

## 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. Arun require this rate to be that proportioned 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 lit/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 lit/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 lit water butt.

**Geocrate 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 lft/sec, established as 91 cu.m. This volume is provided in 3 nr. 0.5m deep geocellular module 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.

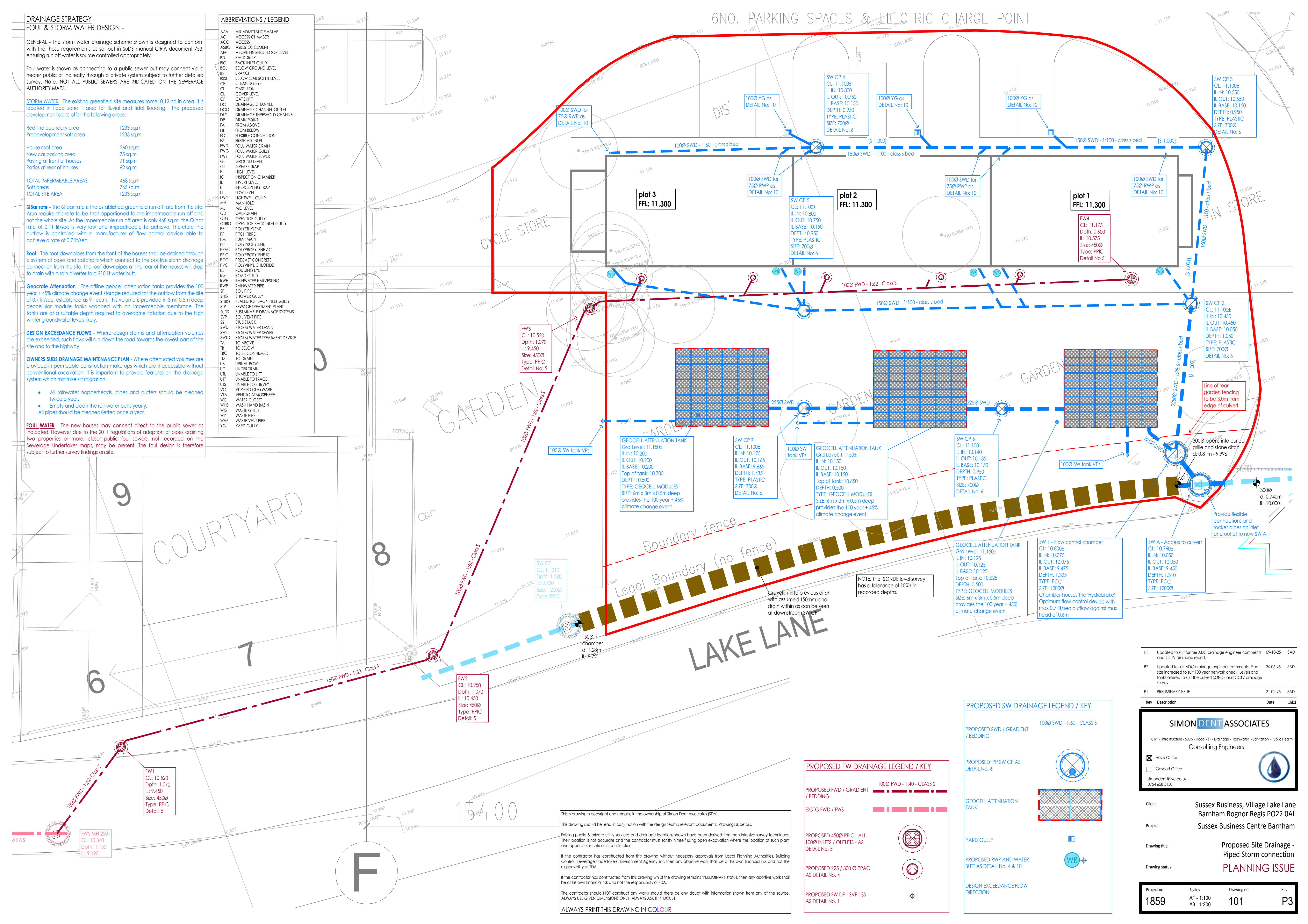
**OWNERS SUDS DRAINAGE MAINTENANCE PLAN** - Where attenuated volumes are provided in permeable construction make ups which are inaccessible without conventional excavation, it is important to provide features on the drainage system which minimise silt migration.

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

AV	AIR ADMITTANCE VALVE
AC	ACCESS CHAMBER
ACC	ACCESS
AB	ABSESSMENT ELEMENT
AFEL	ABOVE FINISHED FLOOR LEVEL
BD	BACKDROP
BIG	BACK INLET GULLY
BL	BELOW FINISHED FLOOR LEVEL
BR	BRANCH
BSSL	BELOW SLAB SOFFIT LEVEL
CE	CLEANING EYE
CAF	CAST IRON
CL	CORNER LEVEL
CP	CATCHPIT
CD	DRAINAGE CHANNEL
CCO	DRAINAGE CHANNEL OUTLET
DD	DRAINAGE THRESHOLD CHANNEL
DP	DRAIN POINT
FA	FROM ABOVE
FC	FROM BELOW
FC	FLEXIBLE CONNECTION
FAI	FRESH AIR INLET
FWD	FOUL WATER DRAIN
FV	FOUL WATER GULLY
FWL	FOUL WATER SEWER
GL	GROUND LEVEL
GT	GREASE TRAP
HL	HIGH LEVEL
IC	INSECT CHAMBER
IL	INVERT LEVEL
IT	INTERCEPTING TRAP
LL	LOW LEVEL
LWG	LIGHTWELL GULLY
MH	MANHOLE
MD	MID LEVEL
OD	OVERDRAIN
OTG	OPEN TOP GULLY
OTBG	OPEN TOP BACK INLET GULLY
PE	POLYETHYLENE
PP	PITCH
PM	PUMP MAIN
PP	POLYPROPYLENE
PPAC	POLYPROPYLENE AC
PPC	POLYPROPYLENE C
PC	PVC CAST POLYESTER CONCRETE
PVC	POLYVINYL CHLORIDE
RE	REDUCING EYE
RD	ROAD DRAIN
RWH	RAINWATER HARVESTING
RWP	RAINWATER PIPE
SH	SHOULDER
SBTG	SEALED TOP BACK INLET GULLY
SJ	SEWAGE TREATMENT PLANT
SUDS	SUSTAINABLE DRAINAGE SYSTEMS
SD	SOIL VENT
SS	STEP STACK
SW	STORM WATER DRAIN
SWD	STORM WATER SEWER
STW	STORM WATER TREATMENT DEVICE
TA	TO ABOVE
TB	TO BELOW
TBC	TO BE CONFIRMED
TD	TO DRAIN
UB	URINAL BOWL
UD	UNDERDRAIN
UL	UNABLE TO LIFT
UTL	UNABLE TO TRACE
US	UNABLE TO SURVEY
VV	VENTRIED CLAYWARE
VTA	VENT TO ATMOSPHERE
W	WATER
WHB	WASH HAND BASIN
WG	WASTE GULLY
WP	WASTE PIPE
WWP	WASTE WATER PIPE
YD	YARD GULLY



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	Checked

Client	Sussex Business, Village Lake Lane Barnham Bognor Regis PO22 0AL
Project	Sussex Business Centre Barnham

Drawing title	Proposed Site Drainage - Piped Storm connection
Drawing status	PLANNING ISSUE

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