



Your sustainable partner

**AS BUILT STAGE
WATER EFFICIENCY
CALCULATION REPORT**

FOR

ALFRED HOMES

AT

**PLOT 2
RUTLAND HOUSE
11 PARK ROAD
WINCHESTER
HAMPSHIRE
SO22 6AA**

1. Executive Summary

This report has been produced by BEAT Solutions Ltd on 15th April 2024 for Alfred Homes to demonstrate compliance with Building Regulation Part G Regulation 17K. This report confirms the water usage for the dwelling to be 108.3 litres/person/day.

2. Introduction

BEAT Solutions have been instructed to calculate the actual water usage for the dwelling based on the As Built specification. This report has been produced by Sophie Pinnick.

The methodology used to calculate the water usage is the national approved BRE water efficiency calculation procedure.

A copy of this report should be submitted to the Building Control Officer within 24hrs.

3. Actual Water Fitting Specification

Alfred Homes has completed a schedule to confirm the water usage fixtures and fittings. Using this information BEAT Solutions have been able to calculate the overall water usage. Enclosed is a copy of the completed schedule provided by Alfred Homes.

4. Compliance Summary

BEAT Solutions Ltd received from the client sufficient information to enable the internal water usage to be calculated. The client confirmed the required target water usage as below. The schedule below confirms the following:-

Plot Type:	Detached House
Targeted Water Usage:	110.0 litres/person/day
Actual Water Usage:	108.3 litres/person/day
Building Reg Compliant:	Yes
Planning Requirement:	110.0 litres/person/day
Planning Compliant:	Yes

Plot / Address	Plot 2, Rutland House, 11 Park Road, Winchester, Hampshire, SO22 6AA			Our Reference	WAT-0424/PLOT 2	
No. of Bedrooms	3	Plot/House No.	Plot 2	Plot Type	Detached House	
					Occupancy rate for Calculation Purposes	4

Basin Taps	Flow Rate	Quantity
Fitting Type	Litres/Min	(No.)
Crosswater PRO120WNF (5l/min)	5.00	4

Total No. of Fittings (No.)	4
Total Flow (l/s)	20.00
Maximum Flow (l/s)	5.00
Average Flow (l/s)	5.00
Weighted Average Flow (l/s)	3.50
Flow for Calculation (l/s)	5.00

Showers	Flow Rate	Quantity
Fitting Type	Litres/Min	(No.)
Crosswater PRO300c (8l/min)	8.00	3

Total No. of Fittings (No.)	3
Total Flow (l/s)	24.00
Maximum Flow (l/s)	8.00
Average Flow (l/s)	8.00
Weighted Average Flow (l/s)	5.60
Flow for Calculation (l/s)	8.00

Bath	Capacity to	Quantity
Type	Overflow	(No.)
Saneux Stetson (155L)	155.00	1

Total No. of Fittings (No.)	1
Total Capacity (l)	155.00
Maximum Capacity (l)	155.00
Average Capacity (l)	155.00
Weighted Average Capacity (l)	108.50
Capacity for Calculation (l)	155.00

W/C	Full Flush	Part Flush	Quantity (No)
Type	Volume	Volume	
Crosswater 0.82 cistern (4.5/3)	4.50	3.00	4

Total number of fittings	4
Average effective flushing volume	3.50

Dishwasher	L per Place	Quantity
Type	Setting	(No.)
Siemens SE61X12TG (0.875 l/p/s)		

Total No. of Fittings (No.)	0
Total Consumption (l)	1.25
Maximum Consumption (l)	1.25
Average Consumption (l/s)	1.25
Weighted Average Consumption (l)	0.88
Consumption for Calculation (l/s)	1.25

Washing Machine	L per Kg	Quantity
Type	Dry Load	(No.)
(l/kg)		

Total No. of Fittings (No.)	0
Total Consumption (l)	8.17
Maximum Consumption (l)	8.17
Average Consumption (l/s)	8.17
Weighted Average Consumption (l)	5.72
Consumption for Calculation (l/s)	8.17

Kitchen & Utility Taps	Flow Rate	Quantity
Type	Litres/Min	(No.)
Quooker Fusion (7.95l/min)	7.95	1
Franke Hestia (12.76l/min)	12.76	1

Total No. of Fittings (No.)	2
Total Flow (l/s)	20.71
Maximum Flow (l/s)	12.76
Average Flow (l/s)	10.36
Weighted Average Flow (l/s)	8.93
Flow for Calculation (l/s)	10.36

Waste Disposal Y/N

Water Softner
Consumption beyond 4% l/p/d

Grey water and harvested rainwater	
Total Grey water from WHB taps (l)	<input type="text"/>
Total Available Grey Water Supply (l)	208.04
Possible Demand (l)	130.42
Grey/Rain Installed Capacity (l)	<input type="text"/>
Figure for Calculation lit/person/day	0.00

Water Use Assessment

Installation Type	Unit	Capacity/ Flow Rate	Use Factor	Fixed use (l/p/day)	Total Use (l/p/day)
WC Single Flush	Volume (l)	0.00	4.42	0.00	0.00
WC Dual Flush	Full Flush (l)	0.00	1.46	0.00	0.00
	Pt Flush (l)	0.00	2.96	0.00	0.00
WC's (Multiple)	Volume (l)	3.50	4.42	0.00	15.45
Taps Exc. Kitchen	Flow Rate	5.00	1.58	1.58	9.48
Bath (shower present)	(l/s)	155.00	0.11	0.00	17.05
Shower (bath present)	(l/s)	8.00	4.37	0.00	34.96
Bath Only	(l)	0.00	0.50	0.00	0.00
Shower Only	(l/s)	0.00	5.60	0.00	0.00
Kitchen Taps	(l/s)	10.36	0.44	10.36	14.92
Washing Machines	(l/kgdry)	8.17	2.10	0.00	17.16
Dishwashers	(l/place)	1.25	3.60	0.00	4.50
Waste Disposal	(l/s)	0.00	3.08	0.00	0.00
Water Softner	(l/s)	0.00	1.00	0.00	0.00
Total Calculated Water Use (l/p/day)					113.5
Grey/RainWater Reused (l)					0.0
Normalisation Factor					0.91
Total Consumption CSH (l/p/day)					103.3
External Water Use Allowance (l)					5.0
Total Consumption Part G (l/p/day)					108.3
Assesment Result					PASS

<< Note - these are default values.

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