

Project No 1000Sheet No 1

Made By _____

Project PROPOSED RESIDENTIAL SCHEME, BONDHED, WOMBWELLDate 05.12.12.SURFACE
WATER.FROM ATTACHED PLAN, TOTAL AREA PROVED TO
POSITIVELY DRAW INTO EXG. S.W. SYSTEM

$$= 1500.6 \text{ m}^2 = 0.15 \text{ Ha.}$$

BASED ON A RAINFALL INTENSITY OF 50 mm/hr

$$q(\text{Flow}) = 2.78 \times 0.15 \text{ Ha} \times 50 \text{ mm/hr}$$

$$q(\text{Flow}) = 20.85 \text{ L/sec.}$$

30% REDUCTION IN FLOW FOR PROPOSED DEVELOPMENT

$$= 14.6 \Rightarrow \text{SAV } \underline{\underline{15 \text{ L/sec PROPOSED}}}$$

PARALLEL AREA

$$MS-60 = 19 \text{ mm/hr}$$

$$\text{Ratio } R = 0.35$$

$$\underline{\underline{15 \text{ L/sec}}}$$

PROPOSED SITE

$$\text{HARD PAVED AREA} = 5637.4 \text{ m}^2 = \underline{\underline{0.56 \text{ Ha}}}$$

QUICK STORAGE ESTIMATE BASED ON 0.56 Ha IN
+ 15 L/sec DISCHARGE

$$= 86 - 143 \text{ m}^3 \Rightarrow \text{AVERAGE} = 115 \text{ m}^3 \longrightarrow$$

30 yr no c/c

$$= 116 - 261 \text{ m}^3 \Rightarrow \text{AVERAGE} = 189 \text{ m}^3 \longrightarrow$$

100 yr 20% c/c

Taken from BSEN 12056-2:2000

05.12.12

Appliance	Discharge Units	Total
29 Baths	x 1.3	37.7
87 Basins	x 0.3	26.1
87 WC's	x 1.5	130.5
55 Showers	x 0.4	22
32 Sinks	x 1.3	41.6
32 Dishwashers	x 0.2	6.4
32 Washing Machines	x 0.6 (6kg)	19.2
		283.5 Total (ΣDU)

$K = 0.5$
 (From Table 3
 BSEN 12056-2:2000)

$$\text{Flow (Q}_{\text{DW}}) = K \sqrt{\Sigma DU}$$

$$= 0.5 \sqrt{283.5} = 8.419 \text{ L/sec}$$

$$3 \times \text{DWF} = 8.419 \times 3 = 25.257$$

$$6 \times \text{DWF} = 8.419 \times 6 = \underline{\underline{50.514 \text{ L/sec}}} \text{ (Peak Flow)}$$