



MasterDrain
SW 10.85

Company Demonstration Version				Project	
Item Treatment storage volume for ASHFORD (KENT)				Job Ref	Sheet no. 1
Calc. by IJ	Date 19/02/08	Checked by	Date	Approved by	Date

Site characteristics:-

Catchment area - ha	(A)	1.500	ha
Percentage impermeable area	(PIMP)	60	
Proportion of PIMP requiring storage	(β)	1.0	
Soil runoff coefficient	(SPR)	0.10	
M5 - 60	(M5-60)	19.00	mm

Results:-

Treatment storage volume	(T Vol)	159	m ³
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Calculated using:-

$$T \text{ Vol} = 9 \times A \times M5-60 \times (SPR/2 + (1 - SPR/2) \times (\beta * PIMP/100))$$

Note 1

The concept of treatment volume is to provide sufficient volume to provide partial treatment of the stormwater effluent. There is no specific water quality discharge criteria to comply with. Current best practice in the UK (CIRIA report C522, 2000) requires between 1 and 4 times the T Vol to be provided. A minimum of 1.0 T Vol would normally be required unless other appropriate forms of treatment are proposed.

Note 2

Hard surfaces being drained through infiltration units and pervious pavements can be deemed not to require treatment in terms of Vt for a pond. Vt only needs to be applied to impermeable surfaces with direct runoff.