Case study

Brough South

The Brough South development is a low-lying area of land located on the former BAE Systems Brough Airfield Site, to the north of the River Humber.

This £200m 125-acre mixed-use development delivered 750 new homes, commercial, health and education provisions, along with new infrastructure works.

Alan Wood & Partners' (AWP) Geotechnical and Civil team were involved with extensive land-raising and infrastructure works which were needed to ensure properties would not be susceptible to flooding.

This was achieved by importing chalk aggregate from local quarries and surplus natural excavated material from other development sites in the area. The material needs to be validated once placed to ensure it met the requirements of the earthwork's specification to enable shallow reinforced strips to be adopted as the foundation solution.

Large areas of the site was underlain by soft cohesive soils. Detailed settlement analysis was required to demonstrate settlement would not be a risk to the proposed development. External boundary slopes also required assessment to ensure their stability was not compromised by the proposed structures. Shallow groundwater reduced the competency of the natural soils at formation resulting in the requirement for a starter layer at the base of the fill of coarse as-dug chalk.

Alan Wood & Partners

Location:
Brough, East Riding of Yorkshire

Client:
Horncastle Group Plc

Architect:

Value:
£200m

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Continued...

AWP were responsible for ground investigation undertaken prior to development of the site along with preparation of the Materials Management Plan, Earthworks Specification, Designed the engineered platform and provided cut and fill design.

Prior to importation, all fill was tested at source in line with the earthwork's specification to demonstrate suitability for import, both from a geoenvironmental and geotechnical perspective.

Regular visits to site were undertaken during the earthworks to supervise validation testing undertaken on the fill. AWP validated the works met the requirements of the specification and where necessary addressed issues with performance on site. All information is present within a validation report and geotechnical design report for submission and approval by the NHBC.

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