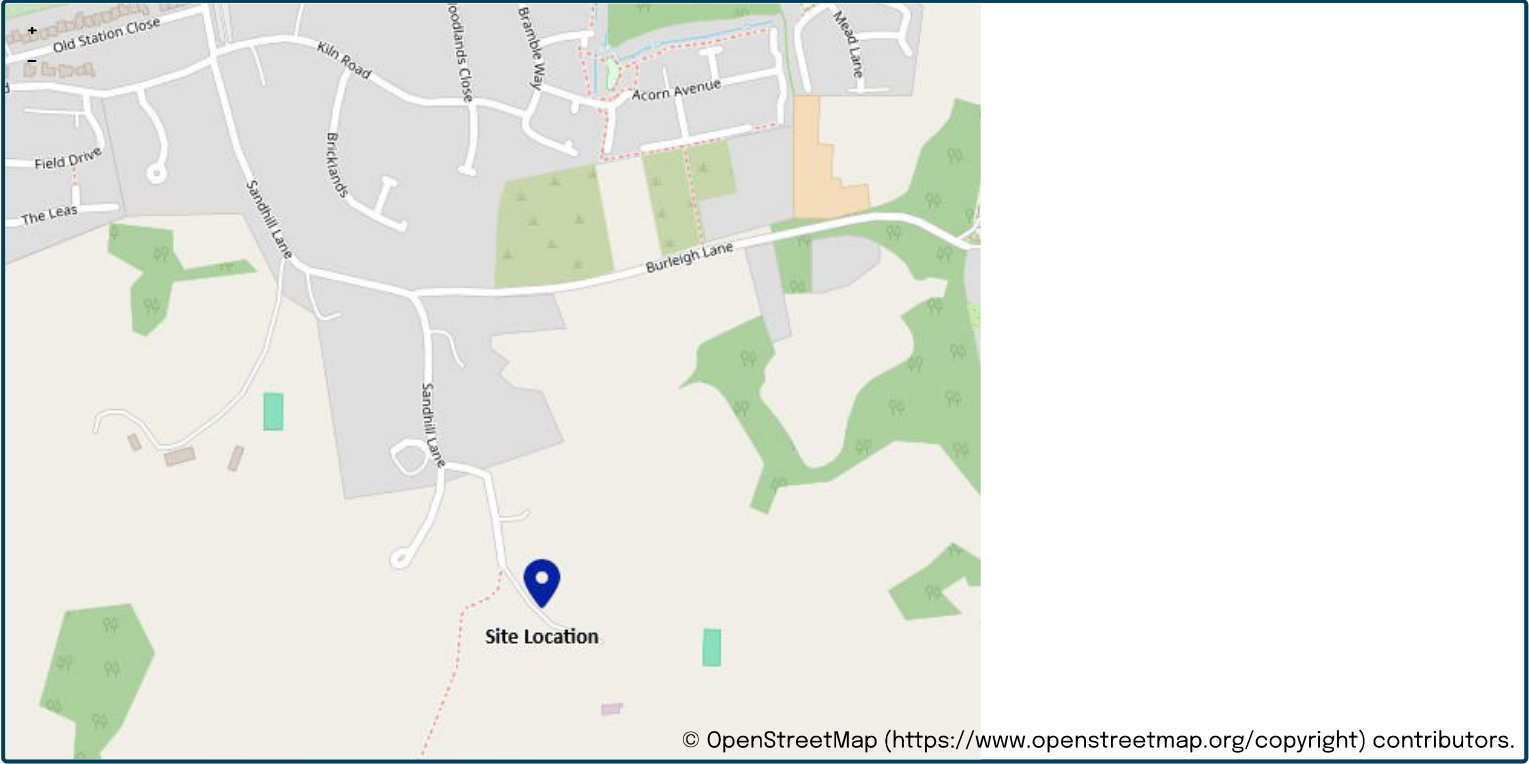
This is an estimation of the greenfield runoff rates that are used to meet normal best practice criteria in line with Environment Agency guidance “Rainfall runoff management for developments”, SC030219 (2013), the SuDS Manual C753 (CIRIA, 2015) and the non-statutory standards for SuDS (Defra, 2015). This information on greenfield runoff rates may be the basis for setting consents for the drainage of surface water runoff from sites.

Project details

Date	04/09/2025
Calculated by	Paul Evans
Reference	Sandhill Lane
Model version	2.1.2

Location

Site name	Sandhill Lane
Site location	Crawley Down



Site easting (British National Grid)	535010
Site northing (British National Grid)	136850

Site details

Total site area (ha)	.0819	ha
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Greenfield runoff

Method

Method

FEH statistical

	My value		Map value	
SAAR (mm)	852	mm		852
BFIHOST	0.418			
QMed-QBar conversion	1.136			1.136
QMed (l/s)	0.49	l/s		
QBar (FEH statistical) (l/s)	0.56	l/s		

Growth curve factors

	My value		Map value	
Hydrological region				7
1 year growth factor	0.85			
2 year growth factor	0.88			
10 year growth factor	1.62			
30 year growth factor	2.3			
100 year growth factor	3.19			
200 year growth factor	3.74			

Results

Method	FEH statistical	
Flow rate 1 year (l/s)	0.5	l/s
Flow rate 2 year (l/s)	0.5	l/s
Flow rate 10 years (l/s)	0.9	l/s
Flow rate 30 years (l/s)	1.3	l/s
Flow rate 100 years (l/s)	1.8	l/s
Flow rate 200 years (l/s)	2.1	l/s

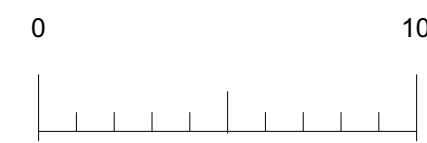
Please note runoff estimation is subject to significant uncertainty. Results are therefore normally reported to only 1 decimal place. Where 2 decimal places are provided, this does not indicate accuracy to this level, it has been adopted to prevent ‘zero’ figures from being reported. Outputs less than 0.01 l/s are reported as 0.01 l/s.

Disclaimer

This report was produced using the Greenfield runoff rate estimation tool (2.1.2) developed by HR Wallingford and available at uksuds.com (<https://www.uksuds.com/>). The use of this tool is subject to the UK SuDS terms and conditions and licence agreement, which can both be found at [uksuds.com/terms-conditions](https://www.uksuds.com/terms-conditions) (<https://www.uksuds.com/terms-conditions>). The outputs from this tool have been used to estimate Greenfield runoff rates. The use of these results is the responsibility of the users of this tool. No liability will be accepted by HR Wallingford, the Environment Agency, Centre for Ecology and Hydrology, Wallingford Hydrosolutions or any other organisation for the use of these data in the design or operational characteristics of any drainage scheme.

APPENDIX D

PROPOSED SITE PLAN



waste and recycling storage area

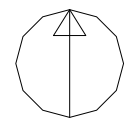
waste and recycling collection area

septic tank

BLOCK PLAN proposed (updated)

Client: Adrian Kirkpatrick
Site: Land at Sandhill Farm
Sandhill Lane
Crawley Down
Crawley RH10 4LE
Proposal: temporary agriculturally-tied
caravan accommodation
Stage: full planning
Scale: 1:200 @ A2
Drawing no: KirkBPP250404

- Key:**
- / site boundary
 - / ownership boundary
 - tree canopy
 - tree root protection area
 - / area to upgraded to "lowland meadows"
 - / area to upgraded to "other neutral grassland"
 - new tree planted



surface water soakaway

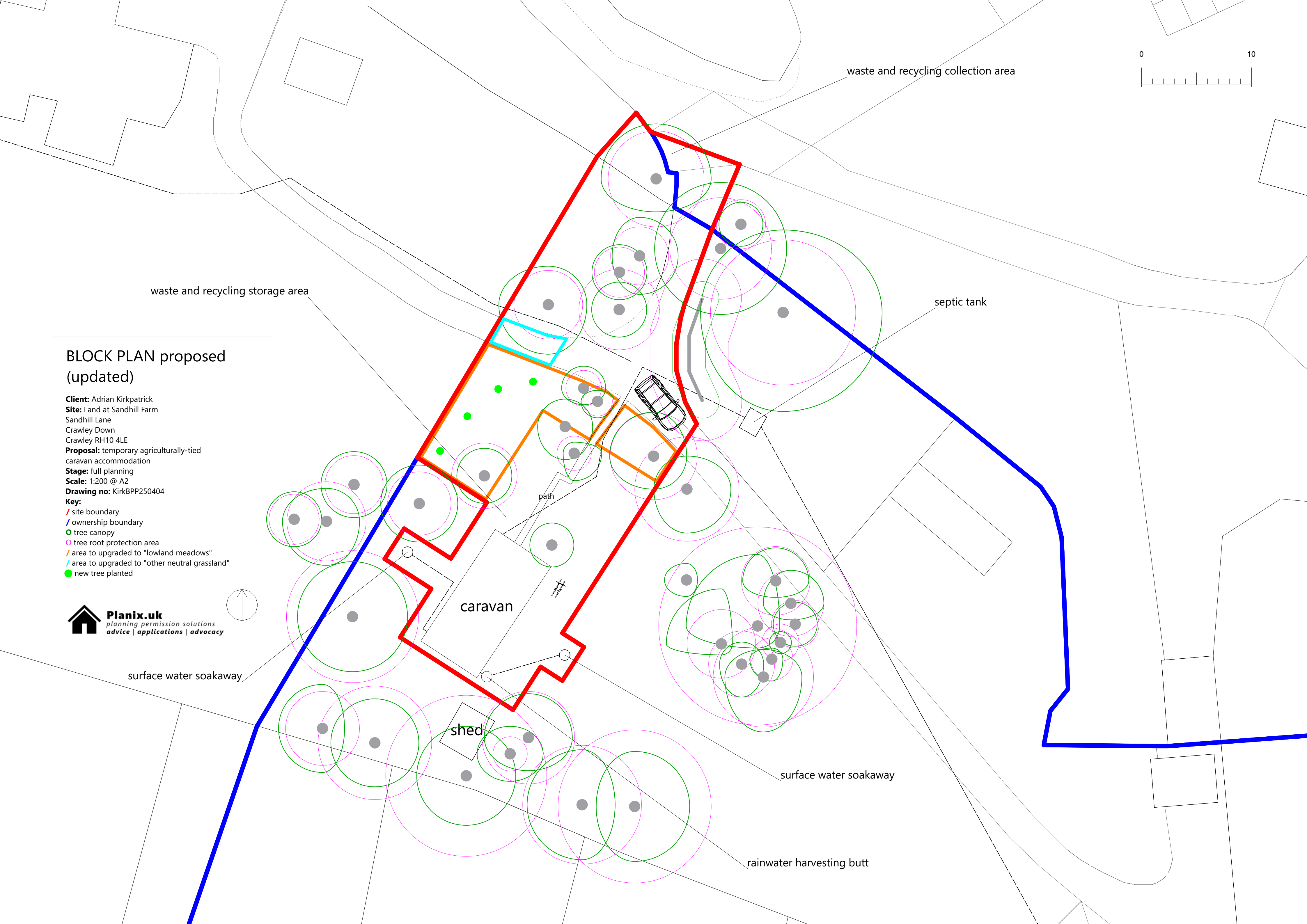
caravan

path

shed

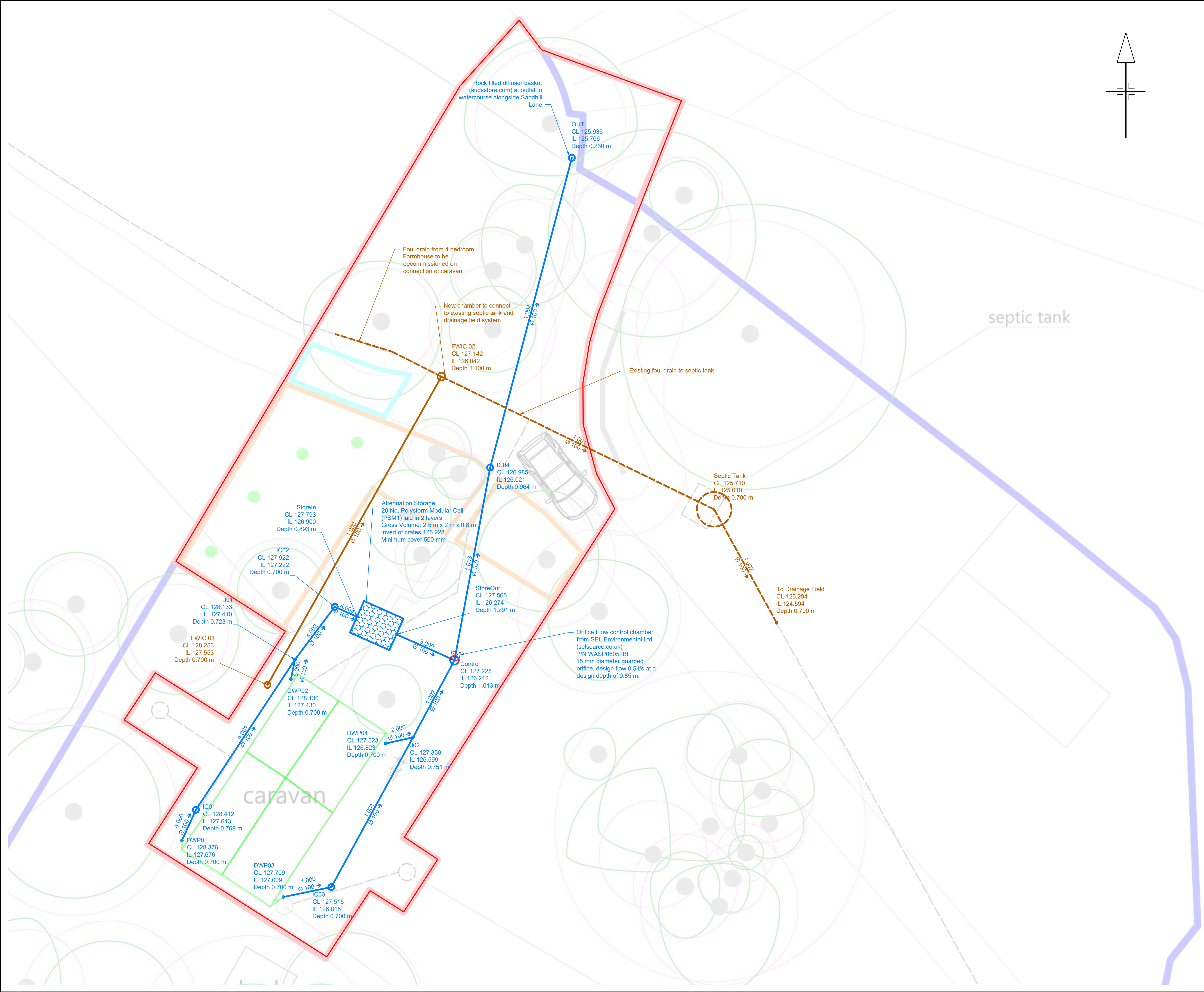
surface water soakaway

rainwater harvesting butt



APPENDIX E

PROPOSED DRAINAGE DRAWINGS



LEGEND

- Proposed surface water drainage
- Proposed foul drainage
- Existing surface water sewer
- Existing foul sewer
- Existing combined sewer
- Catchment areas
- Site Boundary

01	04-09-25	FIRST ISSUE	PE	MTY	MTY
Rev.	Date	Description	By	Chk'd	App'd

The Drainage Designers

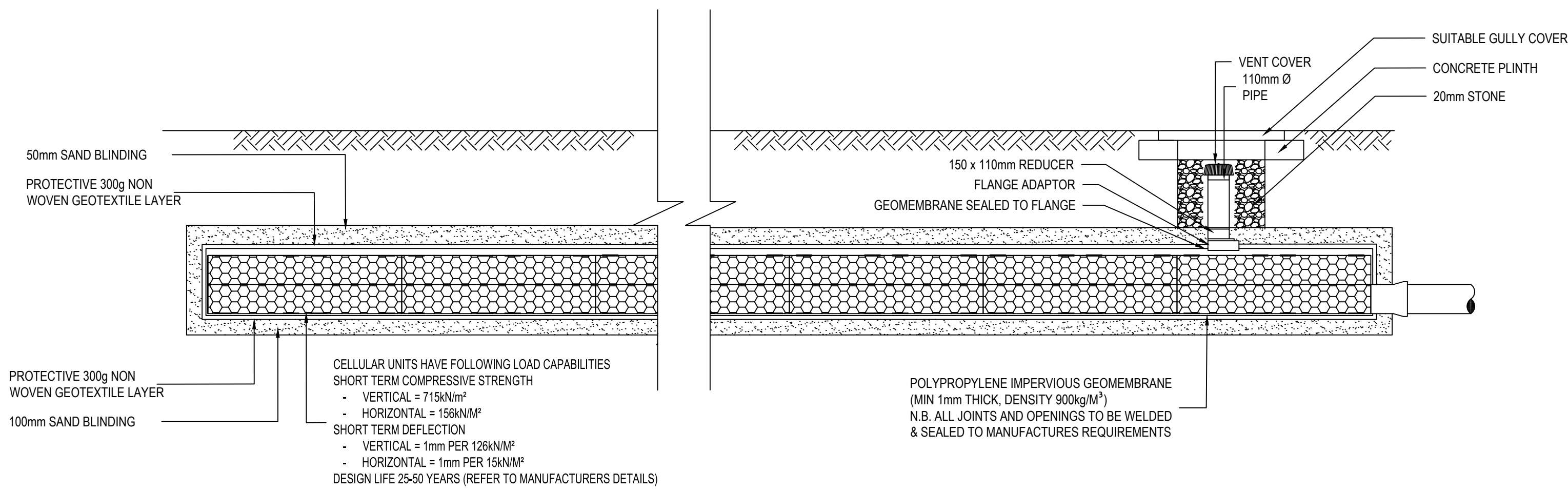
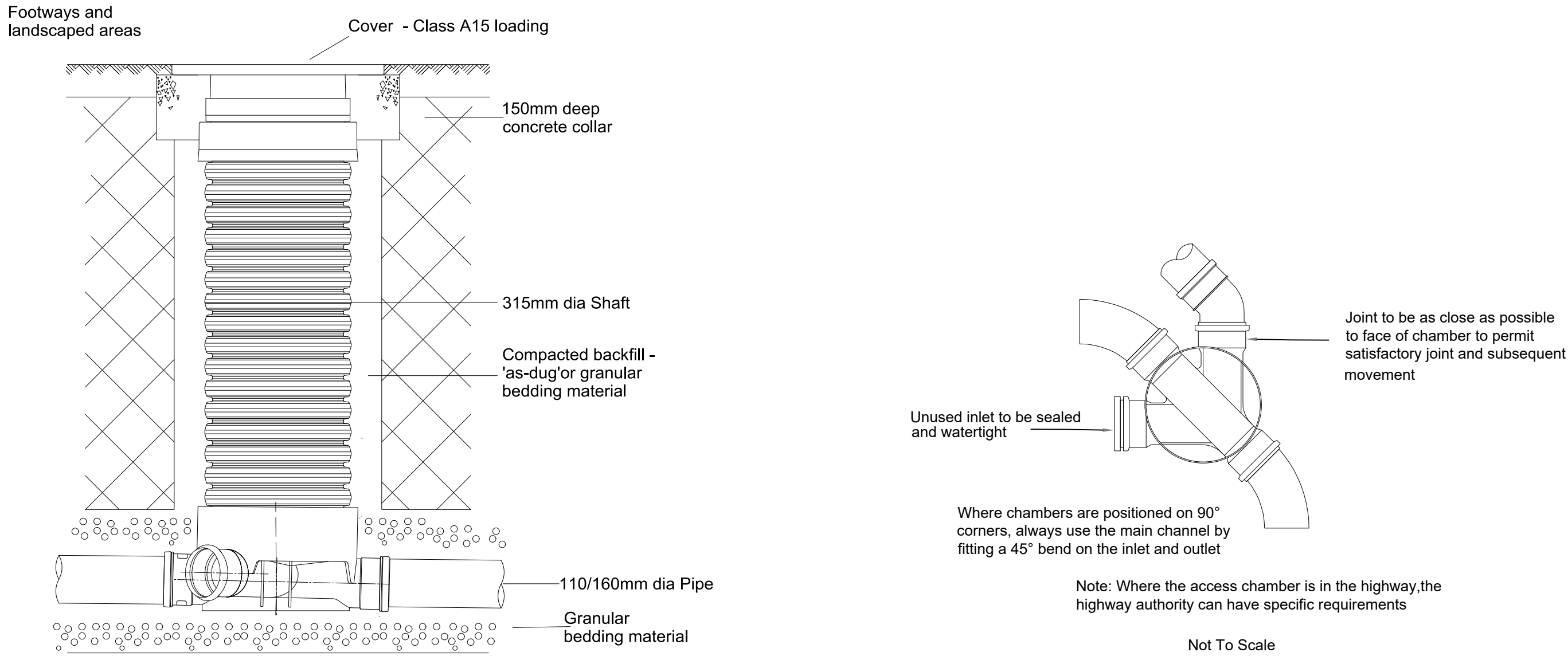
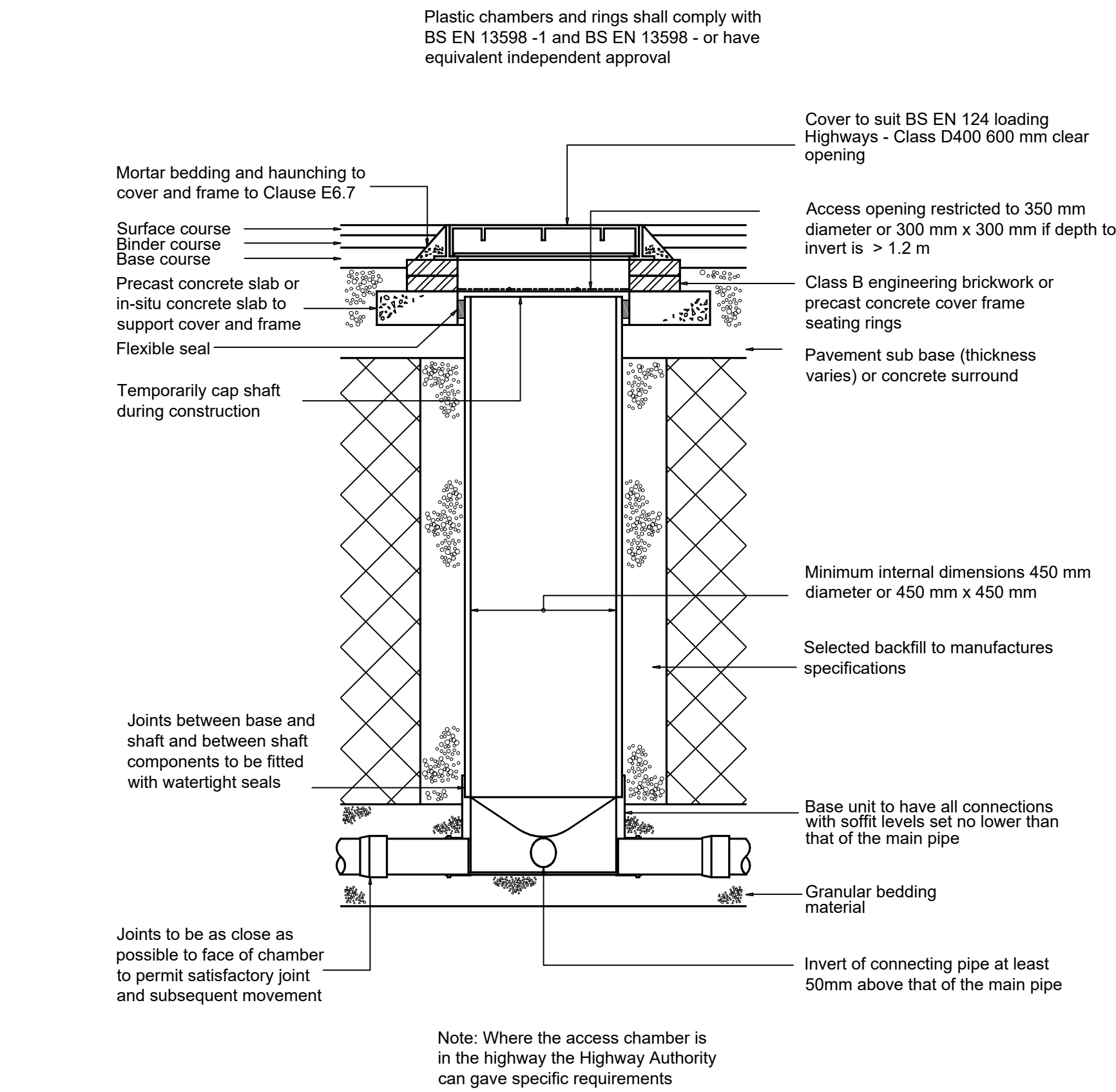
Drawing Status: **FOR CONSTRUCTION** Suitability: **C4**

Project Title: **SANDHILL LANE, CRAWLEY DOWN**

Drawing Title: **PROPOSED DRAINAGE LAYOUT**

Scale	Designed	Drawn	Checked	Authorised
1:100	PE	PE	MTY	MTY
Original Size	Date	Date	Date	Date
A1	04-09-25	04-09-25	04-09-25	04-09-25

Drawing Number	Revision
5169-DD-XX-XX-DR-D-0001	01



01	04-09-25	FIRST ISSUE	PE	MTY	MTY
Rev.	Date	Description	By	Chk'd	App'd
The Drainage Designers					
Drawing Status			Suitability		
FOR CONSTRUCTION			C4		
Project Title					
SANDHILL LANE, CRAWLEY DOWN					
Drawing Title					
TYPICAL CONSTRUCTION DETAILS					
Scale	Designed	Drawn	Checked	Authorised	
NTS	PE	PE	MTY	MTY	
Original Size	Date	Date	Date	Date	
A1	04-09-25	04-09-25	04-09-25	04-09-25	
Drawing Number				Revision	
5169-DD-XX-XX-DR-D-0002				01	

APPENDIX F

FOUL AND SURFACE WATER CHAMBER AND PIPE SCHEDULES

Pipeline Schedule

Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	20.491	13.6	100	Circular	128.253	127.553	0.600	127.142	126.042	1.000
1.001	17.551	17.0	100	Circular	127.142	126.042	1.000	125.710	125.010	0.600
1.002	7.500	18.0	100	Circular	125.710	125.010	0.600	125.294	124.594	0.600

Link	US Node	Dia (mm)	Node Type	DS Node	Node Type
1.000	FWIC 01	350	Manhole	FWIC 02	Junction
1.001	FWIC 02		Junction	Septic Tank	Junction
1.002	Septic Tank		Junction	To Drainage Field	Junction

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
FWIC 01	534998.150	136819.678	128.253	0.700	350				
						0	1.000	127.553	100
FWIC 02	535008.217	136837.526	127.142	1.100			1	1.000	126.042
						0	1.001	126.042	100
Septic Tank	535023.996	136829.842	125.710	0.700			1	1.001	125.010
						0	1.002	125.010	100
To Drainage Field	535027.615	136823.273	125.294	0.700			1	1.002	124.594
						0			

Pipeline Schedule

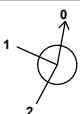
Link	Length (m)	Slope (1:X)	Dia (mm)	Link Type	US CL (m)	US IL (m)	US Depth (m)	DS CL (m)	DS IL (m)	DS Depth (m)
1.000	2.835	14.6	100	Circular	127.709	127.009	0.600	127.515	126.815	0.600
1.001	9.874	45.8	100	Circular	127.515	126.815	0.600	127.350	126.599	0.651
2.000	1.629	7.3	100	Circular	127.523	126.823	0.600	127.350	126.599	0.651
1.002	5.066	13.1	100	Circular	127.350	126.599	0.651	127.225	126.212	0.913
3.000	3.680	59.4	100	Circular	127.565	126.274	1.191	127.225	126.212	0.913
1.003	11.341	59.4	100	Circular	127.225	126.212	0.913	126.985	126.021	0.864
1.004	18.543	58.9	100	Circular	126.985	126.021	0.864	125.936	125.706	0.130
4.000	1.952	59.1	100	Circular	128.376	127.676	0.600	128.412	127.643	0.669
4.001	10.417	44.7	100	Circular	128.412	127.643	0.669	128.133	127.410	0.623
5.000	1.159	58.0	100	Circular	128.130	127.430	0.600	128.133	127.410	0.623
4.002	3.822	20.3	100	Circular	128.133	127.410	0.623	127.922	127.222	0.600
4.003	1.412	4.4	100	Circular	127.922	127.222	0.600	127.793	126.900	0.793

Link	US Node	Dia (mm)	Node Type	DS Node	Dia (mm)	Node Type
1.000	DWP03		Junction	IC03	350	Manhole
1.001	IC03	350	Manhole	J02		Junction
2.000	DWP04		Junction	J02		Junction
1.002	J02		Junction	Control	500	Manhole
3.000	StoreOut		Junction	Control	500	Manhole
1.003	Control	500	Manhole	IC04	350	Manhole
1.004	IC04	350	Manhole	OUT		Junction
4.000	DWP01		Junction	IC01	350	Manhole
4.001	IC01	350	Manhole	J01		Junction
5.000	DWP02		Junction	J01		Junction
4.002	J01		Junction	IC02	350	Manhole
4.003	IC02	350	Manhole	StoreIn		Junction

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
DWP03	534999.069	136807.402	127.709	0.700					
						0	1.000	127.009	100
IC03	535001.845	136807.976	127.515	0.700	350		1	1.000	126.815
						0	1.001	126.815	100
DWP04	535004.985	136816.283	127.523	0.700					
						0	2.000	126.823	100
J02	535006.573	136816.644	127.350	0.751			1	2.000	126.599
						2	1.001	126.599	100
						0	1.002	126.599	100
StoreOut	535005.611	136822.605	127.565	1.291					
						0	3.000	126.274	100

Manhole Schedule

Node	Easting (m)	Northing (m)	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
Control	535008.972	136821.106	127.225	1.013	500		1 3.000 126.212 100 2 1.002 126.212 100		
IC04	535011.034	136832.258	126.985	0.964	350		1 1.003 126.021 100 0 1.004 126.021 100		
OUT	535015.763	136850.188	125.936	0.230			1 1.004 125.706 100		
DWP01	534993.198	136810.670	128.376	0.700			0 4.000 127.676 100		
IC01	534994.007	136812.446	128.412	0.769	350		1 4.000 127.643 100 0 4.001 127.643 100		
DWP02	534999.506	136820.008	128.130	0.700			0 5.000 127.430 100		
J01	534999.741	136821.143	128.133	0.723			1 5.000 127.410 100 2 4.001 127.410 100 0 4.002 127.410 100		
IC02	535002.037	136824.199	127.922	0.700	350		1 4.002 127.222 100 0 4.003 127.222 100		
StoreIn	535003.327	136823.624	127.793	1.519			1 4.003 126.900 100		

APPENDIX G

EXISTING SURFACE WATER HYDRAULIC ANALYSIS

Simulation Settings

Rainfall Methodology	FEH-22	Analysis Speed	Normal	Starting Level (m)	
Rainfall Events	Singular	Skip Steady State	x	Check Discharge Rate(s)	x
Summer CV	1.000	Drain Down Time (mins)	240	Check Discharge Volume	x
Winter CV	1.000	Additional Storage (m³/ha)	20.0		

Storm Durations

15 | 30 | 60 | 120 | 180 | 240 | 360 | 480 | 600 | 720 | 960 | 1440

Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
1	0	0	0
30	0	0	0
100	40	0	0

Node Control Online Orifice Control

Flap Valve	x	Design Depth (m)	0.850	Discharge Coefficient	0.650
Replaces Downstream Link	x	Design Flow (l/s)	0.5		
Invert Level (m)	126.212	Diameter (m)	0.015		

Node StoreOut Tank Storage Structure

Invert Level (m)	126.274	Analyse flow through structure	x
Time to half empty (mins)	82		

Inlets

StoreIn

Depth (m)	Area (m²)	Depth (m)	Area (m²)
0.000	4.8	0.800	4.8

Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	DWP03	11	127.019	0.010	0.3	0.0006	0.0000	OK
15 minute summer	IC03	11	126.828	0.013	0.3	0.0012	0.0000	OK
15 minute summer	DWP04	12	126.830	0.007	0.2	0.0004	0.0000	OK
15 minute summer	J02	11	126.611	0.012	0.5	0.0000	0.0000	OK
180 minute winter	StoreOut	116	126.349	0.075	0.1	0.3555	0.0000	OK
180 minute winter	Control	116	126.349	0.137	0.2	0.0268	0.0000	SURCHARGED
360 minute summer	IC04	208	126.032	0.011	0.2	0.0010	0.0000	OK
360 minute summer	OUT	208	125.717	0.011	0.2	0.0000	0.0000	OK
15 minute summer	DWP01	9	127.687	0.011	0.2	0.0006	0.0000	OK
15 minute summer	IC01	11	127.653	0.010	0.2	0.0010	0.0000	OK
15 minute summer	DWP02	11	127.441	0.011	0.2	0.0005	0.0000	OK
15 minute summer	J01	11	127.423	0.013	0.4	0.0000	0.0000	OK
15 minute summer	IC02	11	127.230	0.008	0.4	0.0008	0.0000	OK
180 minute winter	StoreIn	116	126.351	0.077	0.2	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	DWP03	1.000	IC03	0.3	0.722	0.019	0.0014	
15 minute summer	IC03	1.001	J02	0.3	0.544	0.033	0.0054	
15 minute summer	DWP04	2.000	J02	0.2	0.712	0.009	0.0006	
15 minute summer	J02	1.002	Control	0.5	0.745	0.030	0.0198	
180 minute winter	StoreOut	3.000	Control	0.1	0.042	0.017	0.0260	
180 minute winter	Control	1.003	IC04	0.2	0.412	0.023	0.0050	
360 minute summer	IC04	1.004	OUT	0.2	0.414	0.023	0.0081	1.0
15 minute summer	DWP01	4.000	IC01	0.2	0.489	0.025	0.0009	
15 minute summer	IC01	4.001	J01	0.2	0.416	0.022	0.0052	
15 minute summer	DWP02	5.000	J01	0.2	0.501	0.025	0.0006	
15 minute summer	J01	4.002	IC02	0.4	0.903	0.030	0.0017	
15 minute summer	IC02	4.003	StoreIn	0.4	1.291	0.014	0.0004	

Results for 30 year Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	DWP03	10	127.027	0.018	1.1	0.0011	0.0000	OK
15 minute summer	IC03	10	126.839	0.024	1.1	0.0023	0.0000	OK
15 minute summer	DWP04	10	126.837	0.014	0.9	0.0007	0.0000	OK
15 minute summer	J02	10	126.622	0.023	2.0	0.0000	0.0000	OK
60 minute summer	StoreOut	61	126.593	0.319	0.9	1.5057	0.0000	SURCHARGED
60 minute summer	Control	61	126.593	0.381	1.3	0.0746	0.0000	SURCHARGED
60 minute summer	IC04	62	126.035	0.014	0.3	0.0013	0.0000	OK
60 minute summer	OUT	62	125.720	0.014	0.3	0.0000	0.0000	OK
15 minute summer	DWP01	10	127.700	0.024	0.9	0.0012	0.0000	OK
15 minute summer	IC01	10	127.664	0.021	0.9	0.0020	0.0000	OK
15 minute summer	DWP02	11	127.451	0.021	0.7	0.0009	0.0000	OK
15 minute summer	J01	11	127.435	0.025	1.6	0.0000	0.0000	OK
15 minute summer	IC02	11	127.239	0.017	1.6	0.0016	0.0000	OK
60 minute summer	StoreIn	61	126.596	0.322	1.1	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	DWP03	1.000	IC03	1.1	0.928	0.068	0.0033	
15 minute summer	IC03	1.001	J02	1.1	0.771	0.119	0.0137	
15 minute summer	DWP04	2.000	J02	0.9	0.908	0.039	0.0016	
15 minute summer	J02	1.002	Control	1.9	0.802	0.115	0.0233	
60 minute summer	StoreOut	3.000	Control	-0.7	-0.089	-0.089	0.0288	
60 minute summer	Control	1.003	IC04	0.3	0.483	0.039	0.0072	
60 minute summer	IC04	1.004	OUT	0.3	0.487	0.039	0.0117	2.7
15 minute summer	DWP01	4.000	IC01	0.9	0.678	0.111	0.0025	
15 minute summer	IC01	4.001	J01	0.9	0.634	0.094	0.0141	
15 minute summer	DWP02	5.000	J01	0.7	0.529	0.088	0.0016	
15 minute summer	J01	4.002	IC02	1.6	1.321	0.115	0.0045	
15 minute summer	IC02	4.003	StoreIn	1.6	1.917	0.053	0.0011	

Results for 100 year +40% CC Critical Storm Duration. Lowest mass balance: 100.00%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
15 minute summer	DWP03	10	127.032	0.023	1.9	0.0015	0.0000	OK
120 minute summer	IC03	106	126.853	0.038	0.8	0.0037	0.0000	OK
120 minute winter	DWP04	98	126.853	0.030	0.8	0.0016	0.0000	OK
120 minute winter	J02	104	126.856	0.257	1.3	0.0000	0.0000	SURCHARGED
120 minute winter	StoreOut	96	126.851	0.577	0.7	2.7223	0.0000	SURCHARGED
120 minute winter	Control	102	126.853	0.641	1.1	0.1256	0.0000	SURCHARGED
120 minute winter	IC04	96	126.036	0.015	0.4	0.0015	0.0000	OK
120 minute winter	OUT	96	125.721	0.015	0.4	0.0000	0.0000	OK
15 minute summer	DWP01	10	127.708	0.032	1.6	0.0017	0.0000	OK
15 minute summer	IC01	10	127.671	0.028	1.6	0.0027	0.0000	OK
15 minute summer	DWP02	10	127.459	0.029	1.3	0.0012	0.0000	OK
15 minute summer	J01	10	127.444	0.034	2.8	0.0000	0.0000	OK
15 minute summer	IC02	10	127.244	0.022	2.8	0.0021	0.0000	OK
120 minute winter	StoreIn	100	126.856	0.582	0.9	0.0000	0.0000	OK

Link Event (Upstream Depth)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
15 minute summer	DWP03	1.000	IC03	1.9	1.083	0.118	0.0050	
120 minute summer	IC03	1.001	J02	0.8	0.713	0.089	0.0521	
120 minute winter	DWP04	2.000	J02	0.9	0.767	0.042	0.0080	
120 minute winter	J02	1.002	Control	1.1	0.582	0.065	0.0396	
120 minute winter	StoreOut	3.000	Control	-0.5	-0.063	-0.062	0.0288	
120 minute winter	Control	1.003	IC04	0.4	0.523	0.051	0.0087	
120 minute winter	IC04	1.004	OUT	0.4	0.528	0.051	0.0141	5.6
15 minute summer	DWP01	4.000	IC01	1.6	0.794	0.201	0.0039	
15 minute summer	IC01	4.001	J01	1.6	0.748	0.172	0.0218	
15 minute summer	DWP02	5.000	J01	1.3	0.605	0.161	0.0025	
15 minute summer	J01	4.002	IC02	2.8	1.543	0.209	0.0071	
15 minute summer	IC02	4.003	StoreIn	2.8	2.253	0.096	0.0018	