GROUP

# PART G WATER CALCULATIONS

| | |
|---|---|
| PROJECT | **Clifton Road, Worthing** |
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It is proposed that the sanitaryware of each property will be specified to the following *low-flow/eco* flow rates, in line with table 2.2 in *'Sanitation, Hot Water Safety and Water Efficiency- Approved Document G'*:

**Table 1, flow rates of specified sanitaryware:**

| | |
|---|---|
| TOILETS | 4/2.6 litre dual flush |
| TAPS (WC) | 5 litres/min |
| TAPS (KITCHEN) | 6 litres/min |
| SHOWER | 8 litres/min |

The 13*no* individual flats at Clifton Road are planned to contain the following **each**:

- 1*no* dual flush toilet,
- 1*no* WC tap,
- 1*no* kitchen tap,
- 1*no* electric shower.

The following have also been included:

- 1*no* dishwasher,
- 1*no* washing machine.

These must be included, in line with the *'Water Efficiency Calculator for New Dwellings (September 2009)',* with the following figures being assumed:

**Table 2, flow rates of un-specified sanitaryware:**

| | |
|---|---|
| DISHWASHER | 1.25 per place setting |
| WASHING MACHINE | 8.17 litres per kilogram |

The following table has been extracted from the *'Water Efficiency Calculator for New Dwellings (September 2009)'.* It details the proposed part G water consumption of plots 1-13 at 22 Clifton Road:

**Table 3, The Water Efficiency Calculator for New Dwellings:**

| Installation Type | Unit of Measure | Capacity/Flow rate (1) | Use Factor (2) | Fixed use (litres/person/day) (3) | Litres/person/day = [(1)x(2)] + (3)(4) |
|---|---|---|---|---|---|
| **WC** (single flush) | Flush Volume (litres) | | 4.42 | 0.00 | 0 |
| **WC** (dual flush) | Full flush Volume(litres) | 4 | 1.46 | 0.00 | 5.84 |
| | Part flush Volume(litres) | 2.6 | 2.96 | 0.00 | 7.70 |
| **WC** (multiple fittings) | Average effective flushing Volume (litres) | | 4.42 | 0.00 | 0 |
| **Taps** (excluding kitchen/utility room taps) | Flow rate (litres/min) | 5.00 | 1.58 | 1.58 | 9.48 |
| **Bath** (where shower also present) | Capacity to overflow(litres) | | 0.11 | 0.00 | 0 |
| **Shower** (where bath also present) | Flow Rate(litres/minute) | | 4.37 | 0.00 | 0 |
| **Bath Only** | Capacity to overflow(litres) | | 0.50 | 0.00 | 0 |
| **Shower Only** | Flow Rate (litres/minute) | 8.00 | 5.60 | 0.00 | 44.80 |
| **Kitchen taps** | Flow rate (litres/minute) | 6.00 | 0.44 | 10.36 | 13.00 |
| **Washing Machine** | (Litres/kg dry load) | 8.17 | 2.1 | 0.00 | 17.157 |
| **Dishwasher** | (Litres/place setting) | 1.25 | 3.6 | 0.00 | 4.50 |
| **Waste disposal unit** | (Litres/use) | Present | 3.08 | 0.00 | 0 |
| **Water Softener** | (Litres/person/day) | | 1.00 | 0.00 | 0 |
| | **(5)** | Total Calculated use (litres/person/day) =SUM(column 4) | | | 102.48 |
| | **(6)** | Contribution from greywater(litres/person/day) | | | 0 |
| | **(7)** | Contribution from rainwater (litres/person/day) | | | 0 |
| | **(8)** | Normalisation factor | | | 0.91 |
| | **(9)** | Total internal water consumption = [(5)-(6)-(7)]x(8) (litres/person/day) | | | 93.25 |
| | **(10)** | External water use | | | 5.0 |
| | **(11)** | **Total water consumption (Building Regulation 17.K) =(9)+(10)(litres/person/day)** | | | **98.3** |

**Table 4, Building Regulations Results:**

| | |
|---|---|
| ACHIEVED | 98.3 litres per person per day |
| TARGET | 105 litres per person per day |
| RESULT | PASS |