

BD

This or similar treatment plant.

Table 1 - Daily loadings for the site over a 24-hour period

Waste Source Description	Flow [l/day]		BOD [g/day]		Ammonia [g/day]	
	No.	Per Head	Total	Per Head	Total	Per Head
28 x 1 Bedroom Bungalows (3 berth)	84	150	12600	60	5040	8
20% Flow Reduction as per British Water			10080		4032	
40no WC Uses - Health Club	40	10	400	12	480	2.5
40no Shower Uses - Health Club	40	40	1600	19	760	2
1no Daily Instructor	1	90	90	38	38	5
5 BED HOUSE	7	150 (1,050)	540.			
		-20%				

Total for this Schedule

$\frac{12080}{* 12,920.}$

5272

718

Table 2 - Flows and influent concentrations

Biochemical oxygen demand [mg/l]	436
Ammonia concentration [mg/l]	59.4
Average hydraulic flow [l/hour]	503
Peak flow [l/hour]	1510

Table 3 - Effluent standard and desludge period

Biochemical oxygen demand [mg/l]	20
Total suspended solids [mg/l]	30
Ammonia concentration [mg/l]	20
Desludge frequency [days]	90

Table 4 - Three bespoke tank options to suit loadings

Marsh Ultra Polylok 90PE Tank Sizes

Tank Chambers	Chamber Length [m]			Volume [m ³]		
	Ø1.9m	Ø2.5m	Ø3m	Ø1.9m	Ø2.5m	Ø3m
Primary Hemisphere	0.45	0.65	0.85	0.85	2.13	4.01
Primary Settlement Tank	4.40	2.28	1.32	12.47	11.19	9.31
First Biological Zone	2.74	1.58	1.10	7.76	7.76	7.76
Second Biological Zone	1.12	0.65	0.60	3.17	3.17	4.24
Final Settlement Tank	0.84	0.60	0.60	2.38	2.95	4.24
Final Hemisphere	0.45	0.65	0.85	0.85	2.13	4.01
Total	9.99	8.41	5.31	27.48	29.32	33.56
		↑			↑	
		Recommended			Recommended	

Table 5 - Media and Air Requirements

Biological Zones	Media Required [m ²]	Total Air Requirements [m ³ /day]
First Biological Zone	471.77	711.33
Second Biological Zone	208.00	581.18

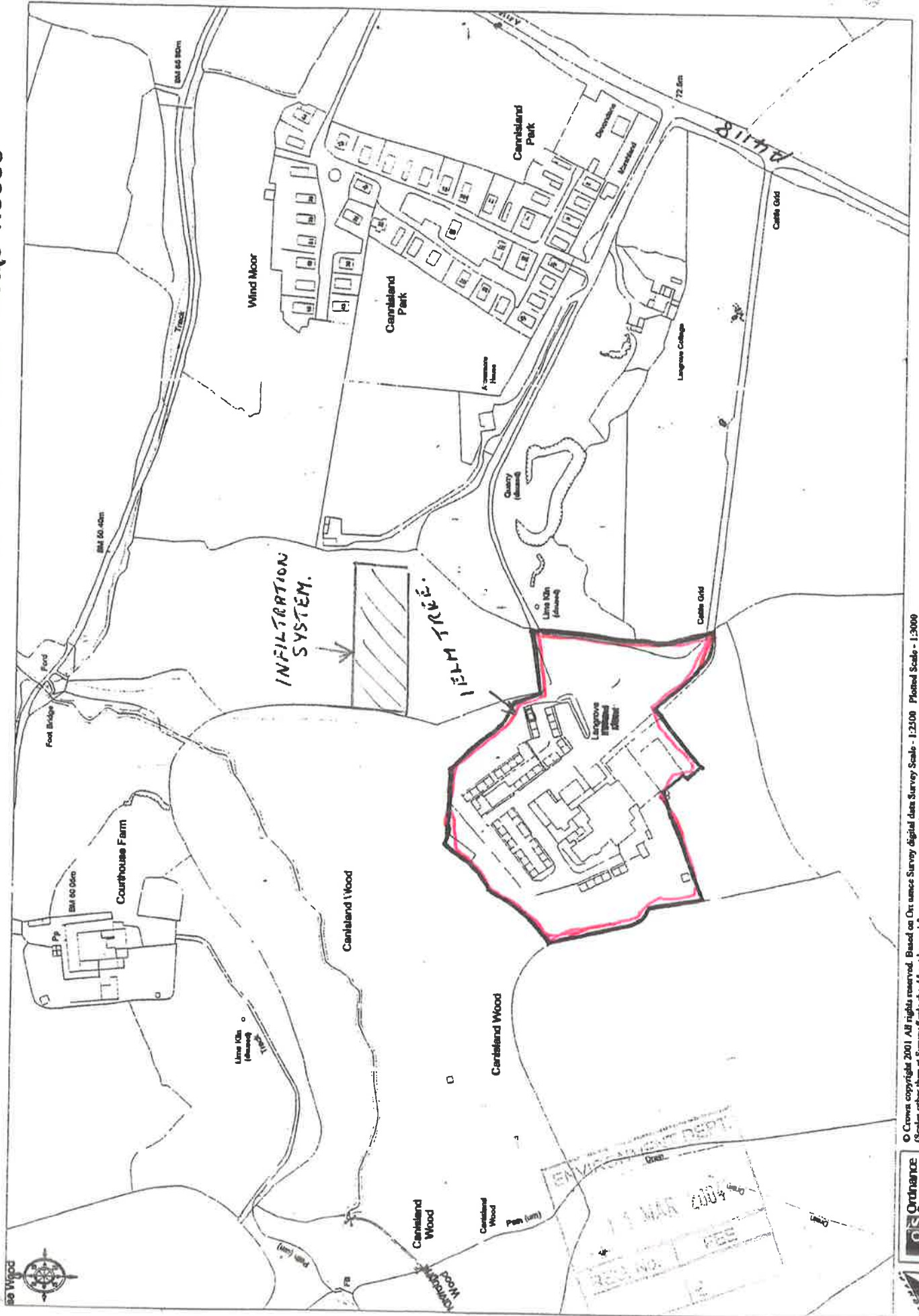
Table 6 - Price and payment terms for Marsh Ultra Polylok 90PE

Ultra Polylok 90PE Gravity Outlet

Langrove Country Club, Parkmill, Swansea - Site Location Plan - Scale 1:3000

* PLAN B.

2004/05/05



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NOTES.

1/. PERCOLATION TEST.

- (i) Dug 3 trial pits $0.3M \times 0.3M \times 1$ metre deep.
- (ii) Filled with water and left to soak away overnight.
- (iii) Filled holes to 300 ml.
- (iv) Timed water from 225 ml to 75 ml. on 3 days.
- (v) worked out average for each hole and divided by 150.

2/. INFILTRATION SYSTEM.

$$\text{Number of people} = 84 + 7 = 91.$$

$$\text{Health Club } 2,090 \text{ litres per day} \div 150 = \frac{14}{105} \text{ (equivalents)}$$

$$105 \times 21.9 \times 0.2 = 460 \text{ sq metres.}$$

- 3/. Building Inspector suggested keeping soak-away between holes 1 + 2.