

**DRAINAGE DESIGN STATEMENT**  
**For**  
**Trevallyn Wood, Manor Lane, Rossett LL12 0HH**

**28 August 2019**

(Prepared by: EBC Ltd, 13 Hope Street, Liverpool, L1 9BQ. Document Ref: EBC00622.DrSt01.revA.PD)

*(Note: This document to be read in conjunction with EBC Ltd drawings:  
Existing and Proposed Site Layout: EBC00622-100, and  
Proposed Drainage Layout: EBC00622-200)*

**Property Address: Trevallyn Wood, Manor Lane, Rossett LL12 0HH**  
**Grid reference (existing septic tank): SJ 36581 56781**

**Description of Existing Property and Underground Drainage System:**

Trevallyn Wood is an existing residential property comprising a connected house and bungalow, with a separate barn. The house and barn were originally timber-framed buildings associated with the nearby manor house.

The surrounding area is rural, and the land use is predominantly agricultural and woodland. The topography of the site is generally level, with a slight fall to the south-east. The nearest main watercourse (the River Alyn), is located some 200 metres north of the site.

The existing underground drainage system comprises separate surface water and foul drainage.

The surface water is assumed to discharge to the pond on the eastern side of the site (ref drawing EBC00622-100), as this pond tends to fill during rainfall and then empties again. This is consistent with BGS geology and borehole records, which indicate that the site is underlain by sands and gravels; i.e suitable for percolation via soakaways.

The foul water discharges to an existing septic tank in the northern corner of the site, from where the discharge soaks to ground, via an infiltration system in the adjoining field to the north (ref drawings EBC00622-100 and EBC00622-200). This feature is shown on the legal plans of the property and is assumed to have been installed in the 1980's when the original residential conversion was carried out. Rights to soakaway via this land are therefore established.

### **Description of Proposed Property and Underground Drainage System:**

The proposed drainage for the modified property follows the same principles as the existing system; that is:

Surface-water will discharge to the existing pond/soakaway feature on the eastern side of the site. Some of the rainwater from the roof of the existing bungalow will be diverted via the new water feature in the courtyard, to ensure that water is renewed without the need to use mains (treated) water. Additional surface-water from the roof of the new extension, and from the roof of the new biomass boiler store, will also be diverted via underground drainage to the pond.

Foul drainage routes will be altered to suit the new extension, and all foul drainage will be routed to the existing septic tank. A new WC is required in the existing bungalow, and due to the site topography, the foul drainage from this WC will need to be pumped up to the gravity system. The route of the rising main is shown on drawing EBC00622-200. The routes of new drains have been positioned to avoid damage to existing tree roots. The new parking area will enable a tanker to park within 20 metres of the existing septic tank, for annual de-sludging and general maintenance.

### **Note re Foul Drainage Design Criteria:**

In accordance with Natural Resources Wales; the required criteria for the continued use of the septic tank are:

1. The septic tank (where it soaks to ground through an infiltration system) services no more than 13 people. Trevallyn Wood is compliant with this requirement.
2. A package sewage treatment plant (discharging to a water course) serves no more than 33 people. This requirement is not applicable to Trevallyn Wood.
3. Natural Resources Wales will check whether the sewage system is near a protected or designated area for the environment or a groundwater supply, for example, a Site of Special Scientific Interest (SSSI) or a Source Protection Zone for drinking water.
4. The sewage discharge needs to be 50 metres or less from a borehole or well. Trevallyn Wood is compliant with this requirement.