

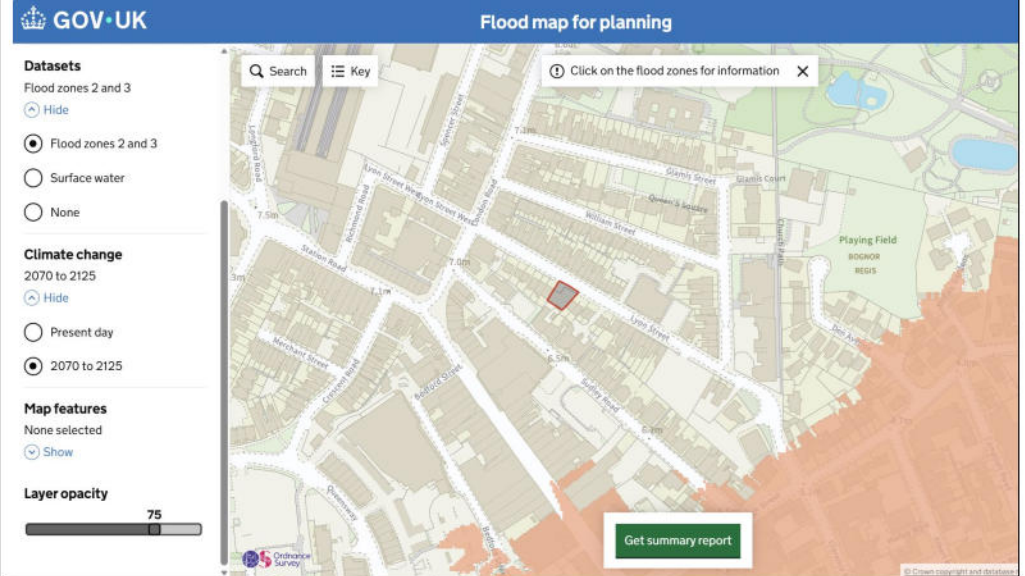
Surface Water Drainage	
Project Name: 40-42 Sudley Road, Bognor Regis	Project Number: D2479
Client: Downview Developments Ltd	
Prepared by: LF	Date: 10/09/2026

Site Information	
Site Address:	40-42 Sudley Road, Bognor Regis. PO21 1UX
National Grid Reference:	493614 , 099303
Site Area:	278sq.m
Existing Site Use:	Brownfield
Information and Data Sources	
Local Authority:	Arun District Council
Lead Local Flood Authority:	West Sussex County Council
Sewerage Authority:	Southern Water
Site Levels:	A site topographic survey has been undertaken by Robert Clark Chartered Civil Engineer. The survey demonstrates levels in the range of 6.99m AOD and 7.26m AOD.
Geology and Groundwater:	Intrusive site investigation was carried out in January 2023 and groundwater monitoring was undertaken between early November 2022 and end of January 2023, as report by Robert Clark Chartered Civil Engineer: Ground conditions here comprise made-up brick and gravel over River Terrace Deposits (Sand, silt & clay) overlying the London Clay. The River Terrace Deposits were encountered at typically 0.3m below ground level and were found to comprise soft dark / mottled brown sandy clay to a depth of at least 2m BGL. The London Clay was not encountered. The highest groundwater was recorded within GWP 1 at 0.994m below ground level (6.001m AOD) in early November 2022 during the monitoring. Reporting is contained on drawing 000-BPC-WD-ZZ-D-C002.
Public Sewer Records:	Public sewer records have been obtained from Southern Water, and is contained within Appendix A .

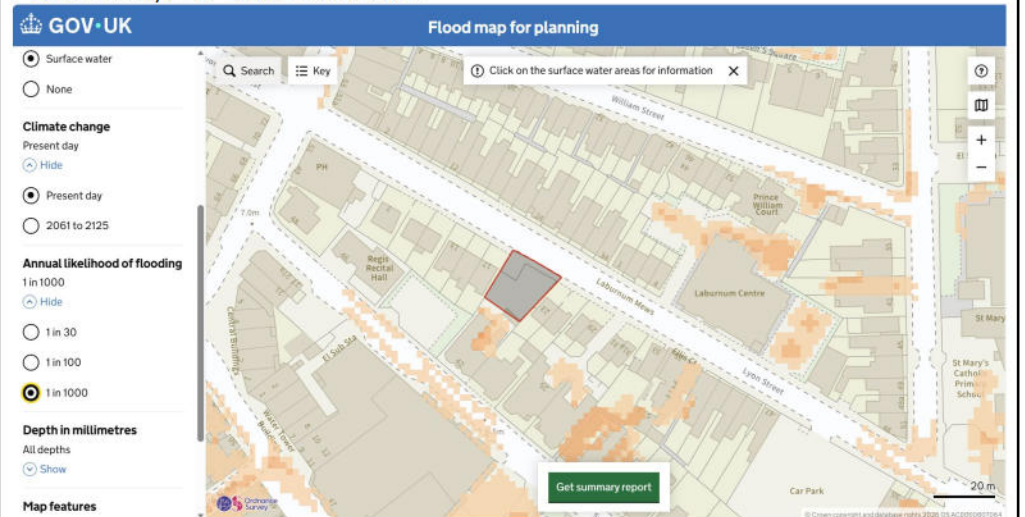
Flood Risk (Flood Maps for Planning)

Zone 1 present day and 2070-2125

Rivers and the Sea

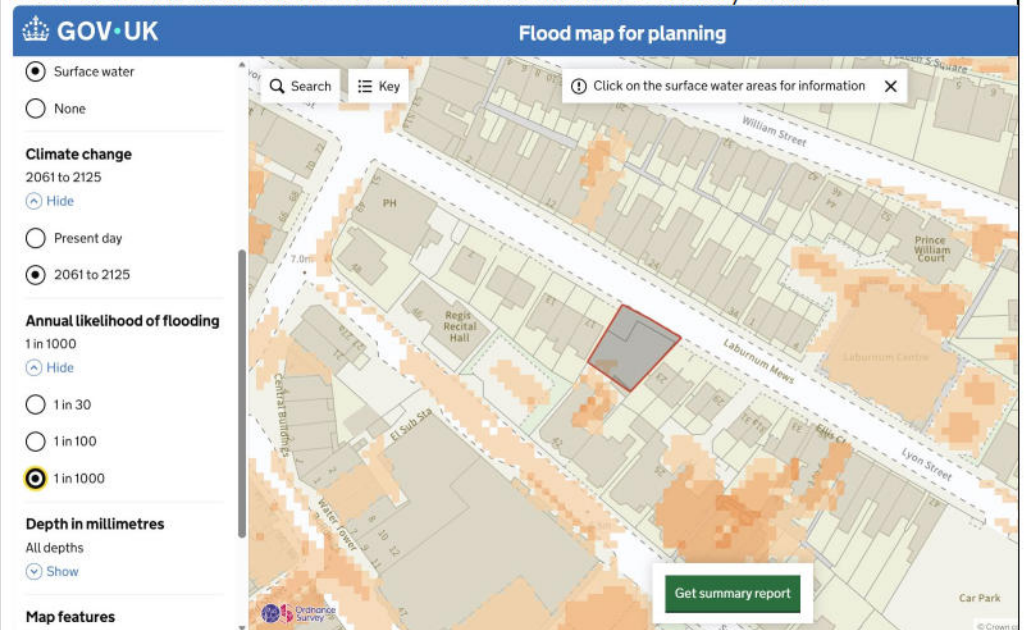


Present Day, no flood risk shown



2061-2215 small area shown at risk on southern boundary of site

Surface Water



Development Proposals			
Type of Development:		2 dwellings, with parking.	
Surface Water Drainage Solution			
Existing Methods:	Site	Drainage	The majority of the site currently drains is currently hard paved and drains on to the public highway. Based on a rainfall intensity of 50mm/hr, the post development rate of run off is 3.86l/s.
National Standards for SuDS:			The SuDS Manual and Building Regulations set out a hierarchy of drainage methods to ensure that developments maximise the use of sustainable drainage techniques. 'National Standards for SuDS' have been introduced (June 2025). The hierarchy favours rainwater re-use where a need is identified, before infiltration methods of disposal which are prioritised over methods such as watercourses and sewers. Planning consent for this development was given before the National Standards were published. Where it is possible to incorporate measures to comply with the standards, this has been done, there are however some standards where it is not possible to comply, in these instances an exception applies.
Standard 1 – Run off Destination:			Rainwater reuse: A water butt will be provided in the rear garden at each of the properties. Infiltration: Infiltration testing has been undertaken on the site and yielded results of 2.65x10⁻⁵m/s. Groundwater was recorded at a depth of 0.994m below existing ground level. This depths rules out the use of infiltration as it not possible to provide 1m of freeboard between the underside of an infiltration structure and the groundwater. Watercourses: There are no watercourses that the site could discharge to. Sewers: A 225mm diameter public surface water sewer is identified on Southern Water's public sewer records, in Lyon Street, at a depth of approximately 1.35m. It is proposed to connect to this sewer.
Standard 2 – Management of Everyday Runoff (Interception):			The proposed driveways will be constructed using permeable paving, providing interception for those areas. SuDS planters will be provided on rainwater downpipes to provide interception for the proposed roofs.
Standard 3 – Management of Extreme rainfall and flooding:			The surface water drainage system has been designed to consider and accommodate a 1 in 100-year design storm, with an allowance of 45% for climate change. An allowance of 10% has been applied to the building roofs for the potential impacts of urban creep upon the development across its design life. Exceedance flows will be accommodated by providing unobstructed routes through the development.
Standard 4 – Water Quality:			Water quality has been assessed using the simple index method set out in the SuDS Manual (CIRIA C753) as follows: Land Use: Residential Roofs and non-trafficked areas – Very Low TSS0.2 M0.2 H0.05 Individual driveways and low traffic roads – Low TSS0.5 M0.4 H0.4

	Mitigation: Permeable pavement TSS0.6 M0.6 H0.7 Detention basin TSS0.5 M0.5 H0.6
Standard 5- Amenity:	Due to the nature of the development, amenity benefits are very limited therefore an exception is requested on the basis that planning consent was given prior to the publication of the National Standards for SuDS.
Standard 6 - Biodiversity:	Due to the nature of the development, biodiversity benefits are very limited therefore an exception is requested on the basis that planning consent was given prior to the publication of the National Standards for SuDS.
Standard 7 - Construction, operation, maintenance, decommissioning and structural integrity	Responsibility for maintenance of the proposed development will remain with the end users. The proposed drainage system has been designed to require a little maintenance as possible, as schedule is included in Appendix B
Surface Water Drainage Proposals	
Method of disposal	It is proposed to discharge surface water run off from the development to the existing public surface water sewer located in Lyon Street. The proposed drainage system will include permeable paving, SuDS downpipe planters and a flow control.
Discharge Rate and volume:	The site is currently entirely hard paved with an area of 278sq.m. The proposed impermeable area 118.33sq.m, approximately 43% of the predevelopment area. This will result in a reduction in the rate and volume of runoff volume from the site, without providing formal attenuation. Following the guidance on Arun District Councils website relating to planning applications made prior to 19th June 2025, it is proposed to restrict the discharge rate to provide a betterment of at least 30% of the predevelopment rate. The predevelopment flow (based on 50mm/hr rainfall) is 3.86l/s, it is proposed to restrict the rate of discharge to 1l/s representing approximately 26% of the predevelopment rate.
Rainfall Simulation criteria and design storms considered:	• FEH22 • Cv=1 (Summer and winter) • 50%AEP, 10%AEP, 3.3%AEP, 1%AEP • Surcharged outfall to 6.15mAOD • 10% allowance for urban creep applied to building roofs
Storage and Flow Control Methods	The permeable paving has been designed with a 450mm thick sub base storage layer, providing a volume of . The proposed flow control device will be a Contraflow Universal which includes an orifice with a protective mesh to reduce the risk of blockage.
	Drawings and calculations for the proposed drainage system are included in Appendix C

APPENDICES

APPENDIX A



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Date: 09/09/26

Scale: 1:1250

Map Centre: 493596,99284

Data updated: 21/08/26

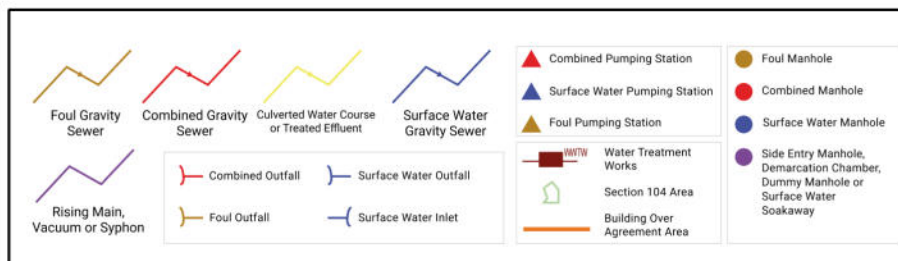
Our Ref: 2207584 - 1

Wastewater Plan A3
Powered by digdat

The positions of pipes shown on this plan are believed to be correct, but Southern Water Services Ltd accept no responsibility in the event of inaccuracy. The actual positions should be determined on site. This plan is produced by Southern Water Services Ltd (c) Crown copyright and database rights 2026 Ordnance Survey AC0000808122. This map is to be used for the purposes of viewing the location of Southern Water plant only. Any other uses of the map data or further copies is not permitted.

WARNING: BAC pipes are constructed of Bonded Asbestos Cement.

WARNING: Unknown (UNK) materials may include Bonded Asbestos Cement.



searches@bpcivils.co.uk

Sudley



APPENDIX B

1 MANAGEMENT AND MAINTENANCE

1.1 Responsibility for Maintenance

- 1.1.1 The proposed surface water drainage system will not be offered for adoption therefore the responsibility for the ongoing maintenance of drainage network will fall to the end user(s).
- 1.1.2 Infrastructure which is 'shared' (i.e. serving more than a single plot and/or falling outside of any individual plot's curtilage) will be the responsibility of the Management Company.

1.2 General Maintenance

- 1.2.1 Maintenance plays an important part in the long-term performance of a surface water drainage system and will be required to ensure that it remains fully operational.
- 1.2.2 The drainage system has been designed to minimise maintenance requirements; however, a number of key tasks will need to be undertaken so that the system remains effective. These operations are summarised in the table below, along with the required frequency of works. The frequencies given below are minimums and in order to establish an effective regime, the level of siltation in each of the components should be monitored in the early stages to inform the long term strategy.

Drainage System feature	Proposed maintenance / remedial works	Required frequency of works
Catch pits, gully sumps and drains, flap valves	Inspection and additional cleansing as required.	Every 6 months
	Desilting	Year 1, Year 3, then every 5 years
Pipework	Jetting to clear blockages	As required

- 1.2.3 The responsibility of any drainage infrastructure supporting a single dwelling/plot will be the sole responsibility of the owner/occupier of the associated dwelling.
- 1.2.4 Additional maintenance activities beyond this will be the responsibility of the management company, to be appointed by the developer upon completion of the development. It is understood funding and maintenance will be provided by the **a suitable appointed Management Company** who are the housing association developing the site.

1.3 Flow Control Chambers/Devices

- 1.3.1 The flow control device (Contraflow) is an orifice which is protected by a mesh.
- 1.3.2 The flow control chamber will require the following maintenance:
- The sump within the flow control chamber should be monitored for build-up of silts and should be emptied as a minimum on the same regime as specified for catchpits previously within this document.

1.4 Permeable Paving

- 1.4.1 The areas of permeable paving are designed to allow surface water run-off to percolate through the joints in the block paving and into the sub-base below. This sub-base provides a volume of storage. The permeable paving will be tanked.
- 1.4.2 Diffuser units are used to discharge surface water run-off from roof areas into the sub-base, as well as forming links between areas of permeable paving. These diffuser units are small heavy-duty cellular units which allow more efficient discharge of surface water into the sub-base base of the permeable paved areas.
- 1.4.3 The manufacturer of the permeable paving system is Marshalls and they provide maintenance advice to keep the permeable surface in good condition. Their recommendations require limited maintenance "every 12 months or so". Their document is included in this document.
- 1.4.4 In order to provide an enhanced level of maintenance, the areas of permeable paving will require the following:
- Periodic surface sweeping to reduce silt and debris accumulation. The permeable surfaces should be swept at least every 8 to 12 weeks with additional sweeps in the autumn to clear fallen leaves
 - Removal / management of weed growth, as required. Typically, once or twice a year for regularly used areas
 - Periodic silt removal from permeable surfaces as described by the manufacturer. If any areas are showing signs of ponding, they shall be dealt with by raking out the joints and redressing. The entire surface shall be monitored and when there are signs of excessive siltation resulting in poor drainage over the whole area, the blocks shall be taken up and the bedding layer shall be replaced. Redressing of joints on the block paving as required.
 - Performance of permeable paving areas shall be reviewed 3 months after installation and within 48 hours of a significant storm event.

1.5 Remedial/Repair Actions

- 1.5.1 Significant storm events may cause considerable damage to SuDS and their associated components. As such, it may be necessary to inspect and carry out essential recovery works to return the feature to full working order.
- 1.5.2 Resetting of uneven blocks by lifting block area, removing bedding material and relaying to match original design are all actions which may need to be undertaken.

1.6 Accidental Spillages

- 1.6.1 It is not envisaged that any materials are to be stored onsite once the development has been completed, which could cause major spills and potential pollution issues within the drainage system. If this situation alters in the future consultation with a specialist will be required in order to confirm if any upgrades to the existing system are necessary.
- 1.6.2 Minor spillages of fuels and oils from motor vehicles will be dealt with by the permeable paving and deep trapped gullies, by biodegrading / collecting the hydrocarbons respectively.

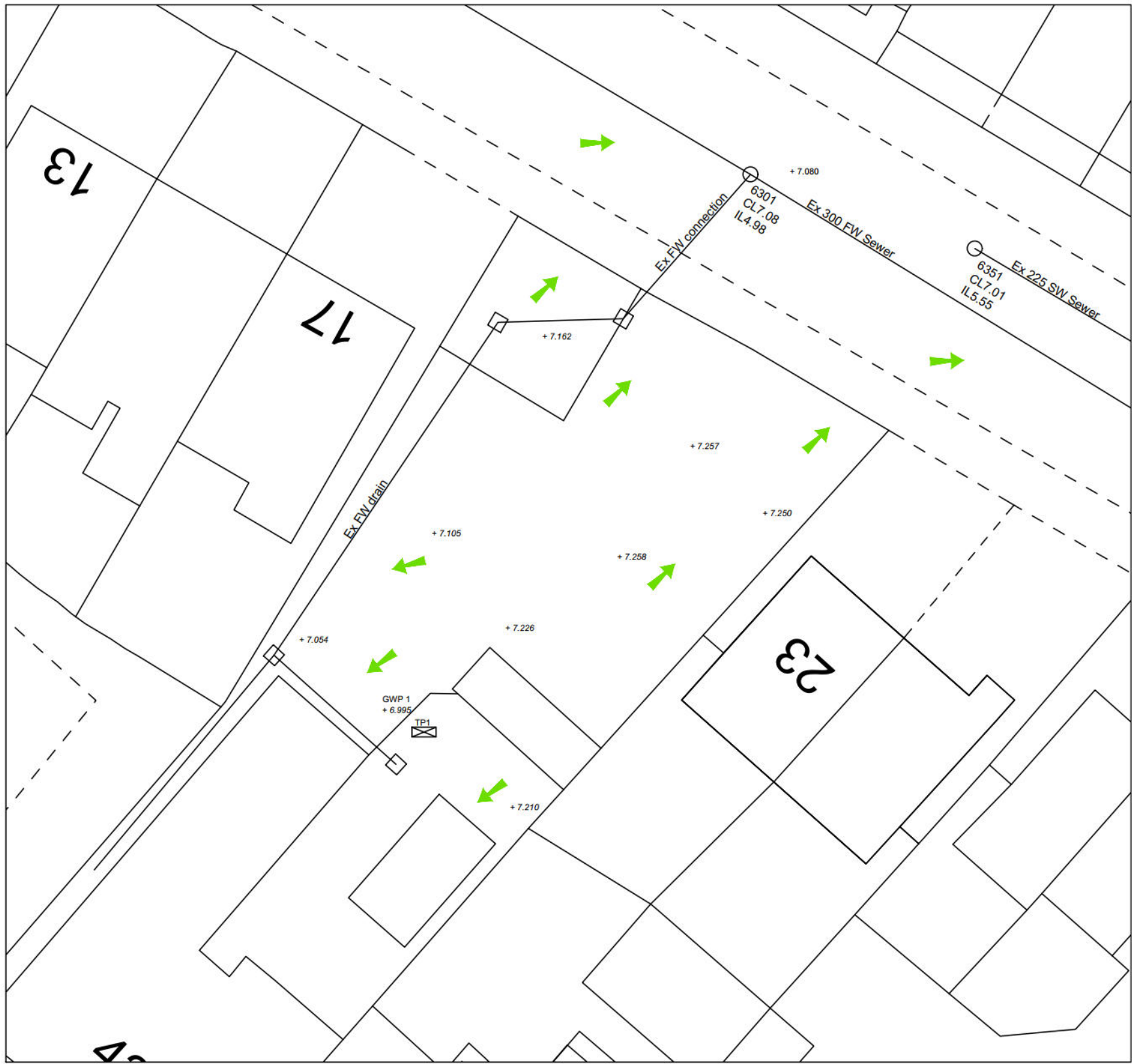
1.7 Construction Phasing

- 1.7.1 It is recommended that the construction of the attenuation basin, the flow control and outfall connection are completed prior to the commencement of construction of the buildings and hardstanding areas. This will ensure that flows are controlled and treated during construction. The proposed drainage systems will need a complete maintenance check upon completion of the development and any required remedial tasks undertaken.
- 1.7.2 By constructing these drainage components first, runoff from the construction site and the hardstanding areas will travel overland into the storage. This will ensure that run-off from the site receives the level of treatment required by the SuDS manual.

1.8 Future Alterations to the Development

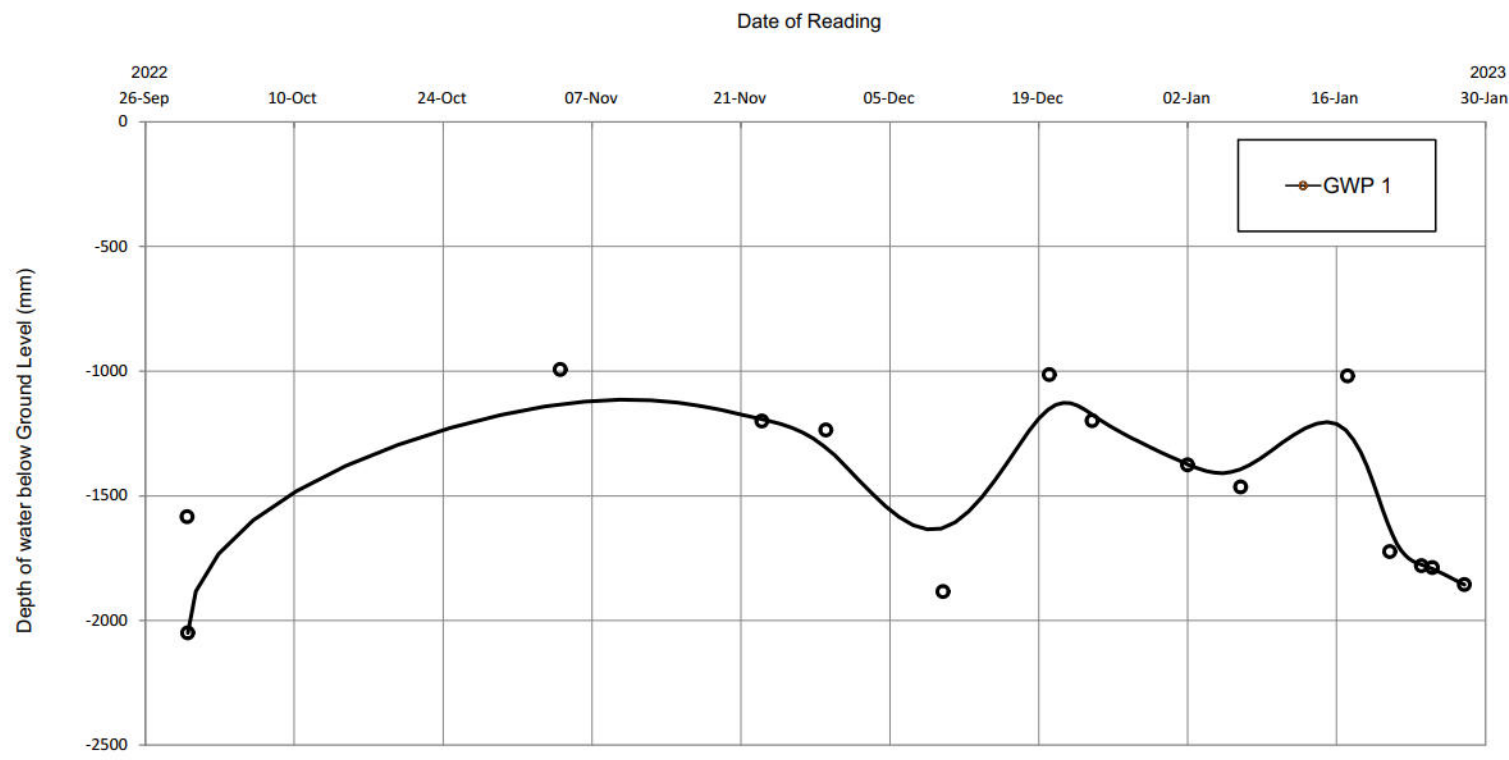
- 1.8.1 Any future alterations to the permeable paving should be confirmed by a specialist. Where possible any future services are to avoid being located through areas of permeable paving. If new services are required to run through areas of permeable paving, services should be installed below the permeable paving level with the permeable system reinstalled above.

APPENDIX C



Existing Levels and Geotechnical Investigation Locations
(Provided by Robert Clark Chartered Civil Engineer)

42 Sudley Road, Bognor Regis



Groundwater Monitoring -- in Groundwater Point GWP 1

Peak groundwater level recorded during the monitoring period in GWP 1 was 994 mm BGL (6.001m AOD) on 4-11-2022

Groundwater Monitoring
(Provided by Robert Clark Chartered Civil Engineer)

This is based on site investigations carried out in late January 2023 with Groundwater Monitoring carried out in the winter period of early November 2022 to end January 2023.

Ground conditions here comprise made-up brick and gravel over River Terrace Deposits (Sand, silt & clay) overlying the London Clay. The River Terrace Deposits were encountered at typically 0.3m below ground level and were found to comprise soft dark / mottled brown sandy clay to a depth of at least 2m BGL. The London Clay was not encountered.

The highest groundwater was recorded within GWP 1 at 0.994m below ground level (6.001m AOD) in early November 2022 during the monitoring.

Percolation tests carried out to BRE365 principles in an open trial pit. The lowest Soil Infiltration Rate was 2.65 x10-5/ metres/second within this Trial Pit.

Geotechnical Summary
(Provided by Robert Clark Chartered Civil Engineer)



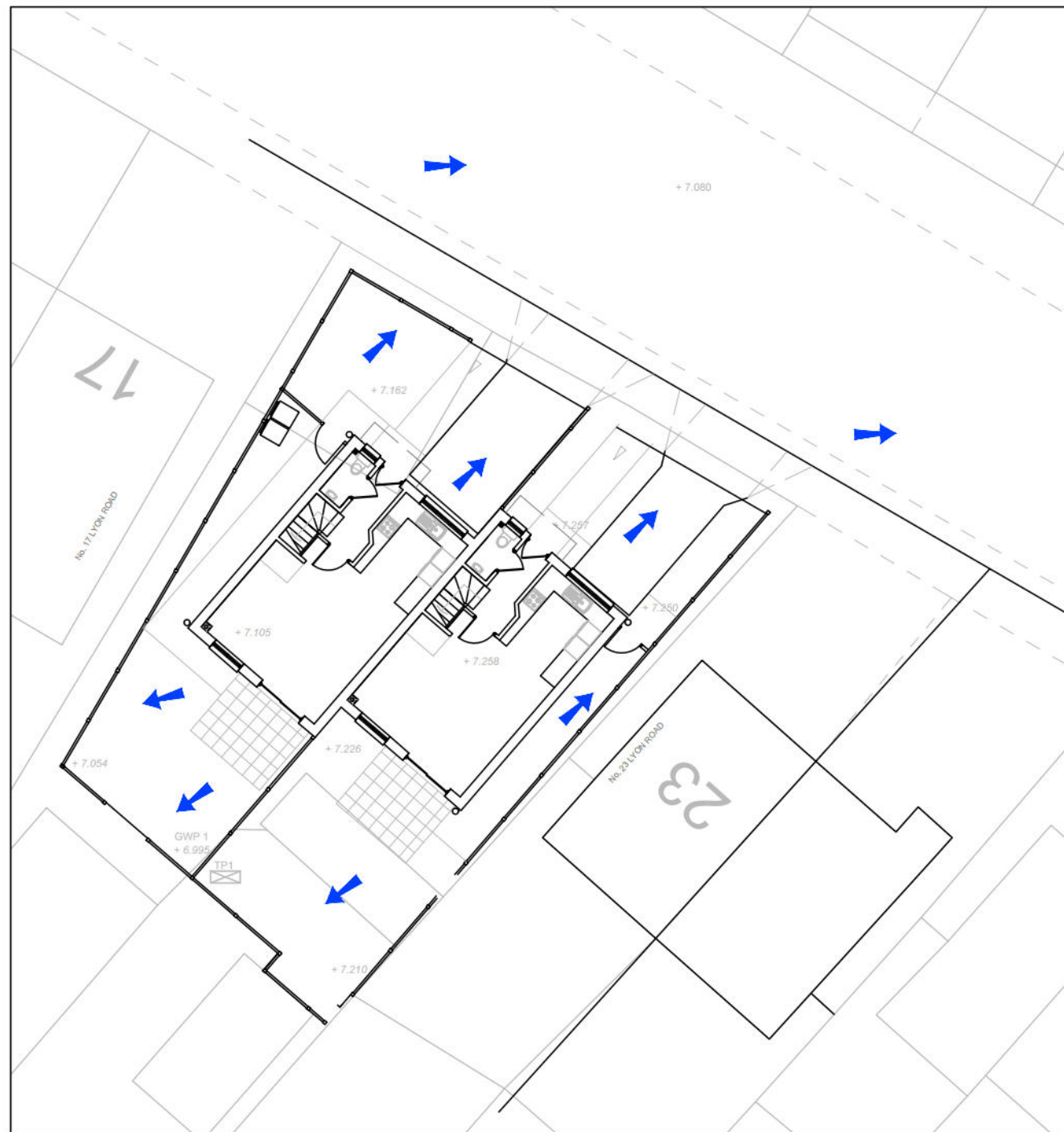
Proposed Catchments



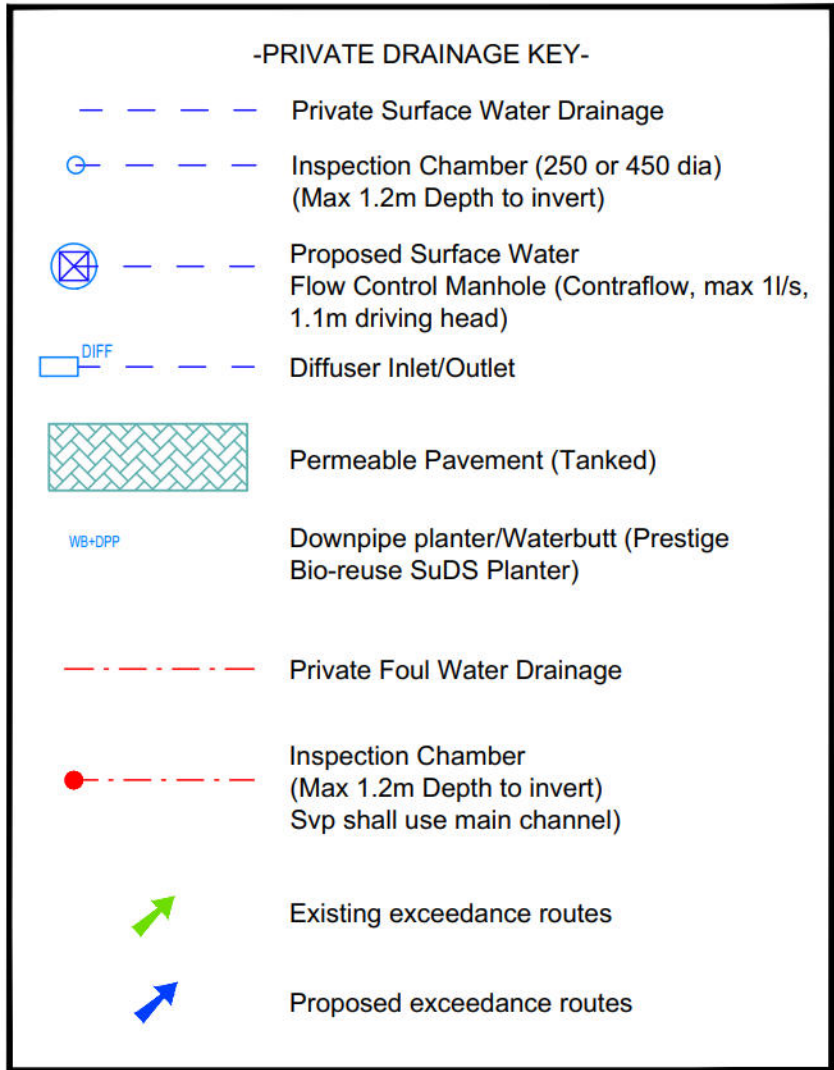
Proposed Levels



Proposed Drainage Layout



Exceedance Routes



Manhole Schedule									
MH No.	DIAGRAM	CONDUIT INVERTS (m)	MANHOLE DIMENSION (mm)	MANHOLE TYPE	COVER TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	BASE LEVEL (m)	DEPTH TO SOFFIT (m)
PS1		A 6.80 B 6.80	250Ø	250 Inspection	A15	7.350	6.800		0.450
PS2		A 6.55 B 6.60							
PS3		A 6.35 B 6.35 C 6.40 D 6.40	450Ø	CATCHPIT	A15	7.300	6.350	5.900	0.800
PS5		A 6.80 B 6.80							
PS11 (FC)		A 6.20 B 6.20 C 6.25 D 6.20	1200Ø	Flow Control Max 1l/s	A15	7.300	6.200		0.950
PF2		A 6.65 B 6.65 C 6.65	250Ø	250 Inspection	A15	7.350	6.650		0.600
PF3		A 6.33 B 6.33 C 6.33 D 6.33	450Ø	450 Inspection	A15	7.350	6.330		0.920
Diffuser Schedule									
MH No.	DIAGRAM	CONDUIT INVERTS (m)	MANHOLE DIMENSION (mm)	MANHOLE TYPE	COVER LEVEL (m)	INVERT LEVEL (m)	DEPTH TO SOFFIT (m)		
DI1		A 6.74	700x300	Diffuser	7.300	6.740	0.460		
DI2		A 6.74	700x300	Diffuser	7.300	6.740	0.460		

NOTES

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RESIDUAL HAZARDS

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 - Working in live sewers. Contractor to ensure operatives are familiar and competent with the dangers of working in live sewers.
 - Excavations close to existing structures. Contractor to prepare method statement to ensure stability of existing structure.
- Appropriate risk assessments and method statements should be prepared to manage these risks as required.



-	-	Original Issue
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Rev.	Date	Amendments
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Drawing Status
PLANNING
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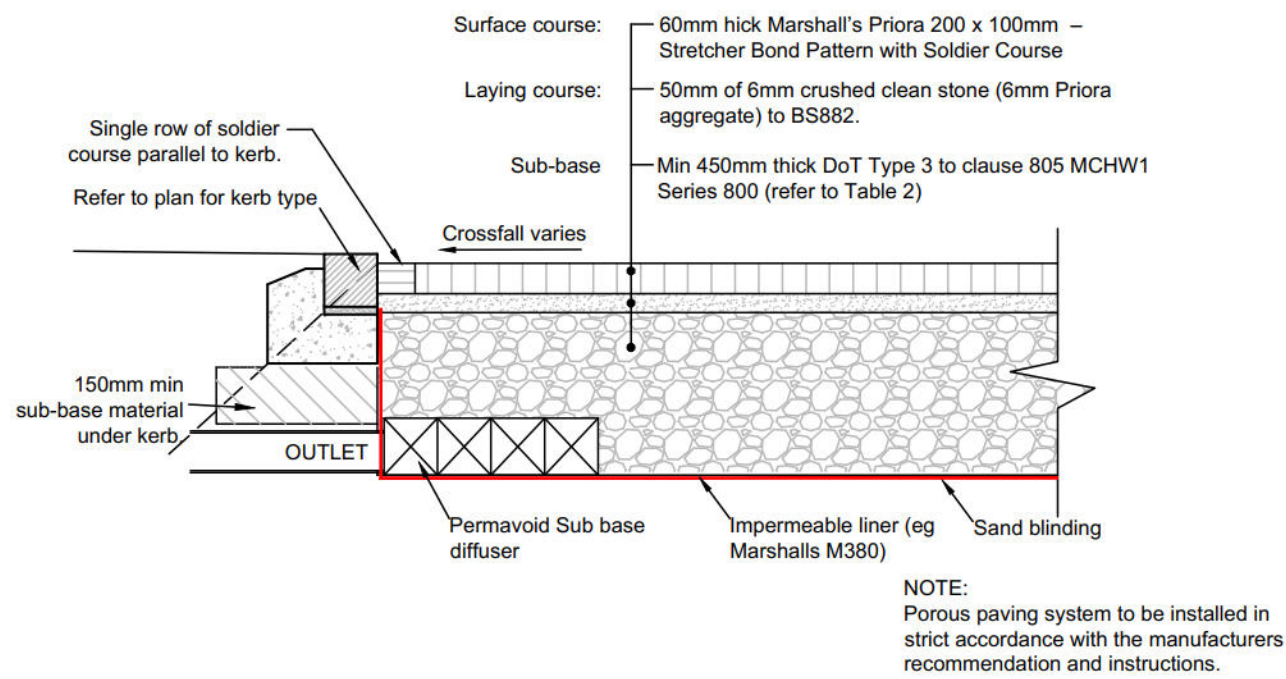
Client
Downview Developments Ltd

Project
40-42 Sudley Road
Bognor Regis

Drawing Title
Proposed Drainage

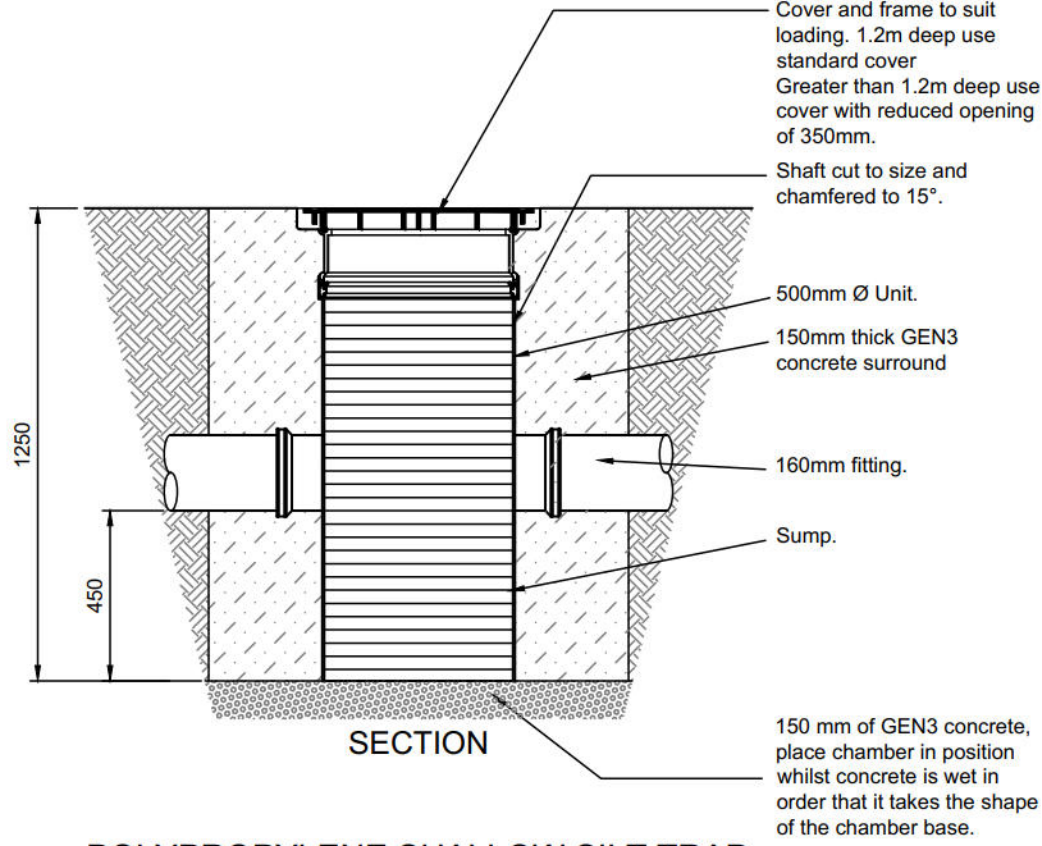
Scale at A1 | Date | Drawn By | Checked By | Project No.
1:200 | Sep 26 | LDF | MJA | D2474

Drawing Code | Drawing No. | Rev.
000-BPC-WD-ZZ-D-C | 001 | P00



PERMEABLE ROAD BLOCK PAVING CONSTRUCTION

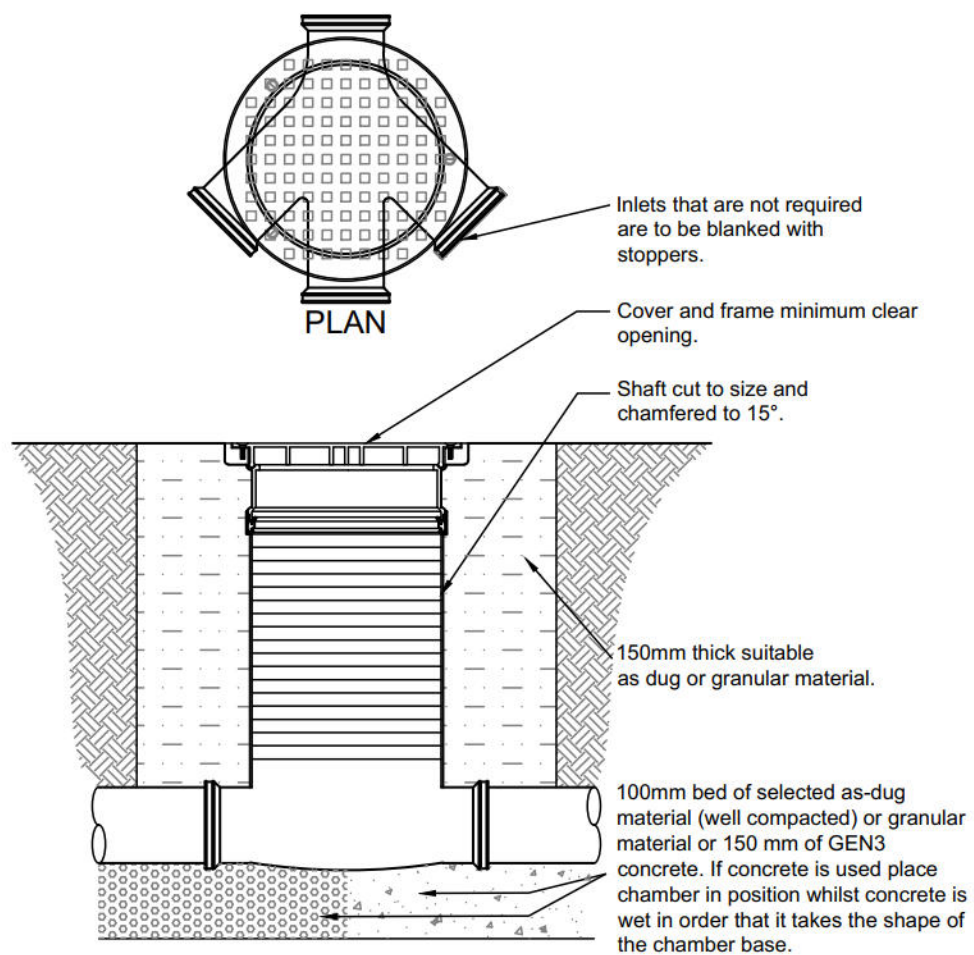
(PERMEABLE PAVERS-TANKED)
(NHBC SPEC' FOR CARS, LIGHT VANS AND INFREQUENT COMMERCIAL VEHICLES)
(Scale 1:20)



POLYPROPYLENE SHALLOW SILT TRAP

DETAIL (500Ø)
(Scale 1:20)

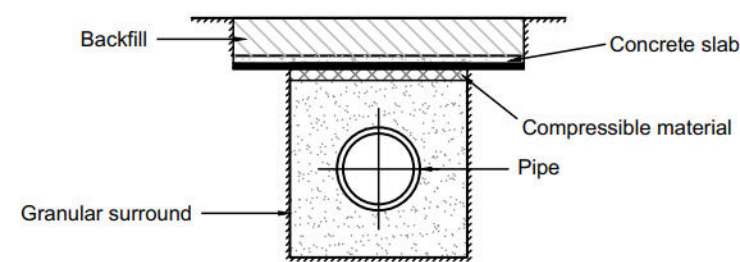
Depth to invert 1.25m (standard unit)
Silt Traps installed greater than single unit depth to be extended using inspection chamber shaft units.



SECTION

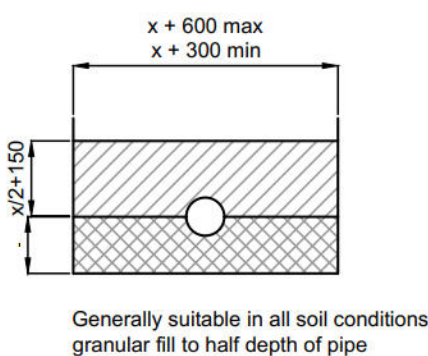
POLYPROPYLENE SHALLOW INSPECTION CHAMBER DETAIL (250Ø)

(Scale 1:20)
Depth to invert of less than 600mm.



PROTECTION FOR PIPES LAID A SHALLOW DEPTHS

Depth of cover less than 0.60m under private gardens and 0.90m under private drives
(Scale 1:20)



LEGEND:

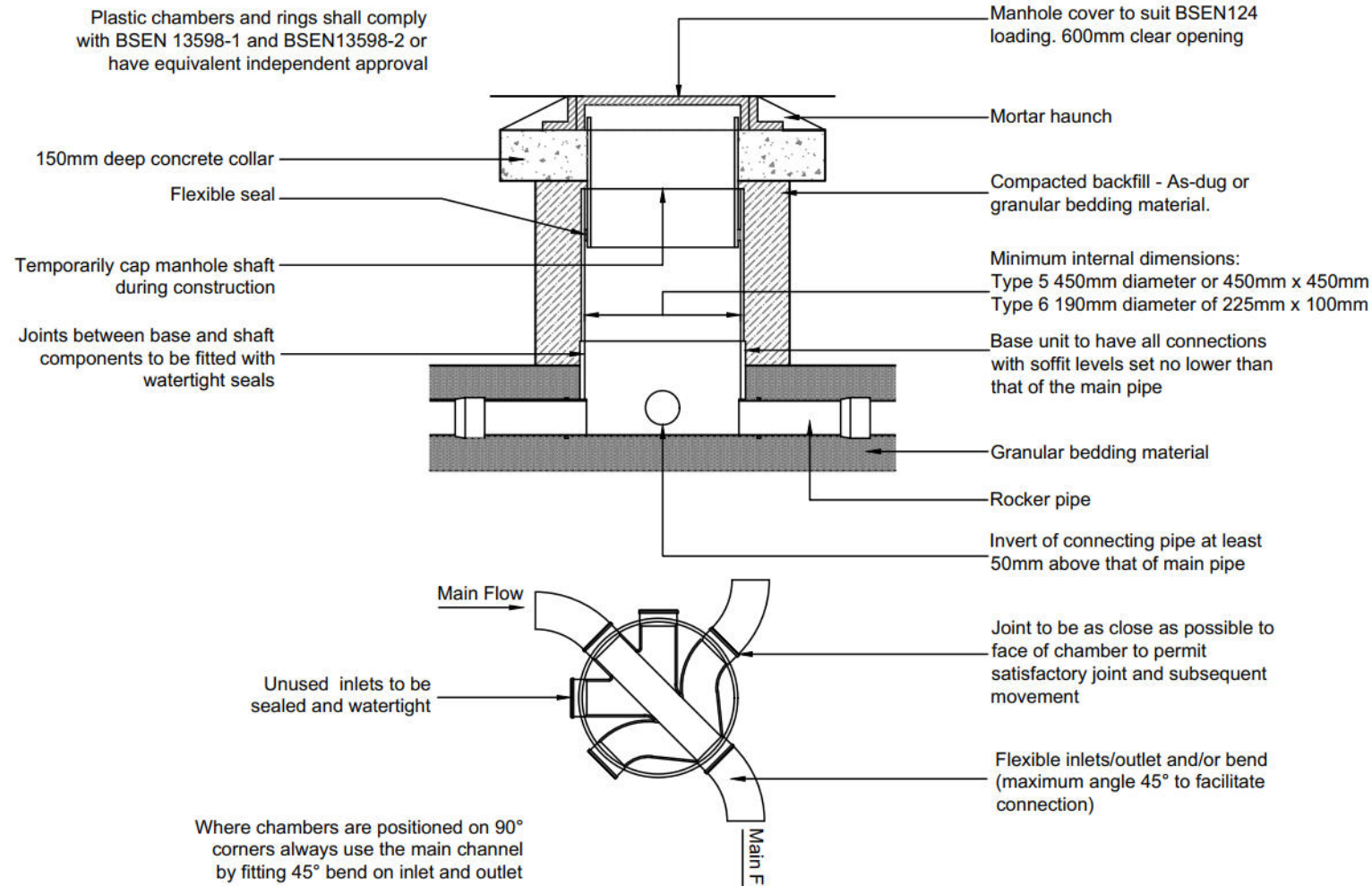
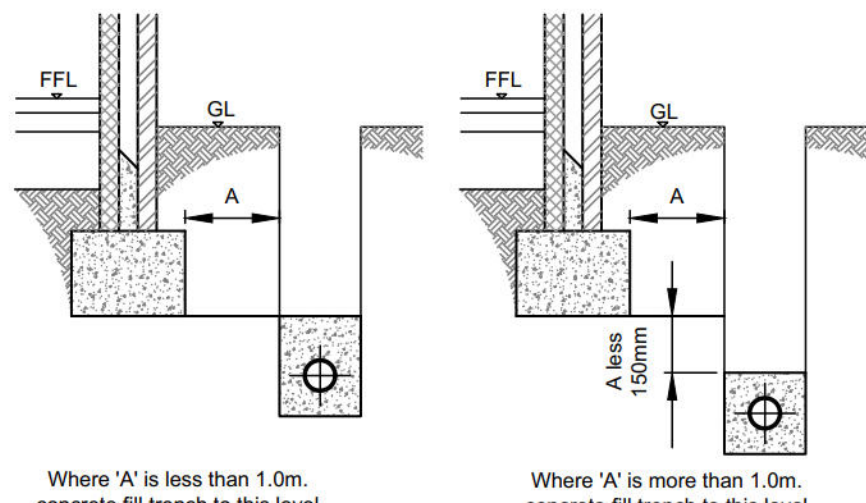
Selected fill: free from stones larger than 40mm, lumps of clay over 100mm, timber frozen material and vegetable matter.

Granular material: should conform to BS 882:1983 table 4 or BS8301:1985 Appendix D. Compaction fraction > 0.3 for class N > 0.2 for class F and B.

'x' - Denotes external pipe diameter.

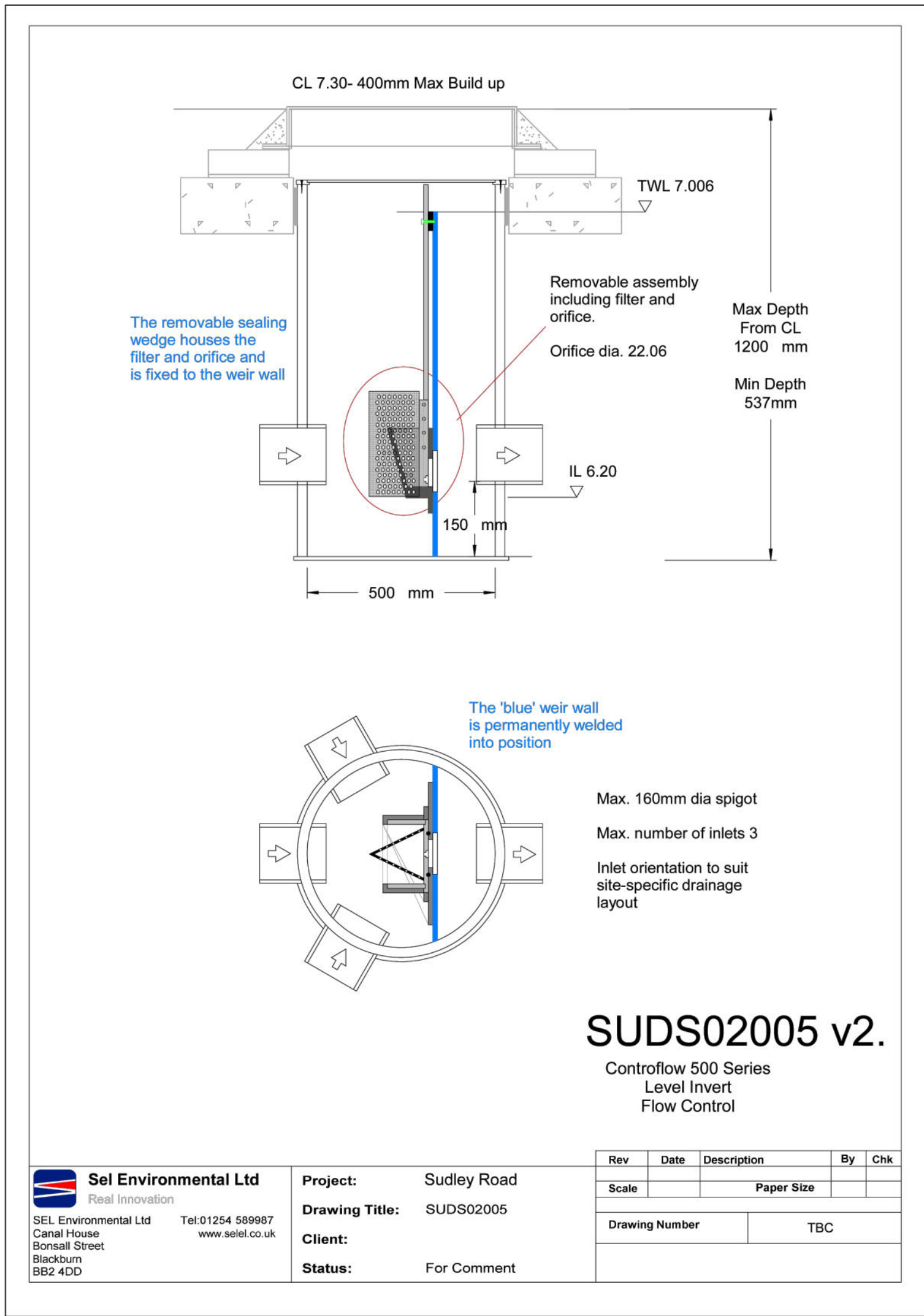
PIPE BEDDING DETAIL UNDER DRIVES AND GARDENS

Min depth of cover 0.6m under private gardens and 0.9m under private drives



TYPICAL ACCESS CHAMBER DETAIL - TYPE 5 & 6

(FOOTPATHS AND PRIVATE DRIVES)
1m MAXIMUM DEPTH TO FROM COVER TO PIPE SOFFIT. (NON ENTRY)
LOCATED IN AREAS SUBJECT TO LIGHT VEHICLES AND FOOTPATHS



PRESTIGE WATER BIO-REUSE SUDS PLANTER

OVERVIEW:

This SuDS planter is an elegant addition to any garden. The 225 SuDS Planter is a two-in-one Bioretention planter and Rainwater Harvesting tank, allowing the top part to be planted whilst the lower part collects rain water for use in your garden. The Prestige Water SuDS planter is an innovation in rainwater management disguised in an elegant, robust wood effect tank.

DESCRIPTION:

This modern planter is available in Oak. The butt is made from MDPE, a high quality robust material, making the tank both weather and frost proof.

The water butt comes with 2 No. 110mm access which allows the inside to be inspected, to ensure there is no blockage risks inside the tank.

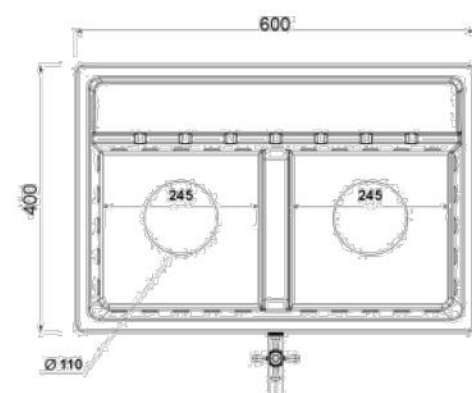
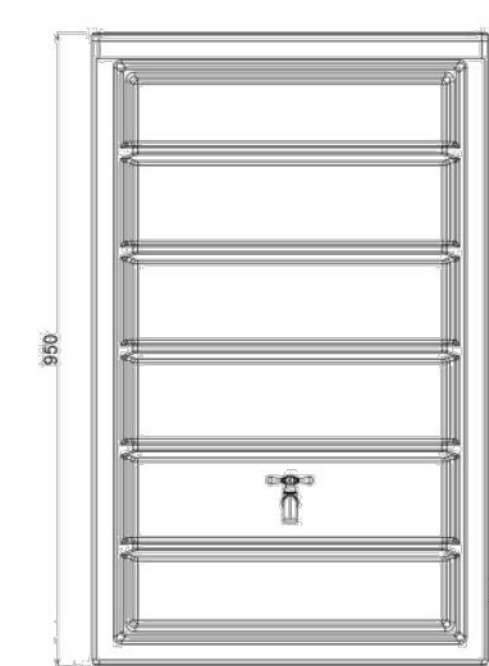
This system comes with the tap outlet not connected, allowing the customer to choose their desired tap location.

FEATURES:

- Super slim, compact design, ideal for tight spots
- Rotationally moulded for strength, durability and longevity
- Frost proof

INCLUDED ACCESSORIES:

- Geotextile Separator (~730*400mm)
- Stainless Steel Mesh filter on front corners.
- Brass Bulkhead
- 3/4" Brass Tap



Weight: 15kg



Email: info@prestige-water.co.uk | Telephone Number: 0161 872 7308
www.prestige-water.co.uk

NOTES

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 - Appropriate risk assessments and method statements should be prepared to manage these risks as required.



Rev.	Date	Original Issue	Amendments
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Drawing Status
PLANNING
NOT FOR CONSTRUCTION

Client
Downview Developments Ltd

Project
40-42 Sudley Road
Bognor Regis

Drawing Title
Drainage Details

Scale at A1	Date	Drawn By	Checked By	Project No.
AS SHOWN	Sep 26	LDF	MJA	D247
Drawing Code			Drawing No.	Rev.
000-BPC-WD-ZZ-D-C			002	P0

Network Details

Manhole Schedule

Manhole	Catchment Area (ha)	Size (mm)	Type	CL (m)	IL (m)	Depth To Soffit (m)	Easting (m)	Northing (m)
PS1	0.005	250	250 Inspection	7.350	6.800	0.450	496360.586	108052.786
PS2	0.002	450	450 Inspection	7.300	6.550	0.600	496367.095	108060.394
PS5	0.000	250	250 Inspection	7.350	6.800	0.450	496370.528	108045.317
PS3	0.005	450	450 Inspection	7.300	6.350	0.800	496376.563	108052.310
Dif1	0.000	700x300	250 Inspection	7.300	6.740	0.460	496371.374	108059.735
Dif2	0.000	700x300	250 Inspection	7.300	6.740	0.460	496376.709	108056.732
PS11 (FC)	0.001	1200	Type B	7.300	6.200	1.000	496378.654	108054.953
Ex 0351	0.000	675x675	Type C	7.010	5.650	1.210	496384.210	108062.794

Pipe Schedule

Pipe Number	US Manhole	US IL (m)	DS Manhole	DS IL (m)	Shape	Dimension (mm)	Length (m)	Gradient (1:x)	Roughness (mm)	US Depth To Soffit (m)	DS Depth To Soffit (m)
1.000	PS1	6.800	PS2	6.600	Circ	100	10.013	50	0.600	0.450	0.600
1.001	PS2	6.550	PS3	6.350	Circ	150	12.450	62	0.600	0.600	0.800
2.000	PS5	6.800	PS3	6.400	Circ	100	9.238	23	0.600	0.450	0.800
1.002	PS3	6.350	PS11 (FC)	6.200	Circ	150	3.370	22	0.600	0.800	0.950
3.000	Dif1	6.740	PS11 (FC)	6.200	Circ	100	8.710	16	0.600	0.460	1.000
4.000	Dif2	6.740	PS11 (FC)	6.250	Circ	100	2.636	5	0.600	0.460	0.950
1.003	PS11 (FC)	6.200	Ex 0351	5.650	Circ	150	9.610	17	0.600	0.950	1.210

Permeable Paving Schedule

Permeable Paving	Assigned Manhole	Effective Storage Volume (m3)	CL (m)	IL (m)	Storage Infil Rate (m/hr)	Safety Factor	Easting (m)	Northing (m)
Permeable Paving 1	PS2	2.177	7.300	6.740	0.00000000	2.00	496370.760	108057.409
Permeable Paving 2	PS11 (FC)	1.690	7.300	6.740	0.00000000	2.00	496375.223	108053.699

Outfall Details

Outfall Manhole Ex 0351 : Surcharged (Constant Level)

Surcharged Constant

Water Elevation (m)	Water Depth (m)
6.150	0.500

Flow Control Details

Controls within Manhole PS11 (FC)

Orifice Control

Invert Offset (m)	Orifice Diameter (m)	Discharge Coeff
0.000	0.020	0.600

Simulation Results

Return Period (yrs) + Climate Change (%):

1yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
PS1	15 min Summer	8	6.816	0.016	0.479		OK
PS2	15 min Summer	9	6.565	0.015	0.466		OK
PS5	15 min Winter	0	6.800	0.000	0.000		OK
PS3	180 min Summer	104	6.377	0.027	0.311		OK
Dif1	15 min Winter	0	6.740	0.000	0.000		OK
Dif2	15 min Winter	0	6.740	0.000	0.000		OK
PS11 (FC)	180 min Summer	106	6.376	0.176	0.206		Surcharged
Ex 0351	15 min Winter	0	6.150	0.500	0.000		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	8	PS1	PS2	0.016	0.591	0.472	0.055	OK
1.001	180 min Summer	104	PS2	PS3	0.018	0.445	0.272	0.012	OK
2.000	15 min Winter	0	PS5	PS3	0.000	0.000	0.000	0.000	OK
1.002	180 min Summer	108	PS3	PS11 (FC)	0.088	0.260	0.618	0.016	OK
3.000	15 min Winter	10	Dif1	PS11 (FC)	0.050	0.000	0.000	0.000	OK
4.000	120 min Summer	66	Dif2	PS11 (FC)	0.050	0.000	0.000	0.000	OK
1.003	180 min Summer	106	PS11 (FC)	Ex 0351	0.080	0.036	0.341	0.008	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 1	180 min Summer	98	6.746	0.006	0.060			OK
Permeable Paving 2	180 min Summer	97	6.745	0.005	0.049			OK

Return Period (yrs) + Climate Change (%):

2yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
PS1	15 min Summer	8	6.822	0.022	0.957		OK
PS2	15 min Summer	8	6.571	0.021	0.947		OK
PS5	15 min Winter	0	6.800	0.000	0.000		OK
PS3	120 min Summer	76	6.534	0.184	0.397		Surcharged
Dif1	15 min Winter	0	6.740	0.000	0.000		OK
Dif2	15 min Winter	0	6.740	0.000	0.000		OK
PS11 (FC)	120 min Summer	76	6.535	0.335	0.247		Surcharged
Ex 0351	15 min Winter	0	6.150	0.500	0.000		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	15 min Summer	8	PS1	PS2	0.022	0.723	0.947	0.111	OK
1.001	120 min Summer	68	PS2	PS3	0.082	0.486	0.574	0.025	OK
2.000	30 min Winter	26	PS5	PS3	0.050	0.000	0.000	0.000	OK
1.002	60 min Summer	39	PS3	PS11 (FC)	0.150	0.495	2.031	0.054	Surcharged
3.000	15 min Winter	7	Dif1	PS11 (FC)	0.050	0.000	0.000	0.000	OK
4.000	15 min Winter	8	Dif2	PS11 (FC)	0.050	0.000	0.000	0.000	OK
1.003	120 min Summer	76	PS11 (FC)	Ex 0351	0.080	0.049	0.475	0.011	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 1	60 min Summer	36	6.749	0.009	0.132			OK
Permeable Paving 2	60 min Summer	35	6.748	0.008	0.126			OK

Return Period (yrs) + Climate Change (%):

10yr+0%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
PS1	15 min Summer	8	6.832	0.032	1.837		OK
PS2	60 min Summer	43	6.762	0.212	0.317		Surcharged
PS5	15 min Summer	0	6.800	0.000	0.000		OK
PS3	60 min Summer	43	6.762	0.412	0.547		Surcharged
Dif1	60 min Summer	42	6.762	0.022	0.004		OK
Dif2	60 min Summer	43	6.762	0.022	0.022		OK
PS11 (FC)	60 min Summer	44	6.762	0.562	0.577		Surcharged
Ex 0351	15 min Summer	0	6.150	0.500	0.000		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	60 min Summer	35	PS1	PS2	0.060	0.775	1.203	0.140	OK
1.001	30 min Winter	21	PS2	PS3	0.150	0.570	1.410	0.063	Surcharged
2.000	15 min Summer	9	PS5	PS3	0.050	0.000	0.000	0.000	OK
1.002	60 min Summer	29	PS3	PS11 (FC)	0.150	0.570	2.671	0.071	Surcharged
3.000	60 min Summer	60	Dif1	PS11 (FC)	0.061	0.011	0.045	0.003	OK
4.000	60 min Summer	60	Dif2	PS11 (FC)	0.061	0.011	0.046	0.002	OK
1.003	60 min Summer	43	PS11 (FC)	Ex 0351	0.081	0.063	0.619	0.014	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 1	60 min Summer	43	6.762	0.022	0.084			OK
Permeable Paving 2	60 min Summer	43	6.762	0.022	0.065			OK

Return Period (yrs) + Climate Change (%):

30yr+40%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
PS1	60 min Winter	51	6.903	0.103	0.273		Surcharged
PS2	60 min Winter	52	6.903	0.353	0.303		Surcharged
PS5	60 min Winter	52	6.903	0.103	0.010		Surcharged
PS3	60 min Winter	52	6.903	0.553	0.665		Surcharged
Dif1	60 min Winter	52	6.902	0.162	0.016		Surcharged
Dif2	60 min Winter	52	6.903	0.163	0.082		Surcharged
PS11 (FC)	60 min Winter	53	6.903	0.703	0.866		Surcharged
Ex 0351	15 min Summer	0	6.150	0.500	0.000		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	60 min Winter	47	PS1	PS2	0.100	0.779	1.574	0.184	Surcharged
1.001	15 min Winter	9	PS2	PS3	0.150	0.624	2.752	0.122	Surcharged
2.000	120 min Summer	90	PS5	PS3	0.100	0.023	0.141	0.011	Surcharged
1.002	15 min Winter	7	PS3	PS11 (FC)	0.150	0.744	3.949	0.105	Surcharged
3.000	60 min Summer	82	Dif1	PS11 (FC)	0.100	0.024	0.190	0.013	Surcharged
4.000	120 min Summer	148	Dif2	PS11 (FC)	0.100	0.044	0.305	0.012	Surcharged
1.003	60 min Winter	53	PS11 (FC)	Ex 0351	0.081	0.071	0.694	0.016	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 1	60 min Winter	52	6.903	0.163	0.110			OK
Permeable Paving 2	60 min Winter	54	6.902	0.162	0.064			OK

Return Period (yrs) + Climate Change (%):

100yr+45%

Manholes

Manhole	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Status
PS1	60 min Winter	56	7.006	0.206	0.275		Surcharged
PS2	60 min Winter	56	7.006	0.456	0.287		Flood Risk
PS5	60 min Winter	54	7.007	0.207	0.000		Surcharged
PS3	120 min Winter	95	7.007	0.657	0.651		Flood Risk
Dif1	60 min Winter	56	7.006	0.266	0.019		Flood Risk
Dif2	60 min Winter	54	7.006	0.266	0.009		Flood Risk
PS11 (FC)	60 min Winter	58	7.006	0.806	0.343		Flood Risk
Ex 0351	15 min Summer	0	6.150	0.500	0.000		Outfall

Conduits

Pipe No.	Critical Storm	Peak (mins)	US Manhole	DS Manhole	Flow Depth (m)	Max Velocity (m/s)	Max Flow (l/s)	Flow / Capacity	Status
1.000	30 min Winter	21	PS1	PS2	0.100	0.915	3.074	0.359	Surcharged
1.001	15 min Winter	8	PS2	PS3	0.150	0.680	2.888	0.128	Surcharged
2.000	120 min Summer	84	PS5	PS3	0.100	0.031	0.241	0.019	Surcharged
1.002	30 min Summer	15	PS3	PS11 (FC)	0.150	0.762	5.322	0.141	Surcharged
3.000	30 min Summer	68	Dif1	PS11 (FC)	0.100	0.023	0.180	0.012	Surcharged
4.000	180 min Summer	218	Dif2	PS11 (FC)	0.100	0.038	0.301	0.011	Surcharged
1.003	60 min Winter	56	PS11 (FC)	Ex 0351	0.082	0.076	0.744	0.017	OK

Permeable Paving Storage

Permeable Paving	Critical Storm	Peak (mins)	Level (m)	Depth (m)	Inflow (l/s)	Flood (m3)	Surface Runoff (m3)	Status
Permeable Paving 1	60 min Winter	54	7.006	0.266	0.113			OK
Permeable Paving 2	60 min Winter	56	7.006	0.266	0.161			OK