

Residential Development



Location:
Scartho Top, Grimsby,
North East Lincolnshire



Client:
Vistry Partnerships
Yorkshire / Countryside
Partnerships



Architect:
Edward Architecture



Value:
£61 million



Civil Engineering

Structural
Engineering

Building Consultancy

Geotechnical and
Geoenvironmental
Engineering

Project Management

Specialist services

Alan Wood & Partners were appointed by Vistry Partnerships Yorkshire (now Countryside Partnerships) to act as the Civil and Structural Engineers for a new residential development located in Grimsby.

Engineering and Design Factors

The proposed residential development is located to the west and east of an existing spine road, constructed by another developer. Alan Wood & Partners had to design the adoptable surface and foul water systems to the constraints of the existing drainage system, including ensuring the discharge rates leaving the site did not exceed the allowable discharge rates of the existing system. Flow control manholes were designed at each connection point and attenuation was provided within oversized pipes. Prior to our appointment it was proposed that some of the attenuation would be provided within cellular crates within private areas however, Alan Wood & Partners were able to provide an engineered solution to remove these and ensure all stormwater storage remained within the adoptable drainage system, thus providing a CapEx saving to the Client and a reduced ongoing maintenance burden.

The foundations of the plots consisted of two solutions. Where the virgin ground was found to be competent, traditional strips were used. However, in areas where the water table was found to be high, thus reducing the bearing capacity, the foundations were designed to be founded on Vibro Stone Columns.

Description of the Works

Alan Wood & Partners were commissioned to carry out the Civil and Structural design for the entire development, including adoptable drainage and highways design, private drainage and externals design, foundations and structural design. This included working closely with statutory stakeholders to ensure that the highways and drainage design was in accordance with the relevant standards which resulted in obtaining swift Technical Approval.

Core services

Civil Engineering / Structural Engineering

Sectors

Residential