

CUCKFIELD GOLF CENTRE**DRAINAGE STATEMENT**

Issue/Revision	Issue 1	Revision 1	Revision 2	Revision 3
Remarks	First Issue	Updated Issue as per AGM comments	Updated to address comments	Updated Issue
Date	01.08.25	05.08.25	07.11.25	10.11.25
Prepared By	JJ	JJ	JJ	JJ
Checked By	RP	RP	RP	Bf
File Reference	19963-TN01-A	19963-TN01-B	19963-TN01-C	19963-TN01-D

Introduction

Tumu Consulting have been appointed by Arena Global Management Ltd (AGM) to produce a drainage design to discharge Condition 5 and 6 of the Appeal Decision, REF APP/D3830/W/22/3310444. This development in comprises *“Change of use of land to storage in association with golf club and proposed erection of a storage barn for equipment and vehicles incorporating staff welfare facilities”* at Cuckfield Golf Centre, Staplefield Rd, Cuckfield, Haywards Heath, RH17 5HY.

5) Within 3 months of the date of this permission full details of the surface water drainage of the hardstanding shall be submitted to and approved in writing by the local planning authority. The approved drainage works shall thereafter be carried out in accordance with the approved details, within 3 months of that approval and thereafter permanently retained and maintained.

6) No construction of the building hereby approved shall take place until full details of the proposed foul and surface water drainage and means of disposal has been submitted to and approved in writing by the local planning authority. The development shall thereafter be carried out in accordance with the agreed details and thereafter permanently retained and maintained.

Hydrology

There is an ordinary watercourse discharging northwards beginning on the site boundary's north-eastern corner.

A second ordinary watercourse is located immediately south of the proposed development and discharges into a headwall. This headwall is linked to the northern watercourse via a below-ground surface water network.

There are no main rivers in close proximity to the site.

Existing Drainage

A CCTV survey conducted by Aquatech Drainage Services on the 22nd of July found private surface water and foul water drainage networks in close proximity to the site.

A surface water drainage network serving gullies south-east of the site was found to flow northwards along the sites eastern border. This outfalls into the ordinary watercourse mentioned above. A headwall and surface water drain connects the second ditch due south into this main run.

CUCKFIELD GOLF CENTRE**DRAINAGE STATEMENT**

The foul water drainage network serves the bar and kitchen building to the south. It discharges to a Klargester sewage treatment plant (STP) north-east of the site and passes below the road to the east of the site. The existing storage containers on site already have an existing foul connection into this network.

Refer to Appendix A for the CCTV survey results.

Geology and Hydrogeology

The site is underlain with a bedrock geology of the Ardingly Sandstone Member, a fine and medium-grained quartzose sandstone. There is no superficial geology information available.

BRE365 Infiltration testing was conducted by Ground Testing Ltd in June 2025. Two soakaway trial pits were used, 1 trial pit resulted in insufficient drainage to obtain an infiltration rate while the other resulted in an infiltration rate of 5.29×10^{-6} m/s, only just above the acceptable rate of 1×10^{-6} m/s.

Considering the test pit failure, the low recorded infiltration rate, and that testing took place during a heatwave in the summer months, it is likely that infiltration rates would not reach the required rate to allow for soakaways in the winter months. Infiltration rates decrease in the winter due to increased soil moisture and frozen ground. Therefore, soakaways will be unsuitable as a drainage receptor for this development.

Refer to Appendix B for the Soakaway Testing Results in Report Number 0851.

Pre-Development Discharge Rates

As the site is currently agricultural in nature with permeable surfacing. The greenfield runoff rate will be considered when calculating pre-development surface water discharge rates. The existing greenfield rates have been calculated using Causeway FLOW's FEH-22 greenfield run-off method. Refer to Table 1 for the results.

Return Period	Proposed Positively Drained Area (ha)	Greenfield Runoff Rate (l/s)
Q ₂	0.014	0.1
Q ₃₀	0.014	0.1
Q ₁₀₀	0.014	0.2

Table 1 Greenfield Run-off Rates Calculated Using Causeway FLOW

Refer to Appendix C for the greenfield run-off rate calculations.

Development Proposals

It is proposed to remove the shipping containers currently occupying the area and erect a storage barn ancillary to the existing golf club with a 0.014ha footprint.

CUCKFIELD GOLF CENTRE



DRAINAGE STATEMENT

Design Life

As the storage barn is permanent in nature and designed with utilities and welfare facilities, a design life of 50 years will be considered.

Surface Water Drainage Arrangements

The surface water drainage strategy has been developed in accordance with the relevant design standard and guidance, including but not limited to; CIRIA C753 The SuDS Manual, The Approved Documents: Building Regulations 2010 Part H: Drainage and Waste Disposal, and the Non-Statutory Technical Standards for SuDS (NTSS).

The NTSS states that for a previously developed site, the rate of discharge should never exceed the rate pre redevelopment. The NTSS also states that flooding should not occur to any part of the site in the 1 in 30 year event, and no flooding to buildings or utility plants should occur in the 1 in 100 year event.

In line with the surface water drainage discharge hierarchy, consideration should be given to discharge in order of priority to: Soakaways/Infiltrating Drainage System, Watercourse, Public Surface Water Sewer then finally, Public Combined Sewer.

As explained in the geology and hydrogeology section, soakaways will be an unsuitable drainage receptor for the drainage network due to the failure of one test pit and the low infiltration rate recorded in the other during BRE365 testing.

Consideration should next be given to a watercourse as a discharge receptor. The ordinary watercourse to the north-east is an appropriate discharge receptor and is directly accessible via the existing surface water network.

It is proposed to drain the storage barn's surface water through rainwater pipes and guttering which will discharge into water butts and then into the below-ground network via overflows. The surface water will discharge into a detention basin, through an orifice flow control chamber, and into the existing surface water drain. This drain then discharges directly into the northern ordinary watercourse.

In accordance with CIRIA C753 Chapter 20.5, a 20mm orifice is the lowest recommended size for the flow control chamber. An orifice any lower in diameter would be prone to blockage and risk flooding the system. A proposed silt trap upstream of the detention basin and a debris screen within the flow control chamber will also reduce the likelihood of blockages.

The existing external areas providing access/yard will remain unaltered as currently surfaced, with the introduction of some additional soft landscaping around the perimeter of the site.

Refer to Appendix D for the Detailed Drainage Design and Appendix E for the Standard Drainage Details.

CUCKFIELD GOLF CENTRE**DRAINAGE STATEMENT**Climate Change Allowances

When developed (approximately 2025), the end of life can be estimated to be 2075. According to government guidance, a development with a design life concluding between 2061 and 2100 should use the central allowance for the 2070's epoch when considering peak rainfall climate change allowances. For the Adur and Ouse Management Catchment Area, the climate change allowances to consider should be 25% in the 1 in 100 year rainfall event, and 20% in the 30 year rainfall event. This is shown in Figure 1.

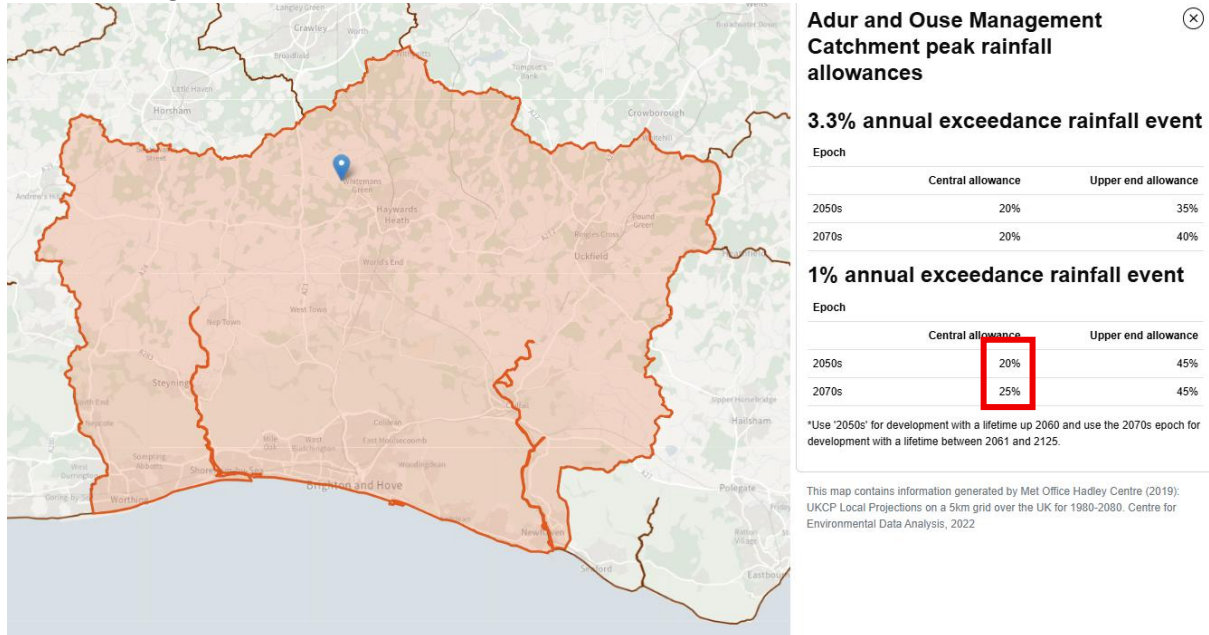


Figure 1 Adur and Ouse Management Catchment Peak Rainfall Allowances.

Calculations

Causeway FLOW calculations using FEH-22 rainfall data have been completed using the parameters set in the above section. The use of a 20mm orifice and detention basin has resulted in no flooding occurring during the 1 in 100 year rainfall event with a 25% climate change allowance. During this event a minimum freeboard of 300mm was retained in the detention basin. The resulting discharge rates are shown in Table 2.

Return Period	Post-Development Rates
Q_1	0.3
$Q_{30+20\% \text{ CC}}$	0.4
$Q_{100+25\% \text{ CC}}$	0.4

Table 2 Post-Development Discharge Rates Achieved by the Drainage Strategy.

These are the lowest discharge rates achievable with the minimum orifice size of 20mm.

Refer to Appendix F for the Causeway FLOW Calculations.

CUCKFIELD GOLF CENTRE**DRAINAGE STATEMENT**SuDS and Water Quality

The CIRIA 753 SuDS Manual has been consulted to ensure that the SuDS provided successfully mitigate the anticipated pollutants which may arise from proposed the land use. Table 26.2 of CIRIA 753 outlines the pollution hazard indices for the anticipated land use type. These are outlined in Table 3.

Land Use	Pollution Hazard Level	TSS	Metals	Hydrocarbons
Commercial/Industrial Roofs	Low	0.3	0.2	0.05

Table 3 CIRIA 753 Table 26.2 Pollution Hazard Indices for General Low Traffic Access Roads

Table 26.3 of CIRIA 753 outlines the mitigation indices for a number of SuDS which can mitigate the anticipated pollutants which may arise from the development. The mitigation indices for the detention basin are outlined in Table 4.

SuDS Component	TSS	Metals	Hydrocarbons
Detention Basin	0.5	0.5	0.6

Table 4 CIRIA 753 Table 26.3 SuDS Mitigation Indices for a Detention Basin.

As the mitigation indices for the SuDS proposed are higher than the hazard indices for the associate the land use, the SuDS provided successfully mitigate against the expected pollutants. In addition to this, silt traps are proposed on chambers, which will intercept any silt encountered within the surface water drainage system.

Flood Exceedance

If the drainage systems capacity is exceeded, or the drainage system fails, any exceedance flows will follow the natural contours of the land. Exceedance flows from the detention basin will discharge north-east via overland flow into the northern ditch. Overland flows from the drainage elements around the storage barn will for the majority discharge into the detention basin while some will discharge eastwards into the fields. Both routes do not increase flood risk for any other structures or properties.

Refer to Appendix D for Flood Exceedance Routes.

Foul Water Drainage Arrangements

The proposed foul water drainage network is to discharge into an existing private foul water connection onsite.

This connection joins an existing private foul network which discharges into the Klargester STP. Capacity for the proposed foul water network within the Klargester STP has been confirmed.

Refer to Appendix D for the Drainage Strategy.

Refer to Appendix G for a Preliminary Drainage & Foul Waste Plan including a Klargester STP technical detail and information concerning its capacity.

CUCKFIELD GOLF CENTRE



DRAINAGE STATEMENT

Conclusions

- Surface water from the storage barn will drain into a below-ground drainage system discharging into the northern ditch via a detention basin and orifice flow control chamber. No flooding will occur within the drainage system for the 1 in 100 year rainfall event with a 25% allowance for climate change.
- The foul water network from the storage barn will connect into the existing private foul drainage network and discharge into the Klargester STP.

It is concluded that the development can be undertaken in a sustainable manner without increasing the flood risk to the proposed development or to existing properties/systems.

CUCKFIELD GOLF CENTRE

DRAINAGE STATEMENT



Appendix A

CCTV Survey Report

Project

Project Name: Cuckfield Golf Centre

Project Date: 23/07/2025

Inspection Standard: MSCC5 Sewers & Drainage GB (SRM5 Scoring)



Table of Contents

Project Name Cuckfield Golf Centre	Project Number	Project Date 23/07/2025
---------------------------------------	----------------	----------------------------

Project Information	P-3
Scoring Summary	P-4
Project Summary	P-29
Cleaning Summary	P-31
Section Profile - 24/07/2025 - Ditch AX	P-32
Section Summary	P-35
Section Item 1: Ditch A > RG1 (Ditch AX)	5
Section Item 2: RG1 > Outfall (RG1X)	7
Section Item 3: RG2 > RG1 (RG2X)	11
Section Item 4: FW4 > FW3 (FW4X)	13
Section Item 5: FW3 > FW2 (FW3X)	15
Section Item 6: FW2 > FW1 (FW2X)	17
Section Item 7: FW1 > Treatment (FW1X)	19
Section Item 8: FW5 > FW4 (FW5X)	21
Section Item 9: SVP Contai > FW4 (SVP ContaiX)	23

Project Information

Project Name
Cuckfield Golf Centre

Project Number

Project Date
23/07/2025

Site

Company: Tumu Consulting Ltd
Description: J-04121
Street: Staplefield Road
Town or City: Cuckfield
County: West Sussex
Post Code: RH17 5HY

Contractor

Company: Aquatech Drain Services Ltd
Description: Drainage Contracor
Contact: Connor
Street: Holmbush Lane
Town or City: Woodmancote
County: East Sussex
Post Code: BN5 9TL
Phone: 01273 933705
Email: contact@aquatechdrains.co.uk

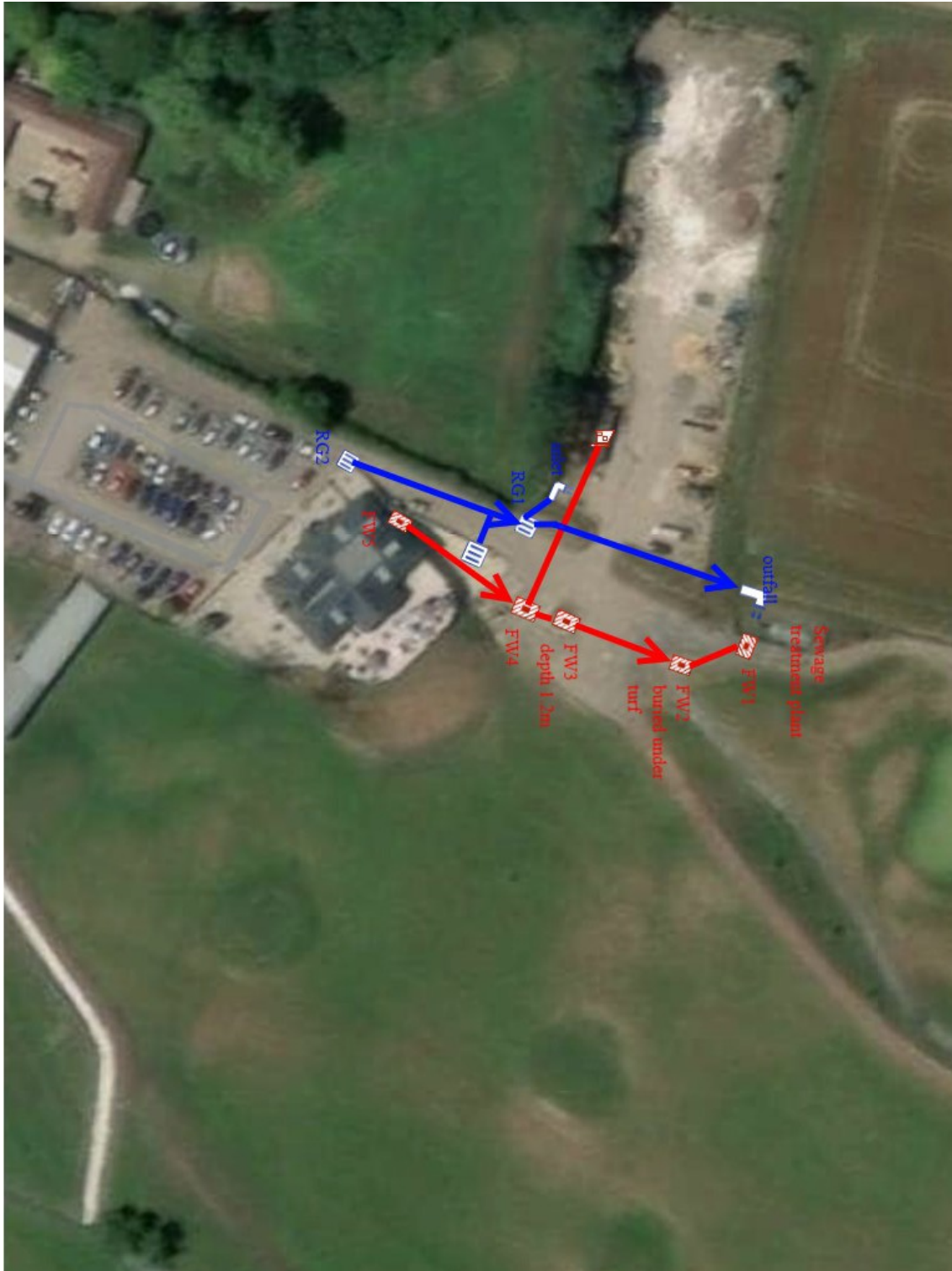
Project Information

Project Name
 Cuckfield Golf Centre

Project Number

Project Date
 23/07/2025

Project Drawing, Page 'Page'



Scoring Summary

Project Name
Cuckfield Golf Centre

Project Number

Project Date
23/07/2025

Structural Defects

Item No.	PLR	Grade	Description
All inspected pipes are in an acceptable structural condition (< grade 3).			

Service / Operational Condition

Grade 3: Best practice suggests consideration should be given to maintenance activities in the medium term.

Grade 4: Best practice suggests consideration should be given to maintenance activity to avoid potential blockages.

Grade 5: Best practice suggests that this pipe is at a high risk of backing up or causing flooding.

Item No.	PLR	Grade	Description
2	RG1X	4	Multiple defects

Abandoned Surveys

Item No.	PLR	Description
All inspections complete, none are abandoned.		

Information

These scoring summaries are based on the SRM grading from the WRc.

Project Summary

Project Name
Cuckfield Golf Centre

Project Number

Project Date
23/07/2025

Pipe Summary

No.	Type	PLR	Upstream Node	Downstream Node	Road	Town	Use	Mat.	Profile	Length
1	SEC	Ditch AX	DITCH A	RG1	Staplefield Road	Cuckfield	S	PVC	Circular 150mm	8.80 m
2	SEC	RG1X	RG1	OUTFALL	Staplefield Road	Cuckfield	S	PVC	Circular 225mm	60.50 m
3	SEC	RG2X	RG2	RG1	Staplefield Road	Cuckfield	S	PVC	Circular 150mm	40.50 m
4	SEC	FW4X	FW4	FW3	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	4.30 m
5	SEC	FW3X	FW3	FW2	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	22.80 m
6	SEC	FW2X	FW2	FW1	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	26.50 m
7	SEC	FW1X	FW1	TREATMENT	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	1.70 m
8	SEC	FW5X	FW5	FW4	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	33.50 m
9	SEC	SVP ContaiX	SVP CONTAI	FW4	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	44.60 m
Total:										243.20 m

Pipe Levels

No.	PLR	Upstream Node	Upstream C.L.	Upstream I.L.	Upstream I.D.	Downstream Node	Downstream C.L.	Downstream I.L.	Downstream I.D.
1	Ditch AX	DITCH A			0.000 m	RG1			0.000 m
2	RG1X	RG1			0.000 m	OUTFALL			0.000 m
3	RG2X	RG2			0.000 m	RG1			0.000 m
4	FW4X	FW4			0.000 m	FW3			0.000 m
5	FW3X	FW3			0.000 m	FW2			0.000 m
6	FW2X	FW2			0.000 m	FW1			0.000 m
7	FW1X	FW1			0.000 m	TREATMENT			0.000 m
8	FW5X	FW5			0.000 m	FW4			0.000 m
9	SVP ContaiX	SVP CONTAI			0.000 m	FW4			0.000 m

Project Summary

Project Name
Cuckfield Golf Centre

Project Number
Project Date
23/07/2025

Pipe Summary by Profile

Profile	Total Length	No. Pipes
Circular 100mm	4.30 m	
Circular 100mm	22.80 m	
Circular 100mm	26.50 m	
Circular 100mm	1.70 m	
Circular 100mm	33.50 m	
Circular 100mm	44.60 m	
Circular 100mm =	133.40 m	6
Circular 150mm	8.80 m	
Circular 150mm	40.50 m	
Circular 150mm =	49.30 m	2
Circular 225mm	60.50 m	
Circular 225mm =	60.50 m	1
Total =	243.20 m	9

Inspection Summary

Pipe No.	Insp. No.	Upstream Node	Downstream Node	Dir.	Operator	Insp. Date	Insp. Time	Str	Ser	Final Observation	Length
1	1	DITCH A	RG1	US	Jason	24/07/2025	7:32	1	1	MHF, ditch	8.80 m
2	1	RG1	OUTFALL	DS	Jason	24/07/2025	7:59	1	4	MHF	60.50 m
3	1	RG2	RG1	US	Jason	24/07/2025	9:20	1	1	MHF, Road Gully	40.50 m
4	1	FW4	FW3	DS	Jason	24/07/2025	9:24	1	1	MHF	4.30 m
5	1	FW3	FW2	DS	Jason	24/07/2025	9:27	1	1	MHF, buried manhole	22.80 m
6	1	FW2	FW1	DS	Jason	24/07/2025	9:31	1	1	MHF	26.50 m
7	1	FW1	TREATMENT	DS	Jason	24/07/2025	9:42	1	1	MHF	1.70 m
8	1	FW5	FW4	US	Jason	24/07/2025	9:46	1	1	MHF	33.50 m
9	1	SVP CONTAI	FW4	US	Jason	24/07/2025	9:49	1	1	MHF, pan connector view	44.60 m
										Total:	243.20 m

Project Summary

Project Name
Cuckfield Golf Centre

Project Number

Project Date
23/07/2025

Inspection Summary by Profile

Profile	Total Length	No. Inspections
Circular 100mm	4.30 m	
Circular 100mm	22.80 m	
Circular 100mm	26.50 m	
Circular 100mm	1.70 m	
Circular 100mm	33.50 m	
Circular 100mm	44.60 m	
Circular 100mm =	133.40 m	6
Circular 150mm	8.80 m	
Circular 150mm	40.50 m	
Circular 150mm =	49.30 m	2
Circular 225mm	60.50 m	
Circular 225mm =	60.50 m	1
Total =	243.20 m	9

Defect Summary

Defect Summary				CCTV Drainage Survey Observation Count																				
				General				Structural Condition								Service Condition						Misc		
Sect. No.	Insp. No.	Upstream Node	Downstream Node	Insp. Length (m)	No. Grade 4/5 Obs.	Survey Abandoned	Camera Under Water	Cracks	Fractures	Broken	Deformed	Collapsed	Holes	Surface Damage	Displaced Joints	Open Joints	Roots	Infiltration	Encrustation	Silt	Grease	Obstruction	Water Level	Line Deviation
1	1	DITCH A	RG1	8.8																			1	
2	1	RG1	OUTFALL	60.5	7															4			3	1
3	1	RG2	RG1	40.5																			1	1
4	1	FW4	FW3	4.3																			1	
5	1	FW3	FW2	22.8																			1	1
6	1	FW2	FW1	26.5																			1	1
7	1	FW1	TREATMENT	1.7																			1	2
8	1	FW5	FW4	33.5																			1	1
9	1	SVP CONTAINER	FW4	44.6																			1	4

**Aquatech Drain Services Ltd**

Holmbush Lane, Woodmancote

Tel. 01273 933705

contact@aquatechdrains.co.uk

Project Summary**Project Name**
Cuckfield Golf Centre**Project Number****Project Date**
23/07/2025

Sect. No.	Insp. No.	Upstream Node	Downstream Node	Insp. Length (m)	No. Grade 4/5 Obs.	Survey Abandoned	Camera Under Water	Cracks	Fractures	Broken	Deformed	Collapsed	Holes	Surface Damage	Displaced Joints	Open Joints	Roots	Infiltration	Encrustation	Silt	Grease	Obstruction	Water Level	Line Deviates
Total:				243.2	7															4			11	11

Cleaning Summary

Project Name
 Cuckfield Golf Centre

Project Number

Project Date
 23/07/2025

Pipe Summary

No.	Type	PLR	Upstream Node	Downstream Node	Road	Town	Use	Mat.	Profile	Length
1	SEC	Ditch AX	DITCH A	RG1	Staplefield Road	Cuckfield	S	PVC	Circular 150mm	8.80 m
2	SEC	RG1X	RG1	OUTFALL	Staplefield Road	Cuckfield	S	PVC	Circular 225mm	60.50 m
3	SEC	RG2X	RG2	RG1	Staplefield Road	Cuckfield	S	PVC	Circular 150mm	40.50 m
4	SEC	FW4X	FW4	FW3	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	4.30 m
5	SEC	FW3X	FW3	FW2	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	22.80 m
6	SEC	FW2X	FW2	FW1	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	26.50 m
7	SEC	FW1X	FW1	TREATMENT	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	1.70 m
8	SEC	FW5X	FW5	FW4	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	33.50 m
9	SEC	SVP ContaiX	SVP CONTAI	FW4	Staplefield Road	Cuckfield	F	PVC	Circular 100mm	44.60 m
Total:										243.20 m

Pipe Summary by Profile

Profile	Total Length	No. Pipes
Circular 100mm	4.30 m	
Circular 100mm	22.80 m	
Circular 100mm	26.50 m	
Circular 100mm	1.70 m	
Circular 100mm	33.50 m	
Circular 100mm	44.60 m	
Circular 100mm =	133.40 m	6
Circular 150mm	8.80 m	
Circular 150mm	40.50 m	
Circular 150mm =	49.30 m	2
Circular 225mm	60.50 m	
Circular 225mm =	60.50 m	1
Total =	243.20 m	9

**Aquatech Drain Services Ltd**

Holmbush Lane, Woodmancote

Tel. 01273 933705

contact@aquatechdrains.co.uk

Cleaning Summary**Project Name**
Cuckfield Golf Centre**Project Number****Project Date**
23/07/2025**Cleaning Summary**

Pipe No.	Cln. No.	Dir.	Operator	Cln. Date	Cln. Time	Method	Contamination	Scale	No. Clns	Complete	Comments	Cln. Length
1	1	US	Jason	24/07/2025	7:32	N				Yes		8.80 m
2	1	DS	Jason	24/07/2025	7:59	N				Yes		60.50 m
3	1	US	Jason	24/07/2025	9:20	N				Yes		40.50 m
4	1	DS	Jason	24/07/2025	9:24	N				Yes		4.30 m
5	1	DS	Jason	24/07/2025	9:27	N				Yes		22.80 m
6	1	DS	Jason	24/07/2025	9:31	N				Yes		26.50 m
7	1	DS	Jason	24/07/2025	9:42	N				Yes		1.70 m
8	1	US	Jason	24/07/2025	9:46	N				Yes		33.50 m
9	1	US	Jason	24/07/2025	9:49	N				Yes		44.60 m
Total:												243.20 m

Cleaning Summary by Profile

Profile		Total Length	No. Cleans
Circular 100mm		4.30 m	
Circular 100mm		22.80 m	
Circular 100mm		26.50 m	
Circular 100mm		1.70 m	
Circular 100mm		33.50 m	
Circular 100mm		44.60 m	
Circular 100mm	=	133.40 m	6
Circular 150mm		8.80 m	
Circular 150mm		40.50 m	
Circular 150mm	=	49.30 m	2
Circular 225mm		60.50 m	
Circular 225mm	=	60.50 m	1
Total	=	243.20 m	9

Section Profile - 24/07/2025 - Ditch AX

Project Name
Cuckfield Golf Centre

Project Number

Project Date
23/07/2025

Circular, 100 mm, 0 mm

Item No.	Upstream Node	Downstream Node	Date	Road	Material	Total Length	Inspected Length
4	FW4	FW3	24/07/2025	Staplefield Road	Polyvinyl chloride	4.30 m	4.30 m
5	FW3	FW2	24/07/2025	Staplefield Road	Polyvinyl chloride	22.80 m	22.80 m
6	FW2	FW1	24/07/2025	Staplefield Road	Polyvinyl chloride	26.50 m	26.50 m
7	FW1	Treatment	24/07/2025	Staplefield Road	Polyvinyl chloride	1.70 m	1.70 m
8	FW5	FW4	24/07/2025	Staplefield Road	Polyvinyl chloride	33.50 m	33.50 m
9	SVP Contai	FW4	24/07/2025	Staplefield Road	Polyvinyl chloride	44.60 m	44.60 m

Total: 6 Inspections x Circular 100 mm, 0 mm = 133.40 m Total Length and 133.40 m Inspected Length

Circular, 150 mm, 0 mm

Item No.	Upstream Node	Downstream Node	Date	Road	Material	Total Length	Inspected Length
1	Ditch A	RG1	24/07/2025	Staplefield Road	Polyvinyl chloride	8.80 m	8.80 m
3	RG2	RG1	24/07/2025	Staplefield Road	Polyvinyl chloride	40.50 m	40.50 m

Total: 2 Inspections x Circular 150 mm, 0 mm = 49.30 m Total Length and 49.30 m Inspected Length

Circular, 225 mm, 0 mm

Item No.	Upstream Node	Downstream Node	Date	Road	Material	Total Length	Inspected Length
2	RG1	Outfall	24/07/2025	Staplefield Road	Polyvinyl chloride	60.50 m	60.50 m

Total: 1 Inspection x Circular 225 mm, 0 mm = 60.50 m Total Length and 60.50 m Inspected Length

Total: 9 Inspections = 243.20 m Total Length and 243.20 m Inspected Length

Section Summary

Project Name Cuckfield Golf Centre	Project Number	Project Date 23/07/2025
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Number of sections	9
Total length of sections	243.20 m
Total length of inspected sections	243.20 m
Total length of not inspected sections	0.00 m
Number of abandoned inspections	0
Number of section inspection photos	47
Number of section inspection videos	9
Number of section inspection scans	0
Number of section inclination measurements	0

PLR:	Ditch AX	Upstream Node:	Ditch A
Inspection Direction:	Upstream	Downstream Node:	RG1
Inspected Length:	8.80 m	Dia/Height:	150 mm
Total Length:	8.80 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1	0.00	MH	Start node, manhole, reference: RG1
2	0.00	GP	General photograph taken at this point
3	0.00	WL	Water level, 0% of the vertical dimension
4	8.00	MHF	Finish node, manhole, reference: Ditch A

PLR:	RG1X	Upstream Node:	RG1
Inspection Direction:	Downstream	Downstream Node:	Outfall
Inspected Length:	60.50 m	Dia/Height:	225 mm
Total Length:	60.50 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1			
2	0.00	MH	Start node, manhole, reference: RG1
3	0.00	WL	Water level, 0% of the vertical dimension
4	0.00	GP	General photograph taken at this point
5	3.50	LR	Line deviates right
6	20.60	WL	Water level, 15% of the vertical dimension
7	22.00	WL	Water level, 20% of the vertical dimension
8	23.50	DEC	Settled deposits, hard or compacted, 30% cross-sectional area loss
9	29.10	DES	Settled deposits, fine, 30% cross-sectional area loss
10	34.50	DES	Settled deposits, fine, 35% cross-sectional area loss
11	38.80	DEC	Settled deposits, hard or compacted, 35% cross-sectional area loss
12	42.50	DEC	Settled deposits, hard or compacted, 25% cross-sectional area loss

Section Summary

Project Name Cuckfield Golf Centre	Project Number	Project Date 23/07/2025
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No.	m +	Code	Observation
13	52.50	DES	Settled deposits, fine, 20% cross-sectional area loss
14	58.40	DES	Settled deposits, fine, 20% cross-sectional area loss
15	60.50	MHF	Finish node, manhole, reference: Outfall

PLR:	RG2X	Upstream Node:	RG2
Inspection Direction:	Upstream	Downstream Node:	RG1
Inspected Length:	40.50 m	Dia/Height:	150 mm
Total Length:	40.50 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1	0.00	MH	Start node, manhole, reference: RG1
2	0.00	WL	Water level, 10% of the vertical dimension
3	0.70	JN	Junction at 9 o'clock, 150mm dia
4	18.50	LR	Line deviates right
5	31.00	JN	Junction at 9 o'clock, 150mm dia
6	40.30	GP	General photograph taken at this point
7	40.50	MHF	Finish node, manhole, reference: RG2

PLR:	FW4X	Upstream Node:	FW4
Inspection Direction:	Downstream	Downstream Node:	FW3
Inspected Length:	4.30 m	Dia/Height:	100 mm
Total Length:	4.30 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1	0.00	MH	Start node, manhole, reference: FW4
2	0.00	GP	General photograph taken at this point
3	0.00	WL	Water level, 0% of the vertical dimension
4	4.30	MHF	Finish node, manhole, reference: FW3

PLR:	FW3X	Upstream Node:	FW3
Inspection Direction:	Downstream	Downstream Node:	FW2
Inspected Length:	22.80 m	Dia/Height:	100 mm
Total Length:	22.80 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1	0.00	MH	Start node, manhole, reference: FW3
2	0.00	WL	Water level, 0% of the vertical dimension
3	2.90	LL	Line deviates left
4	22.80	MHF	Finish node, manhole, reference: FW2

PLR:	FW2X	Upstream Node:	FW2
Inspection Direction:	Downstream	Downstream Node:	FW1
Inspected Length:	26.50 m	Dia/Height:	100 mm
Total Length:	26.50 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1	0.00	MH	Start node, manhole, reference: FW2
2	0.00	WL	Water level, 10% of the vertical dimension
3	26.10	LL	Line deviates left
4	26.50	MHF	Finish node, manhole, reference: FW1

Section Summary

Project Name Cuckfield Golf Centre	Project Number	Project Date 23/07/2025
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PLR:	FW1X	Upstream Node:	FW1
Inspection Direction:	Downstream	Downstream Node:	Treatment
Inspected Length:	1.70 m	Dia/Height:	100 mm
Total Length:	1.70 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1	0.00	MH	Start node, manhole, reference: FW1
2	0.00	WL	Water level, 5% of the vertical dimension
3	0.20	LL	Line deviates left
4	0.70	LL	Line deviates left
5	1.60	GP	General photograph taken at this point
6	1.70	MHF	Finish node, manhole, reference: Treatment

PLR:	FW5X	Upstream Node:	FW5
Inspection Direction:	Upstream	Downstream Node:	FW4
Inspected Length:	33.50 m	Dia/Height:	100 mm
Total Length:	33.50 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1	0.00	MH	Start node, manhole, reference: FW4
2	0.00	WL	Water level, 10% of the vertical dimension
3	32.70	LR	Line deviates right
4	33.50	MHF	Finish node, manhole, reference: FW5

PLR:	SVP ContaiX	Upstream Node:	SVP Contai
Inspection Direction:	Upstream	Downstream Node:	FW4
Inspected Length:	44.60 m	Dia/Height:	100 mm
Total Length:	44.60 m	Material:	Polyvinyl chloride

No.	m +	Code	Observation
1	0.00	MH	Start node, manhole, reference: FW4
2	0.00	WL	Water level, 0% of the vertical dimension
3	1.00	LR	Line deviates right
4	42.50	LR	Line deviates right
5	43.30	LU	Line deviates up
6	43.90	GP	General photograph taken at this point
7	44.40	LU	Line deviates up
8	44.60	MHF	Finish node, manhole, reference: SVP Contai

Item No. 1	Insp. No. 1	Date 24/07/25	Time 7:32	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR DITCH AX
Operator Jason		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Scale:	1:77	Position [m]	Code	Observation	MPEG	Photo	Grade															
Depth: m RG1 0.00 0.00 0.00 8.00 Ditch A Depth: m <table><tr><td>MH</td><td>Start node, manhole, reference: RG1: over view of area</td><td>00:00:06</td></tr><tr><td>GP</td><td>General photograph taken at this point: view inside RG1</td><td>00:00:18</td></tr><tr><td>WL</td><td>Water level, 0% of the vertical dimension</td><td>00:00:22</td></tr><tr><td colspan="3"></td></tr><tr><td>MHF</td><td>Finish node, manhole, reference: Ditch A: ditch</td><td>00:01:02</td></tr></table>								MH	Start node, manhole, reference: RG1: over view of area	00:00:06	GP	General photograph taken at this point: view inside RG1	00:00:18	WL	Water level, 0% of the vertical dimension	00:00:22				MHF	Finish node, manhole, reference: Ditch A: ditch	00:01:02
MH	Start node, manhole, reference: RG1: over view of area	00:00:06																				
GP	General photograph taken at this point: view inside RG1	00:00:18																				
WL	Water level, 0% of the vertical dimension	00:00:22																				
MHF	Finish node, manhole, reference: Ditch A: ditch	00:01:02																				

4

Section Pictures - 24/07/2025 - Ditch AX

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
1	Upstream	DITCH AX		



304c3870-12eb-417f-a52e-1bdab93ff970.png, 00:00:06, 0.00 m

Start node, manhole, reference: RG1, over view of area



74d5215e-4af2-4574-927f-80b3f6335e12.png, 00:00:22, 0.00 m

Water level, 0% of the vertical dimension



cb375226-087f-4b2f-bf8e-f2fd8d953c03.png, 00:00:18, 0.00 m

General photograph taken at this point, view inside RG1



5eb6c42b-f8c3-4c8a-a2ea-ca089736e00a.png, 00:01:02, 8.00 m

Finish node, manhole, reference: Ditch A, ditch

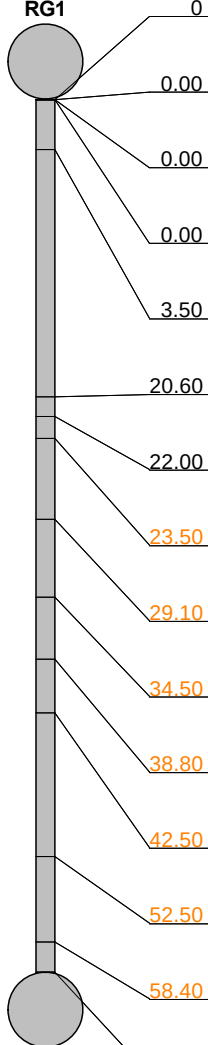
Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
2	1	24/07/25	7:59	Not Specified	No Rain Or Snow	No	RG1X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Jason		Not Specified		Not Specified	Not Specified	Private Drain	Not Specified

Town or Village:	Cuckfield	Inspection Direction:	Dow nstream	Upstream Node:	RG1
Road:	Staplefield Road	Inspected Length:	60.50 m	Upstream Pipe Depth:	
Location:	Footw ay	Total Length:	60.50 m	Downstream Node:	OUTFALL
Surface Type:	Ballast	Joint Length:		Downstream Pipe Depth:	
Use:	Surface w ater	Pipe Shape:	Circular	Dia/Height:	225 mm
Type of Pipe:	Gravity drain/sew er	Material:	Polyvinyl chloride	Lining Type:	No Lining
Flow Control:	No flow control	Lining Material:	No Lining		
Year Constructed:	Not Specified				
Inspection Purpose:	Sample condition survey				

Comments:

Recommendations:

Scale: 1:524	Position [m]	Code	Observation	MPEG	Photo	Grade
Depth: m RG1 						
	0.00	MH	Start node, manhole, reference: RG1	00:00:04		
	0.00	WL	Water level, 0% of the vertical dimension	00:00:04		
	0.00	GP	General photograph taken at this point: inlet pipe	00:00:17		
	3.50	LR	Line deviates right: sharp bend	00:00:44		
	20.60	WL	Water level, 15% of the vertical dimension	00:01:47		
	22.00	WL	Water level, 20% of the vertical dimension	00:01:47		
	23.50	DEC	Settled deposits, hard or compacted, 30% cross-sectional area loss	00:02:02		4
	29.10	DES	Settled deposits, fine, 30% cross-sectional area loss	00:02:21		4
	34.50	DES	Settled deposits, fine, 35% cross-sectional area loss	00:02:51		4
	38.80	DEC	Settled deposits, hard or compacted, 35% cross-sectional area loss	00:03:13		4
	42.50	DEC	Settled deposits, hard or compacted, 25% cross-sectional area loss	00:03:41		4
	52.50	DES	Settled deposits, fine, 20% cross-sectional area loss	00:04:11		4
	58.40	DES	Settled deposits, fine, 20% cross-sectional area loss	00:06:16		4
	60.50	MHF	Finish node, manhole, reference: Outfall	00:06:10		

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	7	5.0	0.6	35.0	4.0

Section Pictures - 24/07/2025 - RG1X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Downstream	RG1X		



a4edd118-7aec-4612-b533-0756576d6adc.png, 00:00:04,
0.00 m

Water level, 0% of the vertical dimension



df3c7b7d-7d34-4e38-b4e3-a23fd54b943e.png, 00:00:17,
0.00 m

General photograph taken at this point, inlet pipe



d1c4c6e6-1e47-4746-8f74-72e22359c63c.png, 00:00:44,
3.50 m

Line deviates right, sharp bend



7ccfa104-20f5-43ec-bcc1-46658108f569.png, 00:01:47,
20.60 m

Water level, 15% of the vertical dimension



88b150ca-7647-46ac-bb2d-82cbb3f4845b.png, 00:01:47,
22.00 m

Water level, 20% of the vertical dimension



88a2c1d7-2060-4878-8fec-5230f2101c15.png, 00:02:02,
23.50 m

Settled deposits, hard or compacted, 30% cross-sectional

Section Pictures - 24/07/2025 - RG1X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Downstream	RG1X		



9f1f4a02-0fd8-4b9d-93d1-f336aba44f21.png, 00:02:21,
29.10 m

Settled deposits, fine, 30% cross-sectional area loss



bdb599b7-5330-4f10-8a4b-586df77e6baa.png, 00:02:51,
34.50 m

Settled deposits, fine, 35% cross-sectional area loss



31119ecc-f182-46f0-9791-6ba20e9477e2.png, 00:03:13,
38.80 m

Settled deposits, hard or compacted, 35% cross-sectional area loss



ee34ca2c-eb34-48f7-9efe-f92a0539bac2.png, 00:03:41,
42.50 m

Settled deposits, hard or compacted, 25% cross-sectional area loss



5c3cd240-2376-4013-a325-8accb645e568.png, 00:04:11,
52.50 m

Settled deposits, fine, 20% cross-sectional area loss



e9bcaed8-b34f-4a69-b927-3ebd2bedef4d.png, 00:06:16,
58.40 m

Settled deposits, fine, 20% cross-sectional area loss

Section Pictures - 24/07/2025 - RG1X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
2	Downstream	RG1X		



ec4703b7-3bd4-40c4-b842-556d55616350.png, 00:06:10,
60.50 m

Finish node, manhole, reference: Outfall

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
3	1	24/07/25	9:20	Not Specified	No Rain Or Snow	No	RG2X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Jason		Not Specified		Not Specified	Not Specified	Private Drain	Not Specified

Town or Village:	Cuckfield	Inspection Direction:	Upstream	Upstream Node:	RG2
Road:	Staplefield Road	Inspected Length:	40.50 m	Upstream Pipe Depth:	
Location:	Footw ay	Total Length:	40.50 m	Downstream Node:	RG1
Surface Type:	Ballast	Joint Length:		Downstream Pipe Depth:	
Use:	Surface w ater	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sew er	Dia/Height:	150 mm		
Flow Control:	No flow control	Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:351 Position [m] Code Observation MPEG Photo Grade

Depth: m

RG1



0.00

MH

Start node, manhole, reference: RG1

00:00:09

0.00

WL

Water level, 10% of the vertical dimension

00:00:26

0.70

JN

Junction at 9 o'clock, 150mm dia: serves gully

00:00:26

18.50

LR

Line deviates right: slight bend

00:01:33

31.00

JN

Junction at 9 o'clock, 150mm dia

00:02:11

40.30

GP

General photograph taken at this point: gully trap view

00:02:38

40.50

MHF

Finish node, manhole, reference: RG2: Road Gully

00:02:40

RG2

Depth: m

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 24/07/2025 - RG2X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
3	Upstream	RG2X		



03b2521a-d32c-453b-a177-ab90a2747975.png, 00:00:26,
0.00 m

Water level, 10% of the vertical dimension



6f45082e-e59e-478d-a8fa-897857b64fbb.png, 00:00:26,
0.70 m

Junction at 9 o'clock, 150mm dia, serves gully



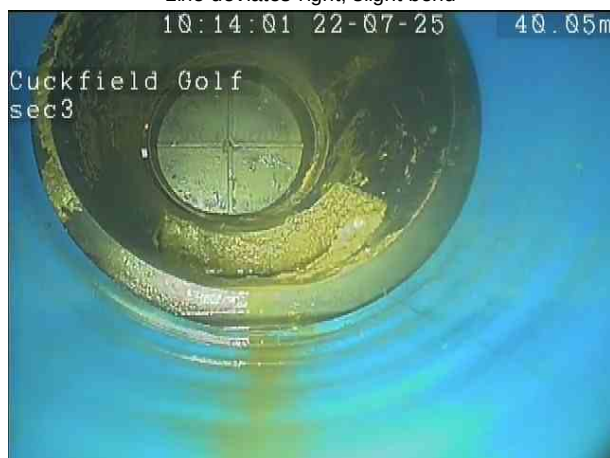
e6ff2a97-b2bb-4e16-b115-d03482d78be5.png, 00:01:33,
18.50 m

Line deviates right, slight bend



5aa9241a-334d-42bb-ae4c-3b8ae218ff69.png, 00:02:11,
31.00 m

Junction at 9 o'clock, 150mm dia



388beecd-281c-4c46-85f8-ed110143861d.png, 00:02:38,
40.30 m

General photograph taken at this point, gully trap view



9a444b8d-a24a-4fb8-a809-d6ef139f8748.png, 00:02:40,
40.50 m

Finish node, manhole, reference: RG2, Road Gully

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
4	1	24/07/25	9:24	Not Specified	No Rain Or Snow	No	FW4X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Jason		Not Specified		Not Specified	Not Specified	Private Drain	Not Specified

Town or Village:	Cuckfield	Inspection Direction:	Dow nstream	Upstream Node:	FW4
Road:	Staplefield Road	Inspected Length:	4.30 m	Upstream Pipe Depth:	
Location:	Footw ay	Total Length:	4.30 m	Downstream Node:	FW3
Surface Type:	Ballast	Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sew er	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:

Recommendations:

Scale: 1:50 Position [m] Code Observation MPEG Photo Grade

Depth: m

FW4



0.00

MH

Start node, manhole, reference: FW4

00:00:47

0.00

GP

General photograph taken at this point: view inside FW4

00:00:47

0.00

WL

Water level, 0% of the vertical dimension

00:01:02

4.30

MHF

Finish node, manhole, reference: FW3

00:01:17

FW3

Depth: m

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 24/07/2025 - FW4X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
4	Downstream	FW4X		



e4af6400-e082-493d-8218-1a1a1ca9388a.png, 00:00:47,
0.00 m

General photograph taken at this point, view inside FW4



7c5f0ac7-60f8-42db-b1bc-662e2e17bc5f.png, 00:01:02,
0.00 m

Water level, 0% of the vertical dimension



ac623c97-fdfd-42ed-b9e1-2b0d8381fd4f.png, 00:01:17,
4.30 m

Finish node, manhole, reference: FW3

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
5	1	24/07/25	9:27	Not Specified	No Rain Or Snow	No	FW3X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Jason		Not Specified		Not Specified	Not Specified	Private Drain	Not Specified

Town or Village:	Cuckfield	Inspection Direction:	Downstream	Upstream Node:	FW3
Road:	Staplefield Road	Inspected Length:	22.80 m	Upstream Pipe Depth:	
Location:	Footway	Total Length:	22.80 m	Downstream Node:	FW2
Surface Type:	Ballast	Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:198 Position [m] Code Observation MPEG Photo Grade

Depth: m
FW3


0.00

MH

Start node, manhole, reference: FW3

00:00:01

0.00

WL

Water level, 0% of the vertical dimension

00:00:01

2.90

LL

Line deviates left: slight bend

00:00:12

22.80

MHF

Finish node, manhole, reference: FW2: buried manhole

00:01:08

FW2
Depth: m

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 24/07/2025 - FW3X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
5	Downstream	FW3X		



5305fd44-eca4-487d-8fef-add9c27a6ee5.png, 00:00:01,
0.00 m

Water level, 0% of the vertical dimension



8e19c43c-1895-46db-befb-0f910d01ef53.png, 00:00:12,
2.90 m

Line deviates left, slight bend



c52392b0-842e-422b-9f82-add555c06cc7.png, 00:01:08,
22.80 m

Finish node, manhole, reference: FW2, buried manhole

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
6	1	24/07/25	9:31	Not Specified	No Rain Or Snow	No	FW2X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Jason		Not Specified		Not Specified	Not Specified	Private Drain	Not Specified

Town or Village:	Cuckfield	Inspection Direction:	Downstream	Upstream Node:	FW2
Road:	Staplefield Road	Inspected Length:	26.50 m	Upstream Pipe Depth:	
Location:	Footway	Total Length:	26.50 m	Downstream Node:	FW1
Surface Type:	Ballast	Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:230 Position [m] Code Observation MPEG Photo Grade

Depth: m

FW2



0.00

MH

Start node, manhole, reference: FW2: from buried chamber

00:01:08

0.00

WL

Water level, 10% of the vertical dimension: Live

00:00:01

26.10

LL

Line deviates left: slight bend

00:01:06

26.50

MHF

Finish node, manhole, reference: FW1

00:01:11

FW1

Depth: m

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 24/07/2025 - FW2X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
6	Downstream	FW2X		



fa2a756c-ba34-483b-9a47-379c5af2ddf9.png, 00:00:01,
0.00 m

Water level, 10% of the vertical dimension, Live



ba7c1caa-3c5a-45ed-8763-f8d25859bb64.png, 00:01:06,
26.10 m

Line deviates left, slight bend



a9d6362a-80fd-49e1-8cc9-372bc11954c3.png, 00:01:11,
26.50 m

Finish node, manhole, reference: FW1

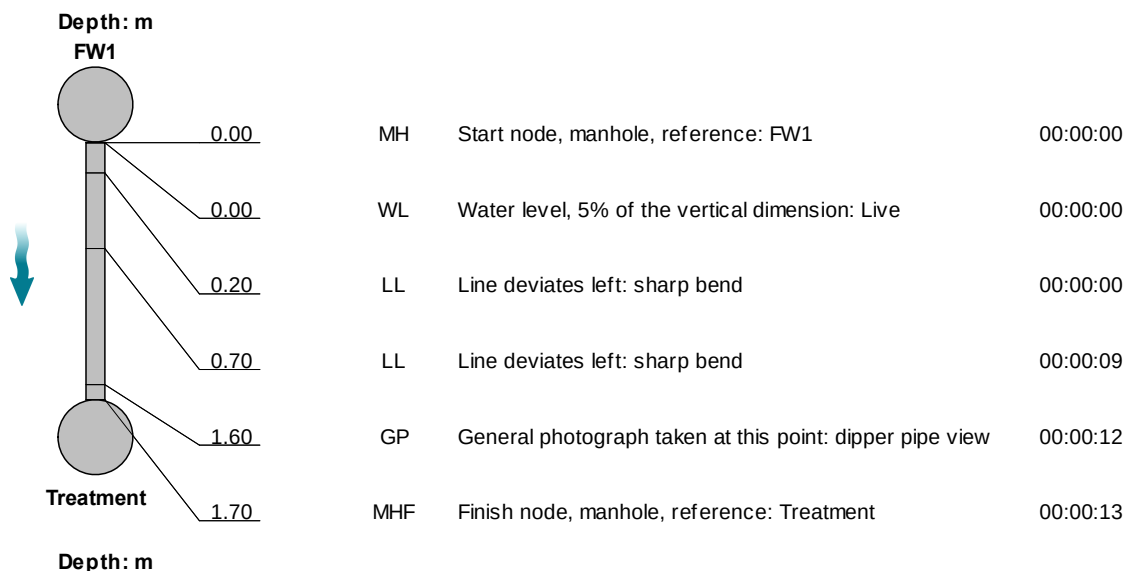
Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
7	1	24/07/25	9:42	Not Specified	No Rain Or Snow	No	FW1X
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Jason		Not Specified		Not Specified	Not Specified	Private Drain	Not Specified

Town or Village:	Cuckfield	Inspection Direction:	Dow nstream	Upstream Node:	FW1
Road:	Staplefield Road	Inspected Length:	1.70 m	Upstream Pipe Depth:	
Location:	Footw ay	Total Length:	1.70 m	Downstream Node:	TREATMENT
Surface Type:	Ballast	Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sew er	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:50 Position [m] Code Observation MPEG Photo Grade



STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 24/07/2025 - FW1X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
7	Downstream	FW1X		



fb1cad0e-8387-4100-882b-ea01738581b2.png, 00:00:00, 0.00 m

Water level, 5% of the vertical dimension, Live



8103e7b3-e2fd-4822-a7e3-a4a5562fa1e2.png, 00:00:00, 0.20 m

Line deviates left, sharp bend



67716f44-f2f0-4ddf-91ff-c7e0a48b0ac2.png, 00:00:09, 0.70 m

Line deviates left, sharp bend



887c1253-bf89-4004-9db2-5562cd81f78d.png, 00:00:12, 1.60 m

General photograph taken at this point, dipper pipe view



759bac1f-1cb7-4994-8361-0eb5bf734a80.png, 00:00:13, 1.70 m

Finish node, manhole, reference: Treatment

Completed section inspection

Item No. 8	Insp. No. 1	Date 24/07/25	Time 9:46	Client's Job Ref Not Specified	Weather No Rain Or Snow	Pre Cleaned No	PLR FW5X
Operator Jason		Vehicle Not Specified		Camera Not Specified	Preset Length Not Specified	Legal Status Private Drain	Alternative ID Not Specified

Town or Village:	Cuckfield	Inspection Direction:	Upstream	Upstream Node:	FW5
Road:	Staplefield Road	Inspected Length:	33.50 m	Upstream Pipe Depth:	
Location:	Footw ay	Total Length:	33.50 m	Downstream Node:	FW4
Surface Type:	Ballast	Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:291 Position [m] Code Observation MPEG Photo Grade

Depth: m
FW4


0.00

MH

Start node, manhole, reference: FW4

00:00:13

0.00

WL

Water level, 10% of the vertical dimension: Live

00:00:13

32.70

LR

Line deviates right: slight bend

00:02:43

33.50

MHF

Finish node, manhole, reference: FW5

00:02:40

FW5
Depth: m

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 24/07/2025 - FW5X

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
8	Upstream	FW5X		



14c673eb-ea69-48c0-b0be-721c1776af41.png, 00:00:13,
0.00 m

Water level, 10% of the vertical dimension, Live



8b1e1425-0517-4f9f-834c-4cefb475c872.png, 00:02:40,
33.50 m

Finish node, manhole, reference: FW5



0c06ffbc-44fa-4d3d-9cdb-cabaa9b4075b.png, 00:02:43,
32.70 m

Line deviates right, slight bend

Completed section inspection

Item No.	Insp. No.	Date	Time	Client's Job Ref	Weather	Pre Cleaned	PLR
9	1	24/07/25	9:49	Not Specified	No Rain Or Snow	No	SVP CONTAIN
Operator		Vehicle		Camera	Preset Length	Legal Status	Alternative ID
Jason		Not Specified		Not Specified	Not Specified	Private Drain	Not Specified

Town or Village:	Cuckfield	Inspection Direction:	Upstream	Upstream Node:	SVP CONTAIN
Road:	Staplefield Road	Inspected Length:	44.60 m	Upstream Pipe Depth:	
Location:	Footway	Total Length:	44.60 m	Downstream Node:	FW4
Surface Type:	Ballast	Joint Length:		Downstream Pipe Depth:	
Use:	Foul	Pipe Shape:	Circular		
Type of Pipe:	Gravity drain/sewer	Dia/Height:	100 mm		
Flow Control:	No flow control	Material:	Polyvinyl chloride		
Year Constructed:	Not Specified	Lining Type:	No Lining		
Inspection Purpose:	Sample condition survey	Lining Material:	No Lining		

Comments:
Recommendations:

Scale: 1:387 Position [m] Code Observation MPEG Photo Grade

Depth: m
FW4


0.00

MH

Start node, manhole, reference: FW4

00:00:02

0.00

WL

Water level, 0% of the vertical dimension

00:00:02

1.00

LR

Line deviates right: slight bend

00:00:16

42.50

LR

Line deviates right: slight bend

00:02:06

43.30

LU

Line deviates up: slight bend

00:02:11

43.90

GP

General photograph taken at this point: line straight

00:02:15

44.40

LU

Line deviates up: base bend

00:02:21

44.60

MHF

Finish node, manhole, reference: SVP Contain: pan connector view

00:02:25

SVP Contain
Depth: m

STR No. Def	STR Peak	STR Mean	STR Total	STR Grade	SER No. Def	SER Peak	SER Mean	SER Total	SER Grade
0	0.0	0.0	0.0	1.0	0	0.0	0.0	0.0	1.0

Section Pictures - 24/07/2025 - SVP ContaiX

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
9	Upstream	SVP CONTAIX		



14a30d39-57f4-43be-88cd-77595ea8b369.png, 00:00:02,
0.00 m

Water level, 0% of the vertical dimension



32dc6305-67ed-456e-8a54-a5b02ba346eb.png, 00:00:16,
1.00 m

Line deviates right, slight bend



3697f238-552e-4284-8403-66d068a5303f.png, 00:02:06,
42.50 m

Line deviates right, slight bend



9e915fd2-1c0e-4434-82ac-976750f6493b.png, 00:02:11,
43.30 m

Line deviates up, slight bend



d26982e9-f13b-4297-b9c8-ab53bb30c3a6.png, 00:02:15,
43.90 m

General photograph taken at this point, line straight



a76486c8-5073-4d95-8ba5-6240439f064c.png, 00:02:21,
44.40 m

Line deviates up, base bend

Section Pictures - 24/07/2025 - SVP ContaiX

Item No.	Inspection Direction	PLR	Client's Job Ref	Contractor's Job Ref
9	Upstream	SVP CONTAIX		



cc534a2b-74db-43ba-bef7-09ea6fb48e0b.png, 00:02:25,
 44.60 m
 Finish node, manhole, reference: SVP Contai, pan connector

Disclaimer

Although every effort has been made to produce a thorough and precise report, Aquatech Drain Services Ltd cannot be held liable for any discrepancies or omissions. Furthermore Aquatech Drain Services Ltd cannot be held responsible for any actions taken based on the information supplied within this report.

CUCKFIELD GOLF CENTRE

DRAINAGE STATEMENT



Appendix B

Soakaway Testing Results

CUCKFIELD GOLF CENTRE

Soakaway Testing

Testing is accurate at the time and place of testing. No responsibility can be taken for variations in ground conditions beyond the locations of tests undertaken.

Contents

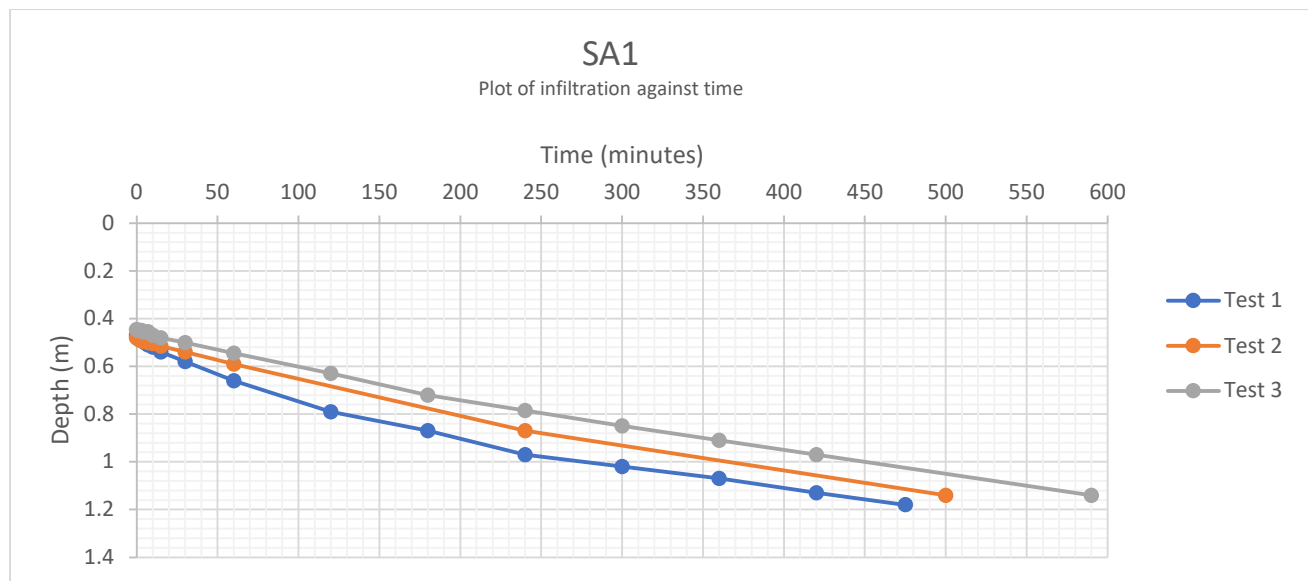
Pg, 1 - 2	Soakaway Test Graphs
Pg, 3 - 4	Soakaway Photo Plates
Pg, 5	Ground Water Test Pit

Testing and report completed by

Steven Philp BSc Hons, CRWM, M.I Soil Sci
Ground Testing Ltd

Report Number 0851

Testing and Report undertaken on behalf of AGM Ltd

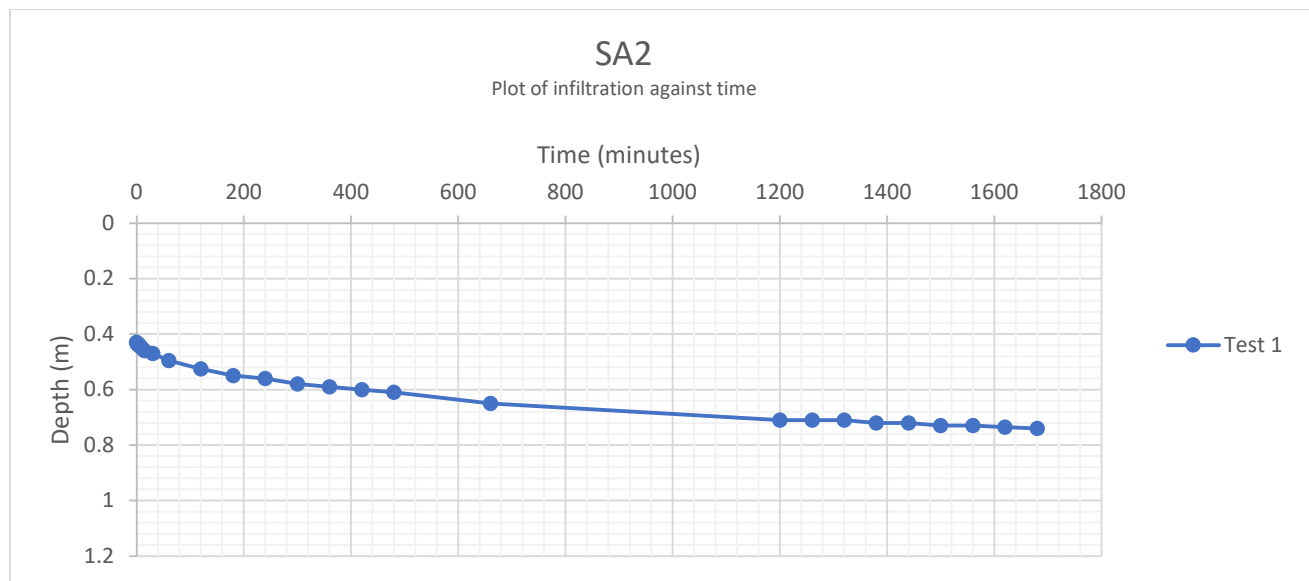


	Test 1 (26.06.25)	Test 2 (26.06.25)	Test 3 (27.06.25)
	●	●	●
Total pit depth at start of test (m)	1.39	1.39	1.36
Total pit depth at end of test (m)	1.39	1.36	1.36
Effective Depth, D_e (m)	0.92	0.88	0.92
Effective Storage Volume, V_{p75-25} (m ³)	0.33	0.32	0.33
Surface Area, a_{p50} (m ²)	2.44	2.36	2.43
Time, t_{p75-25} (seconds)	22472	22157	25925
Infiltration rate, f (m/s)	$6.11 \times 10^{-6} \text{m/s}$	$6.11 \times 10^{-6} \text{m/s}$	$5.29 \times 10^{-6} \text{m/s}$

Depth	Soil Description
0.00 – 0.35m	Dark brown sandy gravelly CLAY occasional rootlets. Gravels are brick, concrete, sandstone (MADE GROUND)
0.35 – 1.39m	Yellowish brown sandy CLAY

Notes:

No groundwater was encountered in the pit.
Weather was sunny.
Pit was dug with a 8T Excavator.
Pit was filled using a 1000Ltr bowser.
Pit dimensions: **L 1.30m x W 0.56m x D 1.39m**
NGR: **TQ 29559 25979**
Slowest Infiltration rate is as above **$5.29 \times 10^{-6} \text{m/s}$**



	Test 1 (26.06.25)	Test 2	Test 3
	●	●	●
Total pit depth at start of test (m)	1.20	-	-
Total pit depth at end of test (m)	1.20	-	-
Effective Depth, D_e (m)	0.77	-	-
Effective Storage Volume, V_{p75-25} (m ³)	0.29	-	-
Surface Area, a_{p50} (m ²)	2.17	-	-
Time, t_{p75-25} (seconds)	NA	-	-
Infiltration rate, f (m/s)	NA	-	-

Depth	Soil Description
0.00 – 0.35m	Dark brown sandy gravelly CLAY occasional rootlets. Gravels are brick, concrete, sandstone (MADE GROUND)
0.35 – 1.20m	Yellowish brown sandy CLAY

Notes:

No groundwater was encountered in the pit.

Weather was sunny.

Pit was dug with a 8T Excavator.

Pit was filled using a 1000Ltr bowser.

Pit dimensions: **L 1.25m x W 0.60m x D 1.20m**

NGR: **TQ 29579, 25977**

Unable to calculate an infiltration rate due to insufficient drainage.



Comment SA1	Project Cuckfield Golf Centre
	Photo Plate 1
	Date 26/06/25
	Originator S.Philp
	 GROUND TESTING LTD Ground Testing Ltd ask@groundtesting.co.uk www.groundtesting.co.uk VAT: 332931414 Reg: 12200980



Comment SA2	Project Cuckfield Golf Centre
	Photo Plate 2
	Date 26/06/25
	Originator S.Philp
	 Ground Testing Ltd ask@groundtesting.co.uk www.groundtesting.co.uk VAT: 332931414 Reg: 12200980



Comment Ground Water Test Pit TQ 29571 25980 0.0 - 0.2m Dark brown sandy gravelly CLAY occasional rootlets. Gravels are brick, concrete, sandstone (MADE GROUND) 0.2 - 1.2m Yellowish brown sandy CLAY 1.2 – 2.0m Yellow very sandy gravelly CLAY. Gravels are F-C sandstone 2.0 - 2.2m Yellow GRAVEL, with cobbles and boulders of sandstone (BEDROCK) No groundwater was encountered in the pit.	Project Cuckfield Golf Centre
	Photo Plate 3
	Date 26/06/25
	Originator S.Philp
	 GROUND TESTING LTD Ground Testing Ltd ask@groundtesting.co.uk www.groundtesting.co.uk VAT: 332931414 Reg: 12200980

CUCKFIELD GOLF CENTRE

DRAINAGE STATEMENT



Appendix C

Greenfield Run-off Rate Calculations

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	x	2 year (l/s)	0.1
Summer CV	0.750	Drain Down Time (mins)	240	30 year (l/s)	0.1
Winter CV	0.840	Additional Storage (m ³ /ha)	0.0	100 year (l/s)	0.2
Analysis Speed	Normal	Check Discharge Rate(s)	✓	Check Discharge Volume	x

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 %)
2	0	0	0
30	0	0	0
100	0	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	FEH	Growth Factor 100 year	2.48
Positively Drained Area (ha)	0.014	Betterment (%)	0
SAAR (mm)	832	QMed	0.1
Host	1	QBar	0.1
BFIHost	0.478	Q 2 year (l/s)	0.1
Region	7	Q 30 year (l/s)	0.1
QBar/QMed conversion factor	1.136	Q 100 year (l/s)	0.2
Growth Factor 2 year	0.88		

CUCKFIELD GOLF CENTRE

DRAINAGE STATEMENT



Appendix D

Drainage Strategy

DETENTION BASIN 1 DETAILS

MIN T.O.B (TOP OF BANK) LEVEL: 114.80mAOD
MAX WATER LEVEL (1 IN 100 + 25% CC EVENT): 114.50mAOD
IL: 114.30mAOD
FREEBOARD: 300mm
BASE AREA 94.64m²
AREA AT MAX WATER LEVEL: 123.19m²
AREA AT MIN T.O.B LEVEL: 170.27m²
ADDITION TO CONTRIBUTING DRAINAGE AREA: 0.020ha
FREE STORAGE VOLUME: 21.9m³

WEIR OVERFLOW WITH EROSION PROOF
MATTING
OVERFLOW LEVEL AT 114.50mAOD
1.00m BASE-WIDTH
1:3 GRADIENT
IN THE EVENT OF DRAINAGE NETWORK
FAILURE THE SURFACE WATER WILL
OVERFLOW AT THIS POINT AND
EVENTUALLY DISCHARGE INTO THE
EXISTING DITCH.

IF THE SWALE OVERTOPS DURING AN
EXCEEDANCE EVENT, THE SURFACE WATER
WILL FLOW NORTH-EAST AND DISCHARGE
INTO THE EXISTING DITCH.

OFCC450/1 ORFILO
ORIFICE FLOW CONTROL CHAMBER
INCLUDING DEBRIS SCREEN
CL 114.80
IL 114.20
ORIFICE DIAMETER 20mm

50mm DEPRESSION UPSTREAM OF THE
OUTFALL TO INTERCEPT SILT/ SEDIMENT
DEPTH 0.05m
BANK SLOPE 1:3
IL 114.25

1m WIDE BERM AT T.O.B LEVEL

MAX WATER LEVEL: 114.50mAOD

T.O.B LEVEL: 114.80mAOD

DETENTION BASIN 1

DETENTION BASIN SIZED TO
ACCOMMODATE THE 1 IN 100
YEAR RAINFALL EVENT WITH
A 25% CLIMATE CHANGE
ALLOWANCE.

ALL RODDING EYE INVERT
LEVELS ARE TO BE 0.4m DEEP

EXISTING SVP
FOUL PAN
CONNECTION
WITHIN THE
CONTAINER.

TREE
GIRTH 0.50
SPRD 10.0

TREE
GIRTH 0.30
SPRD 8.0

EXISTING HEADWALL
IL 114.68

EXRG1
CL 115.20

EXISTING SURFACE
WATER OUTFALL
IL 113.38

FENCE
PW H 1.00

CULVERT
SOFFIT 113.56
INVERT 113.38

EXISTING KLARGESTER SEWAGE
TREATMENT PLANT.
LOCATION IS INDICATIVE.
CONFIRMED CAPCITY FOR
ADDITIONAL PROPOSED FOUL
FLOW.

EXFW1

EXFW2
BURIED

NOTE
ROUTING OF EXISTING
DRAINAGE TAKEN FROM CCTV
SURVEY AND TOPOGRAPHIC
COVER POSITIONS.

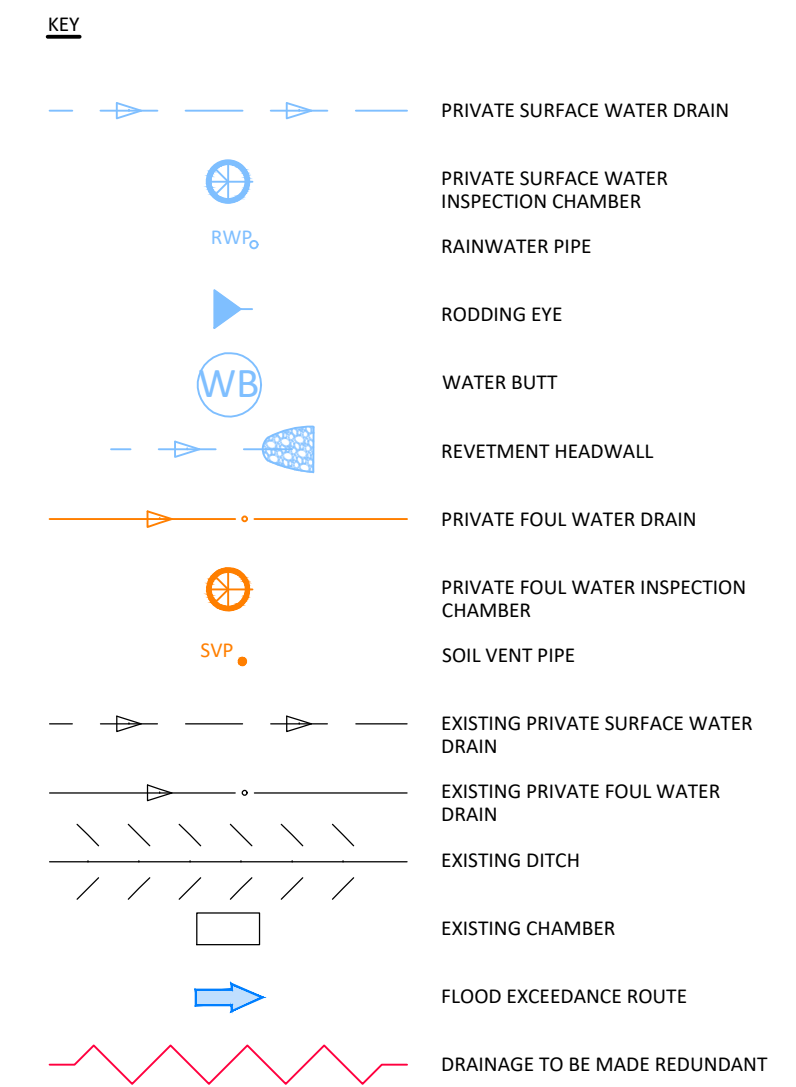
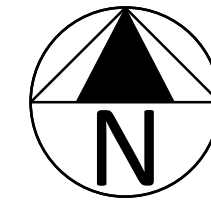
EXCEEDANCE FLOWS
TO DISCHARGE
TOWARDS
DETENTION BASIN.

IN AN EXCEEDANCE EVENT,
SURFACE WATER TO
DISCHARGE EAST TO GOLF
COURSE WITHIN CLIENTS
CURTILAGE. NO OTHER
STRUCTURE TO BE
AFFECTED.

EXFW3
CL 114.00
IL 112.80

EXFW4

NEW CHAMBER TO BE CONSTRUCTED ON
EXISTING FOUL DRAINAGE RUN SUBJECT
TO INVERT LEVEL ACHIEVING DEPTH
REQUIRED. IF EXISTING DRAINAGE IS TOO
SHALLOW, PROPOSED TO CONNECT TO
EXFW3.



DRAINAGE NOTES- PRIVATE DRAINAGE

1. ALL PRIVATE DRAINAGE WORKS TO BE CARRIED OUT IN ACCORDANCE WITH BUILDING REGULATIONS PART H.
2. ALL FOUL WATER PRIVATE PIPES TO BE 100MM DIAMETER UNLESS OTHERWISE STATED. MIN GRADIENT 1:80 WHERE CONNECTED TO A MINIMUM OF 1WC, OTHERWISE MIN 1:40. ALL SURFACE PRIVATE DRAINAGE PIPES TO BE 100MM DIAMETER UNLESS OTHERWISE STATED WITH A MIN GRADIENT OF 1:100 UNLESS OTHERWISE STATED.
3. ALL SURFACE WATER PIPES 600MM² OR LESS TO BE POLYPIPE RIGIDRAIN OR SIMILAR APPROVED. SURFACE WATER PIPES GREATER THAN 600MM² TO BE POLYPIPE RIGIDRAIN XL OR SIMILAR APPROVED. ALL 100MM DIAMETER FOUL WATER DRAINS TO BE VITRIFIED CLAY. ALL 150MM DIAMETER FOUL DRAINS TO BE POLYPIPE POLYSEWER OR SIMILAR APPROVED. AS ONLY ONE BUILDING IS IN QUESTION, NO ADDITIONAL VENTING IS REQUIRED (AAV'S ONLY).
4. ALL DRAINAGE ARRANGEMENTS ARE TO BE CARRIED OUT TO THE SATISFACTION OF THE LOCAL AUTHORITY BUILDING INSPECTOR ONSITE.
5. PRIVATE FOUL WATER DRAIN ROUTE UNDER SLAB IS INDICATIVE ONLY; BEDDING, PIPE MATERIAL AND PENETRATION OF PROPERTY WALL DETAILS BY OTHERS.
6. CONTRACTOR TO REVIEW ALL BELOW SLAB PRIVATE DRAINAGE AND ENSURE, WHERE REQUIRED, FOUNDATION PENETRATIONS/PLINTHS ARE PROVIDED IN ACCORDANCE WITH STRUCTURAL ENGINEER REQUIREMENTS.

D	UPDATED ISSUE	10/11/25	JJ	BF
C	UPDATED TO ADDRESS COMMENTS	07/11/25	JJ	RP
B	UPDATED ISSUE	05/08/25	JJ	RP
A	FIRST ISSUE	01/08/25	JJ	RP
REV.	DESCRIPTION	Date	BY	CHK

DESIGN BY:

tumu

CLIENT:

AGM

DRAWING STATUS:

DISCHARGE OF PLANNING CONDITIONS

SCALE @ A1:

0 1:100 5 metres

PROJECT:

CUCKFIELD GOLF CENTRE

TITLE:

DRAINAGE STRATEGY

PROJECT No:	DRAWING No:	REV:
19963	19963-TUM-DD-XXX-0200	D

CUCKFIELD GOLF CENTRE

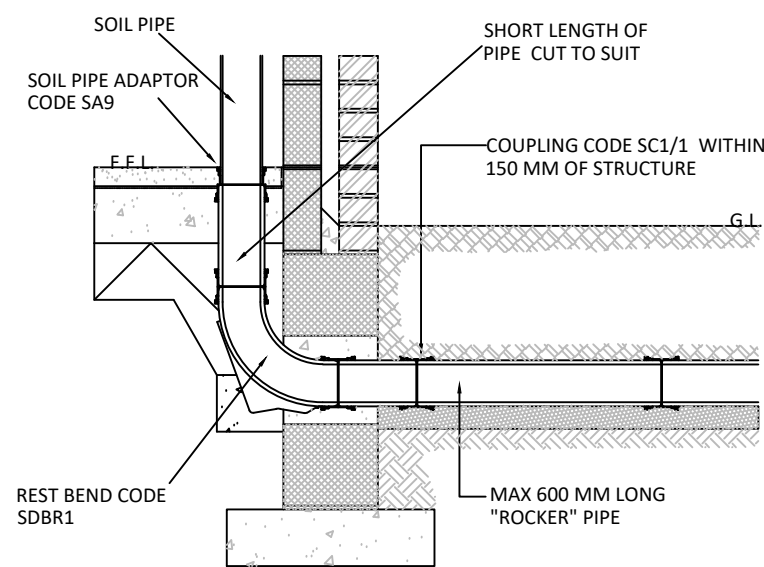
DRAINAGE STATEMENT



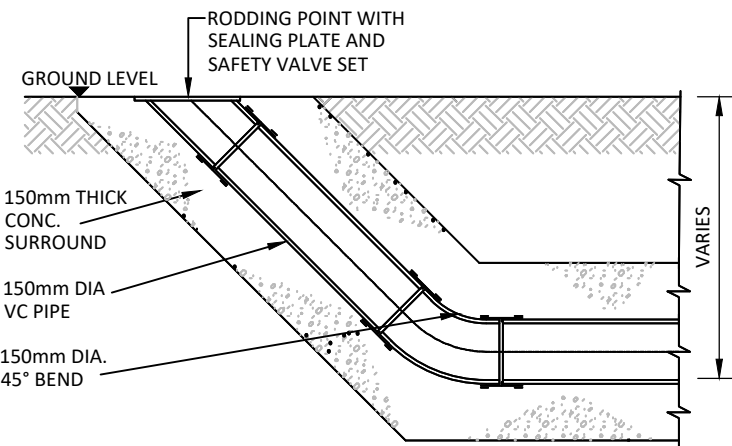
Appendix E

Standard Drainage Details

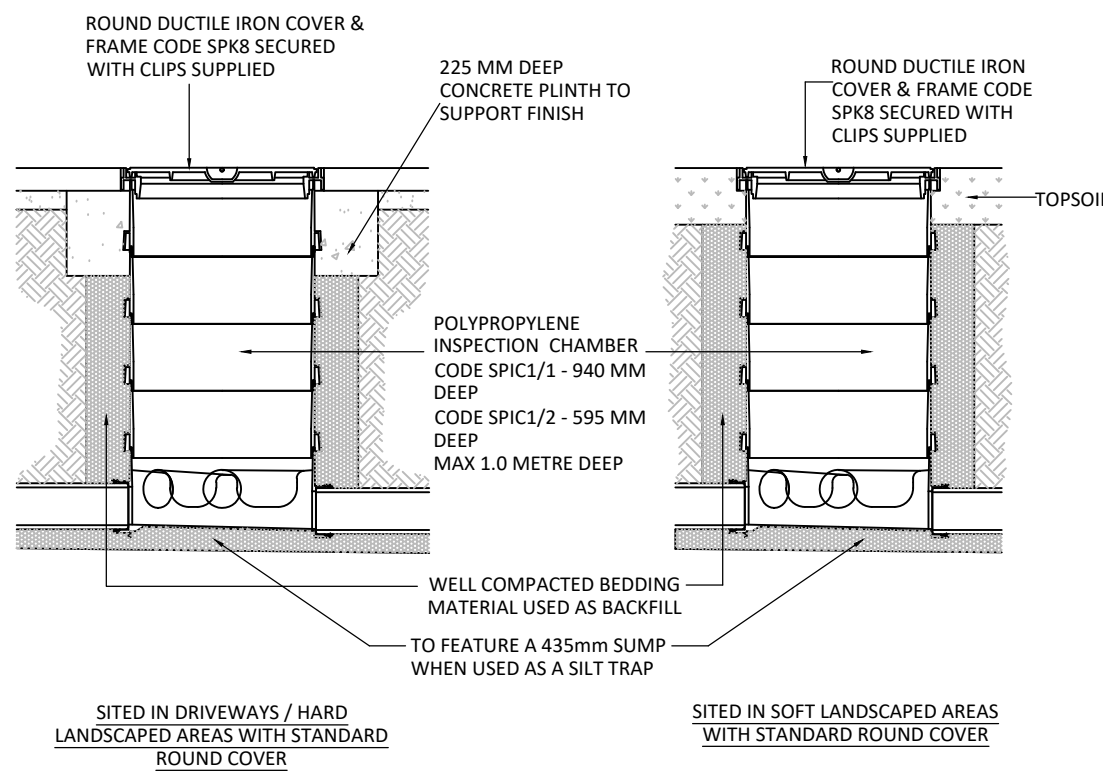
SOIL & VENT PIPE / STUB
STACK / W.C. PIPE
SCALE 1:20



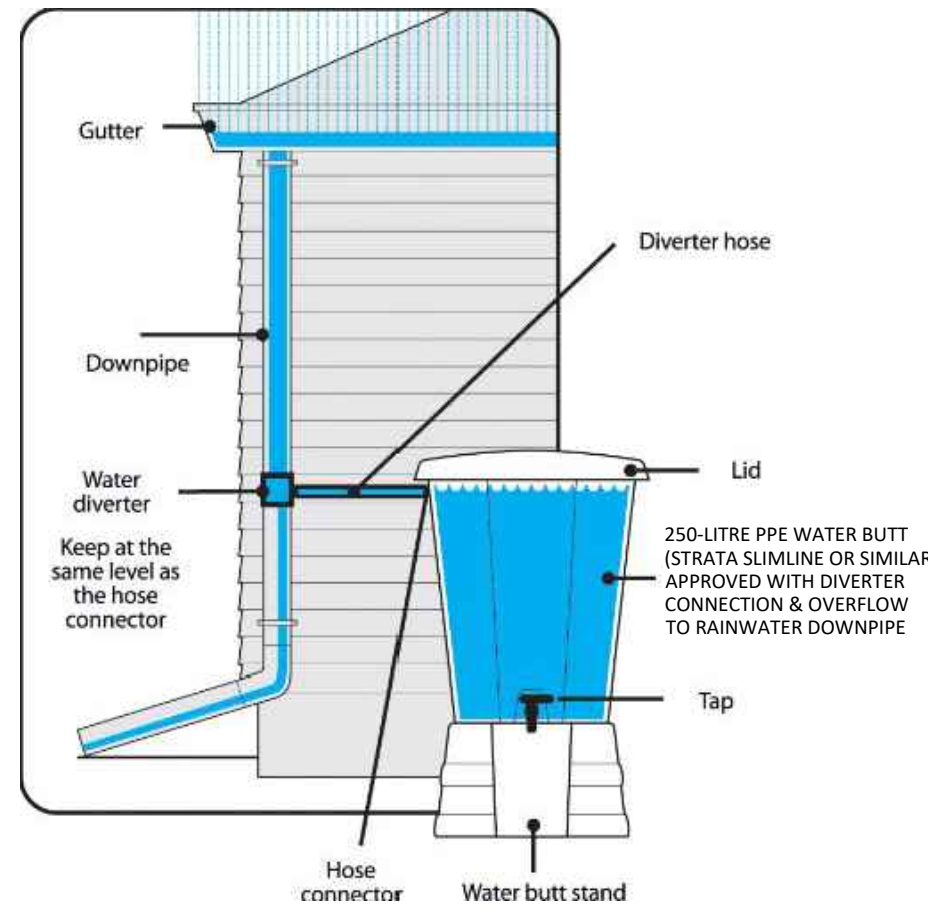
RODDING EYE DETAIL
SCALE 1:20



POLYPROPYLENE INSPECTION
CHAMBER
SCALE 1:20



TYPICAL WATER BUTT DETAIL
NOT TO SCALE



ORIFLO FLOW CONTROL
CHAMBER
NOT TO SCALE

ORIFLO
FLOW CONTROL CHAMBERS
MODEL OFCC450
Flow Control Chamber for use with 110/160mm EN 1401 & 150/225mm twinwall pipework

OVERVIEW
The ORIFLO OFCC450 is classed as a protected orifice plate - flow control chamber. Designed to support SUDS management and the sewer infrastructure, as part of a designed attenuation system, helping prevent flooding by controlling the flow into the main sewer.

APPLICATION
Designed to be installed downstream of larger attenuation systems, ie. tank and oversized pipe systems, forming the final part of the SUDS chain.

DESCRIPTION
450mm diameter, single piece - factory built units, delivered to site ready to install. Integrally there is a unique SILTLOCK filter and debris barrier. The barrier protects the orifice plate from blockage, as well as protecting the downstream watercourse. All units feature an impact resistant, twinwall body with a choice of inlet pipe diameters from 110mm (EN 1401) to 225mm twinwall. The standard outlet pipe is 150mm twinwall, which has a removable orifice plate fitted internally, however other pipework sizes are available using supplied adaptors - 110/160mm EN 1401 & 225mm twinwall. Further inlets are available on request and with a choice of positions from 120° to 240° (As shown in plan view below). The number of extra inlets will be dependant on size of pipe and orientation.

COMPLIANCE
■ Design & Construction Guidance - April 2020, Section C7.12 - Flow Control Device
■ Building Regulations - Part H4
■ New OGS (Design and Construction Guidance) states; In Adaptable applications, this type of flow control device is designed with a minimum 50mm orifice diameter

FEATURES & BENEFITS
■ Single piece unit delivered ready to install, reducing installation time and costs.
■ Robust, chemical resistant, twinwall body
■ Offers significant orifice savings against PCC and other traditional construction methods, as they need no construction or wet trades.
■ Eliminates wastage associated with in-situ construction.
■ Various pipework options available.
■ Available in three depths.
■ Unique SILTLOCK filter and debris barrier - manufactured from 100% recycled plastic.
■ Removable Orifice Plate
■ Orifice Plate can be changed easily and extremely cost effectively should the hydraulics and flow rates change due to future development.
■ Optional - Circular or Square Access Cover, which has a 300mm diameter restricted access to comply with OGS (Design and Construction Guidance)
■ Access shafts can be tapered to suit required invert.
■ Can be installed in granular bedfill.
■ 40 year Design Life
■ Manufactured in the UK

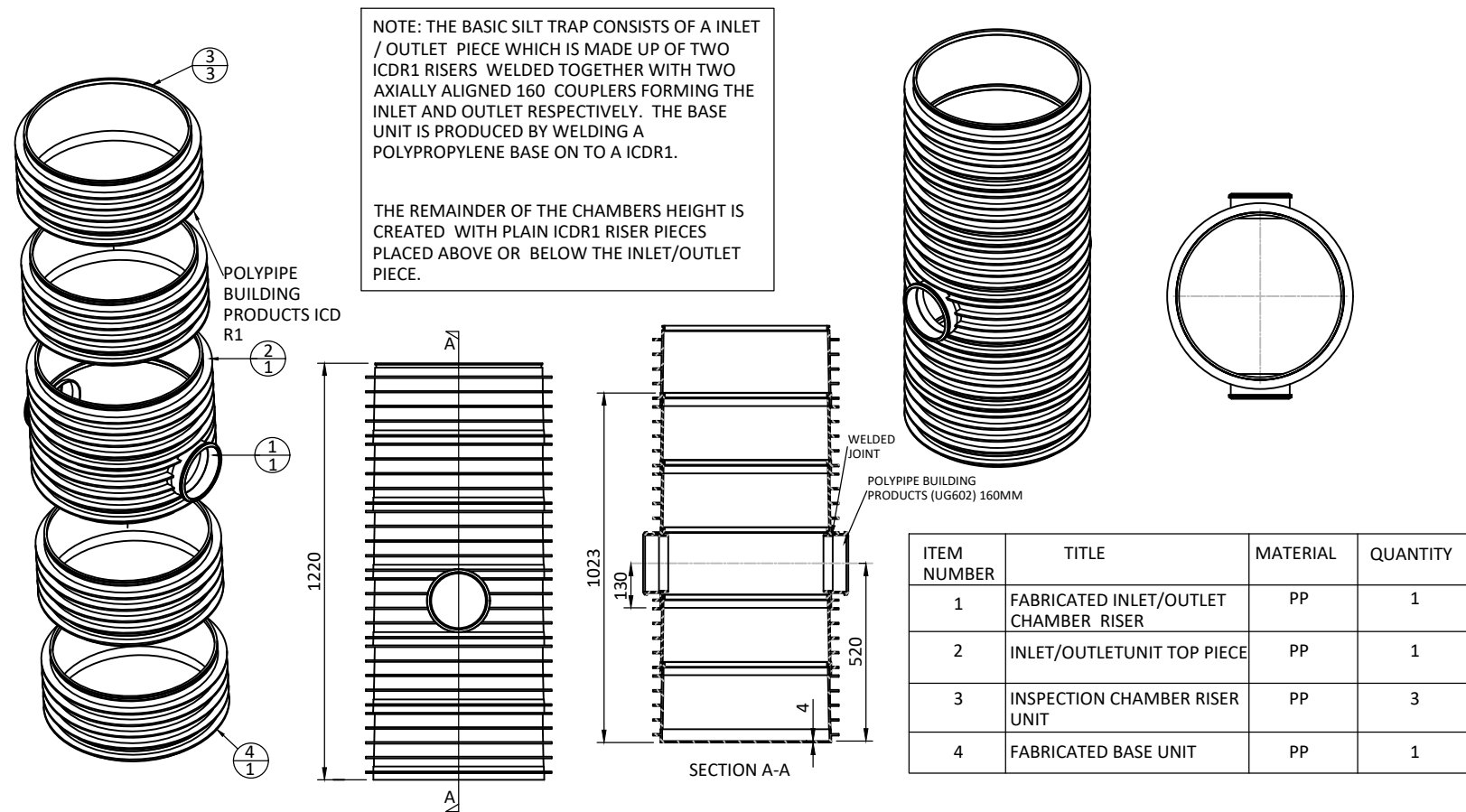
Product Code | **Standard Orifice** | **Orifice pipework options** | **Inlet pipe options** | **Depth** | **Inlet Invert** | **Approx. Weight**

Product Code	Standard Orifice	Orifice pipework options	Inlet pipe options	Depth	Inlet Invert	Approx. Weight
OFCC450/1	150mm	110mm (EN 1401) 160mm (EN 1401)	110mm (EN 1401) 160mm (EN 1401)	1000	700	20
OFCC450/1.5	160mm	110mm (EN 1401) 160mm (EN 1401)	110mm (EN 1401) 160mm (EN 1401)	1540	1210	25
OFCC450/2	160mm	110mm (EN 1401) 160mm (EN 1401)	110mm (EN 1401) 160mm (EN 1401)	1957	1627	30

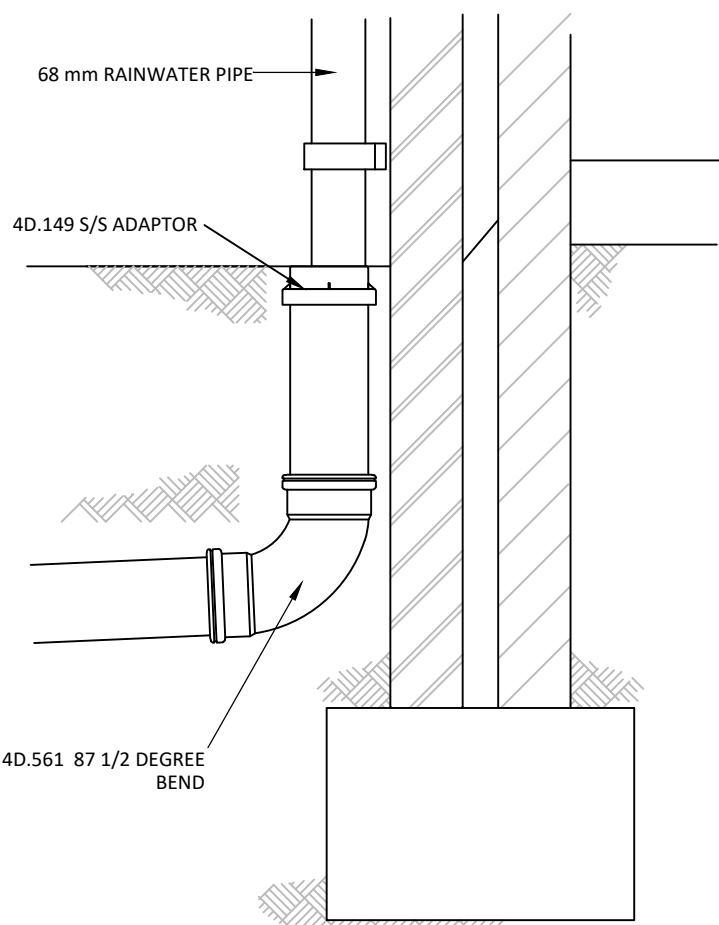
... To calculate the specific orifice diameter from a prescribed restricted flow rate you can use the flow rate calculator on our website: www.tumblewire.co.uk/oriflo

www.tumblewire.co.uk | Email: sales@tumblewire.co.uk | Sales & Technical support: Tel: 0191 3036375

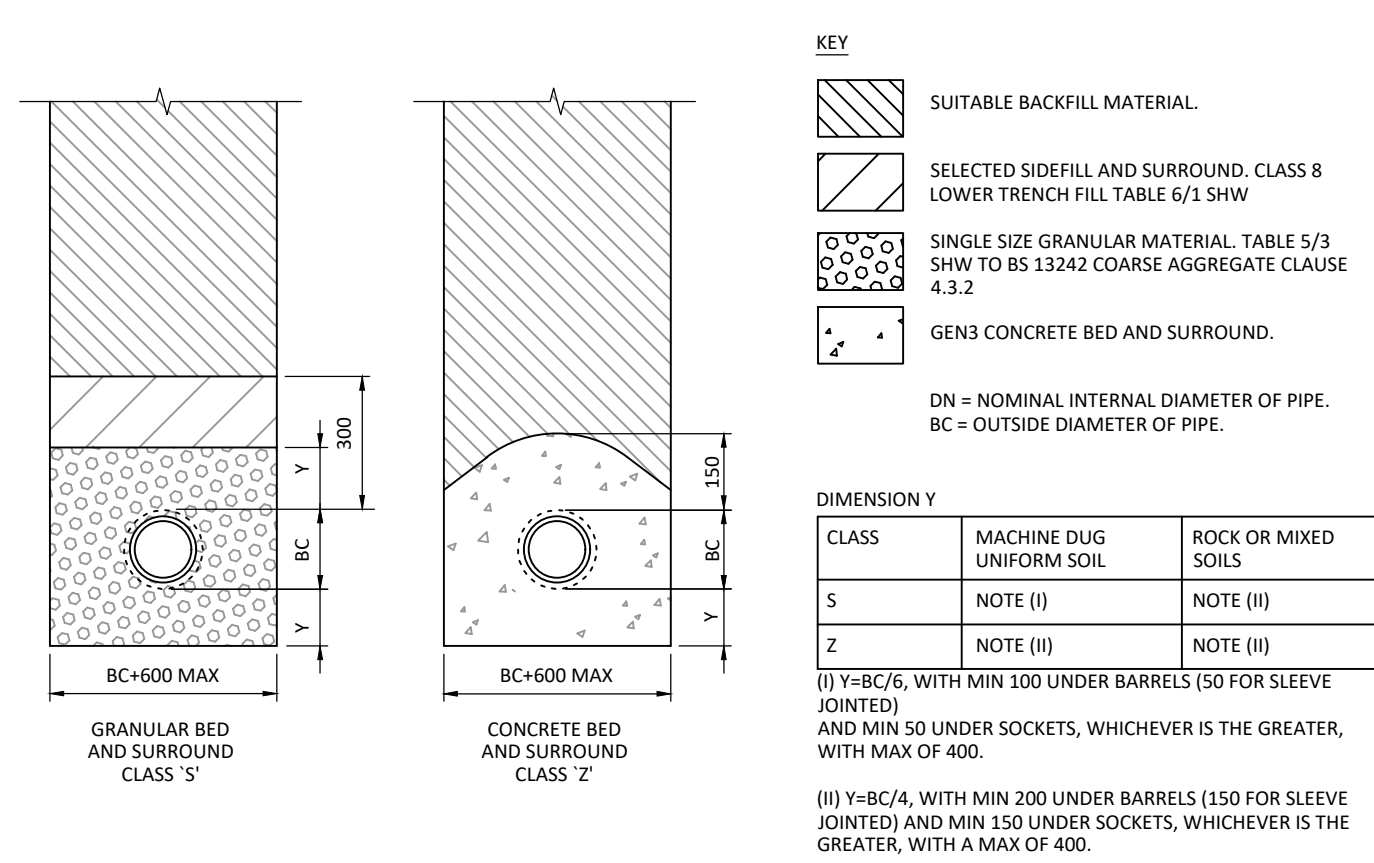
POLYSTORM BASIC SILT TRAP
SCALE 1:20



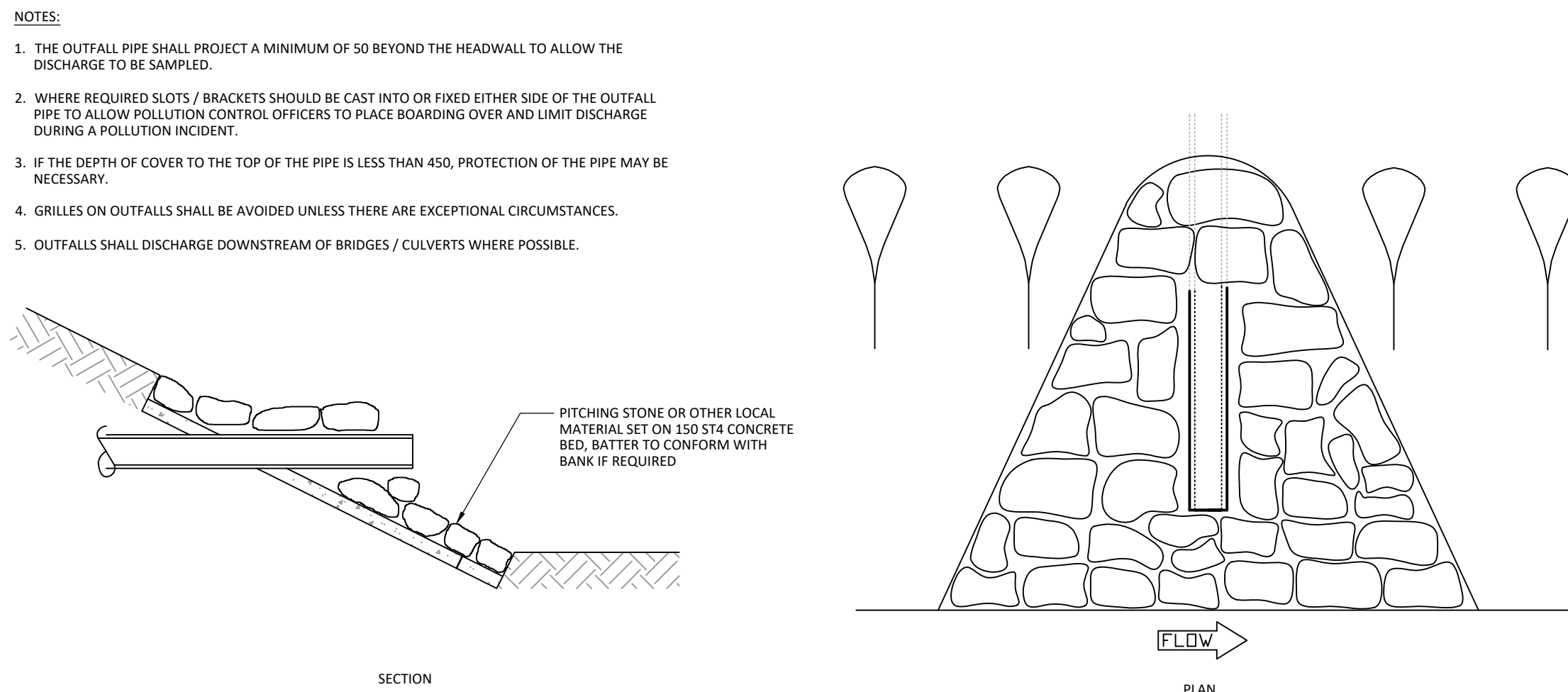
EXTERNAL R.W.P. TO DRAIN
SCALE 1:20



PIPE BEDDING DETAILS
SCALE 1:20



HEADWALL - PIPES LESS THAN 300mm DIAMETER
SCALE 1:20



C	UPDATED ORIFLO DETAIL	10/11/25	JJ	BF
B	SWALE DETAIL REMOVED	07/11/25	JJ	RP
A	FIRST ISSUE	01/08/25	JJ	RP
REV.	DESCRIPTION	Date	BY	CHK
DESIGN BY:				
CLIENT:				
AGM				
DRAWING STATUS:				
DISCHARGE OF PLANNING CONDITIONS				
SCALE @ A1:				
AS SHOWN				
PROJECT:				
CUCKFIELD GOLF CENTRE				
TITLE:				
STANDARD DRAINAGE DETAILS				
PROJECT No:	DRAWING No:	REV:		
19963	19963-TUM-DD-XXX-0280	B		

CUCKFIELD GOLF CENTRE

DRAINAGE STATEMENT



Appendix F

Causeway FLOW Calculations

Design Settings

Rainfall Methodology	FEH-22	Minimum Velocity (m/s)	1.00
Return Period (years)	100	Connection Type	Level Soffits
Additional Flow (%)	0	Minimum Backdrop Height (m)	0.200
CV	1.000	Preferred Cover Depth (m)	1.200
Time of Entry (mins)	5.00	Include Intermediate Ground	✓
Maximum Time of Concentration (mins)	30.00	Enforce best practice design rules	x
Maximum Rainfall (mm/hr)	50.0		

Nodes

Name	Area (ha)	T of E (mins)	Cover Level (m)	Diameter (mm)	Width (mm)	Easting (m)	Northing (m)	Depth (m)
S5	0.000	5.00	114.800	450	450	529591.167	125984.214	0.600
S6	0.000	5.00	115.000			529594.501	125985.535	1.290
REVETMENT HEADWALL 2	0.034	5.00	114.800			529589.747	125983.707	0.500

Links (Input)

Name	US Node	DS Node	Length (m)	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	Link Type	T of C (mins)
1.001	S5	S6	3.586	114.200	113.710	0.490	7.3	150	Circular	5.03
1.000	REVETMENT HEADWALL 2	S5	1.508	114.300	114.200	0.100	15.1	150	Circular	5.01

Simulation Settings

Rainfall Methodology	FEH-22	Skip Steady State	x	2 year (l/s)	0.1
Rainfall Events	Singular	Drain Down Time (mins)	240	30 year (l/s)	0.1
Summer CV	1.000	Additional Storage (m³/ha)	0.0	100 year (l/s)	0.2
Winter CV	1.000	Starting Level (m)		Check Discharge Volume	x
Analysis Speed	Normal	Check Discharge Rate(s)	✓		

Storm Durations

15	30	60	120	180	240	360	480	600	720	960	1440
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Return Period (years)	Climate Change (CC %)	Additional Area (A %)	Additional Flow (Q %)
2	0	0	0
30	20	0	0
100	25	0	0

Pre-development Discharge Rate

Site Makeup	Greenfield	Growth Factor 30 year	1.95
Greenfield Method	FEH	Growth Factor 100 year	2.48
Positively Drained Area (ha)	0.014	Betterment (%)	0
SAAR (mm)	832	QMed	0.1
Host	1	QBar	0.1
BFIHost	0.478	Q 2 year (l/s)	0.1
Region	7	Q 30 year (l/s)	0.1
QBar/QMed conversion factor	1.136	Q 100 year (l/s)	0.2
Growth Factor 2 year	0.88		

Node S5 Online Orifice Control

Flap Valve	x	Design Depth (m)	0.300	Discharge Coefficient	0.600
Replaces Downstream Link	x	Design Flow (l/s)			
Invert Level (m)	114.200	Diameter (m)	0.020		

Node REVETMENT HEADWALL 2 Depth/Area Storage Structure

Base Inf Coefficient (m/hr)	0.00000	Safety Factor	2.0	Invert Level (m)	114.300
Side Inf Coefficient (m/hr)	0.00000	Porosity	1.00	Time to half empty (mins)	

Depth (m)	Area (m ²)	Inf Area (m ²)	Depth (m)	Area (m ²)	Inf Area (m ²)
0.000	94.0	94.0	0.500	170.0	172.6

Results for 2 year Critical Storm Duration. Lowest mass balance: 98.97%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
180 minute winter	S5	228	114.378	0.178	5.8	0.0361	0.0000	SURCHARGED
240 minute summer	S6	136	113.718	0.008	0.3	0.0000	0.0000	OK
360 minute summer	REVETMENT HEADWALL 2	248	114.353	0.053	3.9	5.1578	0.0000	OK

Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
240 minute summer	S5	1.001	S6	0.3	0.958	0.005	0.0012	7.4
960 minute summer	REVETMENT HEADWALL 2	1.000	S5	6.5	0.516	0.141	0.0161	

Results for 30 year +20% CC Critical Storm Duration. Lowest mass balance: 98.56%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
360 minute winter	S5	336	114.450	0.250	3.7	0.0507	0.0000	SURCHARGED
360 minute winter	S6	336	113.719	0.009	0.4	0.0000	0.0000	OK
360 minute winter	REVETMENT HEADWALL 2	336	114.450	0.150	6.0	15.8056	0.0000	OK
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m³)	Discharge Vol (m³)
360 minute winter	S5	1.001	S6	0.4	1.027	0.006	0.0014	12.2
60 minute winter	REVETMENT HEADWALL 2	1.000	S5	6.4	0.488	0.139	0.0249	

Results for 100 year +25% CC Critical Storm Duration. Lowest mass balance: 98.91%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m ³)	Flood (m ³)	Status
480 minute winter	S5	448	114.498	0.298	3.0	0.0605	0.0000	SURCHARGED
480 minute winter	S6	448	113.719	0.009	0.4	0.0000	0.0000	OK
480 minute winter	REVETMENT HEADWALL 2	448	114.498	0.198	5.9	21.6260	0.0000	SURCHARGED
Link Event (Outflow)	US Node	Link	DS Node	Outflow (l/s)	Velocity (m/s)	Flow/Cap	Link Vol (m ³)	Discharge Vol (m ³)
480 minute winter	S5	1.001	S6	0.4	1.056	0.007	0.0015	15.9
60 minute summer	REVETMENT HEADWALL 2	1.000	S5	6.9	0.533	0.151	0.0265	

CUCKFIELD GOLF CENTRE

DRAINAGE STATEMENT



Appendix G

Preliminary Drainage & Foul Waste Plan

DRAINAGE AND FOUL WASTE PLAN

**Cuckfield Golf Club, Stapleford Road,
Haywards Heath. RH17 5HY.**

Application No: DM/22/0678

Date: 9th March 2022

The surface water will run into soakaways located around the barn as shown on the plan below.

[illegible]

FOUL SEWAGE

There is a Klargester located to the North of the site as shown in the drawing above. The sewer will run underground from the plant to the new barn.

It has been confirmed by Kingspan of Aylesbury that the plant is of sufficient size and to take the extra waste on top of the pre-existing loadings.

