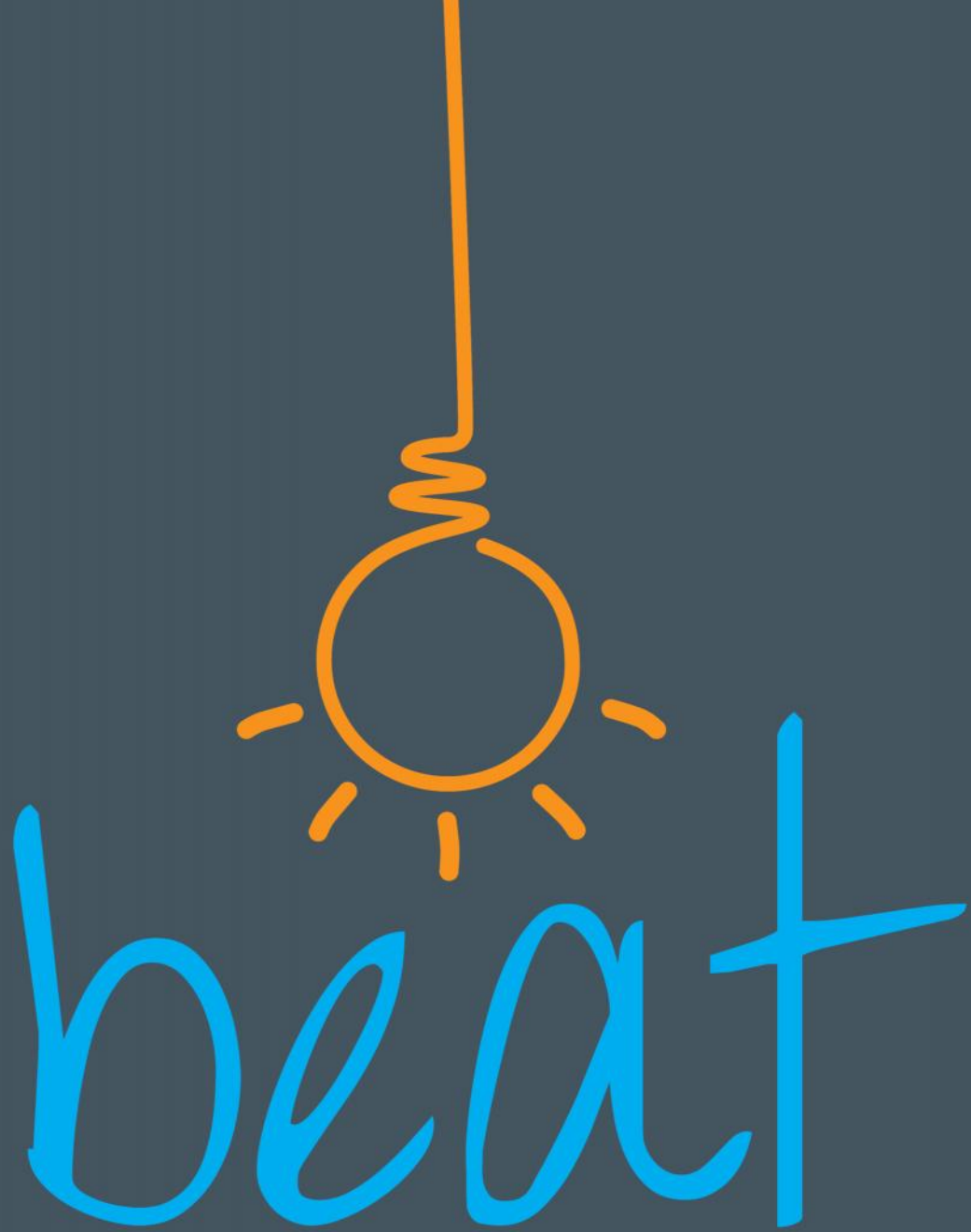




Your sustainable partner

**WATER EFFICIENCY  
AS DESIGNED STAGE  
CALCULATION REPORT**

For

**Dwelling A, Willowdene Garage Blocks, Havant, PO9 3QP**

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# 1. Executive Summary

This report has been produced by BEAT Solutions Ltd on 9th March 2021 for Mr Alan Shaw to demonstrate compliance with Building Regulation Part G Regulation 17K. This report confirms the water usage for the dwelling to be 109.60 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 a certified BRE assessor.

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:-

|                                        |                          |
|----------------------------------------|--------------------------|
| <b>Building Type:</b>                  | New Dwelling             |
| <b>Targeted Water Usage:</b>           | 110.00 litres/person/day |
| <b>Proposed Water Usage:</b>           | 109.60 litres/person/day |
| <b>Building Regulation Compliant?:</b> | Pass                     |
| <b>Code Score (if applicable):</b>     | Code Level 4             |

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 Alan Shaw**

For the following

**Dwelling A, Willowdene Garage Blocks, Havant, PO9 3QP**

A

**New Dwelling**

Which is required to achieve less than

**110.00 litres/person/day**

Calculated by

**Scott Spearing**

On

**9th March 2021**

Is predicted to achieve

**109.60 litres/person/day and** Passed Building Regulations

Which has scored under Code for Sustainable Homes

**Code Level 4**

This certificate has been produced by:



Scott Spearing | Energy & Sustainability Consultant | BEAT Solutions Ltd

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|                          |                                                       |
|--------------------------|-------------------------------------------------------|
| <b>Job no:</b>           | WAT-0358                                              |
| <b>Date:</b>             | 09/03/2021                                            |
| <b>Assessor name:</b>    | Scott Spearing                                        |
| <b>Registration no:</b>  | N/A                                                   |
| <b>Development name:</b> | Dwelling A, Willowdene Garage Blocks, Havant, PO9 3QP |
| <b>Issue Date:</b>       | 09/03/2021                                            |

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)

|                             |            |
|-----------------------------|------------|
| <b>Dwelling Description</b> | Dwelling A |
|-----------------------------|------------|

### 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<br>(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                                           | Not to exceed                       | 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                     |                    |
| <b>WC's</b>                                                                                                                         |                         |                                            |                           |                    |
|                                                                                                                                     | 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                     |                    |
| <b>KITCHEN SINK TAPS</b>                                                                                                            |                         | Fitting Type                               | Flow rate (litres/minute) | 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)        |                           | 13.44              |
| <b>WASTE DISPOSAL UNIT</b>                                                                                                          |                         |                                            |                           |                    |
| Is a waste disposal unit specified for the dwelling?                                                                                |                         | No                                         |                           |                    |
|                                                                                                                                     |                         | Consumption / person / day (Litres)        |                           | 0.00               |
| <b>WATER SOFTENER</b>                                                                                                               |                         |                                            |                           |                    |
| Water Softener in use?                                                                                                              |                         | No                                         |                           |                    |
| Total capacity used per regeneration (%)                                                                                            |                         |                                            |                           |                    |

|                                                            |             |
|------------------------------------------------------------|-------------|
| <b>Water consumed per regeneration</b> (litres)            |             |
| <b>Average number of regeneration cycles per day</b> (No.) |             |
| <b>Number of occupants served by the system</b> (No.)      |             |
| <b>Water consumed beyond 4% person / day</b><br>(Litres)   | <b>0.00</b> |

**4th step - Analyse Results**[Go to Start](#)**INTERNAL WATER CONSUMPTION**

|                                                           |                     |                  |
|-----------------------------------------------------------|---------------------|------------------|
| <b>NET INTERNAL WATER CONSUMPTION</b>                     | (litres/person/day) | <b>114.96</b>    |
| <b>RAINWATER ONLY COLLECTION SAVING</b>                   | (litres/person/day) | <b>0.00</b>      |
| <b>GREYWATER ONLY RECYCLING SAVING</b>                    | (litres/person/day) | <b>0.00</b>      |
| <b>RAIN/GREYWATER COLLECTION SAVING (combined system)</b> | (litres/person/day) | <b>0.00</b>      |
| <b>NORMALISATION FACTOR</b>                               | (litres/person/day) | <b>0.91</b>      |
| <b>TOTAL WATER CONSUMPTION</b>                            | (litres/person/day) | <b>104.6</b>     |
| <b>CSH CREDITS ACHIEVED</b>                               |                     | <b>3</b>         |
| <b>CSH MANDATORY LEVEL:</b>                               |                     | <b>Level 3/4</b> |

**17. K COMPLIANCE**

|                                |                         |              |
|--------------------------------|-------------------------|--------------|
| <b>EXTERNAL WATER USE</b>      | (litres / person / day) | <b>5.00</b>  |
| <b>TOTAL WATER CONSUMPTION</b> | (litres / person / day) | <b>109.6</b> |
| <b>17. K COMPLIANCE?</b>       |                         | <b>Yes</b>   |

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