

Rear of Blackberry House, Berry Lane,
Bersted

**Single storey dwelling. Amendments to planning permission
BE/64/17/PL.**

SUDS

SUDS

Condition 5 of the extant planning permission states:

Development shall not commence until full details of the proposed surface water drainage scheme have been submitted to and approved in writing by the Local Planning Authority.

The design should follow the hierarchy of preference for different types of surface water drainage disposal systems as set out in Approved Document H of the Building Regulations, the recommendations of the SUDS Manual produced by CIRIA.

Winter groundwater monitoring to establish highest annual ground water levels and Percolation testing to BRE 365, or similar approved, will be required to support the design of any Infiltration drainage.

No building shall be occupied until the complete surface water drainage system serving the property has been implemented in accordance with the agreed details. The details so agreed shall be maintained in good working order in perpetuity.

Response:

It is proposed to provide a fully integrated rainwater harvesting system for the new dwelling.

The dwelling has a roof area of 250 sq m and calculations are attached to show the size of tank that would be required as a minimum.

The submitted drawing 7 plan also show the route of the surface water drainage pipes, the position of the harvesting tank and the pipe route back into the dwelling – to a header tank in the loft area.

Tanks Size Calculator

The tank size calculator service is provided by RainWater Harvesting so you can establish the size of tank you might decide to install. You will need to know the approximate dimensions of your house in metres. If in doubt, just pace out the house length and width.

Collectable Roof Area (m²)

Main Building	Width:		Length:		Rain Collection Area:	0 m ²
Extension one	Width:		Length:		Rain Collection Area:	0 m ²
Extension Two	Width:		Length:		Rain Collection Area:	0 m ²
Extension Three	Width:		Length:		Rain Collection Area:	0 m ²
Or the total roof area, if you already know it:				250	Total area of collectable roof space:	250 m ²
Select Your Region				England SE & Central	Average rainfall per year in your region:	64 L
Collectable rainwater per annum in litres - discounted by 20% to account for water loss						128000 L

Use of rainwater in the building

Number of people or bedrooms in the building -	people: 4	bedrooms: 3
☒ Number of clothes washing cycles per day (50 litres each)	1.00 Cycles	50.00 L
☒ Number of toilet flushes per day (4.42 flushes per person, average 5 litres each)	17.68 Flushes	88.40 L
Outdoor use in litres, per person per day (recommended 5 litres per person per day)	5	20.00 L
Amount of water you require every day		158.4 L
Amount of water you require every year		DEMAND 57816 L

Final Figures

How many days drought protection do you need? Typically 21 (18 minimum)	21
Capacity of water storage in litres required for drought protection	3326.40 L
The lesser of YIELD (blue) or DEMAND (green) per annum	57816 L
Therefore, volume of rainwater storage required	3326 L

Conclusion

Is there sufficient roof water available:	YES
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