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Raven House 29 Linkfield Lane Surrey RH1 1SS		11557: Station Road, Barnsley Prelim SW Startegy Plot 16-18 Soakaway			
Date 12/06/2014 10:29 File Plots 16-18.srcx		Designed by TF Checked by			
Micro Drainage		Source Control 2014.1.1			
<u>Summary of Results for 100 year Return Period (+30%)</u>					
Half Drain Time : 308 minutes.					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
15 min Summer	72.560	0.560	0.3	6.0	O K
30 min Summer	72.757	0.757	0.4	8.2	O K
60 min Summer	72.960	0.960	0.4	10.4	O K
120 min Summer	73.132	1.132	0.4	12.2	O K
180 min Summer	73.189	1.189	0.4	12.8	O K
240 min Summer	73.206	1.206	0.4	13.0	O K
360 min Summer	73.216	1.216	0.4	13.1	O K
480 min Summer	73.207	1.207	0.4	13.0	O K
600 min Summer	73.190	1.190	0.4	12.8	O K
720 min Summer	73.167	1.167	0.4	12.6	O K
960 min Summer	73.119	1.119	0.4	12.1	O K
1440 min Summer	73.024	1.024	0.4	11.1	O K
2160 min Summer	72.889	0.889	0.4	9.6	O K
2880 min Summer	72.767	0.767	0.4	8.3	O K
4320 min Summer	72.571	0.571	0.3	6.2	O K
5760 min Summer	72.423	0.423	0.3	4.6	O K
7200 min Summer	72.308	0.308	0.3	3.3	O K
8640 min Summer	72.219	0.219	0.3	2.4	O K
10080 min Summer	72.150	0.150	0.2	1.6	O K
15 min Winter	72.630	0.630	0.3	6.8	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
15 min Summer	116.002	0.0	18		
30 min Summer	79.998	0.0	33		
60 min Summer	52.662	0.0	62		
120 min Summer	33.322	0.0	122		
180 min Summer	24.998	0.0	180		
240 min Summer	20.313	0.0	224		
360 min Summer	15.144	0.0	284		
480 min Summer	12.271	0.0	348		
600 min Summer	10.413	0.0	416		
720 min Summer	9.099	0.0	486		
960 min Summer	7.345	0.0	626		
1440 min Summer	5.419	0.0	898		
2160 min Summer	3.986	0.0	1300		
2880 min Summer	3.200	0.0	1700		
4320 min Summer	2.349	0.0	2424		
5760 min Summer	1.888	0.0	3176		
7200 min Summer	1.594	0.0	3896		
8640 min Summer	1.389	0.0	4584		
10080 min Summer	1.237	0.0	5256		
15 min Winter	116.002	0.0	18		
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<u>Summary of Results for 100 year Return Period (+30%)</u>					
Storm Event	Max Level (m)	Max Depth (m)	Max Infiltration (l/s)	Max Volume (m³)	Status
30 min Winter	72.853	0.853	0.4	9.2	O K
60 min Winter	73.085	1.085	0.4	11.7	O K
120 min Winter	73.289	1.289	0.5	13.9	O K
180 min Winter	73.364	1.364	0.5	14.7	O K
240 min Winter	73.393	1.393	0.5	15.0	O K
360 min Winter	73.399	1.399	0.5	15.1	O K
480 min Winter	73.390	1.390	0.5	15.0	O K
600 min Winter	73.365	1.365	0.5	14.7	O K
720 min Winter	73.332	1.332	0.5	14.4	O K
960 min Winter	73.256	1.256	0.4	13.6	O K
1440 min Winter	73.108	1.108	0.4	12.0	O K
2160 min Winter	72.907	0.907	0.4	9.8	O K
2880 min Winter	72.735	0.735	0.4	7.9	O K
4320 min Winter	72.472	0.472	0.3	5.1	O K
5760 min Winter	72.284	0.284	0.3	3.1	O K
7200 min Winter	72.149	0.149	0.2	1.6	O K
8640 min Winter	72.062	0.062	0.2	0.7	O K
10080 min Winter	72.046	0.046	0.2	0.5	O K
Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Time-Peak (mins)		
30 min Winter	79.998	0.0	33		
60 min Winter	52.662	0.0	62		
120 min Winter	33.322	0.0	118		
180 min Winter	24.998	0.0	176		
240 min Winter	20.313	0.0	230		
360 min Winter	15.144	0.0	294		
480 min Winter	12.271	0.0	368		
600 min Winter	10.413	0.0	446		
720 min Winter	9.099	0.0	524		
960 min Winter	7.345	0.0	674		
1440 min Winter	5.419	0.0	968		
2160 min Winter	3.986	0.0	1384		
2880 min Winter	3.200	0.0	1788		
4320 min Winter	2.349	0.0	2552		
5760 min Winter	1.888	0.0	3288		
7200 min Winter	1.594	0.0	3960		
8640 min Winter	1.389	0.0	4504		
10080 min Winter	1.237	0.0	5136		
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Rainfall Details

Rainfall Model	FSR	Winter Storms	Yes
Return Period (years)	100	Cv (Summer)	0.750
Region	England and Wales	Cv (Winter)	0.840
M5-60 (mm)	20.000	Shortest Storm (mins)	15
Ratio R	0.300	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+30

Time Area Diagram

Total Area (ha) 0.029

Time (mins)	Area
From:	To: (ha)
0	4 0.029

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Model Details

Storage is Online Cover Level (m) 74.500

Trench Soakaway Structure

Infiltration Coefficient Base (m/hr)	0.04390	Trench Width (m)	3.0
Infiltration Coefficient Side (m/hr)	0.04390	Trench Length (m)	12.0
Safety Factor	2.0	Slope (1:X)	0.0
Porosity	0.30	Cap Volume Depth (m)	0.000
Invert Level (m)	72.000	Cap Infiltration Depth (m)	1.500

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