

DRAINAGE STRATEGY

FOUL & STORM WATER DESIGN -

GENERAL - The drainage scheme shown is designed to respond to the planning decision notice condition no. 3 of the application no. DM/22/1680 which states:-

3. The development hereby permitted shall not commence unless and until details of the proposed foul and surface water drainage and means of disposal have been submitted to and approved in writing by the local planning authority. The building shall not be occupied or brought into use, until all the approved drainage works have been carried out in accordance with the agreed details

STORM WATER - The new guest building measures some 262 sq.m in area and the use of infiltration is proposed.

Source control of flows is recommended where downpipes can be connected with water butts for rainwater to be used for hanging baskets and low level planters.

The overflow water from the water butts shall be drained through a system of pipes and catchpits into a new geocrate attenuation storage soakaway vessel designed to accommodate a peak storm for the 100 year + 45% climate change event. The geocrate soakaway is shallow as construction permits to allow water to infiltrate over a larger area and keeping discharge levels as high as practicable above the groundwater levels. Groundwater levels were recorded at a consistent level of 128.550 for many days during January and February.

The design infiltration rate has been taken from the geotechnical report issued by Groundwater Management Ltd as 2.65 x 10⁻⁴ m/s noted as above the lowest rate permissible under the latest National SUDS guidance of July 2025. Both infiltration rate tests to BRE 365 and groundwater monitoring levels were carried out in January and February to ascertain design criteria.

DESIGN EXCEEDANCE FLOWS - Where design storms and attenuation volumes are exceeded, such flows will run towards the lowest part of the site and to the highway.

OWNERS' SUDS DRAINAGE MAINTENANCE PLAN - [REFER CIRIA 753 - Table 32.1] Where attenuated volumes are provided in permeable construction make ups which are inaccessible without conventional excavation, it is important to provide features on the drainage system which minimise silt migration.

- All rainwater hopperheads, pipes and gutters should be cleaned twice a year.
- Empty and clean the rainwater butts yearly.
- Remove weeds and debris from any raingardens, keep soil agitated and plants tended.
- All pipes should be cleaned/jettied once a year.

FOUL WATER - The new foul drainage from the Guest building will connect to the existing foul drainage system from the Gardeners Arms.

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This drawing should be read in conjunction with the design team's relevant documents, drawings & details.

Existing public & private utility services and drainage locations shown have been derived from non-intrusive survey techniques. Their location is not accurate and the contractor must satisfy himself using open excavation where the location of such plant and apparatus is critical in construction.

If the contractor has constructed from this drawing without necessary approvals from Local Planning Authorities, Building Control, Sewerage Undertakers, Environment Agency etc then any abortive work shall be at his own financial risk and not the responsibility of SDA.

If the contractor has constructed from this drawing whilst the drawing remains PRELIMINARY status, then any abortive work shall be at his own financial risk and not the responsibility of SDA.

The contractor should NOT construct any works should there be any doubt with information shown from any of the source. ALWAYS USE GIVEN DIMENSIONS ONLY. ALWAYS ASK IF IN DOUBT.

ALWAYS PRINT THIS DRAWING IN COLOUR

DRAIN / SEWER PIPELINE KEY	
EXIST'G FWD PWS	
EXIST'G SUDS/WS	
EXIST'G FWD PWS REMOVED	
EXIST'G SUDS/WS REMOVED	
NEW FWD/PWS	
NEW SUDS/WS	
NEW LAND DRAIN	

EXISTING DRAINAGE NOTES

THIS DRAWING IS A RECORD OF THE DRAINAGE SURVEY CARRIED OUT BY SDA & EYES ON DRAINAGE (EOD) ON 27TH OCTOBER 2025.

THIS SURVEY USED CCTV & SONDE TRACING. MEASUREMENTS ARE TAKEN BE LASER MEASUREMENT AND SUBJECT TO TOLERANCES ACCORDINGLY.

ALTHOUGH CONSIDERED A FAIR RECORD OF THE EXISTING DRAINAGE, CRITICAL DIMENSIONS AND SETTING OUT SHOULD BE CHECKED ON SITE WITH PIPES AND BURIED SERVICES TO USE INVASIVE TECHNIQUES (EXCAVATION) TO ASCERTAIN THEIR EXACT LOCATION.

THE BUILDING / LAND SURVEY WAS CARRIED OUT BY OTHERS AND SHOULD NOT BE RELIED UPON FOR CRITICAL DIMENSIONS, WHICH SHOULD BE TAKEN ON SITE BY THE CONTRACTOR.

IN ADDITION TO THE MAIN OBSERVATIONS RECORDED FOR PIPES, ALWAYS JET CLEAN THE EXISTING SYSTEM PRIOR TO ANY WORKS BEING UNDERTAKEN.

READ THIS DRAWING IN CONJUNCTION WITH THE EOD CCTV REPORT AND VIDEO FOOTAGE.

CCTV DEFECT TAGS

- TREE ROOTS
- DISPLACED/OPEN JOINT
- FRACTURE or CRACK
- HEAVY GREASE or FOGS
- SPALLING
- BLOCKAGE IN PIPE
- WATER HELD IN PIPE
- HOLE IN PIPE
- PATCH OR PIPE LINER
- DEBRIS
- DEFORMED PLASTIC
- DEFECTIVE LINING
- MAJOR COLLAPSE

ABBREVIATIONS / LEGEND

AAV	AIR ADMITTANCE VALVE
AB	ABANDONED (MH, sewer or drain)
AC	ACCESS CHAMBER
ACC	ACCESS
ASBC	ASBESTOS CEMENT
ASP	ANTI SPHON PIPE
AFIL	ABOVE FINISHED FLOOR LEVEL
BD	BACKCROP
BE	BLANKED END
BGL	BACK INLET GULLY
BR	BRANCH
BSL	BELOW SLAB SOFFIT LEVEL
CE	CLEANING TIE
CI	CAST IRON
CL	COVER LEVEL
CON	CONCRETE
CP	CATCHPIT
ASP	CARPARK GULLY
DC	DRAINAGE CHANNEL
DCO	DRAINAGE CHANNEL OUTLET
DL	DRAIN LINER
DTC	DRAINAGE THRESHOLD CHANNEL
DP	DRAIN POINT
FA	FROM ABOVE
FB	FROM BELOW
FC	FLEXIBLE CONNECTION
FAI	FRESH AIR INLET
FWD	FOUL WATER DRAIN
FWS	FOUL WATER GULLY
GL	GROUND LEVEL
GT	GREASE TRAP
HL	HIGH LEVEL
C	INSPECTION CHAMBER
IL	INVERT LEVEL
INT	INTERCEPTING TRAP
LL	LOW LEVEL
LWG	LIGHTWELL GULLY
MH	MANHOLE
MO LEVEL	MO LEVEL
NRV	NON RETURN VALVE (FLAP VALVE)
OD	OVERDRAIN
OTGO	OPEN TOP GULLY
OTGO	OPEN TOP BACK INLET GULLY
PAL	PATCH LINER
PE	POLYETHYLENE
PTCH/PSE	PITCH/PSE
PM	PUMP MAIN
PP	POLYPROPYLENE
PPAC	POLYPROPYLENE AC
PPC	POLYPROPYLENE IC
PCC	PRECAST CONCRETE
PBS	PIPE RESHAPE
PVC	POLYVINYL CHLORIDE
RE	ROOFTOP DRAIN
RG	ROAD GULLY
ROC	ROOT CUT
RWH	RAINWATER HARVESTING
RWP	RAINWATER PIPE
SF	SOIL PIPE
SHG	SHOWER GULLY
STBG	SEALED TOP BACK INLET GULLY
STP	SEWAGE TREATMENT PLANT
SUDS	SUSTAINABLE DRAINAGE SYSTEMS
SVP	SOIL VENT PIPE
SS	STUB STACK
SWD	STORM WATER DRAIN
SW	STORM WATER SLOVER
SWTD	STORM WATER TREATMENT DEVICE
TA	TO ABOVE
TB	TO BELOW
TBC	TO BE CONFIRMED
TO DRAIN	TO DRAIN
UB	UNRAIL BOWL
UD	UNDERDRAIN
UL	UNABLE TO LIFT
UNL	UNABLE TO TRACE
UNL	UNABLE TO SURVEY
UNL	UNABLE TO VIEW
VT	VERTIFIED CLAYWARE
VNT	VENT TO ATMOSPHERE
WC	WATER CLOSET
WB	WASH HAND BASIN
WC	WASTE GULLY
WP	WASTE PIPE
WVP	WASTE VENT PIPE
YG	YARD GULLY

BELOW GROUND DRAINAGE SPECIFICATION

1. All drainage systems shall be installed, tested and commissioned to the following standards:-

- BS EN 12056 – Gravity drainage systems inside buildings (UK/Europe): Covers the planning and calculation of systems that handle wastewater and rainwater.
- BS 8301 – Code of Practice for Building Drainage (UK): Provides guidelines for designing drainage systems for buildings.
- CIRIA C753 – The SuDS Manual (UK): Guidance on sustainable drainage systems (SuDS) design.
- BS EN 752 – Drain and sewer systems outside buildings (Europe/UK): Focuses on planning and design for external drainage systems, including water supply and stormwater.
- BS EN 1410 – Construction and testing of drains and sewers (UK/Europe): Focuses on the installation and construction of external drainage systems.
- BS EN 13508-1 – Investigation and assessment of drain and sewer systems outside buildings (UK/Europe): Includes standards for inspection and maintenance of drains.
- BS 8000-14 – Workmanship on Building Sites – Part 14: Code of Practice for below ground drainage (UK): Provides recommendations for good practice in maintaining and repairing drainage systems.
- BS 5837 – Trees in Relation to Design, Demolition, and Construction (UK): Addresses how trees and drainage systems interact, ensuring protection of trees and roots during drainage design.
- CIRIA C737 – Guidance on the Construction of SuDS (UK): Construction methods for sustainable drainage systems.
- Building Regulations – Part H (Drainage and Waste Disposal) (UK): Covers the legal requirements for drainage systems in new buildings.
- BS 8585:2013 Code of practice for surface water management for development sites
- ALWAYS lay drainage in a upstream direction commencing downstream and checking all levels of existing outfalls, pipes and chambers before any work is carried out.

• All below slab & external foul pipes shall be in PVCU pipe to BS EN 13476-2 as the Funke HS System of pipes and fittings, using pushfit joints and encased in concrete where the depth of cover is less than 300mm to the ground floor slab soffit.

• All manhole cover and gully grating frames shall be bedded and set upon resin cement mix ONLY.

• All branches to main runs shall be made using 45° branches and bends to suit, no sharp 90 deg bends will be accepted, only long radius bends are to be used at base of drainage bends.

• External drainage may be run in PVCU to BS EN 13476-2 as the Funke HS system of pipes and fittings or vitrified clayware to BS EN 295 and run in class 3 granular bed and surround where greater than 900mm depth of cover, where less cover always provide additional protection as recommended by SDA details or where more stringent pipe manufacturers recommendations prevail.

• Where pipes are to run ALWAYS check the area for utility services using a PAS 128 survey.

• Pipes shall be laid soffit to soffit level NOT invert to invert, unless noted otherwise on the drawings by SDA.

• Where pipes are bedded temporarily on bricks, these must be removed before trench backfilling. If not, and shear cracks are found on the pipes through CCTV inspection and the bricks are found when exposed, retainer monies will be kept until such works are remediated.

• Pipe connections and branches must use a max angle of 45 deg bend and branch sweep into the main drainage runs - see details, connections of 90 deg will not be permitted by SDA onto the main run.

• All bends used must have a radius of 200mm to the centre line of the fitting or greater - tighter radius bends will not be accepted by SDA.

• All SVPs and SSs shall have access 1.0m AFFL to ensure all lengths can be rodded and maintained. Provide 300 x 200 min size access doors on stud walls where pipe access is covered.

• All pipe trenching shall be strictly monitored to ensure no deleterious material is beneath or around the pipe, all backfill to trenches shall be carefully compacted in accord with the recommended passes for the equipment used - see the specification for highway works (SHW) table 6/4.

• All soft spots in trenches must be made good with imported material and geotextiles used to maintain trench material integrity. Where water is present alert SDA to seek on action to take.

• Where pipe ventilation is shown by AAV, SDA only recommend the Marley 'durgo' valve for use as an AAV.

• Before the concrete floors are laid, the contractor MUST carry out air testing in accordance with BS 8000 for all drainage runs, shall produce a certificate for issue to the building control officer and CCTV ALL below slab drainage runs. The contractor shall request the BCO witness the final drainage pipework testing.

• The contractor shall ensure a full CCTV of all the installed drainage is recorded with DVD video or footage web linked and full report sent to the client following practical completion and within 3 weeks of handover.

P3	Soakaway size altered to suit instn BRE 365 site test results and groundwater monitoring.	13.03.2026	SAD
P2	Soakaway crate size and levels clarified.	23.01.2026	SAD
P1	PRELIMINARY ISSUE	16.12.2025	SAD
Rev	Description	Date	Chkd

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Client

Project

The Gardeners Arms, Selsfield Road, Ardingly RH17 6TJ

Drawing title

Proposed Site Drainage

Drawing status

PRELIMINARY

Project no	Scales	Drawing no	Rev
25049	A1 - 1:150 A3 - 1:300	100	P3