

SCAFFOLD DESIGN TO BEE DIRECT BES

THE FOLLOWING INFORMATION HAS BEEN PROVIDED BY THE CLIENT:

PERCUSSION TESTS BASED UPON 300x300x300mm.

TEST ① = 90 MINS

② = 135 MINS

③ = 195 MINS

} (75% TO 25%)

∴ 210 MINS AVERAGE

DESIGN BASED UPON 10 YEAR RETURN

$$VP 75.25 = 0.5 \times 0.5 \times 0.5 \times 0.5 = 0.0135 m^3$$

$$AP 50 = 0.3 \times 0.3 \times 4 \times 0.5 = 0.18 m^3$$

$$TP 75.25 = 12600 \text{ SECONDS}$$

$$f = \frac{0.0135}{0.18 \times 12600} = 5.95 \times 10^{-6} m/s$$

$$\text{AREA TO BE DRAINED} = \text{Block (A)} + \text{Block (B)} = 212 m^2 + 238 m^2 = 450 m^2$$

CONSIDER AVERAGE OF SIMILAR

$$\text{TOTAL SIZE} = 6 \times 6 \times 1 m \text{ OR BELOW IT OR } (11 \times 3 \times 1 m \text{ TO SUIT SITE})$$

CANAL ARE

SCAKAWA1 CAUSE

$$ASSO = 4 \left( 6 \times \frac{1}{2} \right) = 12 m^2$$

OUTFAN BASED ON

$$12 \times 5.95 \times 10^{-6} \times DURATION$$

$$= 7.14 \times 10^{-5} \times DURATION$$

RESULTS BASED ON FEN MEASUREMENTS FOR  
SITE, FCA DESIGN RAINFALL

$$S = 6 \times 6 \times 1$$

$$= 36 m^2$$

| DURATION<br>MIN. | RAINFALL<br>MM | INFLOW<br>M <sup>3</sup> | OUTFLOW<br>M <sup>3</sup> | STORAGE<br>M <sup>3</sup> |
|------------------|----------------|--------------------------|---------------------------|---------------------------|
| 15               | 11.18          | 5.                       | 0.064                     | 4.93                      |
| 30               | 14.52          | 6.56                     | 0.12                      | 6.44                      |
| 120              | 24.56          | 11                       | 0.81                      | 10.49                     |
| 240              | 31.77          | 14.29                    | 1.028                     | 13.26                     |
| 360              | 36.9           | 16.6                     | 1.54                      | 15.06                     |
| 420              | 39.06          | 17.57                    | 1.79                      | 15.78                     |
| 480              | 41.03          | 18.46                    | 2.05                      | 16.41                     |
| 630              | 45.34          | 26.4                     | 2.69                      | 17.71                     |
| 780              | 48.58          | 21.86                    | 3.34                      | 18.52                     |
| 930              | 56.75          | 22.83                    | 3.98                      | 18.85                     |
| 1080             | 52.67          | 23.7                     | 4.62                      | 19.08                     |
| 1230             | 54.4           | 24.48                    | 5.26                      | 19.22                     |

## SAKEAWAY CASH

|        |       |       |      |       |
|--------|-------|-------|------|-------|
| 1530   | 55.97 | 25.18 | 5.91 | 19.27 |
| 1530   | 57.42 | 25.85 | 6.55 | 19.28 |
| * 1630 | 53.76 | 26.44 | 7.19 | 19.25 |
| 1830   | 60.02 | 27    | 7.83 | 19.17 |
| 1930   | 61.2  | 27.54 | 8.48 | 19.06 |

SCAFFOLD CASE

TIME TO HALF EMPTY

$$= 19.25 \times 0.5$$

$$= 12 \times 7.14 \times 10^{-5}$$

$$= 3.2 \text{ hours}$$

$$\underline{\underline{3.2 \text{ < 24 hours } \therefore \text{OK}}}$$



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### GENERAL NOTES:-

All Structural Engineers Drawings and details are to be read in conjunction with all other relevant Architects, Specialists and Engineers drawings and specifications.

For setting out refer to Architects drawings, do not scale from the Structural Engineers Drawings, use figured dimensions only. All dimensions are to be checked on site any discrepancies are to be notified to the Engineer.

All works are to be in accordance with the Building Regulations and current British Standards.

