

Escher Silverman		Page 1				
Lone Barn Studios Stanbridge Lane Romsey SO51 0HE	Dukes Meadow Waterlooville Extra Care Apartments					
Date July 2014 File Building & Car P...	Designed by KN Checked by					
Micro Drainage		Source Control 2013.1.1				
Summary of Results for 100 year Return Period (+30%)						
	Storm Event	Max Level (m)	Max Depth (m)	Max Control (l/s)	Max Volume (m³)	Status
	15 min Summer	37.129	0.379	4.1	45.5	O K
	30 min Summer	37.242	0.492	4.2	59.1	O K
	60 min Summer	37.339	0.589	4.6	70.6	O K
	120 min Summer	37.388	0.638	4.7	76.6	O K
	180 min Summer	37.385	0.635	4.7	76.2	O K
	240 min Summer	37.371	0.621	4.7	74.5	O K
	360 min Summer	37.341	0.591	4.6	70.9	O K
	480 min Summer	37.312	0.562	4.5	67.5	O K
	600 min Summer	37.284	0.534	4.4	64.1	O K
	720 min Summer	37.256	0.506	4.3	60.7	O K
	15 min Winter	37.179	0.429	4.1	51.4	O K
	30 min Winter	37.309	0.559	4.5	67.1	O K
	60 min Winter	37.424	0.674	4.8	80.9	O K
	120 min Winter	37.493	0.743	5.0	89.2	O K
	180 min Winter	37.493	0.743	5.0	89.1	O K
	240 min Winter	37.476	0.726	5.0	87.1	O K
	360 min Winter	37.435	0.685	4.9	82.2	O K
	480 min Winter	37.391	0.641	4.7	76.9	O K
	600 min Winter	37.348	0.598	4.6	71.7	O K
	720 min Winter	37.305	0.555	4.5	66.6	O K
	Storm Event	Rain (mm/hr)	Flooded Volume (m³)	Discharge Volume (m³)	Time-Peak (mins)	
	15 min Summer	117.069	0.0	49.3	22	
	30 min Summer	78.692	0.0	66.3	37	
	60 min Summer	50.485	0.0	85.1	66	
	120 min Summer	31.269	0.0	105.4	124	
	180 min Summer	23.274	0.0	117.7	154	
	240 min Summer	18.738	0.0	126.4	186	
	360 min Summer	13.779	0.0	139.6	254	
	480 min Summer	11.072	0.0	149.3	324	
	600 min Summer	9.336	0.0	157.4	392	
	720 min Summer	8.117	0.0	164.2	462	
	15 min Winter	117.069	0.0	55.2	22	
	30 min Winter	78.692	0.0	74.3	36	
	60 min Winter	50.485	0.0	95.5	64	
	120 min Winter	31.269	0.0	118.3	120	
	180 min Winter	23.274	0.0	131.9	172	
	240 min Winter	18.738	0.0	141.6	194	
	360 min Winter	13.779	0.0	156.3	272	
	480 min Winter	11.072	0.0	167.4	350	
	600 min Winter	9.336	0.0	176.3	424	
	720 min Winter	8.117	0.0	183.9	498	
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Model Details

Storage is Online Cover Level (m) 37.500

Tank or Pond Structure

Invert Level (m) 36.750

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	120.0	1.400	120.0	2.800	120.0	4.200	120.0
0.200	120.0	1.600	120.0	3.000	120.0	4.400	120.0
0.400	120.0	1.800	120.0	3.200	120.0	4.600	120.0
0.600	120.0	2.000	120.0	3.400	120.0	4.800	120.0
0.800	120.0	2.200	120.0	3.600	120.0	5.000	120.0
1.000	120.0	2.400	120.0	3.800	120.0		
1.200	120.0	2.600	120.0	4.000	120.0		

Hydro-Brake® Outflow Control

Design Head (m) 0.800 Hydro-Brake® Type Md4 Invert Level (m) 36.650
Design Flow (l/s) 5.0 Diameter (mm) 84

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	2.6	1.200	6.0	3.000	9.5	7.000	14.5
0.200	4.0	1.400	6.5	3.500	10.3	7.500	15.1
0.300	3.4	1.600	7.0	4.000	11.0	8.000	15.6
0.400	3.5	1.800	7.4	4.500	11.7	8.500	16.0
0.500	3.9	2.000	7.8	5.000	12.3	9.000	16.5
0.600	4.3	2.200	8.2	5.500	12.9	9.500	16.9
0.800	4.9	2.400	8.5	6.000	13.5		
1.000	5.5	2.600	8.9	6.500	14.0		

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