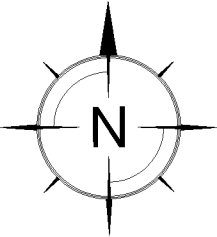


Appendix 7

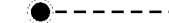
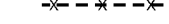
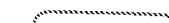
Proposed Impermeable Area Plan

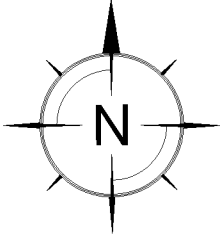
Preliminary Drainage Strategy Plan

and Preliminary Surface Water Calculations



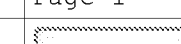
TITLE Proposed Site Impermeable Areas Plan			
SCALE NTS@A3		PROJECT, No. 23110	
REPORT TYPE FRA		DRG. No. 04	

DRAINAGE KEY:	
	Existing Storm Sewer
	Existing Foul Sewer
	Existing sewer to be removed
	Surface Water Manhole
	Road Gully
	Permeable Sub Base - min. 350mm deep
	Private Cellular Crates Soakaway
	Proposed Highway Gravel Trench(208m in total)
	Proposed Highway Dry Swale (85m long)
	Roof Water Runoff Flow Direction
	Foul Sewer Manhole



TITLE Proposed Drainage Strategy Plan			
SCALE	NTS@A3	PROJECT No.	23110
REPORT TYPE	FRA	DWG. No.	05

PERMEABLE BLOCK PAVING

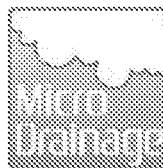
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11 Tungsten Building George Street Fishersgate BN41 1RA	23110 Land West of North End Road Yapton	
Date 09/11/18 File POROUS CAR PARK.SRCX	Designed by TZ Checked by SRM	
XP Solutions		
Source Control 2017.1.2		

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 261 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	6.121	0.171	0.1	1.7	Flood Risk
30 min Summer	6.153	0.203	0.1	2.5	Flood Risk
60 min Summer	6.181	0.231	0.2	3.2	Flood Risk
120 min Summer	6.202	0.252	0.2	3.8	Flood Risk
180 min Summer	6.208	0.258	0.2	4.0	Flood Risk
240 min Summer	6.211	0.261	0.2	4.1	Flood Risk
360 min Summer	6.213	0.263	0.2	4.1	Flood Risk
480 min Summer	6.212	0.262	0.2	4.1	Flood Risk
600 min Summer	6.210	0.260	0.2	4.1	Flood Risk
720 min Summer	6.208	0.258	0.2	4.0	Flood Risk
960 min Summer	6.201	0.251	0.2	3.8	Flood Risk
1440 min Summer	6.187	0.237	0.2	3.4	Flood Risk
2160 min Summer	6.168	0.218	0.2	2.8	Flood Risk
2880 min Summer	6.150	0.200	0.1	2.4	Flood Risk
4320 min Summer	6.123	0.173	0.1	1.8	Flood Risk
5760 min Summer	6.102	0.152	0.1	1.4	Flood Risk
7200 min Summer	6.086	0.136	0.1	1.1	O K
8640 min Summer	6.073	0.123	0.1	0.9	O K
10080 min Summer	6.062	0.112	0.1	0.8	O K
15 min Winter	6.134	0.184	0.1	2.0	Flood Risk

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.470	0.0	22
30 min Summer	83.961	0.0	36
60 min Summer	54.074	0.0	64
120 min Summer	33.619	0.0	122
180 min Summer	25.073	0.0	176
240 min Summer	20.211	0.0	204
360 min Summer	14.890	0.0	266
480 min Summer	11.979	0.0	334
600 min Summer	10.110	0.0	402
720 min Summer	8.797	0.0	470
960 min Summer	7.056	0.0	606
1440 min Summer	5.161	0.0	870
2160 min Summer	3.766	0.0	1256
2880 min Summer	3.008	0.0	1620
4320 min Summer	2.187	0.0	2376
5760 min Summer	1.742	0.0	3064
7200 min Summer	1.460	0.0	3816
8640 min Summer	1.265	0.0	4496
10080 min Summer	1.120	0.0	5240
15 min Winter	124.470	0.0	22

The Civil Engineering Practice					Page 2
11 Tungsten Building George Street Fishersgate BN41 1RA		23110 Land West of North End Road Yapton			
Date 09/11/18 File POROUS CAR PARK.SRCX		Designed by TZ Checked by SRM			
XP Solutions		Source Control 2017.1.2			
<u>Summary of Results for 100 year Return Period (+40%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	6.168	0.218	0.2	2.8	Flood Risk
60 min Winter	6.197	0.247	0.2	3.7	Flood Risk
120 min Winter	6.221	0.271	0.2	4.4	Flood Risk
180 min Winter	6.230	0.280	0.2	4.7	Flood Risk
240 min Winter	6.233	0.283	0.2	4.7	Flood Risk
360 min Winter	6.233	0.283	0.2	4.7	Flood Risk
480 min Winter	6.231	0.281	0.2	4.7	Flood Risk
600 min Winter	6.227	0.277	0.2	4.6	Flood Risk
720 min Winter	6.223	0.273	0.2	4.4	Flood Risk
960 min Winter	6.211	0.261	0.2	4.1	Flood Risk
1440 min Winter	6.190	0.240	0.2	3.5	Flood Risk
2160 min Winter	6.163	0.213	0.1	2.7	Flood Risk
2880 min Winter	6.140	0.190	0.1	2.2	Flood Risk
4320 min Winter	6.105	0.155	0.1	1.4	Flood Risk
5760 min Winter	6.080	0.130	0.1	1.0	O K
7200 min Winter	6.062	0.112	0.1	0.8	O K
8640 min Winter	6.048	0.098	0.1	0.6	O K
10080 min Winter	6.037	0.087	0.1	0.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	83.961	0.0	36		
60 min Winter	54.074	0.0	64		
120 min Winter	33.619	0.0	120		
180 min Winter	25.073	0.0	176		
240 min Winter	20.211	0.0	240		
360 min Winter	14.890	0.0	286		
480 min Winter	11.979	0.0	362		
600 min Winter	10.110	0.0	438		
720 min Winter	8.797	0.0	512		
960 min Winter	7.056	0.0	656		
1440 min Winter	5.161	0.0	926		
2160 min Winter	3.766	0.0	1320		
2880 min Winter	3.008	0.0	1700		
4320 min Winter	2.187	0.0	2424		
5760 min Winter	1.742	0.0	3120		
7200 min Winter	1.460	0.0	3824		
8640 min Winter	1.265	0.0	4504		
10080 min Winter	1.120	0.0	5248		
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The Civil Engineering Practice		Page 4																								
11 Tungsten Building George Street Fishersgate BN41 1RA	23110 Land West of North End Road Yapton																									
Date 09/11/18 File POROUS CAR PARK.SRCX	Designed by TZ Checked by SRM																									
XP Solutions Source Control 2017.1.2																										
<u>Model Details</u> Storage is Online Cover Level (m) 6.400 <u>Porous Car Park Structure</u> <table style="width: 100%; border: none;"> <tr> <td style="width: 30%;">Infiltration Coefficient Base (m/hr)</td> <td style="width: 30%;">0.01260</td> <td style="width: 20%;">Width (m)</td> <td style="width: 20%;">10.0</td> </tr> <tr> <td>Membrane Percolation (mm/hr)</td> <td>1000</td> <td>Length (m)</td> <td>10.0</td> </tr> <tr> <td>Max Percolation (l/s)</td> <td>27.8</td> <td>Slope (1:X)</td> <td>40.0</td> </tr> <tr> <td>Safety Factor</td> <td>2.0</td> <td>Depression Storage (mm)</td> <td>5</td> </tr> <tr> <td>Porosity</td> <td>0.30</td> <td>Evaporation (mm/day)</td> <td>3</td> </tr> <tr> <td>Invert Level (m)</td> <td>5.950</td> <td>Membrane Depth (m)</td> <td>0</td> </tr> </table>			Infiltration Coefficient Base (m/hr)	0.01260	Width (m)	10.0	Membrane Percolation (mm/hr)	1000	Length (m)	10.0	Max Percolation (l/s)	27.8	Slope (1:X)	40.0	Safety Factor	2.0	Depression Storage (mm)	5	Porosity	0.30	Evaporation (mm/day)	3	Invert Level (m)	5.950	Membrane Depth (m)	0
Infiltration Coefficient Base (m/hr)	0.01260	Width (m)	10.0																							
Membrane Percolation (mm/hr)	1000	Length (m)	10.0																							
Max Percolation (l/s)	27.8	Slope (1:X)	40.0																							
Safety Factor	2.0	Depression Storage (mm)	5																							
Porosity	0.30	Evaporation (mm/day)	3																							
Invert Level (m)	5.950	Membrane Depth (m)	0																							
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PRIVATE CELLULAR CRATE SOKAWAY 1 in 10 YEAR RAINFALL

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11 Tungsten Building George Street Fishersgate BN41 1RA	23110 Land West of North End Road Yapton	
Date 09/11/18 File CELLULAR CRATES SOAKAWA...	Designed by TZ Checked by SRM	
XP Solutions	Source Control 2017.1.2	

Summary of Results for 10 year Return Period

Half Drain Time : 1347 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	4.817	0.117	0.0	1.0	O K
30 min Summer	4.855	0.155	0.0	1.3	O K
60 min Summer	4.895	0.195	0.0	1.7	O K
120 min Summer	4.937	0.237	0.0	2.0	O K
180 min Summer	4.962	0.262	0.0	2.2	O K
240 min Summer	4.979	0.279	0.0	2.4	O K
360 min Summer	5.001	0.301	0.0	2.6	O K
480 min Summer	5.016	0.316	0.0	2.7	O K
600 min Summer	5.025	0.325	0.0	2.8	O K
720 min Summer	5.031	0.331	0.0	2.8	O K
960 min Summer	5.036	0.336	0.0	2.9	O K
1440 min Summer	5.038	0.338	0.0	2.9	O K
2160 min Summer	5.033	0.333	0.0	2.8	O K
2880 min Summer	5.025	0.325	0.0	2.8	O K
4320 min Summer	5.005	0.305	0.0	2.6	O K
5760 min Summer	4.983	0.283	0.0	2.4	O K
7200 min Summer	4.962	0.262	0.0	2.2	O K
8640 min Summer	4.941	0.241	0.0	2.1	O K
10080 min Summer	4.921	0.221	0.0	1.9	O K
15 min Winter	4.832	0.132	0.0	1.1	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	54.372	0.0	23
30 min Summer	35.991	0.0	37
60 min Summer	22.913	0.0	66
120 min Summer	14.233	0.0	126
180 min Summer	10.687	0.0	186
240 min Summer	8.693	0.0	246
360 min Summer	6.488	0.0	364
480 min Summer	5.267	0.0	484
600 min Summer	4.479	0.0	602
720 min Summer	3.922	0.0	722
960 min Summer	3.179	0.0	958
1440 min Summer	2.363	0.0	1188
2160 min Summer	1.755	0.0	1576
2880 min Summer	1.420	0.0	1988
4320 min Summer	1.054	0.0	2812
5760 min Summer	0.852	0.0	3632
7200 min Summer	0.723	0.0	4464
8640 min Summer	0.632	0.0	5192
10080 min Summer	0.564	0.0	6048
15 min Winter	54.372	0.0	22

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11 Tungsten Building George Street Fishersgate BN41 1RA		23110 Land West of North End Road Yapton			
Date 09/11/18 File CELLULAR CRATES SOAKAWA...		Designed by TZ Checked by SRM			
XP Solutions		Source Control 2017.1.2			
<u>Summary of Results for 10 year Return Period</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	4.873	0.173	0.0	1.5	O K
60 min Winter	4.919	0.219	0.0	1.9	O K
120 min Winter	4.967	0.267	0.0	2.3	O K
180 min Winter	4.995	0.295	0.0	2.5	O K
240 min Winter	5.015	0.315	0.0	2.7	O K
360 min Winter	5.042	0.342	0.0	2.9	O K
480 min Winter	5.059	0.359	0.0	3.1	O K
600 min Winter	5.071	0.371	0.0	3.2	O K
720 min Winter	5.079	0.379	0.0	3.2	O K
960 min Winter	5.089	0.389	0.0	3.3	O K
1440 min Winter	5.091	0.391	0.0	3.3	O K
2160 min Winter	5.084	0.384	0.0	3.3	O K
2880 min Winter	5.072	0.372	0.0	3.2	O K
4320 min Winter	5.040	0.340	0.0	2.9	O K
5760 min Winter	5.006	0.306	0.0	2.6	O K
7200 min Winter	4.972	0.272	0.0	2.3	O K
8640 min Winter	4.940	0.240	0.0	2.0	O K
10080 min Winter	4.909	0.209	0.0	1.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	35.991	0.0	37		
60 min Winter	22.913	0.0	66		
120 min Winter	14.233	0.0	124		
180 min Winter	10.687	0.0	182		
240 min Winter	8.693	0.0	242		
360 min Winter	6.488	0.0	358		
480 min Winter	5.267	0.0	474		
600 min Winter	4.479	0.0	588		
720 min Winter	3.922	0.0	702		
960 min Winter	3.179	0.0	926		
1440 min Winter	2.363	0.0	1346		
2160 min Winter	1.755	0.0	1684		
2880 min Winter	1.420	0.0	2140		
4320 min Winter	1.054	0.0	3068		
5760 min Winter	0.852	0.0	3928		
7200 min Winter	0.723	0.0	4760		
8640 min Winter	0.632	0.0	5616		
10080 min Winter	0.564	0.0	6360		
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PRIVATE CELLULAR CRATE SOKAWAY
1 in 100 YEAR RAINFALL + 40% CC

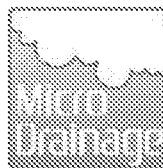
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Date 09/11/18 File CELLULAR CRATES SOAKAWA...	Designed by TZ Checked by SRM	
XP Solutions	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 3427 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	4.971	0.271	0.0	2.3	O K
30 min Summer	5.064	0.364	0.0	3.1	O K
60 min Summer	5.166	0.466	0.0	4.0	O K
120 min Summer	5.274	0.574	0.0	4.9	O K
180 min Summer	5.336	0.636	0.0	5.4	O K
240 min Summer	5.378	0.678	0.0	5.8	O K
360 min Summer	5.436	0.736	0.0	6.3	O K
480 min Summer	5.477	0.777	0.0	6.6	O K
600 min Summer	5.507	0.807	0.0	6.9	O K
720 min Summer	5.530	0.830	0.0	7.1	O K
960 min Summer	5.563	0.863	0.0	7.4	O K
1440 min Summer	5.595	0.895	0.0	7.6	O K
2160 min Summer	5.602	0.902	0.0	7.7	O K
2880 min Summer	5.586	0.886	0.0	7.6	O K
4320 min Summer	5.547	0.847	0.0	7.2	O K
5760 min Summer	5.508	0.808	0.0	6.9	O K
7200 min Summer	5.472	0.772	0.0	6.6	O K
8640 min Summer	5.438	0.738	0.0	6.3	O K
10080 min Summer	5.406	0.706	0.0	6.0	O K
15 min Winter	5.003	0.303	0.0	2.6	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.470	0.0	23
30 min Summer	83.961	0.0	38
60 min Summer	54.074	0.0	68
120 min Summer	33.619	0.0	128
180 min Summer	25.073	0.0	186
240 min Summer	20.211	0.0	246
360 min Summer	14.890	0.0	366
480 min Summer	11.979	0.0	486
600 min Summer	10.110	0.0	606
720 min Summer	8.797	0.0	726
960 min Summer	7.056	0.0	964
1440 min Summer	5.161	0.0	1442
2160 min Summer	3.766	0.0	2160
2880 min Summer	3.008	0.0	2736
4320 min Summer	2.187	0.0	3376
5760 min Summer	1.742	0.0	4144
7200 min Summer	1.460	0.0	4904
8640 min Summer	1.265	0.0	5784
10080 min Summer	1.120	0.0	6560
15 min Winter	124.470	0.0	23

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11 Tungsten Building George Street Fishersgate BN41 1RA			23110 Land West of North End Road Yapton			
Date 09/11/18 File CELLULAR CRATES SOAKAWA...			Designed by TZ Checked by SRM			
XP Solutions			Source Control 2017.1.2			
<u>Summary of Results for 100 year Return Period (+40%)</u>						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
30 min Winter	5.108	0.408	0.0	3.5	O K	
60 min Winter	5.223	0.523	0.0	4.5	O K	
120 min Winter	5.345	0.645	0.0	5.5	O K	
180 min Winter	5.415	0.715	0.0	6.1	O K	
240 min Winter	5.463	0.763	0.0	6.5	O K	
360 min Winter	5.531	0.831	0.0	7.1	O K	
480 min Winter	5.578	0.878	0.0	7.5	O K	
600 min Winter	5.614	0.914	0.0	7.8	O K	
720 min Winter	5.642	0.942	0.0	8.1	O K	
960 min Winter	5.682	0.982	0.0	8.4	O K	
1440 min Winter	5.727	1.027	0.0	8.8	O K	
2160 min Winter	5.748	1.048	0.0	9.0	O K	
2880 min Winter	5.742	1.042	0.0	8.9	O K	
4320 min Winter	5.693	0.993	0.0	8.5	O K	
5760 min Winter	5.643	0.943	0.0	8.1	O K	
7200 min Winter	5.593	0.893	0.0	7.6	O K	
8640 min Winter	5.544	0.844	0.0	7.2	O K	
10080 min Winter	5.496	0.796	0.0	6.8	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)			
30 min Winter	83.961	0.0	37			
60 min Winter	54.074	0.0	66			
120 min Winter	33.619	0.0	126			
180 min Winter	25.073	0.0	184			
240 min Winter	20.211	0.0	244			
360 min Winter	14.890	0.0	362			
480 min Winter	11.979	0.0	480			
600 min Winter	10.110	0.0	596			
720 min Winter	8.797	0.0	714			
960 min Winter	7.056	0.0	948			
1440 min Winter	5.161	0.0	1414			
2160 min Winter	3.766	0.0	2036			
2880 min Winter	3.008	0.0	2768			
4320 min Winter	2.187	0.0	3940			
5760 min Winter	1.742	0.0	4448			
7200 min Winter	1.460	0.0	5400			
8640 min Winter	1.265	0.0	6304			
10080 min Winter	1.120	0.0	7160			
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HIGHWAY GRAVEL TRENCH SOAKAWAY

1 in 100 YEAR RAINFALL + 40%cc

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11 Tungsten Building George Street Fishersgate BN41 1RA	23110 Land West of North End Road Yapton	
Date 09/11/18 File Highway Drainage _Grave...	Designed by TZ Checked by SRM	
XP Solutions	Source Control 2017.1.2	

Summary of Results for 100 year Return Period (+40%)

Half Drain Time : 837 minutes.

Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	5.106	0.406	1.3	48.7	O K
30 min Summer	5.243	0.543	1.4	65.1	O K
60 min Summer	5.387	0.687	1.4	82.5	O K
120 min Summer	5.529	0.829	1.4	99.4	O K
180 min Summer	5.600	0.900	1.4	108.0	O K
240 min Summer	5.641	0.941	1.4	112.9	O K
360 min Summer	5.684	0.984	1.4	118.1	O K
480 min Summer	5.702	1.002	1.4	120.2	O K
600 min Summer	5.703	1.003	1.4	120.3	O K
720 min Summer	5.695	0.995	1.4	119.4	O K
960 min Summer	5.676	0.976	1.4	117.2	O K
1440 min Summer	5.630	0.930	1.4	111.6	O K
2160 min Summer	5.559	0.859	1.4	103.1	O K
2880 min Summer	5.491	0.791	1.4	95.0	O K
4320 min Summer	5.364	0.664	1.4	79.7	O K
5760 min Summer	5.253	0.553	1.4	66.3	O K
7200 min Summer	5.164	0.464	1.4	55.7	O K
8640 min Summer	5.093	0.393	1.3	47.2	O K
10080 min Summer	5.031	0.331	1.2	39.7	O K
15 min Winter	5.156	0.456	1.4	54.7	O K

Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)
15 min Summer	124.470	0.0	22
30 min Summer	83.961	0.0	37
60 min Summer	54.074	0.0	66
120 min Summer	33.619	0.0	126
180 min Summer	25.073	0.0	184
240 min Summer	20.211	0.0	244
360 min Summer	14.890	0.0	362
480 min Summer	11.979	0.0	482
600 min Summer	10.110	0.0	600
720 min Summer	8.797	0.0	672
960 min Summer	7.056	0.0	780
1440 min Summer	5.161	0.0	1032
2160 min Summer	3.766	0.0	1448
2880 min Summer	3.008	0.0	1848
4320 min Summer	2.187	0.0	2640
5760 min Summer	1.742	0.0	3400
7200 min Summer	1.460	0.0	4112
8640 min Summer	1.265	0.0	4848
10080 min Summer	1.120	0.0	5640
15 min Winter	124.470	0.0	22

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11 Tungsten Building George Street Fishersgate BN41 1RA			23110 Land West of North End Road Yapton			
Date 09/11/18 File Highway Draiange _Grave...			Designed by TZ Checked by SRM			
XP Solutions			Source Control 2017.1.2			
<u>Summary of Results for 100 year Return Period (+40%)</u>						
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status	
30 min Winter	5.310	0.610	1.4	73.2	O K	
60 min Winter	5.474	0.774	1.4	92.9	O K	
120 min Winter	5.637	0.937	1.4	112.5	O K	
180 min Winter	5.722	1.022	1.4	122.6	O K	
240 min Winter	5.772	1.072	1.4	128.6	O K	
360 min Winter	5.829	1.129	1.4	135.5	O K	
480 min Winter	5.858	1.158	1.4	138.9	O K	
600 min Winter	5.868	1.168	1.4	140.1	O K	
720 min Winter	5.868	1.168	1.4	140.1	O K	
960 min Winter	5.846	1.146	1.4	137.5	O K	
1440 min Winter	5.783	1.083	1.4	130.0	O K	
2160 min Winter	5.682	0.982	1.4	117.8	O K	
2880 min Winter	5.579	0.879	1.4	105.5	O K	
4320 min Winter	5.384	0.684	1.4	82.1	O K	
5760 min Winter	5.222	0.522	1.4	62.6	O K	
7200 min Winter	5.107	0.407	1.3	48.9	O K	
8640 min Winter	5.014	0.314	1.2	37.7	O K	
10080 min Winter	4.936	0.236	1.2	28.3	O K	
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)			
30 min Winter	83.961	0.0	37			
60 min Winter	54.074	0.0	66			
120 min Winter	33.619	0.0	124			
180 min Winter	25.073	0.0	182			
240 min Winter	20.211	0.0	240			
360 min Winter	14.890	0.0	356			
480 min Winter	11.979	0.0	470			
600 min Winter	10.110	0.0	592			
720 min Winter	8.797	0.0	692			
960 min Winter	7.056	0.0	898			
1440 min Winter	5.161	0.0	1114			
2160 min Winter	3.766	0.0	1576			
2880 min Winter	3.008	0.0	2020			
4320 min Winter	2.187	0.0	2852			
5760 min Winter	1.742	0.0	3576			
7200 min Winter	1.460	0.0	4328			
8640 min Winter	1.265	0.0	5096			
10080 min Winter	1.120	0.0	5840			
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Date 09/11/18 File Highway Drainage _Grave...	Designed by TZ Checked by SRM	
XP Solutions Source Control 2017.1.2		

Model Details

Storage is Online Cover Level (m) 6.400

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.01260	Trench Width (m)	2.0
Infiltration Coefficient Side (m/hr)	0.01260	Trench Length (m)	200.0
Safety Factor	1.5	Slope (1:X)	0.0
Porosity	0.30	Cap Volume Depth (m)	1.200
Invert Level (m)	4.700	Cap Infiltration Depth (m)	0.500

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Appendix 8

Outline Drainage Maintenance Schedule

Outline Drainage Maintenance Schedule



The Civil Engineering Practice
11 Tungsten Building
George Street
Fishergate
Sussex
BN41 1RA

Project	Land West of North End Road, Yapton
Project Number	23110

By Tom Zajac

Date 12/11/18

1 Indicative Schedule of Maintenance

- 1.1 Once appointed the Contractor will prepare a site specific method statement for the control of silt and other pollutants during construction. CIRIA Report C532, Control of water pollution from construction sites, provides further guidance on this.
- 1.2 The Contractor will maintain the proposed drainage system during construction and until the handing over of the site. Upon completion the maintenance will be passed on to the property owner.
- 1.3 The following maintenance schedule details the typical tasks to be undertaken at different intervals.

Maintenance Schedule	Required Action	Frequency
Regular Maintenance	Remove sediment and debris from silt trap chambers, channel drains, swales and inlet chambers	6 monthly
	Litter and debris removal – above ground	Monthly or as required
	Litter and debris removal – catch pits, headwall	Monthly or as required
	Surface and foul water pipe work – jetting / rodding	Every 2 years or as required
	Manage other vegetation and remove nuisance plants – aesthetics	As required
	Visual inspection of permeable paving for defects and settlement	Annually
	Sweeping / brushing of permeable paving	Every 2 years
Corrective Maintenance	Remove debris / blockages to silt traps / channel drains	As required
	Repairs to access chambers / manhole covers	As required
	Replace any broken permeable blocks / surface, remedial works to any depressions or rutting	As required
	Inspect inlet, outlet from downpipe and gullies for blockages, standing water and clear	As required

Indicative Schedule of Maintenance for the Proposed Drainage System



Inspection / Action Required	Gullies, Channels and Gutters	Catchpits Swale	Permeable Surface	Surface / Foul Water Pipework
After leaf fall in Autumn	✓	✓		
6 Months	✓	✓	✓	
1 Year			✓	
2 Years				✓
When alarm indicates				

Drainage System Maintenance Summary