Consulting Civil Engineers

Water Efficiency Measures

Marlpost Meadows, Bonfire Hill, Marlpost, Southwater RH13 9BU

For

Mr & Mrs M Ellis

Rev – **P**

Reference **C2041**

Date **26th February 2024**

Revision	Date of Issue	Comments	Prepared By	Checked By
P	26.04.2024	Initial Issue	LH	CS

Richard Cobden House, Lion Street, Chichester, West Sussex, PO19 1LW
Tel: 01243 933253 E: mail@cgscivils.co.uk **W:** www.cgscivils.co.uk

1 Introduction

1.1.1 CGS Civils Ltd has been appointed by Mr & Mrs M Ellis to undertake a Water Efficiency Measures report for a proposed development at Marlpost Meadows, Bonfire Hill in Marpost, Southwater which will follow the required measures that were listed within the Water Neutrality Report which was carried out by CGS Civils Ltd – Ref: **C2041 Water Neutrality Report**.

1.1.2 The proposals are to construct a single, three-bedroom dwelling. The water neutrality report has stated that the proposed 3-bedroom annexe is to have water efficient fittings and rainwater harvesting installed which will result in a water demand of **182.4 l/day** for the average occupancy of 2.47 as per HDC guidelines. The water neutrality report also states that 2 No. existing dwellings are also to have their fittings changed in order to offset the demand from the proposed dwelling and they will therefore follow this report.

1.1.3 The purpose of this report is to provide details on the fittings that may be installed within the proposed dwelling in order to adhere to the water usage set out within the water neutrality report.

2 Potential Fittings

Fitting Type	Water Usage Required:	Options:
Toilet	Dual Flush 4/2.6 litre	 Ideal Standard Close Tempo Toilet with 4/2.6l dual flush cistern  Roca The Gap Cistern 4/2 litre dual flush Or similar approved.
Basin Taps	2.5 litre per minute	 Savinga Tap Aerator EcoVand 2.5 l/min  Grohe Eurosmart Cosmopolitan Basin mixer tap Or similar approved

Bath	145 litres capacity to overflow	 Kaldewei Advantage Saniform 1750 x 750mm Bath  Aquabathe Legend 1500 x 700mm Bath Or similar approved
Showers	7 litres per minute	 Bristan 7l/min Flow Restrictor for Shower  Ideal L6960AA Flow Regulator 7 l/min Or similar approved

Kitchen Taps	5 litres per minute	 Bristan Pillar tap flow limiter  RS Pro tap flow regulator Or similar approved
Washing Machine	5.5 Litres per kg dry	 Fisher & Paykel WM1490F1 9kg Or similar approved
Dishwasher	0.73 litres per place setting	Bosch SM26EDIO2G  Or similar approved

3 Rainwater Harvesting Tank Options

3.1.1 The water neutrality report has stated that the proposed dwelling is to be fitted with a rainwater harvesting tank which will be utilised to provide water to the toilets and the washing machines within the dwelling as well as be used for all external use.

3.1.2 There are many options for rainwater harvesting tanks and the only thing to ensure is that the tank has sufficient storage to cater for a 35-day drought period. The tank will therefore need to have a capacity of **1500 litres** to cater for the anticipated usage within the property. The client may choose any harvesting tank they want, however, the tanks listed below are examples of suitable tanks.

Rainwater Harvesting Tank	Size	Photo
F-Line slim rainwater harvesting tank Filter to be included.	1500 litres	
GRAF Platin Underground Water Tank Filter to be included.	1500 litres	
		Or similar approved