

Phil Brant Engineering Ltd		Page 1
6 Northfields Way East Leake Loughborough LE12 6RZ	HILTON	
Date 26 June 2019 16:36 File 100yr+CC 15min.SIM	Designed By HOME Checked By	
Micro Drainage		Simulation W.11.4

Global Variables

Region	FSR - England & Wales
Return Period (yrs)	100
M5-60 (mm)	19.000
Ratio R	0.400
Volumetric Runoff Coef	0.750
Profile Type	Summer
PIMP (%)	100
Areal Reduction Factor	1.000
Storm Duration (mins)	15
Hot Start (mins)	0
Hot Start Level (mm)	0
Manhole Headloss Coefficient	0.500
MADD Factor * 10m³/ha Storage	2.000
Foul Sewage/Hectare (l/s)	0.00
Additional Flow - % of Total Flow	40
Number of Input Hydrographs	0
Number of Time/Area Diagrams	0
Number of Bifurcations	0
Number of Overflows	0
Number of Off-Line Controls	0
Number of On-Line Controls	2

Starting Storm file name

H:\PBE\Schemes\2018 Schemes\EL18-11 Derby Road Hilton\MX\STORM.SWS

Freely Discharging Outfalls

Outfall Pipe Number	Outfall MH/No	C.Level (m)	I.Level (m)	D,L (mm)	B (mm)
1.010	SR1	63.090	60.841	1200	0

On-Line Controls (Hydro-Brake®)

US/PN	Volume (m³)	Ctrl MH Name	Invert (m)	Type	Dia (m)	D.Head (m)	D.Flow (l/s)	Headloss (m)	Flow (l/s)
1.009	1.031	CC1	60.900	Md6 SW Only	0.123	1.100	9.1	0.1	3.9
								0.2	7.6
								0.3	8.0
								0.4	7.6
								0.5	7.4
								0.6	7.4
								0.7	7.6
								0.8	7.9
								0.9	8.3
								1.0	8.7
								1.2	9.4
								1.4	10.2
								1.6	10.9
								1.8	11.6
								2.0	12.2
3.000	1.288	CC1	60.900	Md6 SW Only	0.123	1.100	9.1	0.1	3.9
								0.2	7.6
								0.3	8.0
								0.4	7.6
								0.5	7.4
								0.6	7.4
								0.7	7.6
								0.8	7.9
								0.9	8.3
								1.0	8.7
								1.2	9.4
								1.4	10.2
								1.6	10.9
								1.8	11.6
								2.0	12.2

Storage Pond at pipe 3.000 USMH HW1

Storage Pond Invert Level (m) 61.000

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.0	600.0	0.4	600.0	0.8	600.0	1.2	600.0	1.6	0.0	2.0	0.0	2.4	0.0
0.1	600.0	0.5	600.0	0.9	600.0	1.3	600.0	1.7	0.0	2.1	0.0	2.5	0.0
0.2	600.0	0.6	600.0	1.0	600.0	1.4	0.0	1.8	0.0	2.2	0.0		
0.3	600.0	0.7	600.0	1.1	600.0	1.5	0.0	1.9	0.0	2.3	0.0		

Summary of Results

Return Period (years)	100
Storm Duration (mins)	15
Profile Type	Summer
Margin for Flood Risk warning (mm)	300
Analysis Time Step	2.5 second increment (extended)
DTS Status	ON
DVD Status	ON
Inertia Status	OFF

PN	Water Lev. (m)	Surcharged Depth (m)	Flooded Vol (m³)	Flow/ Capacity	Overflow (l/s)	Pipe Flow (l/s)	Status
1.000	63.439	0.994	0.000	0.60	0.0	60.8	SURCH'ED
1.001	63.352	1.022	0.000	0.81	0.0	59.8	SURCH'ED
1.002	63.335	1.027	0.000	0.69	0.0	65.7	SURCH'ED
1.003	63.252	1.017	0.000	0.63	0.0	91.6	SURCH'ED
1.004	63.120	1.099	0.388	1.66	0.0	128.8	FLOOD
1.005	63.012	1.017	2.454	1.64	0.0	151.1	FLOOD
1.006	62.951	1.012	0.000	1.90	0.0	163.1	FLD RISK
2.000	63.415	1.040	0.000	0.69	0.0	71.9	SURCH'ED
2.001	63.341	1.116	0.000	0.91	0.0	110.0	SURCH'ED
2.002	63.228	1.131	0.000	1.39	0.0	129.1	SURCH'ED
2.003	63.117	1.052	0.000	1.31	0.0	144.8	SURCH'ED
2.004	62.982	0.997	0.000	1.34	0.0	157.0	SURCH'ED
1.007	62.827	0.932	0.000	1.42	0.0	304.8	SURCH'ED
1.008	62.530	0.780	0.000	1.15	0.0	310.9	SURCH'ED
1.009	62.227	0.707	0.000	1.53	0.0	355.2	SURCH'ED
3.000	61.390	-0.060	0.000	0.06	0.0	11.3	0 K
1.010	61.804	0.454	0.000	0.05	0.0	8.3	SURCH'ED