

Atodiad A

Parc Carafanau a Cwrs Golff Gwynus

19.3.19

Cyfanswm elifiant:

$$\begin{array}{lcl} \text{Nifer yr undedau gwyliau i'w gwasanaethu} & = & 9 \\ \text{Cyfartaledd person/ uned} & = & 4 \text{ person} \\ \text{Cyfanswm i'w gwasanaethu} & = 9 \times 4 & = 36 \text{ person}^* \end{array}$$

Rheolaeth Adeiladu: 'Approved Document H' - 2002 Edition incorporating 2010 amendments: Septic tanks, para 1.18: Design & Construction:

'Septic Tank capacity' o leiaf 2,700 litres (2.7m³) hyd at 4 person + 180 litres/person wedi hynny:

$$\begin{array}{lcl} \text{Felly,} & & \\ 4 \text{ person} & = & 2,700 \text{ litres} \\ 32 \text{ person} = 32 \times 180 \text{ litres} & = & 5,760 \text{ litres} \\ & & \hline \text{CYFANSWM ELIFIANT} & = & \mathbf{8,460 \text{ Litres}^{**}} \end{array}$$

* Noder mai unedau gwyliau sydd i'w gwasanaethu gan y 'septic tank' newydd, sef, defnydd tymhorol - gweler 7D ar y ffurflen gais am drwydded amgylcheddol.

** Maint y 'Septic tank' fwriedir ei ddefnyddio yw 10,000 litres. Dylid pwysleisio mai datbygiad hir dymor yw hwn, a hynny'n ddibynnol ar werthiant yr unedau cyntaf i arianu gweddill y datblygiad i'r dyfodol. Anelir at werthu un uned wyliau yn y tymor cyntaf, ac o ganlyniad i'r raddfa datblygu, mae'n anhebygol y bydd yr elifiant yn fwy na 5m³ y dydd dros y bum mlynedd nesa'.

DESIGN OF SEPTIC TANK AND DRAINAGE FIELD-
Caravans at Gwynus, Llithfaen.

Klargester type: STH091 9150L

Size of tank for suitable for 47(population equivalent) persons
@ 150l/head/day

Soil Infiltration Test to determine percolation value

The purpose of the investigation was to undertake Soil Infiltration tests in accordance with BRE Digest 365.

Two 0.3x0.3x0.9m deep trial pits were excavated in the area of the proposed drainage field. The pits were filled to 0.3m depth and the average time noted for water level to drop from 75% to 25%.

Test results (Test Date: 28/04/2018)

	Trial pit 1	Vp	Trial pit 2	Vp
Time 1 (sec)	4640	31	5320	35.5
Time 2 (sec)	4860	32.4	7300	48.7
Time 3 (sec)	5290	35.3	6200	41.3

Average $V_p = 37.4$

In accordance with Building Regulations Approved Document H a V_p of between 12 and 100 is acceptable for drainage field discharge.

Drainage field to be constructed using perforated pipe laid in trenches no steeper than 1:200, pipes to be laid on a 300mm layer of broken stone graded between 20 and 50mm.

Length of closed loop drainage field required

$$\begin{aligned} A_t &= P \times v_p \times 0.25 \\ &= 47 \times 37.4 \times 0.25 \\ &= 439.45\text{M}^2 \end{aligned}$$

Using 600mm wide trench, length required =
 $439.45/0.6 = \underline{732\text{M}}$