

DRAINAGE STRATEGY

FOUL & STORM WATER DESIGN -

GENERAL - The storm water drainage scheme shown is designed to conform with the those requirements as set out in SuDS manual CIRIA document 753, ensuring run off water is source controlled appropriately.

Foul water is shown as connecting to a public sewer but may connect via a nearer public or indirectly through a private system subject to further detailed survey. Note: NOT ALL PUBLIC SEWERS ARE INDICATED ON THE SEWERAGE AUTHORITY MAPS.

STORM WATER - The existing greenfield site measures some 0.12 ha in area. It is located in flood zone 1 area for fluvial and tidal flooding. The proposed development adds offer the following areas:-

Red line boundary area 1233 sq.m

Predevelopment soft area 1233 sq.m

House roof area 260 sq.m

New car parking area 75 sq.m

Paving at front of houses 71 sq.m

Patios at rear of houses 62 sq.m

TOTAL IMPERMEABLE AREAS 468 sq.m

Soft areas 765 sq.m

TOTAL SITE AREA 1233 sq.m

QBar rate - The Q bar rate is the established greenfield run off rate from the site. An run require this rate to be that apportioned to the impermeable run off and not the whole site. As the impermeable run off area is only 468 sq.m, the Q bar rate of 0.11 l/s/ sec is very low and impracticable to achieve. Therefore the outflow is controlled with a manufacturer of flow control device able to achieve a rate of 0.7 l/s/ sec.

Roof - The roof downpipes from the front of the houses shall be drained through a system of pipes and catchpits which connect to the positive storm drainage connection from the site. The roof downpipes at the rear of the houses will drop to drain with a rain diverter to a 210 litre water butt.

Geocell Attenuation - The offline geocell attenuation tanks provides the 100 year + 45% climate change event storage required for the outflow from the site of 0.7 l/s/ sec, established as 91 cu.m. This volume is provided in 3 hr. 0.5m deep geocell modular tanks wrapped with an impermeable membrane. The tanks are at a suitable depth required to overcome flotation due to the high winter groundwater levels likely.

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

OWNERS SU DS DRAINAGE MAINTENANCE PLAN - 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.

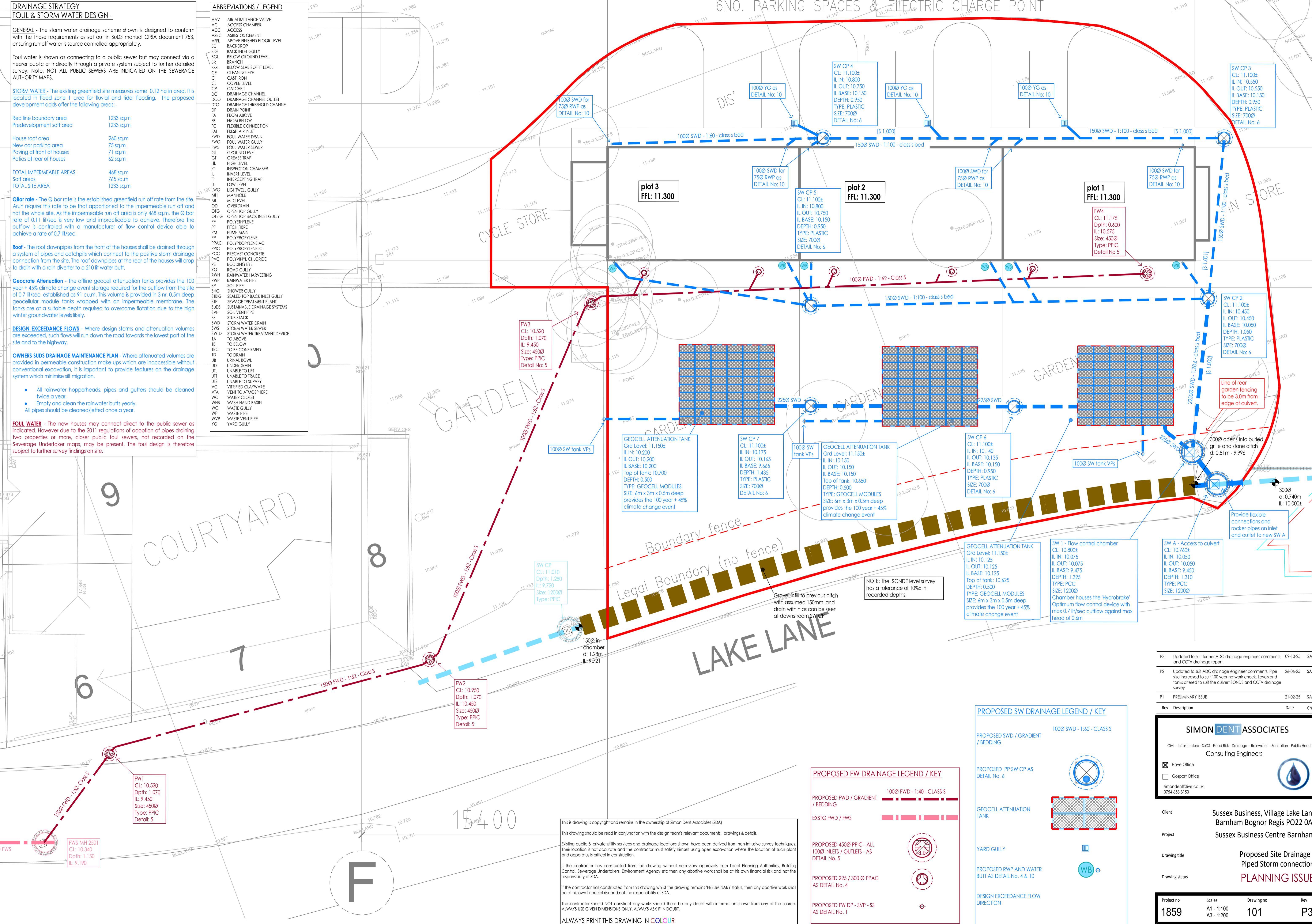
- All rainwater hopperheads, pipes and gutters should be cleaned twice a year.
- Empty and clean the rainwater butts yearly.
- All pipes should be cleaned/jettied once a year.

FOUL WATER - The new houses may connect direct to the public sewer as indicated. However due to the 2011 regulations of adoption of pipes draining two properties or more, closer public foul sewers, not recorded on the Sewerage Undertaker maps, may be present. The foul design is therefore subject to further survey findings on site.

ABBREVIATIONS / LEGEND

AAV	AIR ADMITTANCE VALVE
AC	ACCESS CHAMBER
ACC	ACCESS
ASBC	ASBESTOS CEMENT
AFFL	ABOVE FINISHED FLOOR LEVEL
BD	BACKDROP
BIG	BACK INLET GULLY
BLW	BELOW GROUND LEVEL
BR	BRANCH
BSSL	BELOW SLAB SOFFIT LEVEL
CE	CLEANING EYE
CI	CAST IRON
CL	COVER LEVEL
CP	CAP
DC	DRAINAGE CHANNEL
DCO	DRAINAGE CHANNEL OUTLET
DTC	DRAINAGE THRESHOLD CHANNEL
DP	DRAIN POINT
FA	FROM ABOVE
FW	FROM BELOW
FC	FLEXIBLE CONNECTION
FAI	FRESH AIR INLET
FWD	FOUL WATER DRAIN
FWG	FOUL WATER GULLY
FWS	FOUL WATER SEWER
GL	GRADE LEVEL
GTR	GREASE TRAP
HL	HIGH LEVEL
IC	INSPECTION CHAMBER
IL	INVERT LEVEL
IT	INTERCEPTING TRAP
LL	LOW LEVEL
LWG	LIGHTWEIGHT GULLY
MH	MANHOLE
ML	MD LEVEL
OD	OVERDRAIN
OTG	OPEN TOP GULLY
OTBG	OPEN TOP BACK INLET GULLY
PE	PIPE ELBOW
PF	PITCH FIBRE
PM	PUMP MAIN
PP	POLYPROPYLENE
PPAC	POLYPROPYLENE AC
PPIC	POLYPROPYLENE IC
PCC	POLYCONCRETE
PVC	POLYVINYL CHLORIDE
ROD	ROD DRAIN
RG	ROAD GULLY
RWH	RAINWATER HARVESTING
RWP	RAINWATER PIPE
SP	SPIKE
SG	SMALL GULLY
STBG	SETTED TOP BACK INLET GULLY
SITP	SEWAGE TREATMENT PLANT
SUDS	SUSTAINABLE DRAINAGE SYSTEMS
SVP	SUB VENT PIPE
STB	STUB STACK
SWD	STORM WATER DRAIN
SWS	STORM WATER SERVER
SWTD	STORM WATER TREATMENT DEVICE
TA	TO ABOVE
TB	TO BELOW
TBC	TO BE CONFIRMED
TO	TO
UB	URINAL BOWL
UD	UNDERDRAIN
UTL	UNABLE TO LIFT
UTT	UNABLE TO TRACE
UTS	UNABLE TO SURVEY
VC	VIRGIN CLAYWARE
VE	VENT EXHAUST
WC	WATER CLOSET
WHS	WASH HAND BASIN
WG	WASTE GULLY
WP	WASTE PIPE
WVP	WASTE VENT PIPE
YG	YARD GULLY

6NO. PARKING SPACES & ELECTRIC CHARGE POINT



P3 Updated to suit further ADC drainage engineer comments and CCTV drainage report. 09-10-25 SAD

P2 Updated to suit ADC drainage engineer comments. Pipe size increased to suit 100 year network check. Levels and tanks altered to suit the culvert SONDE and CCTV drainage survey. 26-06-25 SAD

P1 PRELIMINARY ISSUE 21-02-25 SAD

Rev Description Date Chkd

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Drawing title Proposed Site Drainage - Piped Storm connection

Drawing status PLANNING ISSUE

Project no 1859 Scales A1: 1:100 A3: 1:200 Drawing no 101 Rev P3

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ALWAYS PRINT THIS DRAWING IN COLOUR

PROPOSED FW DRAINAGE LEGEND / KEY

PROPOSED FW / GRADIENT / BEDDING	1000 FWD - 1:60 - CLASS S
EXSTG FWD / FWFS	1000 FWD - 1:40 - CLASS S
PROPOSED 4500 PPIC - ALL 1000 INLETS / OUTLETS - AS	PROPOSED 4500 PPIC - ALL 1000 INLETS / OUTLETS - AS
PROPOSED 225 / 300 Ø PPAC AS DETAIL No. 4	PROPOSED 225 / 300 Ø PPAC AS DETAIL No. 4
PROPOSED FW DP - SVP - SS AS DETAIL No. 1	PROPOSED FW DP - SVP - SS AS DETAIL No. 1

DESIGN EXCEEDANCE FLOW DIRECTION

PROPOSED SW DRAINAGE LEGEND / KEY

PROPOSED SWD / GRADIENT / BEDDING	1000 SWD - 1:60 - CLASS S
PROPOSED PP SW CP AS DETAIL No. 6	PROPOSED PP SW CP AS DETAIL No. 6
GEOCELL ATTENUATION TANK	GEOCELL ATTENUATION TANK
YARD GULLY	YARD GULLY
PROPOSED RWP AND WATER BUTT AS DETAIL No. 4 & 10	PROPOSED RWP AND WATER BUTT AS DETAIL No. 4 & 10
DESIGN EXCEEDANCE FLOW DIRECTION	DESIGN EXCEEDANCE FLOW DIRECTION