beat

Your sustainable partner

WATER EFFICIENCY DESIGN STAGE CALCULATION REPORT

For

Plot 2, 34 Havant Road, Emsworth, Hampshire, PO10 7JG

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1. Executive Summary

This report has been produced by BEAT Solutions Ltd on 26th July 2021 for Mr Lee Mandiwall to demonstrate compliance with Building Regulation Part G Regulation 17K. This report confirms the water usage for the dwelling to be 109.20 litres/person/day.

2. Introduction

BEAT Solutions have been instructed to calculate the predicted water usage for the dwelling based on the proposed specification. This report has been produced by Scott Spearing.

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 with 24hrs.

3. 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:-

Building Type:	Detached Bungalow
Targeted Water Usage:	110.00 litres/person/day
Proposed Water Usage:	109.20 litres/person/day
Building Regulation Compliant?:	Pass
Code Score (if applicable):	Not Required

WATER USAGE CERTIFICATE

This certificate confirms the following dwelling, based on the proposed specification included within this report which has been provided by the client is targeted to score the following water usage. This report and certificate is to be submitted to your building control officer within 24hrs.

Calculation for

Mr Lee Mandiwall

For the following

Plot 2, 34 Havant Road, Emsworth, Hampshire, PO10 7JG
A

Detached Bungalow

Which is required to achieve less than

110.00 litres/person/day

Calculated by

Scott Spearing

On

26th July 2021

Is predicted to achieve

109.20 litres/person/day and Passed Building Regulations

Which has scored under Code for Sustainable Homes

Not Required

This certificate has been produced by:

Scott Spearing | Energy & Sustainability Consultant | BEAT Solutions Ltd

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Job no:	WAT-0404
Date:	23/07/2021
Assessor name:	Scott Spearing
Registration no:	-
Development name:	Plot 2, 34 Havant Road, Emsworth, Hampshire, PO10 7JG
Issue Date:	26/07/2021

Rainwater | Greywater | Results

WATER EFFICIENCY CALCULATOR FOR NEW DWELLINGS

(for use with the Code for Sustainable Homes issues Wat 1 for the May 2009 and subsequent versions)

Dwelling Description	New Dwelling

1st step - Select from options below:

Is a Rain and/or Greywater system specified?	**No**
Is a shower AND bath present?	**Yes**
Has a washing machine been specified?	**No**
Has a dishwasher been specified?	**No**

2nd step - Build spreadsheet (click button below)

BUILD SPREADSHEET

As soon as this button is pressed the spreadsheet will change according to the options selected previously in the 1st step. Scroll down to see the changes.

3rd step - Enter consumption details for the specified fittings

TAPS (excluding kitchen taps)	Fitting type	Flow rate (litres/min)	Number of fittings
1	Flow Rate not to exceed	7.00	2
2			
3			
4			
	Proportionate flow rate (litres/min)		4.90
	Consumption / person / day (Litres)		**12.64**

BATHS		Fitting type	Capacity to overflow (litres)	Number of fittings
	1	Capacity not to excced	210.00	1
	2			
	3			
	4			
		Proportionate capacity to overflow (litres)		147.00
		Consumption / person / day (Litres)		**23.10**

SHOWERS		Fitting type	Flow rate (litres/min)	Number of fittings
	1	Flow Rate not to exceed	7.00	2
	2			
	3			
	4			
		Proportionate flow rate (litres/min)		4.90
		Consumption / person / day (Litres)		**30.59**

DISHWASHER				
Where no dishwasher is specified, a default consumption figure of 1.25 litres per place setting is used.				
		Consumption / person / day (Litres)		**4.50**

WASHING MACHINES				Number of fittings
Where no washing machine is specified, a default consumption figure of 8.17 litres per kilogram of dry load is				

used.

Where no washing machines have been specified but plumbing for future supply of grey/rainwater was installed, please enter details:	

Consumption / person / day (Litres)	17.16

WC's	Fitting Type	Flush Type	Volume**	Number of fittings
1	Flow Rate not to Exceed	Full Flush	4.00	2
		Part Flush	2.60	
2		Full Flush		
		Part Flush		
3		Full Flush		
		Part Flush		
4		Full Flush		
		Part Flush		
		Average effective flushing volume (litres)		3.06
		Consumption / person / day (Litres)		13.53

KITCHEN SINK TAPS	Fitting Type	Flow rate (litres/minute)	Number of fittings
1	Flow Rate not to exceed	6.00	2
2			
3			
4			
	Proportionate flow rate (litres/min)		4.20
	Consumption / person / day (Litres)		13.00

WASTE DISPOSAL UNIT

Is a waste disposal unit specified for the dwelling?	No
Consumption / person / day (Litres)	0.00

WATER SOFTENER

Water Softener in use?	No
Total capacity used per regeneration (%)	

Water consumed per regeneration (litres)	
Average number of regeneration cycles per day (No.)	
Number of occupants served by the system (No.)	
Water consumed beyond 4% person / day (Litres)	**0.00**

4th step - Analyse Results

Go to Start

INTERNAL WATER CONSUMPTION		
NET INTERNAL WATER CONSUMPTION	(litres/person/day)	**114.52**
RAINWATER ONLY COLLECTION SAVING	(litres/person/day)	**0.00**
GREYWATER ONLY RECYCLING SAVING	(litres/person/day)	**0.00**
RAIN/GREYWATER COLLECTION SAVING (combined system)	(litres/person/day)	**0.00**
NORMALISATION FACTOR	(litres/person/day)	**0.91**
TOTAL WATER CONSUMPTION	(litres/person/day)	**104.2**
CSH CREDITS ACHIEVED		**3**
CSH MANDATORY LEVEL:		**Level 3/4**

17. K COMPLIANCE		
EXTERNAL WATER USE	(litres / person / day)	5.00
TOTAL WATER CONSUMPTION	(litres / person / day)	**109.2**
17. K COMPLIANCE?		**Yes**

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PRINTING: before printing please make sure that in "Page Setup" you have selected the page to be as "Landscape" and that the Scale has been set up to 75% (maximum)