



Surface Water Drainage Strategy

AEG11817_BN13_Worthing_05

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Site Address: Forest Barn
Forest Lane
Castle Goring
Worthing
BN13 3FD

UK Experts in Flood Modelling, Flood Risk Assessments, and Surface Water Drainage Strategies

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1. Introduction

1.1. Aegaea were commissioned to undertake a Surface Water Drainage Strategy (SWDS) to support a planning application for the proposed development. This SWDS has been prepared in accordance with the requirements set out in the National Planning Policy Framework (NPPF) and the associated Planning Practice Guidance, the National Standards for Sustainable Drainage Systems (2025), the Worthing Local Plan 2020-2036 (2023).

1.2. This SWDS is intended to support the householder planning application to Worthing Borough Council (ref. AWDM/0655/25) and should be read alongside the Aegaea Flood Risk Assessment for the site.

Site Overview

1.3. The site of the proposed development is at Forest Barn, Forest Lane, Castle Goring, Worthing, BN13 3FD (Figure 1).

1.4. The site is occupied by Forest Barn, an existing dwelling, with its garden and a long private access track running north to Castle Goring Way.

1.5. The proposed development comprises a front (north) porch, a pitched-roof dormer to the front roof slope, a single-storey pitched-roof rear (south) extension replacing the former attached cart shed, a flue to the west elevation and a freestanding timber pergola in the rear garden. The development proposals are presented in Appendix A.



Figure 1: Site Location

1.6. In the absence of a topographical survey, the site topography has been reviewed using the EA 1m LiDAR Digital Terrain Model (Figure 2). The redline boundary includes the barn plot and a long private access track, which rises northward from the barn towards Castle Goring Way. Key levels are:

- **Redline boundary**: approximately 16.68m AOD to 24.71m AOD, with the higher levels along the access track to the north.
- **Ground beneath the building:** approximately 17.89m AOD to 18.48m AOD.
- **Existing barn finished floor level (FFL):** 18.43m AOD.
- **Proposed extension FFL**: 18.10m AOD.

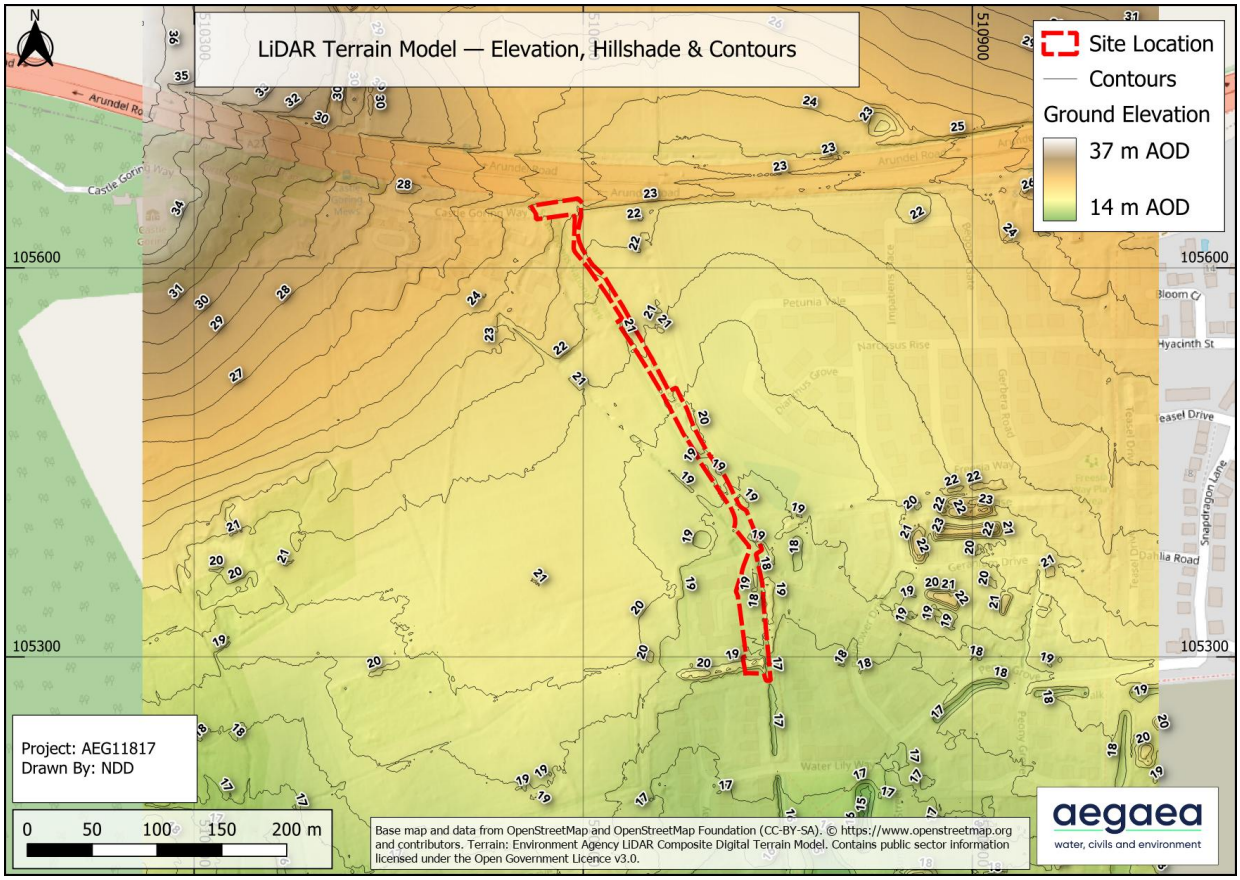


Figure 2: Site Topography

1.7. Worthing Borough Council is the Local Planning Authority (LPA) for the site and West Sussex County Council is the Lead Local Flood Authority (LLFA).

2. Planning Policy

National Standards for SuDS

2.1. Updates to the national planning policy have defined a framework for Sustainable Drainage Systems (SuDS). The new 'National Standards for SuDS' was published on 19 June 2025 and is used to inform this drainage strategy. The seven key standards are as follows:

- **Standard 1 Runoff Destination:** The drainage hierarchy prioritises water re-use followed by infiltration, before discharging to watercourses and sewers.
- **Standard 2 Management of Everyday Rainfall (interception):** The design must ensure that the first 5mm of rainfall from any event is managed within the site and does not leave the boundary.
- **Standard 3 Management of Extreme Rainfall and Flooding:** The SuDS must be designed to manage runoff from all extreme rainfall events, up to and including the 1 in 100-year return period (including an allowance for climate change).
- **Standard 4 Water Quality:** The system must be designed to prevent or mitigate the risk of surface water runoff pollution using SuDS management trains.
- **Standard 5 Amenity:** The SuDS should be designed to improve the aesthetic value of the development, demonstrating multifunctional solutions where feasible.
- **Standard 6 Biodiversity:** The system should be designed to promote biodiversity using above ground SuDS where feasible.
- **Standard 7 Maintenance:** A clear plan must be provided for the long-term operation and maintenance of the SuDS to ensure it remains effective for the lifetime of the development.

Local Policy

2.2. Policy DM20 'Flood Risk and Sustainable Drainage' of the Worthing Local Plan 2020-2036 (Worthing Borough Council, adopted March 2023) sets out the requirements for surface water drainage. It states:

> *The surface water drainage scheme should use Sustainable Drainage Systems, unless there is clear evidence that this would be inappropriate, and be designed to:*

limit runoff to greenfield 1 year rates for events up to and including the 100 year plus climate change event where possible, and always ensure no increase in flows as a result of development;

follow natural drainage flow paths and work with existing site topography;

provide adequate capacity for the 30 year plus climate change event to be contained within the drainage system, and demonstrate that the development is safe for the 100 year plus climate change event scenario and does not increase in flood risk off site;

incorporate green infrastructure and maximise multi-functional benefits ensuring adequate treatment of surface water prior to discharge to ensure that the quality of local water is not adversely affected;

be sensitively located and designed to promote an enhanced landscape/ townscape and good quality spaces that improve public amenity;

discharge run-off according to the following hierarchy: (1) into the ground (infiltration), (2) to a surface water body, (3) to a surface water sewer, (4) to a combined sewer. Surface water connections to the public sewerage network should only be made with prior agreement of the relevant sewerage undertaker and where it can be demonstrated that there are no feasible alternatives (this applies to new developments and redevelopments) and where there is no detriment to existing users.

Clear management arrangements and funding for their ongoing maintenance over the lifetime of the development should be proposed. Planning conditions or obligations will be used to secure these arrangements.

3. Surface Water Drainage Strategy

Existing Site Parameters

Infiltration Potential

3.1. The British Geological Survey (BGS) 1:50,000 mapping records the superficial deposits beneath the site as the Head (clay, silt, sand and gravel), over bedrock of the Lambeth Group (clay, silt and sand).

3.2. There are 2 British Geological Survey borehole records within 250m of the site (Table 1), the nearest 160m from the red line.

Table 1: British Geological Survey borehole records within 250m of the site

BGS reference	Record name	Distance from red line (m)	Logged depth (m)	Recorded groundwater level
TQ10NW75	Holt Farm Monitoring Wc6	160	50.20	Not recorded
TQ10NW70	Holt Farm, Clapham	249	30.22	Not recorded

3.3. The Winter Rain Acceptance Potential (WRAP) SOIL index used in the greenfield runoff calculation for the site is 0.47 (very low infiltration potential).

3.4. The Head and the Lambeth Group are both predominantly cohesive and are unlikely to support infiltration at a useful rate.

3.5. The Adur and Worthing Level 1 SFRA (JBA Consulting, July 2024) groundwater emergence mapping places the site in the band where groundwater is within 0.025m of the ground surface, which the SFRA classes as high risk. Groundwater is likely to perch in the Head deposits over the Lambeth Group clays, particularly in winter and after prolonged rain, which would leave little or no unsaturated depth below an infiltration feature.

3.6. Given the clay-dominated geology and shallow groundwater, infiltration is not considered viable for this site and has not been relied on in the strategy.

Nearby Watercourses

3.7. A small ordinary watercourse, a tributary of the Ferring Rife, runs along the eastern boundary of the barn plot. It is shown with its top and bottom of bank on the Manorwood drawings and currently receives the roof water from the existing barn. It is not shown on OpenStreetMap.

3.8. Any new outfall to this watercourse will require Ordinary Watercourse Consent from West Sussex County Council as LLFA.

Public Sewers

3.9. A sewer asset plan has been provided by Southern Water (Appendix B) and is reproduced in Figure 3, with the site boundary shown in red.



Figure 3: Southern Water Asset Plan

3.10. It can be seen from Figure 3 that there is no public sewer within the site boundary or in the area. It is understood that the existing roof water discharges to the Ferring Rife tributary along the eastern boundary.

3.11. No connection to the public sewer is proposed. Surface water will outfall to the ordinary watercourse (Ferring Rife tributary) along the eastern boundary at an invert level of 16.00m AOD (estimated using LiDAR), as modelled. The bed and bank levels of the watercourse at the outfall should be confirmed by survey prior to detailed design.

Surface Water Drainage Hierarchy

3.12. In accordance with the SuDS management train approach, the use of various SuDS measures to reduce and control surface water flows has been considered for the development in Table 2.

3.13. The management of surface water has been considered in respect of the SuDS hierarchy below, as detailed in the Statutory Guidance National Standards for Sustainable Drainage Systems (SuDS) (2025).

Table 2: SuDS Drainage Hierarchy

SuDS Drainage Hierarchy	Suitable	Comment
1. Collection for non-potable use	✓	Rainwater planters are provided at the extension downpipes and water butts can be fitted for garden use. Neither is relied on for attenuation in the design.
2. Infiltration	✗	The Head and Lambeth Group are predominantly clay, and the SFRA maps groundwater within 0.025m of the surface. Infiltration is not considered viable.
3. Discharge to surface waters	✓	An ordinary watercourse (Ferring Rife tributary) runs along the eastern boundary and already receives the existing roof water. It is the proposed receptor, subject to Ordinary Watercourse Consent.
4. Discharge to surface water sewer, highway drain or similar	–	More preferential options higher up the hierarchy. Regardless, the asset plan shows no public surface water sewer within the barn plot.
5. Discharge to combined sewer	–	

3.14. On review of the SuDS drainage hierarchy and the available SuDS options, taking into account the site's constraints and with reference to both national and local policy, it is proposed that the surface water runoff from the proposed development will be managed via:

- Runoff from the existing dwelling roof and the extension west roof will be collected by downpipes and conveyed via chambers S1 and S2 to a geocellular attenuation tank.
- Runoff from the extension east roof will be conveyed via inspection chambers IC1 to IC3 to chamber S2 and on to the same tank.
- The geocellular tank (28.0m² base area, 0.5m deep, 95% void ratio) provides 13.30m³ of attenuation storage.
- Discharge from the tank is restricted by a Hydro-Brake flow control to 1l/s, and conveyed via chamber S3 to a new outfall to the Ferring Rife tributary along the eastern boundary.
- Rainwater planters at the extension downpipes, with overflow to the below-ground system, intercept the first 5mm of rainfall and provide treatment. Their storage is not relied on in the calculations.

3.15. The proposed Surface Water Drainage Layout is included as Appendix C.

Greenfield Runoff Rates

3.16. The proposed drainage strategy manages a total impermeable area of 0.02ha.

3.17. The greenfield runoff rates for the 0.02ha have been calculated using the IH124 method (via the ICP SuDS variation) within InfoDrainage 2026.4.

3.18. The IH124 method was developed as part of the original Flood Studies Report (FSR) in 1975 and was devised to calculate runoff from small catchments by estimating the mean annual flood flow (QBAR) using the following equation:

$$QBAR(rural) = 0.00108 \times AREA^{0.89} \times SAAR^{1.17} \times SPR^{2.17}$$

Where:

- QBAR(rural) is the mean annual flood flow from a rural catchment (approximately 2.3 year return period).
- AREA is the area of the catchment in km².
- SAAR is the Standard Average Annual Rainfall for the period 1941 to 1970 in mm.
- SPR is the Standard Percentage Runoff coefficient for the SOIL category. The SOIL category is extracted from the UK Winter Rainfall Acceptance Potential (WRAP) map.

3.19. The ICP SuDS variation is a scaled-down version of the IH124 runoff method for estimating peak flow rates from both undeveloped and partly urbanised catchments that are smaller than 50ha in size, which is appropriate in this instance.

3.20. The greenfield runoff rates for the 0.02ha impermeable area have been calculated using the ICP SUDS method (SAAR 741mm, SOIL 0.47, Hydrological Region 7) and are given in **Error! Reference source not found.**.

Table 3: Greenfield Runoff Rates

Catchment Area	Impermeable Area	1in1 year	1in2.3 year (Qbar)	1in30 year	1in100 year
Roof Areas	0.02 Ha	0.1 l/s	0.1 l/s	0.2 l/s	0.3 l/s

3.21. Runoff rates from the proposed development should be restricted to greenfield rates where possible. Given the size of the drained area, the greenfield rate is too low to design to.

3.22. It is not possible to discharge runoff at such a low rate, as it would require unreasonably small flow controls, which would significantly increase the risk of blockage.

3.23. The proposed runoff rate has been restricted to 1l/s into the Ferring Rife tributary, which is considered to be the closest practical rate to greenfield. The existing barn roof currently discharges to the same watercourse without any restriction or attenuation, so the scheme also reduces peak flows from the existing roof.

InfoDrainage Modelling and Results

3.24. InfoDrainage 2026.4 was used to calculate the indicative attenuation volumes for the development proposals area.

3.25. A global urban creep allowance of 10% has been applied to the calculations.

3.26. The model comprises:

- 3no. contributing catchment areas, totalling 0.020ha:
- Existing Dwelling – 0.007ha
- Extension West Roof – 0.006ha
- Extension East Roof – 0.006ha
- 1no. storage tank modelled with 95% porosity:
- Tank: 8.0m x 3.5m x 0.50m deep, 13.30m³ storage
- 1no. Hydro-Brake flow control at Tank (design flow 1l/s, CHE-0055-1000-0400-1000).
- An outfall at 'Outfall' (dummy manhole to adjacent watercourse).

3.27. Figure 4 shows the proposed catchment areas and SuDS features.

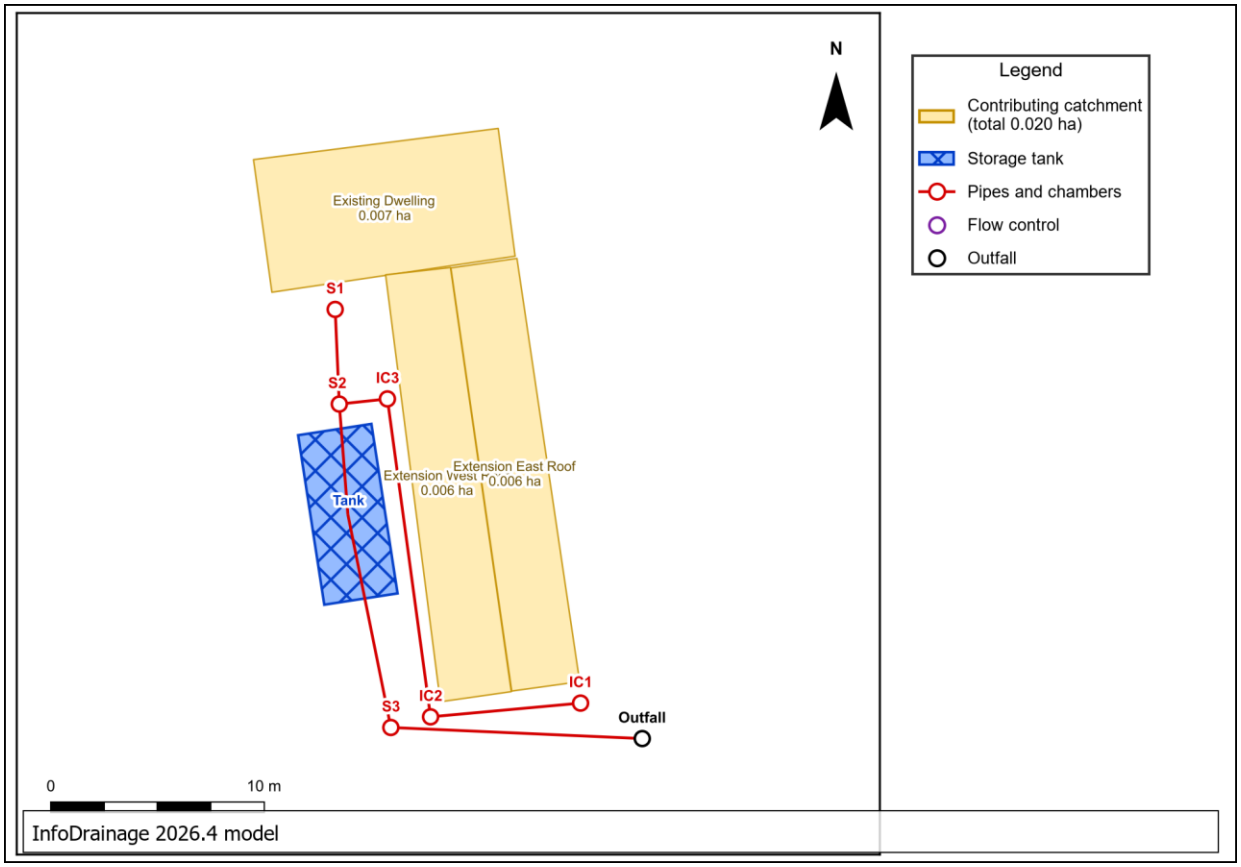


Figure 4: Visualisation of Proposed Catchment Areas and SuDS Features

3.28. Table 4 summarises the simulation criteria for the InfoDrainage model.

Table 4: Simulation Parameters

Parameter	Model Input
Rainfall Data	FEH22
Total Area	0.020ha + 10% urban creep
Return Periods	2+45% for climate change, 30, 30+40% for climate change, 100, 100+45% for climate change. Summer and Winter
Storm Durations	15, 30, 60, 120, 240, 360, 480, 960, 1440 minutes
Volumetric Runoff Coefficient	1.0 (summer), 1.0 (winter)
Percentage Impervious	100%
Time of Concentration	5 minutes

3.29. The Environment Agency Peak Rainfall Climate Change Allowance guidance was reviewed and subsequently the Defra Peak Rainfall Allowances Map was assessed to determine appropriate climate change allowances to inform the surface water drainage strategy. In line with this guidance, the upper end allowances for the Arun and Western Streams Management Catchment have been used for both the 1% and 3.3% annual exceedance probability (AEP) events. An allowance of 40% has been used for the 3.3% AEP event and an allowance of 45% has been used for the 1% AEP event.

InfoDrainage Results

3.30. The full calculation outputs can be found in Appendix D. The 1 in 100 year +45% climate change results are summarised below:

- The maximum water level within Tank is 17.263m AOD (0.463m of 0.50m deep), storing 12.31m³, in the 120 mins Winter critical storm.
- The Hydro-Brake flow control at Tank (design flow 1l/s, CHE-0055-1000-0400-1000) passes a maximum of 1l/s.
- The proposed discharge to the ordinary watercourse (Ferring Rife tributary) along the eastern boundary is 1l/s in the 1 in 100 year event (including a 45% allowance for climate change).
- No flooding is observed in the critical storm event based on the InfoDrainage model.

3.31. Table 5 summarises the results for Tank and the discharge for each modelled event.

Table 5: InfoDrainage Results Summary

Event	Max. level in Tank (m AOD)	Stored volume (m³)	Discharge (l/s)	Flooding
1 in 2 year +45% CC	16.955	4.13	1.0	No
1 in 30 year	17.042	6.45	1.0	No
1 in 30 year +40% CC	17.149	9.29	1.0	No
1 in 100 year	17.110	8.23	1.0	No
1 in 100 year +45% CC	17.263	12.31	1.0	No

3.32. As such, these results indicate that the runoff from the proposed development could be accommodated within a drainage system of the approximate size modelled.

Maintenance

3.33. Table 6 and Table 7 present the maintenance requirements for the proposed SuDS, taken from the CIRIA SuDS Manual (C753). Each manufacturer will have bespoke requirements; however, the below should be used as a guide.

Table 6: Maintenance Requirements for Geocellular Systems (Source: CIRIA SuDS Manual C753)

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	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
Remedial Actions	Repair/rehabilitate inlets, outlets, overflows and vents	As required
Monitoring	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

Table 7: Maintenance Requirements for Flow Control Chambers

Maintenance Schedule	Required Action	Typical Frequency
Regular Maintenance	Inspect the flow control chamber, flow control device and any screen or bypass for blockage, silt and debris, and clear if required	Monthly for 3 months after installation, then six-monthly and after large storms
	Remove silt from the chamber sump	Annually, or as required
Remedial Actions	Rod the outlet and repair/replace any damaged device, screen or bypass per the manufacturer's guidance	As required
Monitoring	Check that the device operates freely and as designed (manufacturer's guidance)	Annually

Hydrobrake

3.34. The Hydro-International[1] maintenance requirements for a hydrobrake are included below;

Normally, little maintenance is required as there are no moving parts within the Flow Control. Experience has shown that if blockages occur they do so at the intake, and the cause on such occasions has been due to a lack of attention to engineering detail such as approach velocities being too low, inadequate benching, or the use of units below the minimum recommended size. The Flow Control (where applicable) is fitted with a pivoting bypass door, which allows the manhole chamber to be drained down should blockage occur. The smaller conical units, below the minimum recommended size, are also supplied with rodding facilities or vortex suppressor pipes as standard.

Following installation of the Flow Control it is vitally important that any extraneous material i.e. building materials are removed from the unit and the chamber. After the system is made live, and assuming that the chamber design is satisfactory, it is recommended that each unit be inspected monthly for three months and thereafter at six monthly intervals with hose down if required. If problems are experienced, please do not hesitate to contact the company so that an investigation may be made.

[1] **https://www.hydro-int.com/en/hydro-brake-flow-control-series**

All Flow Control units are typically manufactured from grade 304 Stainless Steel, and if required they can also be manufactured in grade 316 Stainless Steel. Both materials have an estimated life span in excess of the design life of drainage systems

3.35. The SuDS will be privately owned and maintained by the property owner for the lifetime of the development.

Designing for Exceedance

3.36. Exceedance events are those greater than the design rainfall event, i.e. greater than the 1 in 100-year rainfall event plus 45% increase for climate change.

3.37. Periods of exceedance occur when the rate of surface water runoff exceeds the drainage system capacity. Conveyance beneath ground cannot, generally, be economically or sustainably constructed to the scale required for the most extreme rainfall events. This may result, on occasion, in the surface water runoff exceeding the capacity of the drainage network, with excess water (exceedance flow) being conveyed above ground.

3.38. For situations where rainfall exceeds the capacity of the drainage system, exceedance flows will follow the existing ground levels away from the building towards the lower ground and the watercourse on the eastern boundary. External levels around the building should fall away from the door thresholds so that exceedance flows are not directed towards the building.

Water Quality

3.39. A key element of SuDS is that they have the potential to improve the quality of surface water discharged from a site, protecting the downstream receiving water body. In order to assess this, the "Pollution hazard indices for different land use classifications", provided in the CIRIA SuDS Manual (C753) as Table 26.2, has been reviewed. The indices use four different indicators for assessing pollution potential: the hazard level, total suspended solids (TSS), metals, and hydrocarbons.

3.40. The pollution hazard indices are summarised in Table 8 and the mitigation indices of the proposed SuDS components in Table 9 (CIRIA SuDS Manual Tables 26.2 and 26.3).

Table 8: Pollution Hazard Indices (CIRIA C753 Table 26.2)

Land Use	Pollution Hazard Level	Total Suspended Solids (TSS)	Metals	Hydrocarbons
Residential roofs	Very Low	0.2	0.2	0.05

Table 9: Pollution Mitigation Indices (CIRIA C753 Table 26.3)

SuDS Component	Total Suspended Solids (TSS)	Metals	Hydrocarbons
SuDS planters (bioretention system indices)	0.8	0.8	0.8

3.41. The mitigation indices of the proposed SuDS components meet or exceed the pollution hazard indices for the proposed land uses, so the proposed treatment train is considered sufficient.

3.42. It is important that a regular maintenance schedule is provided on the SuDS systems to ensure efficiency with pollutant removal.

4. Conclusions

4.1. This SWDS has been undertaken with reference to the requirements of the NPPF and Planning Practice Guidance with respect to the proposed development at Forest Barn, Forest Lane, Castle Goring, Worthing, BN13 3FD. It has been written to support a planning application and prepared with due consideration to the nature of the proposed development to provide the appropriate level of detail.

4.2. On review of the SuDS drainage hierarchy and the available SuDS options, taking into account the site's constraints and with reference to both national and local policy, it is proposed that the surface water runoff from the proposed development will be managed via:

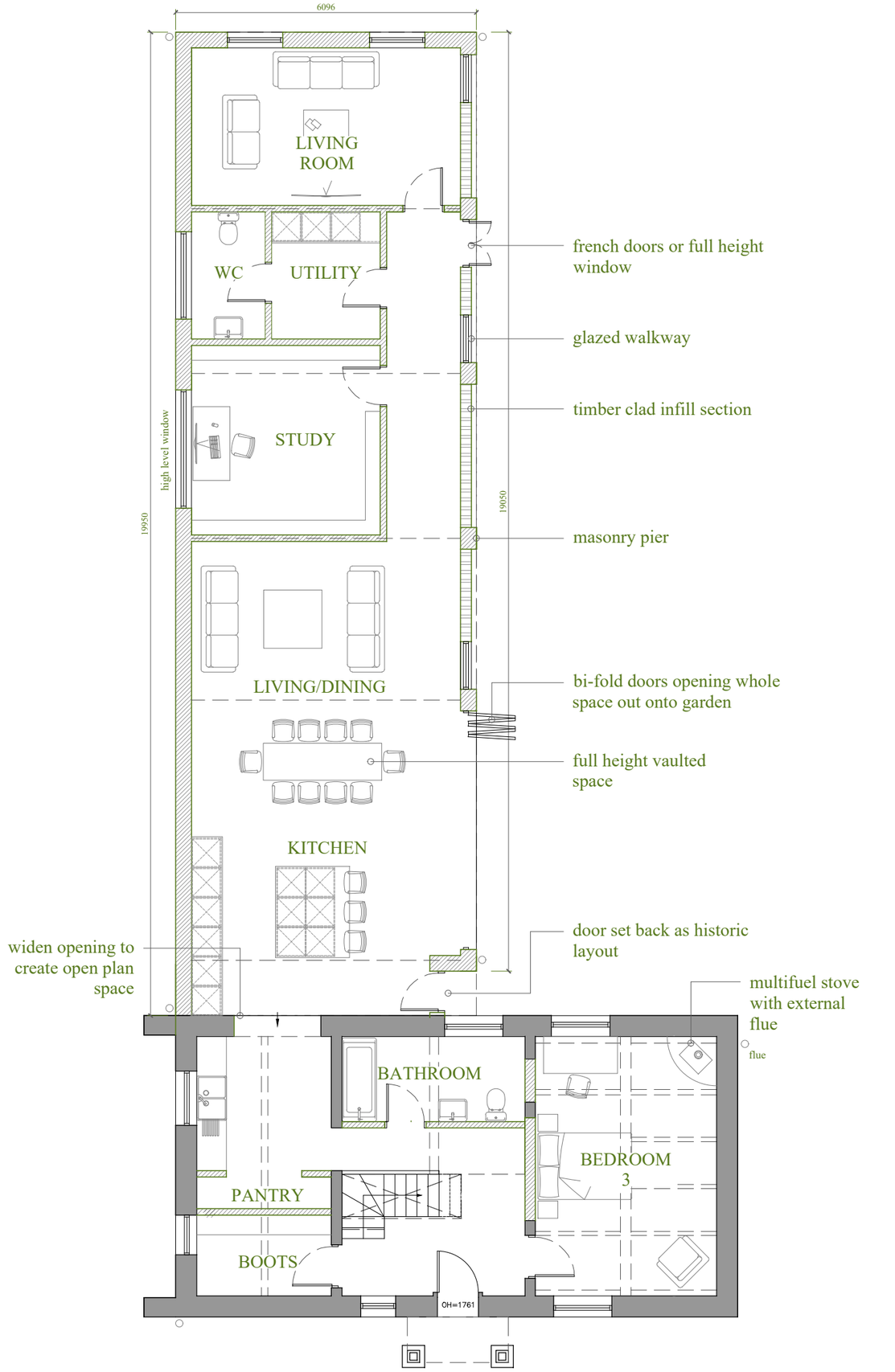
- Runoff from the existing dwelling roof and the extension west roof will be collected by downpipes and conveyed via chambers S1 and S2 to a geocellular attenuation tank.
- Runoff from the extension east roof will be conveyed via inspection chambers IC1 to IC3 to chamber S2 and on to the same tank.
- The geocellular tank (28.0m² base area, 0.5m deep, 95% void ratio) provides 13.30m³ of attenuation storage.
- Discharge from the tank is restricted by a Hydro-Brake flow control to 1l/s, and conveyed via chamber S3 to a new outfall to the Ferring Rife tributary along the eastern boundary.
- Rainwater planters at the extension downpipes, with overflow to the below-ground system, intercept the first 5mm of rainfall and provide treatment. Their storage is not relied on in the calculations.

4.3. The 1 in 100 year +45% climate change results are summarised in Section 4: the discharge is 1l/s and no flooding is observed in the critical storm event.

4.4. As such, these results indicate that the runoff from the proposed development could be accommodated within a drainage system of the approximate size modelled.

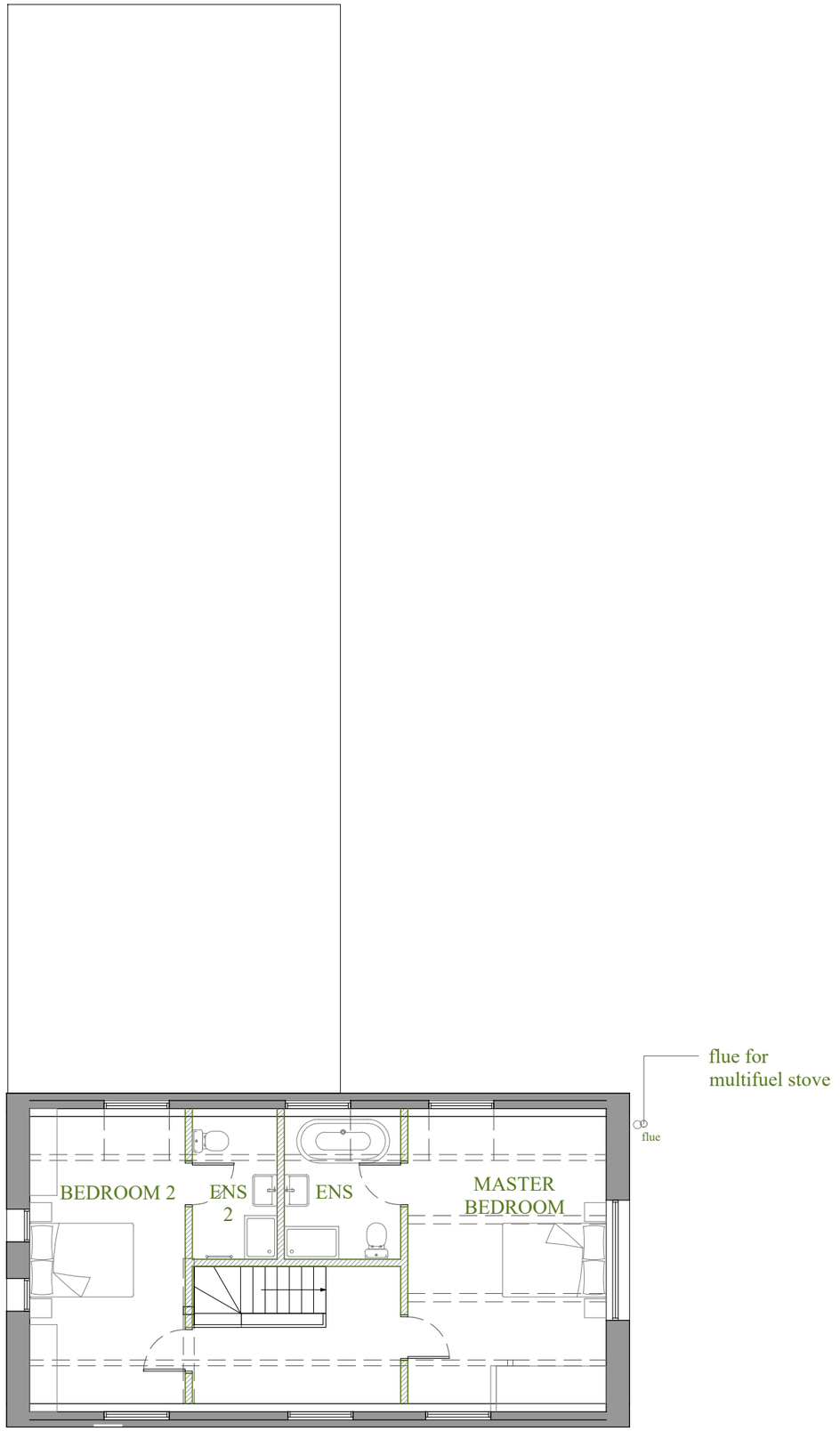
4.5. This SWDS should be submitted as part of the planning application to satisfy the requirements of the NPPF.

Appendix A – Development Proposals



Ground Floor Plan

1:100 | PROPOSED



First Floor Plan

1:100 | PROPOSED

This drawing is the copyright of Manorwood Construction Ltd but may be used for planning purposes by the Local Authority without breach of copyright.

Do not scale from this drawing unless for Local Authority planning purposes.

All dimensions must be checked on site prior to commencement of works.

Construction (Design and Management) Regulations 2015

This drawing is intended for Planning purposes only and as such does not highlight residual design related health and safety risks.

This information can be provided on request; however, it is anticipated that the full extent of residual risks will be identified during the detailed Building Regulations or construction design Status and prior to construction works commencing on site.

All responsibilities and duties of Principle Designer as stated within the above regulations now revert to the client unless Manorwood are appointed to undertake Building Regulations or construction drawings.

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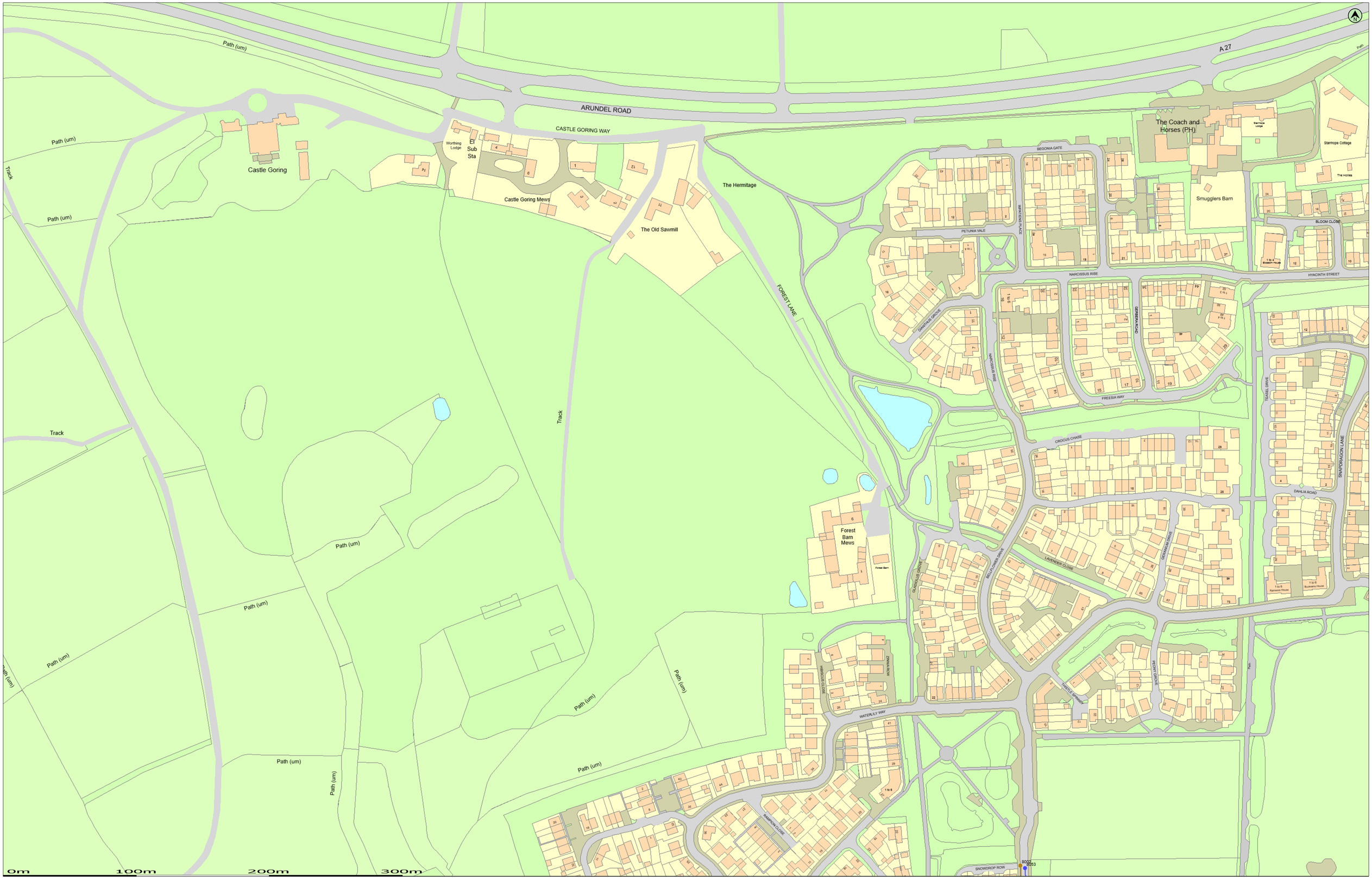
Submission	PLANNING
Scale @ A3	1:100
Job No.	2602FO
Drawn By	JW
Checked By	BK
Drawn On	29.09.2026
Issued On	29.09.2026
Status	Proposed
Drawing	Floor Plans
Drawing No.	2602FO_200
Revision	002

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Appendix B – Southern Water Asset Plan



(c) Crown copyright and database rights 2026 Ordnance Survey AC0000808122 | Date: 29/09/26 | Scale: 1:1250 | Map Centre: 510584,105417 | Data updated: 18/09/26 | Our Ref: 2222504 - 1 | Wastewater Plan A1 Powered by digiSat

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.

Foul Gravity Sewer
Combined Gravity Sewer
Culverted Water Course or Treated Effluent
Surface Water Gravity Sewer
Rising Main, Vacuum or Syphon
Combined Pumping Station
Surface Water Pumping Station
Foul Pumping Station
Water Treatment Works
Section 104 Area
Building Over Agreement Area
Foul Manhole
Combined Manhole
Surface Water Manhole
Side Entry Manhole, Demarcation Chamber, Dummy Manhole or Surface Water Soakaway
Combined Outfall
Foul Outfall
Surface Water Outfall
Surface Water Inlet

nick@aegaea.com

11817

WATER for LIFE from Southern Water.

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert
8002	F	0.00	0.00	
8053	S	0.00	0.00	

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Manhole Reference	Liquid Type	Cover Level	Invert Level	Depth to Invert

Appendix C – Surface Water Drainage Layout

DRAINAGE STRATEGY
RUNOFF FROM 200m² OF ROOF (EXISTING DWELLING AND EXTENSION) IS ATTENUATED IN A 13.3m³ GEOCELLULAR STORAGE TANK AND DISCHARGED VIA A VORTEX FLOW CONTROL TO THE FERRING RIFE TRIBUTARY ON THE EASTERN BOUNDARY AT A MAXIMUM OF 1.0 l/s IN ALL EVENTS UP TO AND INCLUDING THE 1 IN 100 YEAR +45% CC EVENT. NO FLOODING IS PREDICTED IN THE 1 IN 100 YEAR +45% CC EVENT.
DISCHARGE HIERARCHY, RECEPTOR AND GREENFIELD RATES: SEE AEGAEA SWDS REPORT AEG11817_BN13_WORTHING_05.

ROOF DRAINAGE
ROOF DOWNPIPES (RWP) WITH LEAF GUARDS TO DISCHARGE VIA SuDS PLANTERS WITH OVERFLOW TO THE BELOW GROUND SYSTEM. PLANTER STORAGE NOT RELIED ON IN THE CALCULATIONS. SILT TRAP / CATCHPIT UPSTREAM OF THE TANK.

TANK
COVER / EXCEEDANCE LEVEL: 18.00m AOD
BASE LEVEL: 16.80m AOD
PLAN AREA 28.0m², DEPTH 0.50m, POROSITY 95%
STORAGE PROVIDED: 13.3m³
MAX WATER LEVEL (1 IN 100 YEAR +45% CC): 17.26m AOD (93% UTILISED)

FLOW CONTROL CHAMBER
HYDRO-BRAKE OR SIMILAR, REF CHE-0055-1000-0400-1000 (55mm⌀)
IL 16.80m AOD
DESIGN FLOW 1.0 l/s AT 0.40m HEAD (1 IN 100 YEAR +45% CC)

EXCEEDANCE FLOW ROUTE
FLOWS ABOVE THE DESIGN EVENT TO ROUTE OVERLAND TOWARDS THE LOWER GROUND EASTWARDS TOWARDS THE LOWER GROUND AND THE WATERCOURSE. EXTERNAL LEVELS TO FALL AWAY FROM THE DOOR THRESHOLDS.

PROPOSED NEW OUTFALL HEADWALL TO FERRING RIFE TRIBUTARY
(MODELLED AS A DUMMY OUTFALL MANHOLE IN INFODRAINAGE)
IL 16.00m AOD (AS MODELLED)
MAX DISCHARGE 1.0 l/s (1 IN 100 YEAR +45% CC)
OUTFALL POSITION AND IL TO BE CONFIRMED AGAINST THE WATERCOURSE BED AND BANK LEVELS BY SURVEY.
ORDINARY WATERCOURSE CONSENT REQUIRED FROM WEST SUSSEX COUNTY COUNCIL (LLFA).

SW DRAINAGE LAYOUT IS INDICATIVE FOR PLANNING. NETWORK, LEVELS AND RESULTS FROM INFODRAINAGE MODEL AEG11817-Proposed Network-Rev A.iddx (InfoDrainage 2026.4, 27/10/2026). RWP, PIPE AND CHAMBER POSITIONS TO BE CONFIRMED AT DETAILED DESIGN.

0m 2.5 5 7.5 10 12.5m
SCALE 1:125 @ A1

105300

DO NOT SCALE THIS DRAWING. USE FIGURED DIMENSIONS ONLY.
THE CONTRACTOR MUST CHECK & VERIFY ALL DIMENSIONS ON SITE.
ANY DISCREPANCIES MUST BE REPORTED IMMEDIATELY TO THE ENGINEER FOR CLARIFICATION BEFORE PROCEEDING.
THIS DRAWING IS COPYRIGHT AND OWNED BY AEGAEA.

SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION
REFER TO THE RELEVANT CONSTRUCTION (DESIGN AND MANAGEMENT) DOCUMENTATION WHERE APPLICABLE.
IT IS ASSUMED THAT ALL WORKS ON THIS DRAWING WILL BE CARRIED OUT BY A COMPETENT CONTRACTOR, WORKING WHERE APPROPRIATE TO AN APPROVED METHOD STATEMENT.

FOR PLANNING

LEGEND

- SITE BOUNDARY
- PROPOSED SURFACE WATER DRAIN
- PROPOSED SURFACE WATER MANHOLE/ IC
- GEOCELLULAR STORAGE TANK
- RWP RAINWATER DOWNPIPE
- SuDS PLANTER
- CATCHMENT BOUNDARY (ROOF)
- FLOW CONTROL CHAMBER (HYDRO-BRAKE)
- PROPOSED OUTFALL HEADWALL TO WATERCOURSE
- EXCEEDANCE/ FLOW ROUTE

Rev	Date	Description	By

Client
HOGAN DEVELOPMENTS LTD

Project
FOREST BARN, FOREST LANE, CASTLE GORING, WORTHING, BN13 3FD

Title
PROPOSED SURFACE WATER DRAINAGE LAYOUT

Project No.	Drawing No.	Revision
AEG11817	DR01	P01

Drawn	Checked	Approved	Date	Scale @ A1
OH	JA	NB	27/10/2026	1:125

Drawing Status
FOR PLANNING

aegaea
water, civils and environment

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Appendix D – InfoDrainage Calculations

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Inflows Storm Phase: Phase	Company Address: Aegaea		

aegaea
water, civils and environment



Existing Dwelling

Type : Catchment Area

Area (ha)	0.007

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



Extension West Roof

Type : Catchment Area

Area (ha)	0.006

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100



Extension East Roof

Type : Catchment Area

Area (ha)	0.006

Dynamic Sizing

Runoff Method	Time of Concentration
Summer Volumetric Runoff	1.000
Winter Volumetric Runoff	1.000
Time of Concentration (mins)	5
Percentage Impervious (%)	100

Tank

Type : Tank

Dimensions

Exceedance Level (m)	18.000
Depth (m)	1.200
Base Level (m)	16.800
Freeboard (mm)	700
Initial Depth (m)	0.000
Porosity (%)	95
Average Slope (1:X)	0.00
Total Volume (m³)	13.300

Depth (m)	Area (m²)	Volume (m³)
0.000	28.00	0.000
0.500	28.00	13.300

Inlets

Inlet

Inlet Type	Point Inflow
Incoming Item(s)	1.001
Bypass Destination	(None)
Capacity Type	No Restriction

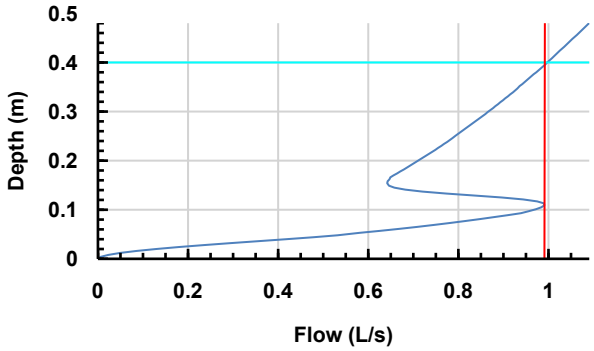
Outlets

Outlet

Outgoing Connection	1.002
Outlet Type	Hydro-Brake®

Invert Level (m)	16.800
Design Depth (m)	0.400
Design Flow (L/s)	1.0
Objective	Minimise Upstream Storage Requirements
Application	Surface Water Only
Sump Available	☐

Unit Reference	CHE-0055-1000-0400-1000



Advanced

Perimeter	Circular
Length (m)	8.049

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Connections Storm Phase: Phase	Company Address: Aegaea		

Name	Length (m)	Connection Type	Slope (1:X)	Manning's n	Colebrook-White Roughness (mm)	Diameter / Base Width (mm)	Upstream Cover Level (m)	Upstream Invert Level (m)
1.002	10.203	Pipe	29.153		0.6	150	18.000	16.800
1.003	11.805	Pipe	26.233		0.6	100	17.900	16.450
2.000	7.065	Pipe	70.653		0.6	100	17.800	17.400
1.000	4.445	Pipe	23.001		0.6	150	18.200	17.200
1.001	1.618	Pipe	7.826		0.6	150	18.100	17.007
2.001	15.054	Pipe	60.217		0.6	100	17.900	17.300
2.002	2.270	Pipe	52.469		0.6	100	18.100	17.050

Name	Downstream Cover Level (m)	Downstream Invert Level (m)	Part Family	Lock	Flow Restriction (L/s)	Culvert Type	Culvert Entrance	Wall Thickness (mm)
1.002	17.900	16.450		None	1.09	(None)	(None)	0
1.003	17.500	16.000		None		(None)	(None)	0
2.000	17.900	17.300		None		(None)	(None)	0
1.000	18.100	17.007		None		(None)	(None)	0
1.001	18.000	16.800		None		(None)	(None)	0
2.001	18.100	17.050		None		(None)	(None)	0
2.002	18.100	17.007		None		(None)	(None)	0

Name	Material	Trench Width (mm)	Bedding Material	Surrounding Material
1.002		0		
1.003		0		
2.000		0		
1.000		0		
1.001		0		
2.001		0		
2.002		0		

Project:	Date:			
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB	aegaea water, civils and environment
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address: Aegaea			

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
S1	18.200 17.200	Diameter / Length: 0.600					Manhole
E:510727.963 N:105322.178	1.000		{a} 1.000	Pipe	17.200	Diam/Width:150	Not Applicable
S3	17.900 16.450	Diameter / Length: 0.900	{1} 1.002	Pipe	16.450	Diam/Width:150	Manhole
E:510730.574 N:105302.561	1.450		{a} 1.003	Pipe	16.450	Diam/Width:100	Not Applicable
Outfall	17.500 16.000	Diameter / Length: 1.200	{1} 1.003	Pipe	16.000	Diam/Width:100	Manhole
E:510742.367 N:105302.041	1.500						Not Applicable
IC1	17.800 17.400	Diameter / Length: 0.400					Manhole
E:510739.473 N:105303.704	0.400		{a} 2.000	Pipe	17.400	Diam/Width:100	Not Applicable
IC2	17.900 17.300	Diameter / Length: 0.400	{1} 2.000	Pipe	17.300	Diam/Width:100	Manhole
E:510732.437 N:105303.061	0.600		{a} 2.001	Pipe	17.300	Diam/Width:100	Not Applicable

Project:	Date:			
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB	aegaea water, civils and environment
Report Details: Type: Manhole Schedule Storm Phase: Phase	Company Address: Aegaea			

Name	Cover Level (m) Invert Level (m)	Manhole Size (m)	Connection Details				Type
Coordinates (m)	Depth (m)		Incoming Connections	Connection Type	Connection Invert (m)	Connection Size (mm)	Junction Type
			Outgoing Connections				Cover
IC3	18.100 17.050	Diameter / Length: 0.400	{1} 2.001	Pipe	17.050	Diam/Width:100	Manhole
E:510730.413 N:105317.979	1.050		{a} 2.002	Pipe	17.050	Diam/Width:100	Not Applicable
S2	18.100 17.007	Diameter / Length: 0.800	{1} 1.000 {2} 2.002	Pipe Pipe	17.007 17.007	Diam/Width:150 Diam/Width:100	Manhole
E:510728.156 N:105317.737	1.093		{a} 1.001	Pipe	17.007	Diam/Width:150	Not Applicable

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Inflow Summary Storm Phase: Phase	Company Address: Aegaea		

Inflow Label	Connected To	Flow (L/s)	Runoff Method	Area (ha)	Percentage Impervious (%)	Urban Creep (%)	Adjusted Percentage Impervious (%)	Area Analysed (ha)
Existing Dwelling	S1		Time of Concentration	0.007	100	10	110	0.008
Extension East Roof	IC1		Time of Concentration	0.006	100	10	110	0.007
Extension West Roof	S1		Time of Concentration	0.006	100	10	110	0.007
TOTAL		**0.0**		**0.020**				**0.022**

Runoff Type	Dynamic
Output Interval (mins)	5
Time Step	Default
Urban Creep	Apply Global Value
Urban Creep Global Value (%)	10
Junction Flood Risk Margin (mm)	300
Perform No Discharge Analysis	☐

Rainfall

FEH

Type: FEH

Site Location	GB 512538 105228 TQ 12538 05228
Rainfall Version	2022
Summer	☑
Winter	☑

Return Period

Return Period (years)	Increase Rainfall (%)
2.0	45.000
30.0	0.000
30.0	40.000
100.0	0.000
100.0	45.000

Storm Durations

Duration (mins)	Run Time (mins)
15	30
30	60
60	120
120	240
240	480
360	720
480	960
960	1920
1440	2880

ICP SUDS / IH 124

Details

Method	ICP SUDS
Area (ha)	0.02
SAAR (mm)	741.0
Soil	0.47
Region	Region 7
Urban	0
Return Period (years)	0

Results

Region	QBAR Rural (L/s)	QBAR Urban (L/s)	Q 1 (years) (L/s)	Q 30 (years) (L/s)	Q 100 (years) (L/s)
Region 7	0.1	0.1	0.1	0.2	0.3

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 2 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 2 years: +45 %: 15 mins: Summer	18.200	17.200	17.239	0.039	4.8	0.011	0.000	4.8	2.090	OK
S3	FEH: 2 years: +45 %: 360 mins: Summer	17.900	16.450	16.470	0.020	1.0	0.013	0.000	1.0	9.951	OK
Outfall	FEH: 2 years: +45 %: 360 mins: Summer	17.500	16.000	16.019	0.019	1.0	0.000	0.000	1.0	9.951	OK
IC1	FEH: 2 years: +45 %: 15 mins: Summer	17.800	17.400	17.440	0.040	2.3	0.005	0.000	2.2	0.976	OK
IC2	FEH: 2 years: +45 %: 15 mins: Summer	17.900	17.300	17.336	0.036	2.2	0.005	0.000	2.1	0.974	OK
IC3	FEH: 2 years: +45 %: 15 mins: Summer	18.100	17.050	17.088	0.038	2.1	0.005	0.000	2.0	0.971	OK
S2	FEH: 2 years: +45 %: 15 mins: Summer	18.100	17.007	17.044	0.038	6.8	0.019	0.000	6.7	3.058	OK

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 30 years: +0 %: 15 mins: Summer	18.200	17.200	17.250	0.050	7.5	0.014	0.000	7.4	3.245	OK
S3	FEH: 30 years: +0 %: 480 mins: Summer	17.900	16.450	16.470	0.020	1.0	0.013	0.000	1.0	13.498	OK
Outfall	FEH: 30 years: +0 %: 480 mins: Summer	17.500	16.000	16.019	0.019	1.0	0.000	0.000	1.0	13.498	OK
IC1	FEH: 30 years: +0 %: 15 mins: Summer	17.800	17.400	17.452	0.052	3.5	0.007	0.000	3.4	1.519	OK
IC2	FEH: 30 years: +0 %: 15 mins: Summer	17.900	17.300	17.347	0.047	3.4	0.006	0.000	3.3	1.516	OK
IC3	FEH: 30 years: +0 %: 15 mins: Summer	18.100	17.050	17.100	0.050	3.3	0.006	0.000	3.2	1.514	OK
S2	FEH: 30 years: +0 %: 15 mins: Summer	18.100	17.007	17.056	0.050	10.6	0.025	0.000	10.5	4.755	OK

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 30 years: +40 %: 15 mins: Summer	18.200	17.200	17.260	0.060	10.5	0.017	0.000	10.4	4.545	OK
S3	FEH: 30 years: +40 %: 960 mins: Summer	17.900	16.450	16.470	0.020	1.0	0.013	0.000	1.0	21.438	OK
Outfall	FEH: 30 years: +40 %: 960 mins: Summer	17.500	16.000	16.019	0.019	1.0	0.000	0.000	1.0	21.438	OK
IC1	FEH: 30 years: +40 %: 15 mins: Summer	17.800	17.400	17.464	0.064	4.9	0.008	0.000	4.8	2.127	OK
IC2	FEH: 30 years: +40 %: 15 mins: Summer	17.900	17.300	17.357	0.057	4.8	0.007	0.000	4.7	2.125	OK
IC3	FEH: 30 years: +40 %: 120 mins: Summer	18.100	17.050	17.149	0.099	2.1	0.013	0.000	2.1	4.425	OK
S2	FEH: 30 years: +40 %: 120 mins: Summer	18.100	17.007	17.149	0.142	6.6	0.072	0.000	6.4	13.848	OK

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 100 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 100 years: +0 %: 15 mins: Summer	18.200	17.200	17.257	0.057	9.4	0.016	0.000	9.3	4.087	OK
S3	FEH: 100 years: +0 %: 360 mins: Winter	17.900	16.450	16.470	0.020	1.0	0.013	0.000	1.0	15.712	OK
Outfall	FEH: 100 years: +0 %: 240 mins: Winter	17.500	16.000	16.019	0.019	1.0	0.000	0.000	1.0	14.208	OK
IC1	FEH: 100 years: +0 %: 15 mins: Summer	17.800	17.400	17.460	0.060	4.4	0.008	0.000	4.3	1.909	OK
IC2	FEH: 100 years: +0 %: 15 mins: Summer	17.900	17.300	17.354	0.054	4.3	0.007	0.000	4.2	1.906	OK
IC3	FEH: 100 years: +0 %: 120 mins: Summer	18.100	17.050	17.110	0.060	1.9	0.008	0.000	1.9	3.940	OK
S2	FEH: 100 years: +0 %: 120 mins: Summer	18.100	17.007	17.109	0.103	5.9	0.052	0.000	5.9	12.382	OK

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Junctions Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Depth

Junction	Storm Event	Cover Level (m)	Invert Level (m)	Max. Level (m)	Max. Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Discharge Volume (m³)	Status
S1	FEH: 100 years: +45 %: 15 mins: Summer	18.200	17.200	17.271	0.071	13.7	0.020	0.000	13.5	5.917	OK
S3	FEH: 100 years: +45 %: 120 mins: Winter	17.900	16.450	16.470	0.020	1.0	0.013	0.000	1.0	11.506	OK
Outfall	FEH: 100 years: +45 %: 120 mins: Winter	17.500	16.000	16.020	0.020	1.0	0.000	0.000	1.0	11.506	OK
IC1	FEH: 100 years: +45 %: 15 mins: Summer	17.800	17.400	17.479	0.079	6.4	0.010	0.000	6.2	2.770	OK
IC2	FEH: 100 years: +45 %: 15 mins: Summer	17.900	17.300	17.369	0.069	6.2	0.009	0.000	6.0	2.767	OK
IC3	FEH: 100 years: +45 %: 120 mins: Winter	18.100	17.050	17.263	0.213	2.0	0.027	0.000	1.9	5.732	Surcharged
S2	FEH: 100 years: +45 %: 120 mins: Winter	18.100	17.007	17.263	0.256	6.1	0.129	0.000	5.9	17.892	Surcharged

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 2 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Tank	FEH: 2 years: +45 %: 120 mins: Summer	16.955	16.955	0.155	0.155	3.3	4.130	0.000	1.0	0.000	6.433	68.949	OK

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 30 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Tank	FEH: 30 years: +0 %: 120 mins: Summer	17.042	17.042	0.242	0.242	4.7	6.446	0.000	1.0	0.000	8.653	51.534	OK

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 30 years: Increase Rainfall (%): +40: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Tank	FEH: 30 years: +40 %: 120 mins: Summer	17.149	17.149	0.349	0.349	6.4	9.285	0.000	1.0	0.000	9.839	30.186	OK

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A	27/10/2026 Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Aegaea		

FEH: 100 years: Increase Rainfall (%): +0: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Tank	FEH: 100 years: +0 %: 120 mins: Summer	17.110	17.110	0.310	0.310	5.9	8.235	0.000	1.0	0.000	9.620	38.083	OK

Project:	Date:		
AEG11817 Forest Barn, Forest Lane, Worthing, BN13 3FD Proposed Network - Rev A		Designed by: OH	Checked by: JA	Approved By: NB
Report Details: Type: Stormwater Controls Summary Storm Phase: Phase	Company Address: Aegaea			

FEH: 100 years: Increase Rainfall (%): +45: Critical Storm Per Item: Rank By: Max. Resident Volume

Stormwater Control	Storm Event	Max. US Level (m)	Max. DS Level (m)	Max. US Depth (m)	Max. DS Depth (m)	Max. Inflow (L/s)	Max. Resident Volume (m³)	Max. Flooded Volume (m³)	Max. Outflow (L/s)	Total Lost Volume (m³)	Total Discharge Volume (m³)	Percentage Available (%)	Status
Tank	FEH: 100 years: +45 %: 120 mins: Winter	17.263	17.263	0.463	0.463	5.9	12.312	0.000	1.0	0.000	11.548	7.429	OK