

Ground and Water Technical Note regarding soakage testing

Site address: Land adj. to Church Lane, Climping, West Sussex BN17 5GG

Groundwater Strike Data

Your Environment undertook site works in February 2019 with groundwater depths whilst drilling recorded between 2.00 – 3.10m bgl across the site.

Ground & Water undertook site works between 13th – 28th March 2024 with groundwater strikes recorded between 0.50 – 3.00m bgl across the site.

Groundwater Monitoring Data

Ground & Water undertook groundwater monitoring between 23rd April 2024 and 1st July 2024 with groundwater levels recorded between 1.50m bgl to dry across the site.

Soakage Testing Results

Soakage testing was planned for 12No. trial pits across the site (BRE1 – BRE12). Whilst excavating BRE4 – BRE8 and BRE10 – BRE12 (8No.) shallow water ingress was noted and therefore in line with guidance the water ingress was monitored to understand the rest water level on-site. The table below summarises the rest water level within each trial pit as recorded 48 hours after excavating.

Soakaway Test Pit	Final Groundwater level (m bgl)
BRE4	0.60m
BRE5	0.95
BRE6	0.24
BRE7	0.24
BRE8	0.35
BRE10	0.49
BRE11	0.00 (at ground level)
BRE12	0.30

Given the shallow depth of groundwater within these locations, soakaways are not considered suitable in these locations.

Soakage testing within BRE1, BRE3 & BRE9 did not reach the required 75% and therefore no infiltration rate could be calculated in line with BRE365 recommendations.

Soakage testing was undertaken within BRE2 in accordance with BRE365 standards, the results of which have been tabulated below.

Soakage Testing Results						
Trial Hole	Test Number	Depth (m bgl)	Start Depth (m bgl)	Finish Depth (m bgl)	Time Taken (mins)	Infiltration Rate (m/sec)
BRE2	1	1.05	0.45	1.05	144	3.33×10^{-5}
	2	1.05	0.63	1.05	73	4.84×10^{-5}
	3	1.05	0.70	1.05	1043	3.27×10^{-6}

Given the above, only 1No. soakage test out of a total of 12No. worked in line with the BRE365 guidance. It must be noted that winter groundwater monitoring is currently being undertaken. In the absence of the winter groundwater monitoring data and reviewing the findings of the site investigation soakage testing above, it is not considered to be suitable across the site given the shallow groundwater recorded and the low infiltration rates encountered.

Thanks,

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