

Gary Gabriel Associates		Page 0							
Becket House Vestry Road Kent TN14 5EL	SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS								
Date 18th MAY 2012 File 28506 - SW DESIG...	Designed by MRW - REV C Checked by								
Micro Drainage Network W.12.6.1									
<u>Existing Network Details for 28506 - SW DESIGN - 25-04-12.SWS</u>									
* - Indicates pipe has been modified outside of System 1									
PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	
* 1.000	11.354	0.057	199.2	0.279	5.00	0.600	o	375	
* 1.001	16.365	0.065	251.8	0.097	0.00	0.600	o	450	
* 2.000	20.797	0.083	250.6	0.103	5.00	0.600	o	300	
* 1.002	16.468	0.066	249.5	0.000	0.00	0.600	o	450	
* 3.000	8.569	0.024	357.0	0.297	5.00	0.600	o	375	
* 1.003	29.760	0.119	250.1	0.072	0.00	0.600	o	450	
* 4.000	5.000	0.020	250.0	0.210	5.00	0.600	o	300	
* 1.004	53.016	0.212	250.1	0.041	0.00	0.600	o	450	
* 1.005	77.292	0.309	250.1	0.046	0.00	0.600	o	450	
* 5.000	32.000	0.107	299.1	0.112	5.00	0.600	o	225	
5.001	90.000	0.300	300.0	0.000	0.00	0.600	o	225	
6.000	90.000	0.600	150.0	0.052	5.00	0.600	o	225	
7.000	9.871	0.025	394.8	0.368	5.00	0.600	o	300	
PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
* 1.000	S12.1	2.000	1.153	0.472	2.000	1.096	0.529		1800
* 1.001	S12	2.000	1.021	0.529	2.000	0.956	0.594		1800
* 2.000	S11.1	2.000	1.189	0.511	2.000	1.106	0.594		1800
* 1.002	S11	2.000	0.956	0.594	2.000	0.890	0.660		1800
* 3.000	S10.1	2.000	0.989	0.636	2.000	0.965	0.660		1800
* 1.003	S10	2.000	0.890	0.660	2.000	0.771	0.779		1800
* 4.000	S9.1	2.000	0.941	0.759	2.000	0.921	0.779		1800
* 1.004	S9	2.000	0.771	0.779	2.000	0.559	0.991		1800
* 1.005	S8	2.000	0.559	0.991	1.750	0.250	1.050		1800
* 5.000	S7	2.150	0.894	1.031	2.050	0.787	1.038		1200
5.001	S6	2.050	0.680	1.145	1.820	0.380	1.215		1200
6.000	S5	2.330	0.980	1.125	1.820	0.380	1.215		1200
7.000	Syphon Drop	2.100	1.300	0.500	2.200	1.275	0.625		300
©1982-2011 Micro Drainage Ltd									

Gary Gabriel Associates						Page 1					
Becket House			SSL BOGNOR REGIS								
Vestry Road			SURFACE WATER DRAINAGE								
Kent TN14 5EL			1 & 30 YR STORMS								
Date 18th MAY 2012			Designed by MRW - REV C								
File 28506 - SW DESIG...			Checked by								
Micro Drainage			Network W.12.6.1								
<u>Existing Network Details for 28506 - SW DESIGN - 25-04-12.SWS</u>											
	PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)		
	7.001	6.250	0.025	250.0	0.000	0.00	0.600	o	375		
*	7.002	6.250	0.025	250.0	0.000	0.00	0.600	o	375		
	7.003	47.048	0.110	427.7	0.000	0.00	0.600	o	450		
	8.000	2.864	0.025	114.6	0.364	5.00	0.600	o	300		
	8.001	17.995	0.076	236.8	0.000	0.00	0.600	o	375		
*	7.004	36.000	0.085	423.5	0.000	0.00	0.600	o	450		
*	9.000	56.750	0.000	0.0	0.076	5.00	0.600	o	225		
*	9.001	9.550	0.000	0.0	0.011	0.00	0.600	o	350		
	10.000	50.700	0.000	0.0	0.145	5.00	0.600	o	350		
*	10.001	24.399	0.125	195.2	0.000	0.00	0.600	o	375		
*	10.002	32.201	0.000	0.0	0.047	0.00	0.600	o	51		
*	9.002	15.214	0.100	152.1	0.000	0.00	0.600	o	450		
	9.003	15.680	0.000	0.0	0.106	0.00	0.600	o	51		
	11.000	48.067	0.000	0.0	0.209	5.00	0.600	o	350		
	12.000	14.097	0.000	0.0	0.038	5.00	0.600	o	225		
	12.001	3.982	0.000	0.0	0.000	0.00	0.600	o	225		
PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)		
	7.001	SB2	2.200	0.700	1.125	2.080	0.675	1.030			
*	7.002	RHU	2.080	0.675	1.030	2.080	0.650	1.055	6000 x	2400	
	7.003	S4	2.080	0.575	1.055	2.080	0.465	1.165		1200	
	8.000	Syphon Drop	2.200	1.600	0.300	2.200	1.575	0.325		300	
	8.001	SB1	2.200	1.000	0.825	2.080	0.924	0.781		1800	
*	7.004	S3	2.080	0.465	1.165	1.820	0.380	0.990		1800	
*	9.000	AP	2.000	1.590	0.185	2.000	1.590	0.185		225	
*	9.001	Step	2.000	1.465	0.185	2.000	1.465	0.185		350	
	10.000	AP	1.900	1.250	0.300	1.900	1.250	0.300		350	
*	10.001	Outlet	1.900	1.225	0.300	2.000	1.100	0.525		375	
*	10.002	Inlet	2.000	1.100	0.367	2.000	1.100	0.367	600 x	600	
*	9.002	Inlet / Outlet	2.000	1.100	0.450	1.700	1.000	0.250	600 x	600	
	9.003	Inlet	1.700	0.892	0.275	1.700	0.892	0.275	600 x	600	
	11.000	AP	1.700	1.165	0.185	1.700	1.165	0.185		350	
	12.000	AP	1.700	1.290	0.185	1.700	1.290	0.185		225	
	12.001	Outlet	1.700	1.290	0.185	1.700	1.290	0.185		225	
©1982-2011 Micro Drainage Ltd											

Gary Gabriel Associates						Page 2				
Becket House Vestry Road Kent TN14 5EL			SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS							
Date 18th MAY 2012 File 28506 - SW DESIG...			Designed by MRW - REV C Checked by							
Micro Drainage						Network W.12.6.1				
<u>Existing Network Details for 28506 - SW DESIGN - 25-04-12.SWS</u>										
	PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	
	12.002	15.250	0.000	0.0	0.040	0.00	0.600	o	225	
	11.001	32.376	0.100	323.8	0.000	0.00	0.600	o	375	
	13.000	27.677	0.000	0.0	0.179	5.00	0.600	o	350	
	11.002	31.328	0.000	0.0	0.108	0.00	0.600	o	51	
	* 14.000	22.269	0.000	0.0	0.037	5.00	0.600	o	225	
	* 15.000	52.422	0.000	0.0	0.040	5.00	0.600	o	225	
	* 14.001	27.225	0.210	129.6	0.000	0.00	0.600	o	225	
	* 16.000	10.994	0.000	0.0	0.213	5.00	0.600	o	350	
	* 17.000	55.542	0.000	0.0	0.247	5.00	0.600	o	51	
	* 14.002	39.394	0.110	358.1	0.000	0.00	0.600	o	375	
	* 9.004	4.627	0.010	462.7	0.000	0.00	0.600	o	600	
	9.005	5.627	0.100	56.3	0.000	0.00	0.600	o	600	
	PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)
	12.002	AP	1.700	1.290	0.185	1.700	1.290	0.185		225
	11.001	Inlet / Outlet	1.700	1.140	0.185	1.700	1.040	0.285		600 x 600
	13.000	AP	1.700	1.165	0.185	1.700	1.165	0.185		350
	11.002	Step	1.700	0.892	0.275	1.700	0.892	0.275		600 x 600
	* 14.000	AP	1.870	1.460	0.185	1.870	1.460	0.185		225
	* 15.000	AP	1.870	1.460	0.185	1.870	1.460	0.185		225
	* 14.001	Inlet / Outlet B	1.870	0.860	0.785	1.650	0.650	0.775		1200
	* 16.000	AP	1.650	1.115	0.185	1.650	1.115	0.185		350
	* 17.000	AP	1.650	1.115	0.002	1.650	1.115	0.002		600 x 600
	* 14.002	Inlet / Outlet A	1.650	0.630	0.645	1.700	0.520	0.805		1200
	* 9.004	Inlet / Outlet	1.700	0.500	0.600	1.800	0.490	0.710		1325
	9.005	Separator	1.800	0.490	0.710	1.820	0.390	0.830		1875 x 5070
©1982-2011 Micro Drainage Ltd										

Gary Gabriel Associates							Page 3			
Becket House Vestry Road Kent TN14 5EL			SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS							
Date 18th MAY 2012 File 28506 - SW DESIG...			Designed by MRW - REV C Checked by							
Micro Drainage			Network W.12.6.1							
<u>Existing Network Details for 28506 - SW DESIGN - 25-04-12.SWS</u>										
	PN	Length (m)	Fall (m)	Slope (1:X)	I.Area (ha)	T.E. (mins)	k (mm)	HYD SECT	DIA (mm)	
	* 5.002	18.000	0.050	360.0	0.000	0.00	0.600	oo	-1	
	* 5.003	18.000	0.050	360.0	0.000	0.00	0.600	oo	-1	
	* 1.006	11.000	0.000	0.0	0.000	0.00	0.600	o	450	
	* 18.000	21.629	0.090	240.3	0.063	5.00	0.600	o	225	
	* 19.000	13.881	0.160	86.8	0.143	5.00	0.600	o	225	
	20.000	73.998	0.550	134.5	0.109	5.00	0.600	o	225	
	20.001	5.815	0.550	10.6	0.000	0.00	0.600	o	225	
	21.000	19.535	0.110	177.6	0.054	5.00	0.600	o	150	
	21.001	80.000	0.755	106.0	0.000	0.00	0.600	o	150	
	* 20.002	32.722	0.220	148.7	0.000	0.00	0.600	o	300	
	* 18.001	2.541	0.030	84.7	0.000	0.00	0.600	o	300	
	* 18.002	2.788	0.030	92.9	0.000	0.00	0.600	o	300	
	* 18.003	125.879	-1.170	-107.6	0.000	0.00	0.600	o	100	
	1.007	15.698	0.150	104.7	0.000	0.00	0.600	O	53	
PN	US/MH Name	US/CL (m)	US/IL (m)	US C.Depth (m)	DS/CL (m)	DS/IL (m)	DS C.Depth (m)	Ctrl	US/MH (mm)	
* 5.002	S2	1.820	0.380	0.990	1.780	0.330	1.000		1800	
* 5.003	SDS Tank	1.780	0.330	1.000	1.750	0.280	1.020		1800	
* 1.006	S1A	1.750	0.280	1.020	1.750	0.280	1.020		2100	
* 18.000	S14	0.880	-0.245	0.900	1.140	-0.335	1.250		1800	
* 19.000	S13	0.950	-0.175	0.900	1.140	-0.335	1.250		1800	
20.000	AP	1.410	0.985	0.200	0.860	0.435	0.200		225	
20.001	Outlet	0.860	0.435	0.200	1.010	-0.115	0.900		600 x 600	
21.000	S17	1.650	0.900	0.600	1.540	0.790	0.600		1200	
21.001	S16	1.540	0.715	0.675	1.010	-0.040	0.900		1200	
* 20.002	S15	1.010	-0.190	0.900	1.140	-0.410	1.250		1800	
* 18.001	S12	1.140	-0.410	1.250	1.190	-0.440	1.330		2100	
* 18.002	Separator	1.190	-0.540	1.430	1.210	-0.570	1.480		2260 x 1225	
* 18.003	SW Pump Station	1.210	-0.570	1.680	1.750	0.600	1.050	Pump	3000	
1.007	S1	1.750	0.250	0.814	1.800	0.100	1.014		1800	
©1982-2011 Micro Drainage Ltd										

Gary Gabriel Associates		Page 4
Becket House Vestry Road Kent TN14 5EL	SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS	
Date 18th MAY 2012 File 28506 - SW DESIG...	Designed by MRW - REV C Checked by	
Micro Drainage	Network W.12.6.1	

Conduit Sections for 28506 - SW DESIGN - 25-04-12.SWS

NOTE: Diameters less than 66 refer to section numbers of hydraulic conduits. These conduits are marked by the symbols:- [] box culvert, \ / open channel, oo dual pipe, ooo triple pipe, O egg.

Section numbers < 0 are taken from user conduit table

Section Number	Conduit Type	Major Dimn. (mm)	Minor Dimn. (mm)	Side Slope (Deg)	Corner Splay (mm)	4*Hyd Radius (m)	XSect Area (m ²)
51	O	356	533			0.412	0.145
53	O	457	686			0.529	0.240
-1	oo	900	450			0.450	0.318

Becket House
Vestry Road
Kent TN14 5EL

SSL BOGNOR REGIS
SURFACE WATER DRAINAGE
1 & 30 YR STORMS



Date 18th MAY 2012
File 28506 - SW DESIG...

Designed by MRW - REV C
Checked by

Micro Drainage

Network W.12.6.1

Setting Out Information - True Coordinates (28506 - SW DESIGN - 25-04-12.SWS)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Layout (North)
1.000	S12.1	1800		494218.041	100822.367	
1.001	S12	1800		494216.872	100810.929	
2.000	S11.1	1800		494239.362	100827.607	
1.002	S11	1800		494232.940	100807.826	
3.000	S10.1	1800		494252.140	100812.875	
1.003	S10	1800		494249.137	100804.850	
4.000	S9.1	1800		494274.083	100787.870	
1.004	S9	1800		494270.624	100784.260	
1.005	S8	1800		494258.278	100732.702	
5.000	S7	1200		494168.169	100803.422	
5.001	S6	1200		494172.584	100771.728	
6.000	S5	1200		494225.825	100765.262	
7.000	Syphon Drop	300		494114.463	100672.642	
7.001	SB2	1800		494119.330	100681.229	
7.002	RHU	6000	2400	494124.768	100678.148	

SSL BOGNOR REGIS
SURFACE WATER DRAINAGE
1 & 30 YR STORMS



Designed by MRW - REV C
Checked by

Network W.12.6.1

Setting Out Information - True Coordinates (28506 - SW DESIGN -
25-04-12.SWS)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Layout (North)
7.003	Syphon Drop	S4	1200	494130.205	100675.066	
8.000		300	494182.881	100634.630		
8.001		SB1	1800	494181.220	100636.964	
7.004		S3	1800	494171.137	100651.868	
9.000	AP	225		494107.001	100693.981	
9.001	Step	350		494156.407	100666.060	
10.000	AP	350		494172.836	100577.503	
10.001	Outlet	375		494197.779	100621.643	
10.002	Inlet	600	600	494192.755	100645.519	
9.002	Inlet / Outlet	600	600	494164.721	100661.362	
9.003	Inlet	600	600	494172.206	100674.607	
11.000	AP	350		494199.873	100657.751	
12.000	AP	225		494239.919	100728.614	
12.001	Outlet	225		494232.983	100716.341	
12.002	AP	225		494231.024	100712.874	

Becket House
Vestry Road
Kent TN14 5EL

SSL BOGNOR REGIS
 SURFACE WATER DRAINAGE
 1 & 30 YR STORMS



Date 18th MAY 2012
File 28506 - SW DESIG...

Designed by MRW - REV C
Checked by

Micro Drainage

Network W.12.6.1

Setting Out Information - True Coordinates (28506 - SW DESIGN - 25-04-12.SWS)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Layout (North)
11.001	Inlet / Outlet	600	600	494223.523	100699.597	
13.000	AP	350		494208.957	100739.622	
11.002	Step	600	600	494195.338	100715.528	
14.000	AP	225		494110.887	100701.519	
15.000	AP	225		494147.636	100766.544	
14.001	Inlet / Outlet B	1200		494121.851	100720.902	
16.000	AP	350		494140.136	100697.941	
17.000	AP	600	600	494172.878	100755.864	
14.002	Inlet / Outlet A	1200		494145.553	100707.508	
9.004	Inlet / Outlet	1325		494179.922	100688.256	
9.005	Separator	1875	5070	494183.950	100685.980	
5.002	S2	1800		494188.848	100683.210	
5.003	SDS Tank	1800		494204.507	100674.335	
1.006	S1A	2100		494220.167	100665.459	
18.000	S14	1800		494147.084	100562.239	

Gary Gabriel Associates		Page 8
Becket House Vestry Road Kent TN14 5EL	SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS	
Date 18th MAY 2012 File 28506 - SW DESIG...	Designed by MRW - REV C Checked by	
Micro Drainage	Network W.12.6.1	

Setting Out Information - True Coordinates (28506 - SW DESIGN - 25-04-12.SWS)

PN	USMH Name	Dia/Len (mm)	Width (mm)	US Easting (m)	US Northing (m)	Layout (North)
19.000	S13	1800		494152.316	100548.722	
20.000	AP	225		494213.511	100647.546	
20.001	Outlet	600	600	494177.104	100583.124	
21.000	S17	1200		494228.655	100667.810	
21.001	S16	1200		494219.492	100650.557	
20.002	S15	1800		494182.035	100580.042	
18.001	S12	2100		494165.901	100551.574	
18.002	Separator	2260	1225	494168.111	100550.321	
18.003	SW Pump Station	3000		494170.537	100548.946	
1.007	S1	1800		494229.737	100660.036	

PN	DSMH Name	Dia/Len (mm)	Width (mm)	DS Easting (m)	DS Northing (m)	Layout (North)
1.007	1	1800		494243.703	100652.868	

Free Flowing Outfall Details for 28506 - SW DESIGN - 25-04-12.SWS

Outfall Pipe Number	Outfall Name	C. Level (m)	I. Level (m)	Min I. Level (m)	D,L (mm)	W (mm)
1.007	1	1.800	0.100	0.000	1800	0

Gary Gabriel Associates		Page 9
Becket House Vestry Road Kent TN14 5EL	SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS	
Date 18th MAY 2012 File 28506 - SW DESIG...	Designed by MRW - REV C Checked by	
Micro Drainage	Network W.12.6.1	

Simulation Criteria for 28506 - SW DESIGN - 25-04-12.SWS

Volumetric Runoff Coeff	0.750	Additional Flow - % of Total Flow	10.000
Areal Reduction Factor	1.000	MADD Factor * 10m ³ /ha Storage	2.000
Hot Start (mins)	0	Inlet Coeffiecient	0.800
Hot Start Level (mm)	0	Flow per Person per Day (l/per/day)	0.000
Manhole Headloss Coeff (Global)	0.500	Run Time (mins)	60
Foul Sewage per hectare (l/s)	0.000	Output Interval (mins)	1
Number of Input Hydrographs	0	Number of Storage Structures	1
Number of Online Controls	1	Number of Time/Area Diagrams	0
Number of Offline Controls	0	Number of Real Time Controls	0

Synthetic Rainfall Details

Rainfall Model	FSR	Profile Type	Summer
Return Period (years)	2	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	19.000	Storm Duration (mins)	30
Ratio R	0.350		

Gary Gabriel Associates		Page 10																																																																								
Becket House Vestry Road Kent TN14 5EL	SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS																																																																									
Date 18th MAY 2012 File 28506 - SW DESIG...	Designed by MRW - REV C Checked by																																																																									
Micro Drainage		Network W.12.6.1																																																																								
<u>Online Controls for 28506 - SW DESIGN - 25-04-12.SWS</u> <u>Pump Manhole: SW Pump Station, DS/PN: 18.003, Volume (m³): 12.6</u> Invert Level (m) -0.570 <table border="1"> <thead> <tr> <th>Depth (m)</th> <th>Flow (l/s)</th> <th>Depth (m)</th> <th>Flow (l/s)</th> <th>Depth (m)</th> <th>Flow (l/s)</th> <th>Depth (m)</th> <th>Flow (l/s)</th> </tr> </thead> <tbody> <tr><td>0.100</td><td>30.0000</td><td>0.900</td><td>30.0000</td><td>1.700</td><td>30.0000</td><td>2.500</td><td>30.0000</td></tr> <tr><td>0.200</td><td>30.0000</td><td>1.000</td><td>30.0000</td><td>1.800</td><td>30.0000</td><td>2.600</td><td>30.0000</td></tr> <tr><td>0.300</td><td>30.0000</td><td>1.100</td><td>30.0000</td><td>1.900</td><td>30.0000</td><td>2.700</td><td>30.0000</td></tr> <tr><td>0.400</td><td>30.0000</td><td>1.200</td><td>30.0000</td><td>2.000</td><td>30.0000</td><td>2.800</td><td>30.0000</td></tr> <tr><td>0.500</td><td>30.0000</td><td>1.300</td><td>30.0000</td><td>2.100</td><td>30.0000</td><td>2.900</td><td>30.0000</td></tr> <tr><td>0.600</td><td>30.0000</td><td>1.400</td><td>30.0000</td><td>2.200</td><td>30.0000</td><td>3.000</td><td>30.0000</td></tr> <tr><td>0.700</td><td>30.0000</td><td>1.500</td><td>30.0000</td><td>2.300</td><td>30.0000</td><td></td><td></td></tr> <tr><td>0.800</td><td>30.0000</td><td>1.600</td><td>30.0000</td><td>2.400</td><td>30.0000</td><td></td><td></td></tr> </tbody> </table>			Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	0.100	30.0000	0.900	30.0000	1.700	30.0000	2.500	30.0000	0.200	30.0000	1.000	30.0000	1.800	30.0000	2.600	30.0000	0.300	30.0000	1.100	30.0000	1.900	30.0000	2.700	30.0000	0.400	30.0000	1.200	30.0000	2.000	30.0000	2.800	30.0000	0.500	30.0000	1.300	30.0000	2.100	30.0000	2.900	30.0000	0.600	30.0000	1.400	30.0000	2.200	30.0000	3.000	30.0000	0.700	30.0000	1.500	30.0000	2.300	30.0000			0.800	30.0000	1.600	30.0000	2.400	30.0000		
Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)																																																																			
0.100	30.0000	0.900	30.0000	1.700	30.0000	2.500	30.0000																																																																			
0.200	30.0000	1.000	30.0000	1.800	30.0000	2.600	30.0000																																																																			
0.300	30.0000	1.100	30.0000	1.900	30.0000	2.700	30.0000																																																																			
0.400	30.0000	1.200	30.0000	2.000	30.0000	2.800	30.0000																																																																			
0.500	30.0000	1.300	30.0000	2.100	30.0000	2.900	30.0000																																																																			
0.600	30.0000	1.400	30.0000	2.200	30.0000	3.000	30.0000																																																																			
0.700	30.0000	1.500	30.0000	2.300	30.0000																																																																					
0.800	30.0000	1.600	30.0000	2.400	30.0000																																																																					
©1982-2011 Micro Drainage Ltd																																																																										

Gary Gabriel Associates		Page 11
Becket House Vestry Road Kent TN14 5EL	SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS	
Date 18th MAY 2012 File 28506 - SW DESIG...	Designed by MRW - REV C Checked by	
Micro Drainage	Network W.12.6.1	

Storage Structures for 28506 - SW DESIGN - 25-04-12.SWS

Cellular Storage Manhole: SDS Tank, DS/PN: 5.003

Invert Level (m) 0.330 Safety Factor 2.0
Infiltration Coefficient Base (m/hr) 0.00000 Porosity 0.95
Infiltration Coefficient Side (m/hr) 0.00000

Depth (m)	Area (m ²)	Inf. Area (m ²)	Depth (m)	Area (m ²)	Inf. Area (m ²)
0.000	1920.0	1920.0	0.600	0.0	2012.0
0.500	1920.0	2012.0			

Gary Gabriel Associates		Page 12					
Becket House Vestry Road Kent TN14 5EL	SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS						
Date 18th MAY 2012 File 28506 - SW DESIG...	Designed by MRW - REV C Checked by						
Micro Drainage		Network W.12.6.1					
<u>Summary of Critical Results by Maximum Level (Rank 1) for 28506 - SW DESIGN</u> <u>- 25-04-12.SWS</u>							
Margin for Flood Risk Warning (mm) 300.0							
Analysis Timestep 2.5 Second Increment (Extended)							
DTS Status ON							
DVD Status ON							
Inertia Status ON							
Profile(s) Summer and Winter							
Duration(s) (mins) 15, 30, 60, 120, 240, 360, 480, 960, 1440							
Return Period(s) (years) 1, 30							
Climate Change (%) 0, 0							
PN	Storm	Return Climate Period Change	First X Surcharge	First Y Flood	First Z Overflow	O/F Act.	Lvl Exc.
1.000	15 Winter	30	0%	30/15	Summer		
1.001	15 Winter	30	0%	30/15	Summer		
2.000	15 Winter	30	0%	30/15	Summer		
1.002	15 Winter	30	0%	30/15	Summer		
3.000	15 Winter	30	0%	30/15	Summer		
1.003	15 Winter	30	0%	30/15	Summer		
4.000	15 Winter	30	0%	30/15	Summer		
1.004	15 Winter	30	0%	30/15	Summer		
1.005	15 Winter	30	0%	30/15	Summer		
5.000	15 Winter	30	0%	30/15	Summer		
5.001	15 Winter	30	0%	30/15	Summer		
6.000	15 Winter	30	0%				
7.000	15 Winter	30	0%	1/15	Summer		
7.001	15 Winter	30	0%	30/15	Summer		
7.002	15 Winter	30	0%	30/15	Summer		
7.003	15 Winter	30	0%	30/15	Summer		
8.000	15 Winter	30	0%	30/15	Summer		
8.001	15 Winter	30	0%	30/15	Winter		
7.004	15 Winter	30	0%	30/15	Summer		
9.000	15 Winter	30	0%	30/15	Summer		
9.001	15 Winter	30	0%				
10.000	15 Winter	30	0%				
10.001	15 Winter	30	0%				
10.002	15 Winter	30	0%				
9.002	15 Winter	30	0%				
9.003	15 Winter	30	0%				
11.000	15 Winter	30	0%	30/15	Summer		
12.000	15 Winter	30	0%	30/15	Summer		
12.001	15 Winter	30	0%	30/15	Summer		
12.002	15 Winter	30	0%	30/15	Summer		
11.001	15 Winter	30	0%				
13.000	15 Winter	30	0%	30/15	Summer		
11.002	15 Winter	30	0%				
14.000	15 Winter	30	0%	30/15	Summer		
15.000	15 Winter	30	0%				
14.001	15 Winter	30	0%	30/15	Summer		
16.000	15 Winter	30	0%	30/15	Summer		
©1982-2011 Micro Drainage Ltd							

Gary Gabriel Associates						Page 13				
Becket House Vestry Road Kent TN14 5EL			SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS							
Date 18th MAY 2012 File 28506 - SW DESIG...			Designed by MRW - REV C Checked by							
Micro Drainage			Network W.12.6.1							
Summary of Critical Results by Maximum Level (Rank 1) for 28506 - SW DESIGN - 25-04-12.SWS										
PN	Storm	Return Period	Climate Change	First X Surcharge	First Y Flood	First Z Overflow	O/F Act.	Lvl Exc.		
17.000	15 Winter	30	0%							
14.002	15 Winter	30	0%	30/15 Summer						
9.004	15 Winter	30	0%	30/15 Summer						
9.005	15 Winter	30	0%	30/15 Summer						
5.002	15 Winter	30	0%	30/15 Summer						
5.003	240 Winter	30	0%							
1.006	120 Winter	30	0%	30/120 Winter						
18.000	30 Winter	30	0%	30/15 Summer						
19.000	30 Winter	30	0%	30/15 Summer						
20.000	15 Winter	30	0%							
20.001	30 Winter	30	0%	30/15 Winter						
21.000	15 Winter	30	0%	30/15 Summer						
21.001	15 Winter	30	0%	30/15 Summer						
20.002	30 Winter	30	0%	30/15 Summer						
18.001	30 Winter	30	0%	30/15 Summer						
18.002	30 Winter	30	0%	1/15 Summer						
18.003	30 Winter	30	0%	1/15 Summer						
1.007	120 Winter	30	0%							
PN	US/MH Name	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status		
1.000		S12.1 1.875	0.347	0.000	0.65	0.0	69.4	FLOOD RISK		
1.001		S12 1.847	0.376	0.000	0.56	0.0	89.1	FLOOD RISK		
2.000		S11.1 1.841	0.352	0.000	0.38	0.0	23.5	FLOOD RISK		
1.002		S11 1.817	0.411	0.000	0.67	0.0	107.1	FLOOD RISK		
3.000		S10.1 1.751	0.387	0.000	1.20	0.0	82.3	FLOOD RISK		
1.003		S10 1.724	0.384	0.000	1.08	0.0	188.8	FLOOD RISK		
4.000		S9.1 1.614	0.373	0.000	1.26	0.0	58.3	SURCHARGED		
1.004		S9 1.584	0.363	0.000	1.30	0.0	242.3	SURCHARGED		
1.005		S8 1.217	0.208	0.000	1.27	0.0	242.9	SURCHARGED		
5.000		S7 1.415	0.296	0.000	1.21	0.0	33.8	SURCHARGED		
5.001		S6 1.307	0.402	0.000	0.88	0.0	25.6	SURCHARGED		
6.000		S5 1.084	-0.121	0.000	0.39	0.0	16.1	OK		
7.000	Syphon Drop	1.812	0.212	0.000	3.27	0.0	123.6	FLOOD RISK		
7.001		SB2 1.367	0.292	0.000	1.43	0.0	117.8	SURCHARGED		
7.002		RHU 1.306	0.256	0.000	1.24	0.0	101.6	SURCHARGED		
7.003		S4 1.267	0.242	0.000	0.70	0.0	98.3	SURCHARGED		
8.000	Syphon Drop	2.097	0.197	0.000	2.09	0.0	120.6	FLOOD RISK		
8.001		SB1 1.376	0.001	0.000	1.12	0.0	119.6	SURCHARGED		
7.004		S3 1.213	0.298	0.000	1.45	0.0	199.6	SURCHARGED		
9.000		AP 1.950	0.135	0.000	1.49	0.0	23.2	FLOOD RISK		
9.001		Step 1.657	-0.158	0.000	0.58	0.0	25.8	OK		
10.000		AP 1.540	-0.060	0.000	0.94	0.0	45.8	OK		
10.001		Outlet 1.450	-0.150	0.000	0.34	0.0	41.9	OK		
10.002		Inlet 1.409	-0.224	0.000	0.83	0.0	50.7	OK		
9.002	Inlet / Outlet	1.348	-0.202	0.000	0.40	0.0	71.0	OK		
9.003		Inlet 1.324	-0.101	0.000	1.88	0.0	92.2	OK		
11.000		AP 1.602	0.087	0.000	1.37	0.0	64.9	FLOOD RISK		
©1982-2011 Micro Drainage Ltd										

Gary Gabriel Associates		Page 14
Becket House Vestry Road Kent TN14 5EL	SSL BOGNOR REGIS SURFACE WATER DRAINAGE 1 & 30 YR STORMS	
Date 18th MAY 2012 File 28506 - SW DESIG...	Designed by MRW - REV C Checked by	
Micro Drainage	Network W.12.6.1	

Summary of Critical Results by Maximum Level (Rank 1) for 28506 - SW DESIGN
- 25-04-12.SWS

PN	US/MH Name	Water Level (m)	Surch'd Depth (m)	Flooded Volume (m ³)	Flow / Cap.	O'flow (l/s)	Pipe Flow (l/s)	Status
12.000	AP	1.591	0.076	0.000	1.15	0.0	12.8	FLOOD RISK
12.001	Outlet	1.568	0.053	0.000	0.51	0.0	13.0	FLOOD RISK
12.002	AP	1.559	0.044	0.000	2.44	0.0	26.2	FLOOD RISK
11.001	Inlet / Outlet	1.438	-0.077	0.000	0.82	0.0	80.4	FLOOD RISK
13.000	AP	1.547	0.032	0.000	1.74	0.0	59.5	FLOOD RISK
11.002	Step	1.382	-0.043	0.000	2.43	0.0	146.7	OK
14.000	AP	1.702	0.017	0.000	1.23	0.0	12.5	FLOOD RISK
15.000	AP	1.625	-0.060	0.000	0.86	0.0	13.3	FLOOD RISK
14.001	Inlet / Outlet B	1.518	0.433	0.000	0.54	0.0	22.8	SURCHARGED
16.000	AP	1.495	0.030	0.000	1.83	0.0	73.1	FLOOD RISK
17.000	AP	1.540	-0.108	0.000	0.89	0.0	71.3	FLOOD RISK
14.002	Inlet / Outlet A	1.467	0.462	0.000	1.42	0.0	135.5	FLOOD RISK
9.004	Inlet / Outlet	1.283	0.183	0.000	1.63	0.0	354.6	SURCHARGED
9.005	Separator	1.159	0.069	0.000	1.02	0.0	353.4	SURCHARGED
5.002	S2	1.035	0.205	0.000	2.20	0.0	590.4	SURCHARGED
5.003	SDS Tank	0.771	-0.009	0.000	0.18	0.0	48.3	OK
1.006	S1A	0.731	0.001	0.000	1.14	0.0	82.2	SURCHARGED
18.000	S14	0.817	0.837	0.000	0.41	0.0	12.3	FLOOD RISK
19.000	S13	0.825	0.775	0.000	0.64	0.0	31.4	FLOOD RISK
20.000	AP	1.146	-0.064	0.000	0.80	0.0	34.8	FLOOD RISK
20.001	Outlet	0.836	0.176	0.000	0.27	0.0	28.7	FLOOD RISK
21.000	S17	1.149	0.099	0.000	1.39	0.0	17.3	SURCHARGED
21.001	S16	0.999	0.134	0.000	0.86	0.0	14.6	SURCHARGED
20.002	S15	0.828	0.718	0.000	0.37	0.0	31.0	FLOOD RISK
18.001	S12	0.809	0.919	0.000	0.91	0.0	56.1	SURCHARGED
18.002	Separator	0.726	0.966	0.000	0.80	0.0	49.2	SURCHARGED
18.003	SW Pump Station	0.645	1.115	0.000	16.30	0.0	30.0	SURCHARGED
1.007	S1	0.518	-0.418	0.000	0.34	0.0	112.3	OK