Consulting Civil Engineers

# Existing Fittings Survey

## Vine Ridge House, Broadford Bridge Road, West Chiltington

## For

## Mr & Mrs J Verrall

Rev – **P-**

Reference **C3093**

Date **25th April 2024**

| Revision | Date of Issue | Comments | Prepared By | Checked By |
|---|---|---|---|---|
| P- | 25.04.2024 | Initial Issue | LT | CS |
| | | | | |
| | | | | |

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# 1 Introduction

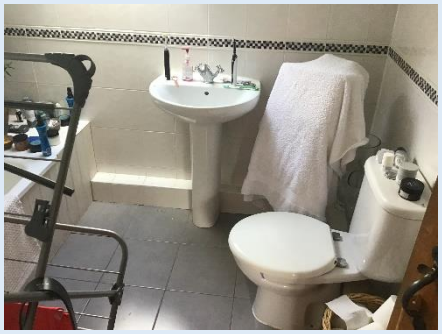
1.1.1 CGS Civils Ltd has been appointed Mr & Mrs J Verrall to undertake an Existing Fittings Survey in support of a Water Neutrality Report (C3093 Water Neutrality Report) Report for a proposed development at Vine Ridge House, Broadford Bridge Road, West Chiltington. Planning permission is sought for the demolition of an existing 2-bedroom dwelling and storage/stable building and the construction of a replacement 4-bedroom (including the guest suite) dwelling with an ancillary building.

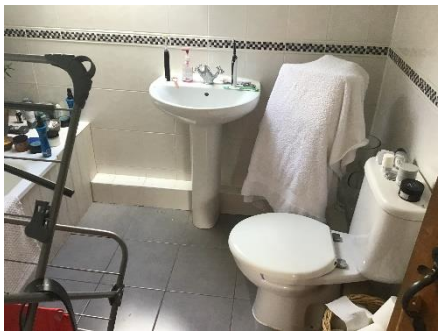
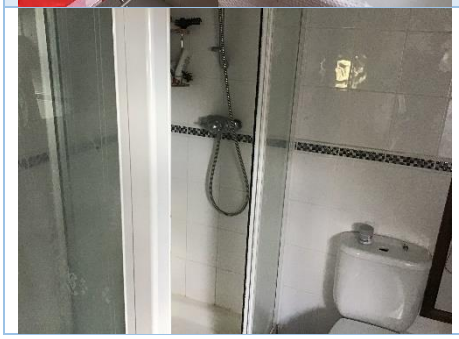
1.1.2 The purpose of this report is to provide an overview on the existing fittings and their water usages of the existing 2-bedroom dwelling.

1.1.3 The home currently has three occupants and this occupancy has been used in the calculations within this report.

1.1.4 The water usage calculations within this report have been made using the Water Calculator from Building Regulations G as per the accompanied Water Neutrality Report.

# 2 Existing 2-bedroom Dwelling

| Fittings | Type of Fitting | Existing Water usage (l/day) |
|---|---|---|
|    | Toilets | Full flush – 8.76<br>Part flush – 11.84 |

| | | |
|---|---|---|
| <br><br> | Taps (excluding kitchen) | 11.06 |
|  | Bath (shower also present) | 20.35 |
|  | Shower (bath also present | 43.70 |

| | | |
|---|---|---|
|  | Kitchen sink taps | 13.88 |
|  | Washing machine | 17.16 |
|  | Dishwasher | 4.50 |
| | Total (l/p/day) with normalisation factor and 5l/p/day added for outdoor use (refer to appendix A): | 124.44 |
| | Total (l/day) based on the current occupancy of 3: | 373.32 |

# 3 Conclusion

3.1.1 As indicated within the above calculations, the water demand of existing 2-bedroom property can be calculated to be by **373.32 l/day**.

3.1.2 The water demand from the proposed 3-bedroom dwelling and 1-bedroom ancillary building will be **337.46 l/day** after water efficient fittings are installed (refer to C3093 Water Neutrality report). This results in a total reduction in water demand of **35.86 l/day** over the existing site, making the proposals water neutral.

# 4 Appendices

## 4.1 Appendix A:

**Table 1 – Water Calculator from Building Regulations Part G – Information input from existing property.**

| The Water Calculator for New Dwellings with Water efficient measures | | | | | |
|---|---|---|---|---|---|
| Installation Type | Unit of measure | Volume/ flow rate | Use factor | Fixed use | Litres/person/day |
| WC (Single Use) | Flush volume (l) | 0 | 4.42 | 0 | 0 |
| WC (Dual Flush) | Full Flush Vol. | 6 | 1.46 | 0 | 8.76 |
| | Part Flush vol. | 4 | 2.96 | 0 | 11.84 |
| WC (Multiple Fittings) | Average effective flush volume (l) | 0 | 4.42 | 0 | 0 |
| Taps (excl. Kitchen) | Flow rate (l/min) | 6 | 1.58 | 1.58 | 11.06 |
| Bath (shower also present) | Capacity to overflow (l) | 185 | 0.11 | 0 | 20.35 |
| Shower (bath also present) | Flow rate (l/min) | 10 | 4.37 | 0 | 43.70 |
| Bath only | Capacity to overflow (l) | 0 | 0.5 | 0 | 0 |
| Shower only | Flow rate (l/min) | 0 | 5.6 | 0 | 0 |
| Kitchen sink taps | Flow rate (l/min) | 8 | 0.44 | 10.36 | 13.88 |
| Washing Machine | Litres/kg dry load | 8.17 | 2.1 | 0 | 17.16 |
| Dishwasher | litres/place setting | 1.25 | 3.6 | 0 | 4.50 |
| Waste disposal unit | litres/use | 0 | 3.08 | 0 | 0 |
| Water softener | litres/person/day | 0 | 1 | 0 | 0 |
| | | Total Calculated use (l/p/d) | | | 131.25 |
| | | Contribution from greywater (l/p/d) | | | 0 |
| | | Contribution from rainwater (l/p/d) | | | 0 |
| | | Normalisation factor | | | 0.91 |
| | | External water use | | | 5 |
| | | Total water consumption (36(1)) (l/p/d) | | | 124.44 |