



Site Investigation Summary

114334 Hendy Eastleigh Phase 2

This summary has been produced following review of the 'Report on Ground Investigation at Leigh Road, Eastleigh' produced by Applied Geology dated March 2022 with report reference AG3386-22-AO16.

The works comprised six cable percussion boreholes (BH1 to BH6) to depths of approximately 15.00m below ground level (bgl). 8 machine excavated trial pits (TP1 to TP8) to depths up to approximately 4m bgl. 2 Soakaway infiltration tests in accordance with BRE 365 and 5 TRL DCP tests to approximately 900mm bgl to confirm CBR values. Groundwater monitoring wells were installed to confirm ground water levels.

The top layer across the site was found to be made ground or topsoil with depths between 0.3m and 0.9m. River terrace deposits were encountered below the topsoil and made ground to 4.5m to 6m bgl with Wittering formation encountered below.

During the drilling works groundwater was recorded in the form of seepages of between 2.3m and 4m bgl with the river terrace deposits. During subsequent monitoring visits relatively, stable standing groundwater was recorded at depths between 2.26m and 2.97m bgl and indicated flow direction to the southeast.

No visual or olfactory evidence of contamination was noted during the site investigation.

No source of ground gas was identified, this was confirmed from further ground gas monitoring undertaken during the groundwater monitoring visits.

Secondary A aquifers beneath the site are considered to be the controlled water receptors. All determinants were recorded below the relevant screening criteria and organic compounds below laboratory detection limits. The risk assessments identified a negligible risk to Human Health and controlled water receptors. It is considered that no further assessment or remedial actions are warranted for this development.

SPT N values recorded indicated that foundations would need to be placed below any made ground or topsoil. Foundations should bear in the in-situ medium dense (or better) river terrace deposits which are deemed suitable bearing strata to support spread foundations. For pad foundations up to 2.5m x 2.5m or strip foundations up to 1m wide an allowable bearing pressure of 250kN/m² can be used limiting total settlements to less than 25mm.

Buried concrete placed in or through the Made ground would require sulphate resisting concrete appropriate to DS-2 and AC1s.

The made ground is not considered suitable for supporting a ground bearing floor slab. Provided the made ground is excavated and re-engineered or replaced with a suitable granular fill a ground bearing can then be adopted. No gas protection measures are considered necessary.

Due to the inherent variability of the made ground an equilibrium CBR value of 2% is recommended. The CBR values within the River Terrace Deposits were recorded between 5% and 40%. The values recorded in the made ground may be improved by removal of deleterious materials and proof rolling

Conventional soakaways installed above the ground water levels in the river terrace deposits may be suitable with tests indicating high permeability.



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