

Project BRUNSWICK SITE, CAMBRIDGE		Status		
Date 29/01/09	Job no. 11012117	Section	Sheet no. 1/1	Rev
By JB	Checked RB			
Rev	Date	Details	Tel	
			Fax	
Part EXISTING RUN-OFF FROM HARD STANDING AREA				



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REF OUTPUT

RUN-OFF FROM HARD STANDING AREA BASED ON THE RATIONAL METHOD.

THE PROPOSED SITE (1.84 ha) IS COMPRISED OF 68% OF HARD STANDING (1.25 ha)

IT IS PROPOSED TO ESTIMATE THE EXISTING RUN-OFF USING THE RATIONAL METHOD FOR THE 1 year, 30 year, 100 year RAINFALL EVENTS.

WHERE: $Q = 2.78 \cdot I \cdot A$
 WITH Q IN $l \cdot s^{-1}$
 $I_{1yr} = 50 \text{ mm/hr}$; $I_{30yr} = 113.02 \text{ mm/hr}$
 $I_{100yr} = 143.03 \text{ mm/hr}$
 A IN HECTARES (IMPERMEABLE AREA)

$Q_{1yr} = 2.78 \times 50 \times 1.25$ $= 173.75 \text{ l.s}^{-1}$	$Q_{30yr} = 2.78 \times 113.02 \times 1.25$ $= 392.74 \text{ l.s}^{-1}$
$Q_{100yr} = 2.78 \times 143.03 \times 1.25$ $= 500.05 \text{ l.s}^{-1}$	$Q_{100yr(30\%)} = Q_{100} \times 1.3$ $= 650.07 \text{ l.s}^{-1}$

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