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26 HIGH ST. HADLEIGH IPSWICH SUFFOLK IP7 5AP	Queenswood Sch 47175 Proposed rev a	
Date 09/06/2017 14:04 File proposed 1 in 100 plus...	Designed by MJG Checked by	
Micro Drainage	Source Control 2015.1	

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	0.422	Longest Storm (mins)	10080
Summer Storms	Yes	Climate Change %	+20


Pipe Network

Volume in Pipe Network (m³)	1	Dia of Outfall Pipe (m)	0.2
Slope of Outfall Pipe (1:X)	150	Roughness of Outfall Pipe (mm)	0.600

Time Area Diagram

Total Area (ha) 0.188

Time (mins)		Area
From:	To:	(ha)
0	4	0.188

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Model Details

Storage is Online Cover Level (m) 49.900

Tank or Pond Structure

Invert Level (m) 49.300

Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)	Depth (m)	Area (m ²)
0.000	100.0	0.700	100.0	1.400	100.0	2.100	100.0
0.100	100.0	0.800	100.0	1.500	100.0	2.200	100.0
0.200	100.0	0.900	100.0	1.600	100.0	2.300	100.0
0.300	100.0	1.000	100.0	1.700	100.0	2.400	100.0
0.400	100.0	1.100	100.0	1.800	100.0	2.500	100.0
0.500	100.0	1.200	100.0	1.900	100.0		
0.600	100.0	1.300	100.0	2.000	100.0		

Hydro-Brake Optimum® Outflow Control

Unit Reference	MD-SHE-0206-2100-0600-2100
Design Head (m)	0.600
Design Flow (l/s)	21.0
Flush-Flo™	Calculated
Objective	Minimise upstream storage
Diameter (mm)	206
Invert Level (m)	49.210
Minimum Outlet Pipe Diameter (mm)	225
Suggested Manhole Diameter (mm)	1200

Control Points	Head (m)	Flow (l/s)
Design Point (Calculated)	0.600	20.8
Flush-Flo™	0.300	20.8
Kick-Flo®	0.491	18.9
Mean Flow over Head Range	-	16.2

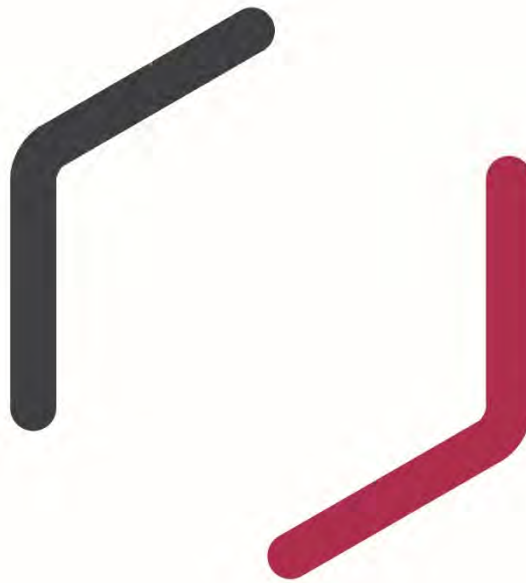
The hydrological calculations have been based on the Head/Discharge relationship for the Hydro-Brake Optimum® as specified. Should another type of control device other than a Hydro-Brake Optimum® be utilised then these storage routing calculations will be invalidated

Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)	Depth (m)	Flow (l/s)
0.100	7.1	1.200	28.9	3.000	45.0	7.000	67.6
0.200	19.8	1.400	31.2	3.500	48.5	7.500	70.0
0.300	20.8	1.600	33.2	4.000	51.7	8.000	72.3
0.400	20.3	1.800	35.2	4.500	54.8	8.500	74.6
0.500	19.1	2.000	37.0	5.000	57.7	9.000	76.8
0.600	20.8	2.200	38.8	5.500	60.4	9.500	78.9
0.800	23.8	2.400	40.4	6.000	63.0		
1.000	26.5	2.600	42.0	6.500	65.1		

Appendix H

Proposed Maintenance Schedule

SUDS Feature	Regular Maintenance Activity	Frequency	Occasional Maintenance Activity	Frequency	Responsibility
Pipes and Manholes	<ul style="list-style-type: none"> Visual inspection 	Monthly or as required	<ul style="list-style-type: none"> Cleaning/jetting when silt accumulation occurs 	Annually or as required	Queenswood School
Gullies	<ul style="list-style-type: none"> Visual inspection 	Monthly or as required	<ul style="list-style-type: none"> Gully pots to be emptied 	Annually or as required	Queenswood School
Ditches	<ul style="list-style-type: none"> Remove litter Inspect inlets & outlets 	Monthly or as required	<ul style="list-style-type: none"> Remove silt from channels Remove dense vegetation Inlet & outlet cleaning 	Annually or as required	Queenswood School
Control Structures	<ul style="list-style-type: none"> Inspect control structures for blockages and remove blockage if found 	Monthly or as required	<ul style="list-style-type: none"> Maintenance in accordance with manufacturers recommendations 	Annually or as required	Queenswood School
Detention Basins	<ul style="list-style-type: none"> Remove litter Inspect inlets & outlets 	Monthly or as required	<ul style="list-style-type: none"> Mow grass to pond edges at 75-100mm Inlet & outlet cleaning Cut back pond vegetation Scrub clearance from bankside Remove silt 	Annually or as required	Queenswood School
Permeable Paving	<ul style="list-style-type: none"> Visual Inspection 	Monthly or as required	<ul style="list-style-type: none"> Remove debris and sweep 	Annually or as required	Queenswood School



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