



Your sustainable partner

**AS BUILT STAGE  
WATER EFFICIENCY  
CALCULATION REPORT**

FOR

**ALFRED HOMES**

AT

**PLOT 1  
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

<b>Plot / Address</b>	Plot 1, Rutland House, 11 Park Road, Winchester, Hampshire, SO22 6AA			<b>Our Reference</b>	WAT-0424/PLOT 1	
<b>No. of Bedrooms</b>	5	<b>Plot/House No.</b>	Plot 1	<b>Plot Type</b>	Detached House	
					Occupancy rate for Calculation Purposes	6

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

<b>Total No. of Fittings (No.)</b>	<b>5</b>
<b>Total Flow (l/s)</b>	25.00
<b>Maximum Flow (l/s)</b>	5.00
<b>Average Flow (l/s)</b>	5.00
<b>Weighted Average Flow (l/s)</b>	3.50
<b>Flow for Calculation (l/s)</b>	<b>5.00</b>

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

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

<b>Bath</b>	<b>Capacity to</b>	<b>Quantity</b>
<b>Type</b>	<b>Overflow</b>	<b>(No.)</b>
Saneux Stetson (155L)	155.00	2

<b>Total No. of Fittings (No.)</b>	<b>2</b>
<b>Total Capacity (l)</b>	310.00
<b>Maximum Capacity (l)</b>	155.00
<b>Average Capacity (l)</b>	155.00
<b>Weighted Average Capacity (l)</b>	108.50
<b>Capacity for Calculation (l)</b>	<b>155.00</b>

<b>W/C</b>	<b>Full Flush</b>	<b>Part Flush</b>	
<b>Type</b>	<b>Volume</b>	<b>Volume</b>	<b>Quantity (No)</b>
Crosswater 0.82 cistern (4.5/3)	4.50	3.00	5

<b>Total number of fittings</b>	<b>5</b>
<b>Average effective flushing volume</b>	<b>3.50</b>

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

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

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

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

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

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

**Waste Disposal Y/N** N

**Water Softner**  
**Consumption beyond 4% l/p/d**

<b>Grey water and harvested rainwater</b>	
<b>Total Grey water from WHB taps (l)</b>	<span style="border: 1px solid black; display: inline-block; width: 80px; height: 15px;"></span>
<b>Total Available Grey Water Supply (l)</b>	312.06
<b>Possible Demand (l)</b>	195.63
<b>Grey/Rain Installed Capacity (l)</b>	<span style="border: 1px solid black; display: inline-block; width: 80px; height: 15px;"></span>
<b>Figure for Calculation lit/person/day</b>	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
<b>Total Calculated Water Use (l/p/day)</b>					<b>113.5</b>
<b>Grey/RainWater Reused (l)</b>					<b>0.0</b>
<b>Normalisation Factor</b>					<b>0.91</b>
<b>Total Consumption CSH (l/p/day)</b>					<b>103.3</b>
<b>External Water Use Allowance (l)</b>					<b>5.0</b>
<b>Total Consumption Part G (l/p/day)</b>					<b>108.3</b>
<b>Assesment Result</b>					<b>PASS</b>

<< Note - these are default values.

<< Note - these are default values.