



45 The Broadway, Haywards Heath, RH16 3AS
Drainage Strategy

Revision	Status	Description	Issued by	Checked	Date
P01	S2 – For Information	First issue	R White	C Blagbrough	04/08/2025
P02	S2 – For Information	FEH22 and 45% used	R White	A Griffiths	25/06/2026

Prepared by:	Signed:	Date
R White		04/08/2025

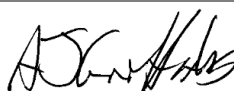
Approved by:	Signed:	Date
A Griffiths		04/08/2025

TABLE OF CONTENTS

1	Drainage Strategy.....	4
2	Appendix A – Maintenance manual	8
3	APPENDIX B – Drainage Layout.....	10
4	APPENDIX C – Details.....	11
5	APPENDIX D – Calculations	12
6	APPENDIX E - Mid-Sussex Checklist	13

1 Drainage Strategy		
Item	Details	Reference /comment
Method of Foul Water Discharge	Foul water flows are to drain to the existing foul water connection, noted as 3.8m deep in the site CCTV survey.	The existing connection remains to serve the new flats
Foul Water Discharge Volumes	British Water "Flows and load 4" estimates the flows per person to be 150 litres/person/day (higher than the water usage in a new dwelling of 125 litres/person/day required by Building Regulations Part G. For groups of small 1 and 2-bedroom flats, allow 3 people for a flat with 1 bedroom and 4 people for a flat with 2 bedrooms. So, for 4 one-bedroom flats and 5 two-bedroom flats: $(1 \times 3) + (3 \times 4) = 15 \text{ People}$ 15 domestic residents can be expected to generate a flow of 2,250 litres per day at 150 l per person (British Water Flows and Loads 4) Building regulation requires 110 litres per person per day, reducing this to 1,650 l/day	
Method of Surface Water Discharge	The surface water drainage design proposed for the new dwellings is to follow the drainage hierarchy to ensure the site reflects the natural flows from the site as closely as possible: 1. Rainwater reuse Water butts are provided where landscaping is likely to need irrigation. Internal rainwater recycling is being utilised where practical. However, this cannot be the only surface water solution, as we cannot guarantee that harvested water will be reused. 2. Infiltration There is no space further than >5m from a habitable dwelling, as required by the Soil investigation (see appendix B). 3. Discharge to Surface Water or a Watercourse There are no watercourses close to the site 4. Discharge to a Surface Water sewer or a Highway Drain – Existing surface water connections to the foul system will be broken out, and redirected to the surface water system at a reduced rate of 1l/s (as close as is practical to a greenfield rate). 5. Discharge to a Combined Sewer There are no combined sewers within the locality 6. Discharge to a Foul Sewer Connections to the foul are being removed as part of the works. Surface water falling onto the roof and hardstanding areas are to be drained to a new flow control chamber in the site entrance.	The new connection will be subject to S106 and S104 connection consent from Southern Water.

Our Ref: [Keywords]
 Date: [Publish Date]

Page 5 of 14

	Flows will be conveyed via a piped network and restricted to 1.0 l/s by a 20mm orifice plate flow control. Both attenuation tanks and permeable surfaces will be utilised for storage. The on-site system will be privately maintained by the freehold owners or their representatives in accordance with the guidance to the rear of this document. Due to limitations of the FLOW software used for the calculations, the Surface Water being pumped is shown at a higher elevation than the downstream pipework, with a limited discharge set to the pump rate.	
Local Ground Conditions	A Site Investigation Report (Ref: LS8293, Dated 26TH FEBRUARY 2025) has been undertaken on site by Land Science and found the site to be underlain by made ground to depth. This is unsuitable for infiltration, as it could impact the stability of the building and surroundings.	
Infiltration Rate	No infiltration testing has been carried out, as there is insufficient space greater than 5m from the building.	Infiltration was not used for this design.
Greenfield Rates	The peak allowable discharge rate from the development to surface waters or sewers for the 50% AEP event shall be limited to the equivalent 50% AEP greenfield runoff rate, or 3 l/s/ha, whichever is the greater. 0.03x3 l/s = 0.09 l/s 1 in 1 year = 0.1 l/s 1 in 2 year = 0.2 l/s 1 in 30 year = 0.4 l/s 1 in 100 year = 0.6 l/s These cannot practically be reached without significant risk of blockage. The lowest achievable rate is 0.6 l/s National standards for SUDS states "For previously developed sites a 'relaxation factor' shall be applied to the target 50% and 1% AEP greenfield runoff rates where evidence is provided that demonstrates why greenfield runoff or 3l/s/ha rates cannot be achieved and this is agreed with the approving body, This relaxation factor shall be no greater than 5 times the greenfield runoff rate." A rate of 0.6 l/s is 3 times the 50% rate and should be acceptable given the previous usage, and removal of surface water from the foul system.	

Surface Water Calculations	The surface water drainage system has been designed for a 1 in 100-year event, plus an allowance of 40% for climate change. Impermeable areas have had an additional 10% added for urban creep in line with Ciria C753. Contributing Areas Roof Areas = 160 m² Footpath Area = 120 m² Total Area = 280 m² Urban creep not applied due to a 100% impermeable area.	The total impermeable area for the site is 0.028 ha
Ground Water	The site investigation report confirmed that the natural water table was not encountered during the intrusive works.	
Water Quality	Where flows from site are exclusively from pedestrian surfaces and roofs. Silt traps will provide sufficient improvements to the water quality in line with guidance in CIRIA C753. The parking area should be permeable paving to allow sufficient treatment.	
Exceedance Flows	It is proposed that finished floor levels will be raised 150mm above the average ground level to mitigate against the risk of any surface water flooding. Exceedance flows will match the existing flow at a surface level towards the rear. The proposed surface water drainage measures will be designed to contain the peak storm event that can be expected for a 1 in 100-year situation. A 40% allowance has already been applied to the site to account for future climate change, making onsite flooding unlikely.	
Fluvial Flood Risk/ Environment Agency Flood Mapping	The Environment Agency flood map for the development site suggests that the site wholly falls within Flood zone 1, which is defined as land assessed as having a less than 1 in 1000 annual probability of river flooding in any one year. The surface water flooding maps indicate a medium risk of flooding predevelopment. However, the attenuation provided for events up to and including the 1 in 100 year plus climate chance reduce this to low.	
SuDS Maintenance	During construction, the SuDS systems will be maintained by the contractor. Upon sale of the last plot, the SuDS drainage system inclusive of paving, bio retention and silt traps are to be maintained by the owner of the freehold or their appointed representative(s).	Refer to Appendix A for the suggested SuDS

		Maintenance schedule
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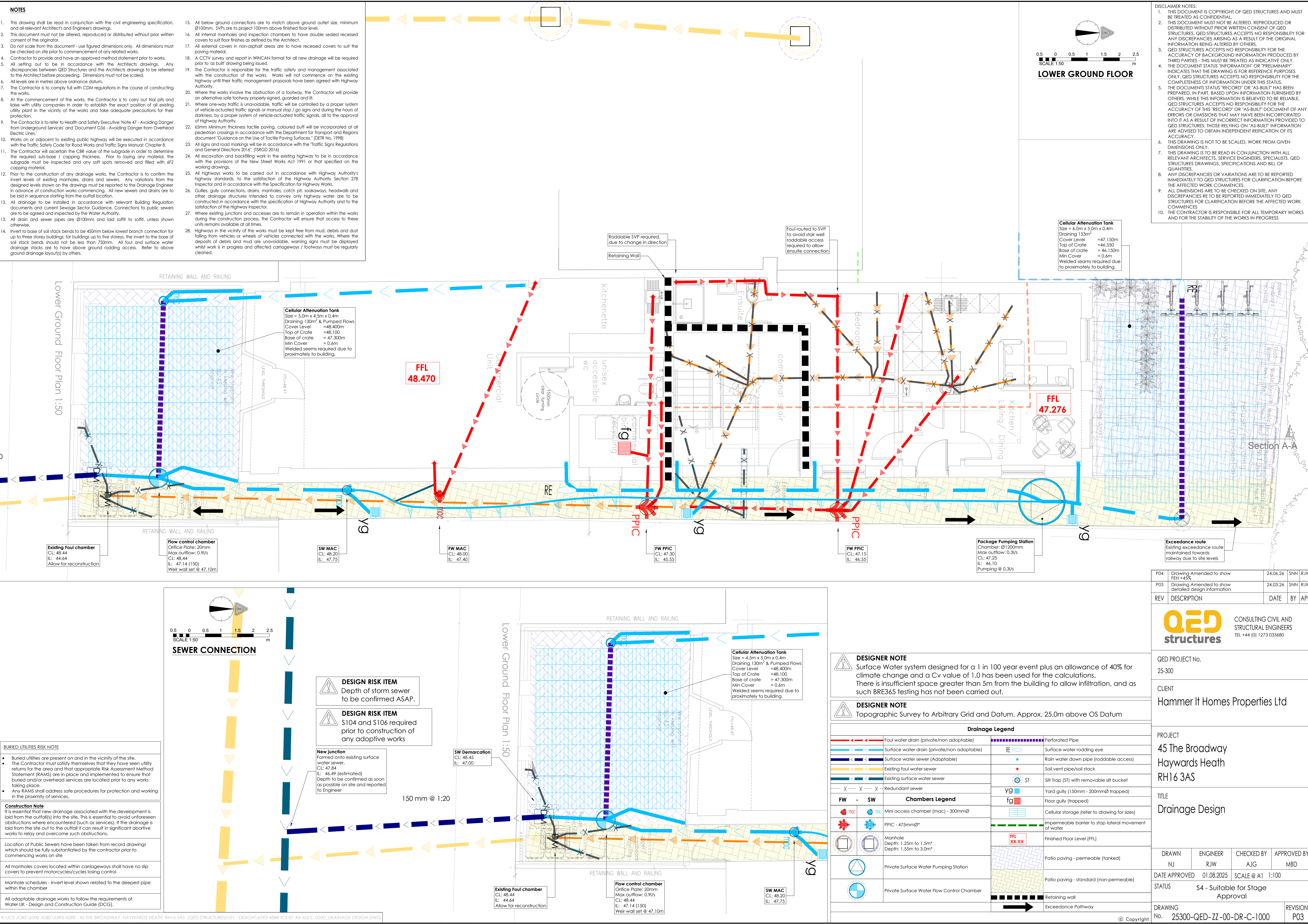
Table 1 Drainage Strategy

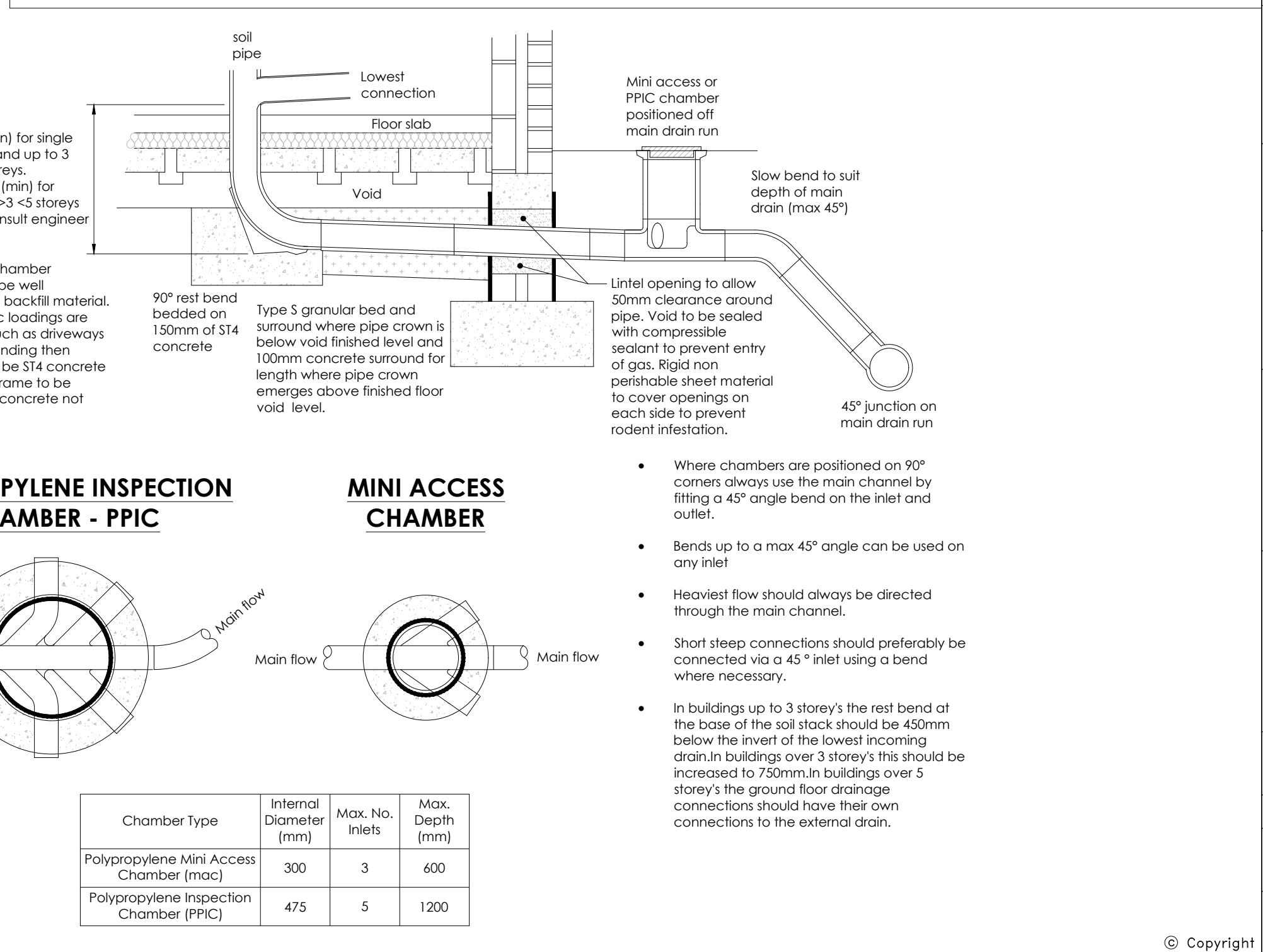
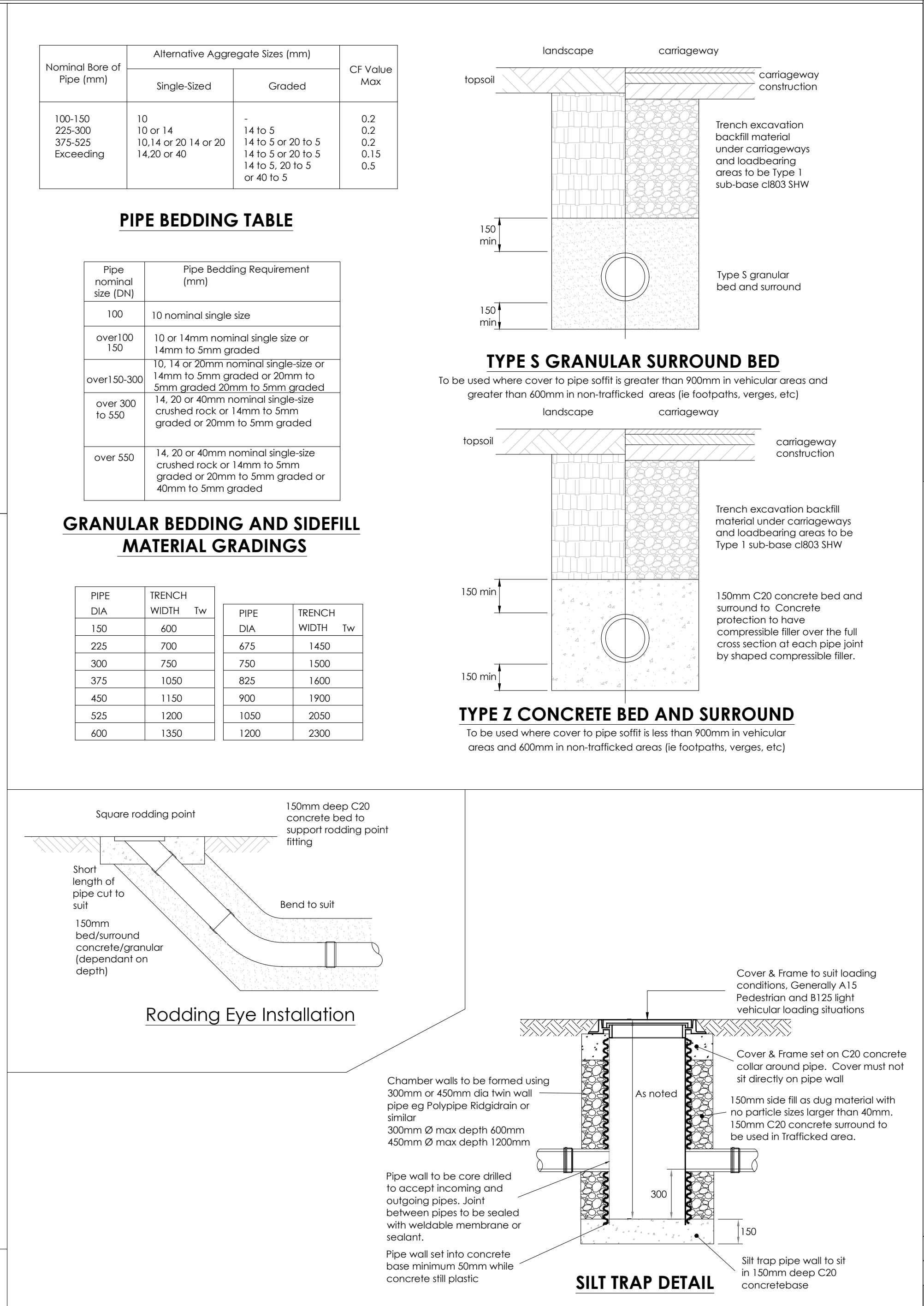
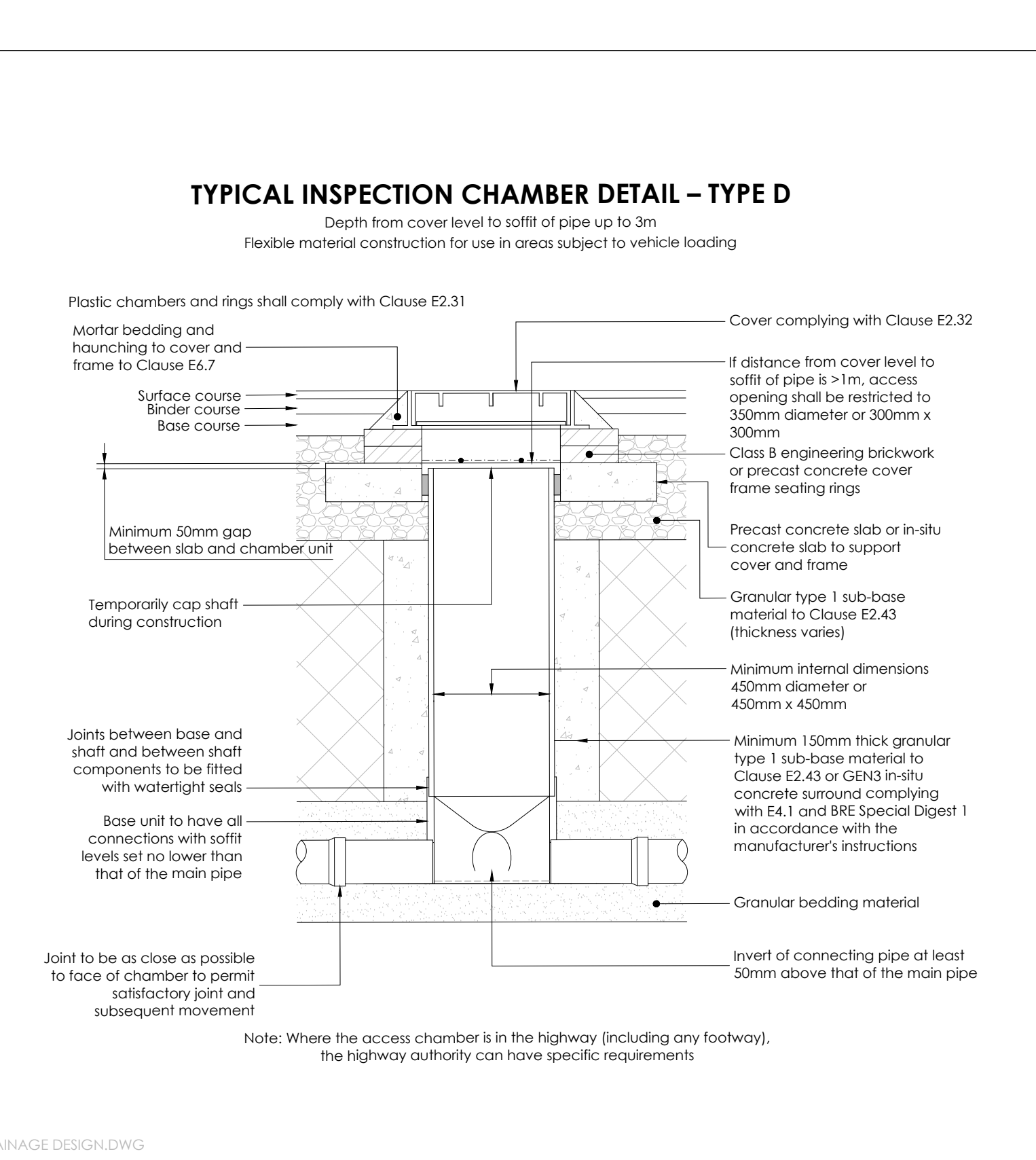
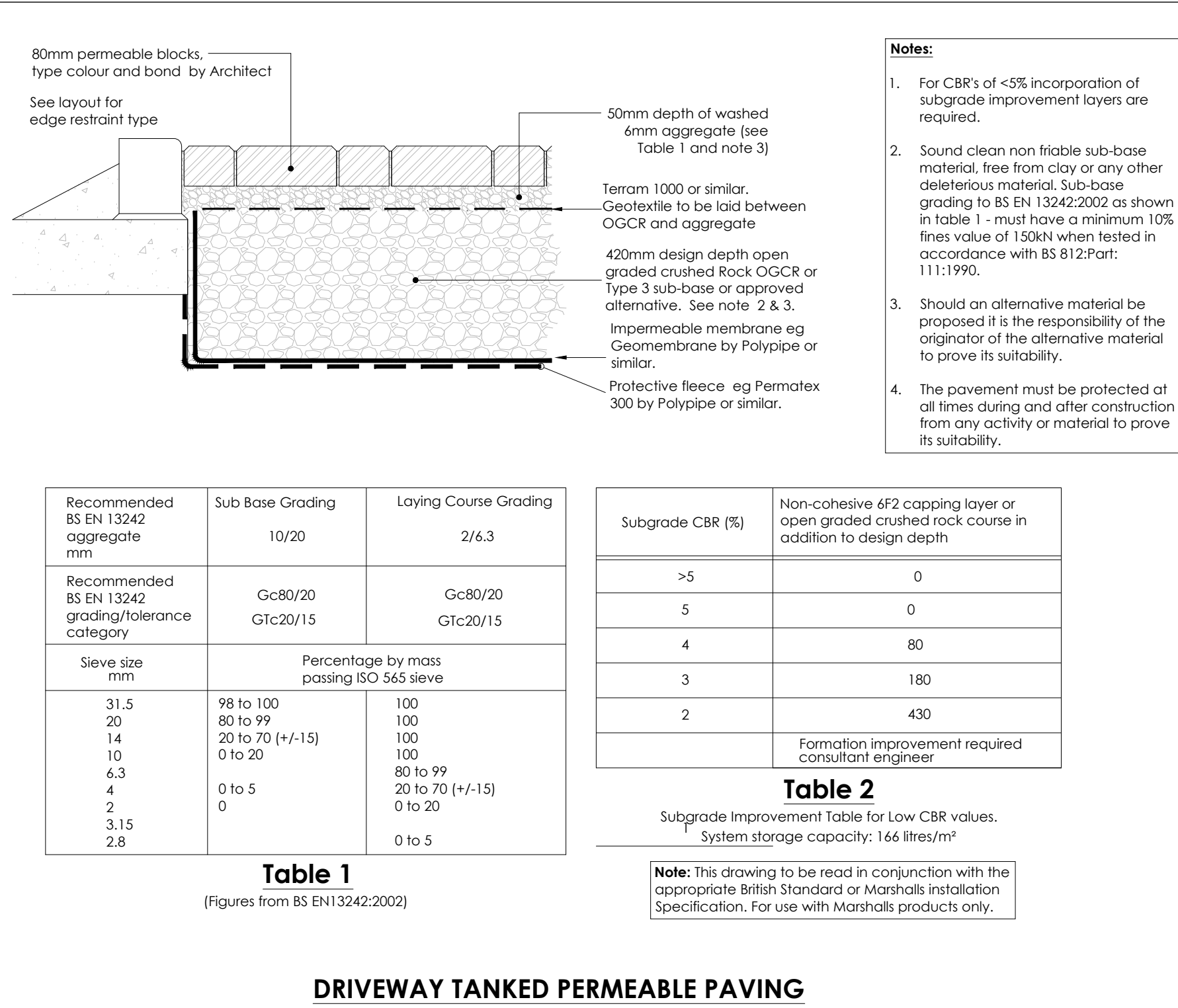
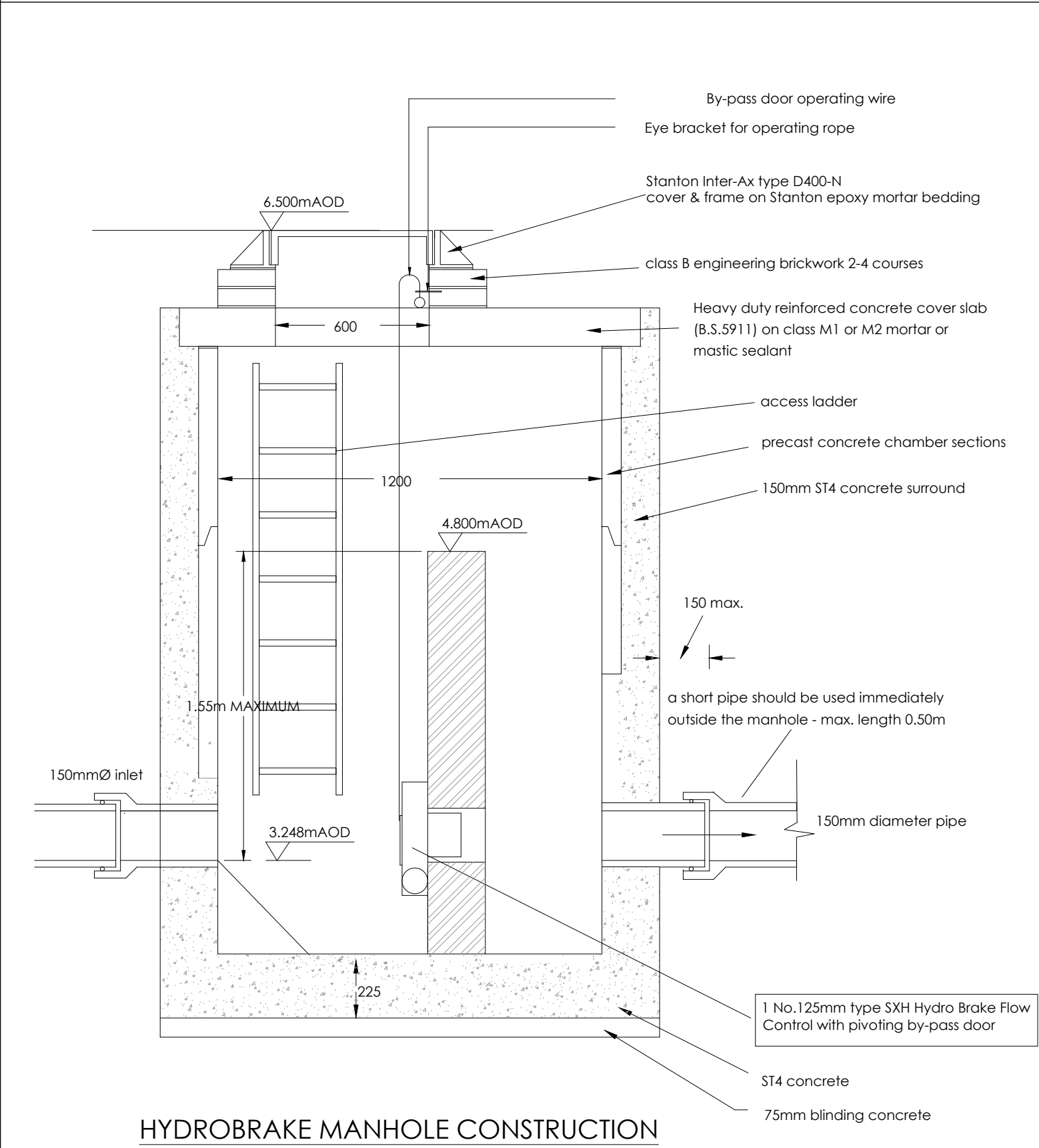
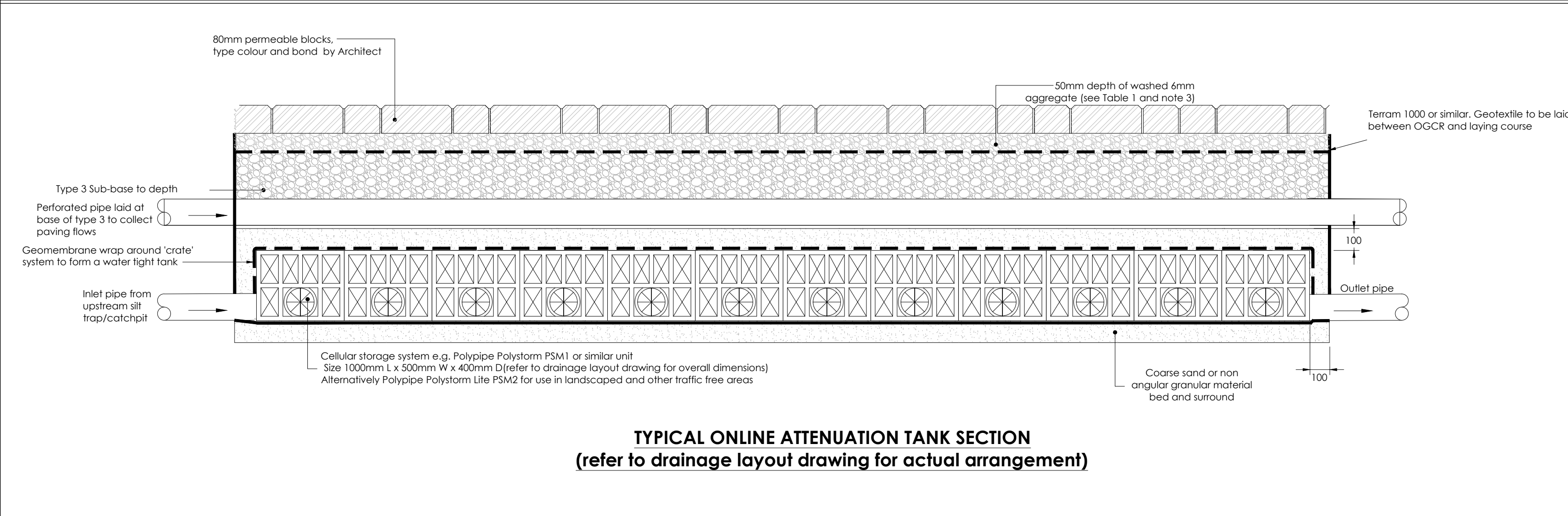
2 Appendix A – Maintenance manual

Item	Required Maintenance	Frequency
Pipe and chambers	CCTV camera survey, flush, descale, repair as necessary	5 Years or upon poor performance
Rainwater gardens	Litter and debris removal.	Monthly (or as required).
	Grass cutting – to retain grass height within specified design range.	Monthly (during growing season), or as required.
	Manage other vegetation and remove nuisance plants.	Monthly (at start, then as required).
	Check for poor vegetation growth due to lack of sunlight or dropping of leaf litter and cut back adjacent vegetation where possible.	Annually.
	Re-seed areas of poor vegetation growth. Alter plant types to better suit conditions, if required.	Annually, or if bare soil is exposed over 10 % or more of the swale treatment area.
	Repair erosion or other damage by re-turfing or reseeded.	As required.
	Re-level uneven surfaces and reinstate design levels.	As required.
	Scarify and spike topsoil layer to improve infiltration performance, break up silt deposits and prevent compaction of the soil surface.	As required.
	Remove build-up of sediment on upstream gravel trench, flow spreader or at top of filter strip.	As required.
	Remove and dispose of oils or petrol residues using safe standard practices.	As required.
	Inspect inlets, outlets and overflows for blockages, and clear if required.	Monthly.
	Inspect infiltration surfaces for ponding, compaction, silt accumulation. Record areas where water is ponding for > 48 hours.	Monthly, or when required.
	Inspect inlets and facility surface for silt accumulation. Establish appropriate silt removal frequencies	Half yearly.
Silt traps and catchpits	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly
	Debris removal from catchment surface (where may cause risks to performance)	Monthly
	Inspection of silt traps and catch pits to assess silt accumulation	Monthly (and after large storms)
	Removal of accumulated silt from silt trap and catch pit sumps	Annually, or as required
	Repair/rehabilitation of inlets, outlet, overflows and vents	As required
	Inspect/check all inlets, outlets, and overflows to ensure that they are in good condition and operating as designed	Annually and after large storms
Attenuation Storage Tanks	Inspect and identify any areas that are not operating correctly. If required, take remedial action	Monthly for 3 months, then annually
	Remove debris from the catchment surface (where it may cause risks to performance)	Monthly
	For systems where rainfall infiltrates into the tank from above, check surface of filter for blockage by sediment, algae or other matter; remove and replace surface infiltration medium as necessary.	Annually
	Remove sediment from pre-treatment structures and/or internal forebays	Annually, or as required

	Repair/rehabilitate inlets, outlet, overflows and vents	As required
	Inspect/check all inlets, outlets, vents and overflows to ensure that they are in good condition and operating as designed	Annually
	Survey inside of tank for sediment build-up and remove if necessary	Every 5 years or as required
Flow control chambers and devices	Inspect and identify any areas that are not operating correctly. If required, take remedial action.	Monthly for 3 months, then six monthly
	Debris removal from catchment surface (where may cause risks to performance)	Monthly
	Inspection of flow control chamber to assess if system is draining down correctly and that the orifice or flow control device is not blocked. Assess if there are any silt accumulations in the chamber sump.	Monthly (and after large storms)
	Removal of accumulated silt from silt trap and catchpit sumps	Annually, or as required
	Repair/rehabilitation of inlets, outlet, overflows and vents	As required
	Inspect/check all inlets, outlets, and overflows to ensure that they are in good condition and operating as designed	Annually and after large storms

Table 2 SuDS Maintenance





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- THE CONTRACTOR IS RESPONSIBLE FOR ALL TEMPORARY WORKS AND FOR THE STABILITY OF THE WORKS IN PROGRESS

P02	Flow control updated to PCC ring	01/08/25	AA	RJW
P01	Issued for information	01/08/25	AA	RJW
REV	DESCRIPTION	DATE	BY	APP

CONSULTING CIVIL AND STRUCTURAL ENGINEERS
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QED PROJECT No.
25-300

CLIENT
Hammer It Homes Properties Ltd

PROJECT
45 The Broadway
Haywards Heath
RH16 3AS

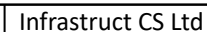
TITLE
Construction Details

DRAWN NJ	ENGINEER RJW	CHECKED BY AJG	APPROVED BY MBD
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DATE APPROVED 01.08.2025 SCALE @ A1 1:20

STATUS
S2 - Suitable for Information

DRAWING No. 25300-QED-ZZ-00-DR-C-1001 REVISION P02



Design Settings

Rainfall Methodology	FSR	M5-60 (mm)	20.000	Maximum Time of Concentration (mins)	30.00	Minimum Backdrop Height (m)	0.200
Return Period (years)	100	Ratio-R	0.335	Maximum Rainfall (mm/hr)	50.0	Preferred Cover Depth (m)	0.500
Additional Flow (%)	40	CV	1.000	Minimum Velocity (m/s)	1.00	Include Intermediate Ground	✓
FSR Region	England and Wales	Time of Entry (mins)	5.00	Connection Type	Level Soffits	Enforce best practice design rules	✓

Links

Name	US Node	DS Node	Length (m)	ks (mm) / n	US IL (m)	DS IL (m)	Fall (m)	Slope (1:X)	Dia (mm)	T of C (mins)	Rain (mm/hr)
1	PPS	MAC	21.000	0.600	48.150	47.800	0.350	60.0	100	5.35	50.0
2	MAC	HydroBrake	6.000	0.600	47.750	47.140	0.610	9.8	150	5.38	50.0
3	HydroBrake	Sewer	8.000	0.600	47.140	44.640	2.500	3.2	150	5.41	50.0

Name	Vel (m/s)	Cap (l/s)	Flow (l/s)	US Depth (m)	DS Depth (m)	Σ Area (ha)	Σ Add Inflow (l/s)	Pro Depth (mm)	Pro Velocity (m/s)
1	0.996	7.8	3.8	0.900	0.300	0.015	0.0	49	0.986
2	3.231	57.1	5.3	0.300	1.150	0.021	0.0	31	2.030
3	5.675	100.3	7.1	1.150	3.210	0.028	0.0	27	3.275

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	21.000	60.0	100	Circular_Default Sewer Type	49.150	48.150	0.900	48.200	47.800	0.300
2	6.000	9.8	150	Circular_Default Sewer Type	48.200	47.750	0.300	48.440	47.140	1.150
3	8.000	3.2	150	Circular_Default Sewer Type	48.440	47.140	1.150	48.000	44.640	3.210

Link	US Node	Dia (mm)	Node Type	MH Type	DS Node	Dia (mm)	Node Type	MH Type
1	PPS	1200	Manhole	Private	MAC	450	Manhole	Private
2	MAC	450	Manhole	Private	HydroBrake	1000	Manhole	Private
3	HydroBrake	1000	Manhole	Private	Sewer	150	Manhole	Private

Manhole Schedule

Node	CL (m)	Depth (m)	Dia (mm)	Connections	Link	IL (m)	Dia (mm)
PPS	49.150	1.000	1200				
				0	1	48.150	100
MAC	48.200	0.450	450		1	47.800	100
				0	2	47.750	150
HydroBrake	48.440	1.300	1000		1	47.140	150
				0	3	47.140	150
Sewer	48.000	3.360	150		1	44.640	150



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File: 6593-45BR-FLOW.pfd

Network: Storm Network

Richard White

25/06/2026

Page 2

Simulation Settings

Rainfall Methodology

FEH-22

Rainfall Events

Singular

Summer CV

1.000

Winter CV

1.000

Analysis Speed

Normal

Skip Steady State

x

Drain Down Time (mins)

240

Additional Storage (m³/ha)

20.0

Starting Level (m)

Check Discharge Volume

x

Check Discharge Rate(s)

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 %)

1

0

0

0

2

0

0

0

Return Period (years)

Climate Change (CC %)

Additional Area (A %)

Additional Flow (Q %)

30

0

0

0

100

0

0

0

Return Period (years)

Climate Change (CC %)

Additional Area (A %)

Additional Flow (Q %)

100

45

0

0

Node PPS Online Pump Control

Flap Valve

x

Replaces Downstream Link

✓

Invert Level (m)

48.150

Switch on depth (m)

0.200

Switch off depth (m)

0.001

Depth (m)

Flow (l/s)

Depth (m)

Flow (l/s)

Depth (m)

Flow (l/s)

0.010

0.300

0.500

0.300

1.000

0.300

Node HydroBrake Online Orifice Control

Flap Valve

x

Replaces Downstream Link

x

Invert Level (m)

47.140

Diameter (m)

0.020

Discharge Coefficient

0.600

Node PPS Soakaway Storage Structure

Base Inf Coefficient (m/hr)

0.00000

Side Inf Coefficient (m/hr)

0.00000

Safety Factor

2.0

Porosity

0.95

Invert Level (m)

48.150

Pit Width (m)

5.000

Pit Length (m)

6.000

Depth (m)

0.400

Inf Depth (m)

Number Required

1

Node HydroBrake Soakaway Storage Structure

Base Inf Coefficient (m/hr)

0.00000

Side Inf Coefficient (m/hr)

0.00000

Safety Factor

2.0

Porosity

0.95

Invert Level (m)

47.140

Pit Width (m)

5.000

Pit Length (m)

4.500

Depth (m)

0.400

Inf Depth (m)

Number Required

1

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	Infrastruct CS Ltd	File: 6593-45BR-FLOW.pfd Network: Storm Network Richard White 25/06/2026	Page 3																																																																																	
Results for 1 year Critical Storm Duration. Lowest mass balance: 100.00% <table><thead><tr><th>Node Event</th><th>US Node</th><th>Peak (mins)</th><th>Level (m)</th><th>Depth (m)</th><th>Inflow (l/s)</th><th>Node Vol (m³)</th><th>Flood (m³)</th><th>Status</th></tr></thead><tbody><tr><td>480 minute winter</td><td>PPS</td><td>464</td><td>48.282</td><td>0.132</td><td>0.3</td><td>3.9360</td><td>0.0000</td><td>SURCHARGED</td></tr><tr><td>15 minute summer</td><td>MAC</td><td>9</td><td>47.762</td><td>0.012</td><td>0.7</td><td>0.0052</td><td>0.0000</td><td>OK</td></tr><tr><td>360 minute summer</td><td>HydroBrake</td><td>240</td><td>47.196</td><td>0.056</td><td>0.5</td><td>1.2447</td><td>0.0000</td><td>OK</td></tr><tr><td>360 minute summer</td><td>Sewer</td><td>240</td><td>44.645</td><td>0.005</td><td>0.2</td><td>0.0000</td><td>0.0000</td><td>OK</td></tr></tbody></table> <table><thead><tr><th>Link Event (Upstream Depth)</th><th>US Node</th><th>Link</th><th>DS Node</th><th>Outflow (l/s)</th><th>Velocity (m/s)</th><th>Flow/Cap</th><th>Link Vol (m³)</th><th>Discharge Vol (m³)</th></tr></thead><tbody><tr><td>480 minute winter</td><td>PPS</td><td>Pump</td><td>MAC</td><td>0.0</td><td></td><td></td><td></td><td></td></tr><tr><td>15 minute summer</td><td>MAC</td><td>2</td><td>HydroBrake</td><td>0.7</td><td>1.258</td><td>0.012</td><td>0.0071</td><td></td></tr><tr><td>360 minute summer</td><td>HydroBrake</td><td>3</td><td>Sewer</td><td>0.2</td><td>1.094</td><td>0.002</td><td>0.0013</td><td>2.1</td></tr></tbody></table>				Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	480 minute winter	PPS	464	48.282	0.132	0.3	3.9360	0.0000	SURCHARGED	15 minute summer	MAC	9	47.762	0.012	0.7	0.0052	0.0000	OK	360 minute summer	HydroBrake	240	47.196	0.056	0.5	1.2447	0.0000	OK	360 minute summer	Sewer	240	44.645	0.005	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)	480 minute winter	PPS	Pump	MAC	0.0					15 minute summer	MAC	2	HydroBrake	0.7	1.258	0.012	0.0071		360 minute summer	HydroBrake	3	Sewer	0.2	1.094	0.002	0.0013	2.1
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Results for 2 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
720 minute winter	PPS	690	48.330	0.180	0.3	5.3999	0.0000	SURCHARGED
15 minute summer	MAC	10	47.764	0.014	1.1	0.0062	0.0000	OK
240 minute summer	HydroBrake	156	47.220	0.080	0.8	1.7720	0.0000	OK
240 minute summer	Sewer	156	44.645	0.005	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)
720 minute winter	PPS	Pump	MAC	0.0				
15 minute summer	MAC	2	HydroBrake	1.1	1.318	0.019	0.0123	
240 minute summer	HydroBrake	3	Sewer	0.2	1.164	0.002	0.0015	2.8

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
960 minute summer	PPS	585	48.378	0.228	0.7	6.8105	0.0000	SURCHARGED
15 minute summer	MAC	10	47.773	0.023	2.8	0.0096	0.0000	OK
360 minute summer	HydroBrake	360	47.374	0.234	1.3	5.2083	0.0000	SURCHARGED
360 minute summer	Sewer	360	44.647	0.007	0.4	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)
960 minute summer	PPS	Pump	MAC	0.3				
15 minute summer	MAC	2	HydroBrake	2.8	1.338	0.049	0.0419	
360 minute summer	HydroBrake	3	Sewer	0.4	1.373	0.004	0.0023	10.4

	Infrastruct CS Ltd	File: 6593-45BR-FLOW.pfd Network: Storm Network Richard White 25/06/2026	Page 6																																																																																	
Results for 100 year Critical Storm Duration. Lowest mass balance: 100.00% <table><tr><th>Node Event</th><th>US Node</th><th>Peak (mins)</th><th>Level (m)</th><th>Depth (m)</th><th>Inflow (l/s)</th><th>Node Vol (m³)</th><th>Flood (m³)</th><th>Status</th></tr><tr><td>960 minute summer</td><td>PPS</td><td>615</td><td>48.434</td><td>0.284</td><td>0.9</td><td>8.5021</td><td>0.0000</td><td>SURCHARGED</td></tr><tr><td>15 minute summer</td><td>MAC</td><td>10</td><td>47.775</td><td>0.025</td><td>3.5</td><td>0.0107</td><td>0.0000</td><td>OK</td></tr><tr><td>480 minute summer</td><td>HydroBrake</td><td>480</td><td>47.436</td><td>0.296</td><td>1.4</td><td>6.5840</td><td>0.0000</td><td>SURCHARGED</td></tr><tr><td>480 minute summer</td><td>Sewer</td><td>480</td><td>44.647</td><td>0.007</td><td>0.4</td><td>0.0000</td><td>0.0000</td><td>OK</td></tr></table> <table><tr><th>Link Event (Upstream Depth)</th><th>US Node</th><th>Link</th><th>DS Node</th><th>Outflow (l/s)</th><th>Velocity (m/s)</th><th>Flow/Cap</th><th>Link Vol (m³)</th><th>Discharge Vol (m³)</th></tr><tr><td>960 minute summer</td><td>PPS</td><td>Pump</td><td>MAC</td><td>0.3</td><td></td><td></td><td></td><td></td></tr><tr><td>15 minute summer</td><td>MAC</td><td>2</td><td>HydroBrake</td><td>3.5</td><td>1.443</td><td>0.061</td><td>0.0518</td><td></td></tr><tr><td>480 minute summer</td><td>HydroBrake</td><td>3</td><td>Sewer</td><td>0.4</td><td>1.420</td><td>0.004</td><td>0.0025</td><td>13.8</td></tr></table>				Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status	960 minute summer	PPS	615	48.434	0.284	0.9	8.5021	0.0000	SURCHARGED	15 minute summer	MAC	10	47.775	0.025	3.5	0.0107	0.0000	OK	480 minute summer	HydroBrake	480	47.436	0.296	1.4	6.5840	0.0000	SURCHARGED	480 minute summer	Sewer	480	44.647	0.007	0.4	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)	960 minute summer	PPS	Pump	MAC	0.3					15 minute summer	MAC	2	HydroBrake	3.5	1.443	0.061	0.0518		480 minute summer	HydroBrake	3	Sewer	0.4	1.420	0.004	0.0025	13.8
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Results for 100 year +45% CC Critical Storm Duration. Lowest mass balance: 99.81%

Node Event	US Node	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Node Vol (m³)	Flood (m³)	Status
720 minute summer	PPS	510	48.862	0.712	1.5	12.4332	0.0000	FLOOD RISK
15 minute summer	MAC	10	47.780	0.030	5.1	0.0129	0.0000	OK
240 minute winter	HydroBrake	228	47.705	0.565	2.3	9.0649	0.0000	SURCHARGED
240 minute winter	Sewer	228	44.648	0.008	0.6	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)
720 minute summer	PPS	Pump	MAC	0.3				
15 minute summer	MAC	2	HydroBrake	5.1	1.525	0.089	0.0593	
240 minute winter	HydroBrake	3	Sewer	0.6	1.566	0.006	0.0032	11.7

6 APPENDIX E - Mid-Sussex Checklist

Requirement	Summary of Expectation	Reference (Drawing / Report Section)
Greenfield runoff rate (Qbar)	FEH method or similar approved; based on pre-development catchment	25300-QED-ZZ-00-RP-C-1000-P01 - DRAINAGE STRATEGY
On-site infiltration testing	BRE365-compliant tests at SuDS location/depth; safety factor applied	NA. No Space >5m
Groundwater monitoring (if relevant)	Demonstrates seasonal high water table is >1m below base	Tanks protected from Groundwater
Catchment and drainage areas	Plans show areas drained and contributing catchments for each SuDS feature	25300-QED-ZZ-00-DR-C-1000-S4-P04_Drainage Design
Climate change allowances	EA guidance applied to rainfall intensity	FEH and 45% used
Urban creep allowance	10% additional impermeable area unless justified	Full site area drained
Design rainfall	Latest FEH data; FSR not accepted without justification	FEH used
Cv value	1.0 applied to all impermeable surfaces	1.0 used
Hydraulic calculations	1 in 1, 1 in 30, 1 in 30 + CC, and 1 in 100 + CC critical storm durations; no flooding	No flooding shown in calculations
Flow control structures	Head-discharge curve, outlet sizing, orifice protection from blockage	Refer to Calculations
SuDS layout plan	Full drainage layout with invert levels, cover levels, flow directions, and labels	25300-QED-ZZ-00-DR-C-1000-S4-P04_Drainage Design
Longitudinal and cross sections	For basins, pipes, flow controls, below-ground structures	25300-QED-ZZ-00-DR-C-1001-S2-P03_Construction Details
Exceedance flow routing	Plans show how exceedance flows are managed/safely routed	25300-QED-ZZ-00-DR-C-1000-S4-P04_Drainage Design. Existing maintained due to site levels
Finished floor levels	FFLs at least 150mm above surrounding ground/exceedance routes	FFL above surrounding ground by 150mm
Water quality treatment	Simple Index Approach; mitigation index >= hazard index	25300-QED-ZZ-00-RP-C-1000-P01 - DRAINAGE STRATEGY
Proprietary systems (if used)	Certification, design basis, and O&M provided	Appendix A
SuDS details	Type, size, function, inlet/outlet, invert and cover levels, safety features	25300-QED-ZZ-00-DR-C-1000-S4-P04_Drainage Design
Maintenance plan	Asset register and inspection/maintenance schedule; CIRIA Table 32.1 referenced	Appendix A
Maintenance party and mechanism	Legal body named; landowner, management company or adoption route clear	Owner of freehold or appointed representative
Soakaway or infiltration design	Sizing for 6-hour 1 in 100+CC storm; half-drain time <24h	25300-QED-ZZ-00-RP-C-1000-P01 - DRAINAGE STRATEGY
Discharge to watercourse	Restricted to Qbar; outfall location and construction details provided	25300-QED-ZZ-00-RP-C-1000-P01 - DRAINAGE STRATEGY
Attenuation sizing	Demonstrates storage for 1 in 100+CC event without flooding	25300-QED-ZZ-00-RP-C-1000-P01 - DRAINAGE STRATEGY
Discharge to sewer	Qbar max unless the sewerage undertaker agrees higher rate	Southern Water to confirm
Sewer connection approval	Undertaker correspondence confirming acceptability of rate and location; S106 not required	Southern Water to confirm

Foul drainage layout	Inverts, pipe sizes, gradients, connection points	25300-QED-ZZ-00-DR-C-1000-S4-P04_Drainage Design
System type	Gravity or pumped; pump design and calculations if applicable	25300-QED-ZZ-00-DR-C-1000-S4-P04_Drainage Design - Pumped
Peak flow rate	Based on occupancy and discharge volume	A peak rate for 15 people is 1.45 l/s
Public sewer connection	Location confirmed; manhole ID and route to sewer	25300-QED-ZZ-00-DR-C-1000-S4-P04_Drainage Design
Undertaker correspondence	Email or letter showing awareness of proposal and preliminary approval	See emails