# **CASE STUDY**

**ENGINEERED SOLUTION FOR HOUSING PROJECT** 

For Compass Builders Ltd









DEEP SOIL MIX NG LTD

## **ENGINEERED SOLUTION FOR HOUSING PROJECT**

Soil stabilisation and ground remediation specialist Deep Soil Mixing Ltd has used their soil mixing solutions for foundations on a high quality housing project in St Mary's Bay, Kent.

The company's soil stabilisation techniques are being used across the whole site under residential dwellings to prevent extreme settlements from variable ground for client Compass Builders Ltd.

The site is in an enviable position, close to a beautiful sandy beach with stunning views out across the English Channel and planning permission has been granted by Shepway District Council for the development which will be called 'The Sands' on a brownfield site of a former hotel and military base which has been demolished. The scheme will consist of a range of 3, 4 & 5-bedroom houses and 1 & 2-bedroom apartments and will also include a new landscaped coastal park area, car park and children's play area.

Deep Soil Mixing Ltd has undertaken both column and mass mixing using their double rotary mixing head designed by Deep Soil Mixing Ltd Director Robert McGall, installing soil mixed columns to a depth of up to 10 metres as well as a soil mixed mattress across the whole of the site covering an area of just under 11,000m2.

The company has also used the cutter soil mixer on this project to install 200 soil mixed panels. The Cutter Soil Mixer was specifically used on the St Mary's Bay project to overcome some isolated areas of very stiff layers of clay which had softer soils below so it was necessary to mix through the clay into the soils below to enable remediation to take place.

In response to a foundation enquiry from the consulting engineers Considine, Deep Soil Mixing Ltd put forward various options that soil mixing could provide to deliver a design solution that saved the client time and reduced cost. Deep Soil Mixing always advise getting involved with projects as early as possible in the process to create engineered solutions that offer real cost savings including real benefits such as reduced vehicle movements and the efficient use of on site materials on their projects, which reduces the carbon footprint and offers environmentally friendly sustainable solutions.

"Innovative soil stabilisation techniques are being used for the first time under residential dwellings to remove extreme settlements from variable ground! These works are shaving more than 18 months off the programme for a conventional 'load and settle' solution as well as providing improved stability behind coastal defences. We do like an innovative solution!"

Roland Cooper, Considine Ltd

Soil mixing was specified for use on this residential site to eliminate the differential settlement across the site. The alternative solution was to either pile the buildings which would have created huge conflicts in differential settlement or to remove soil from the site and take to landfill which again was not a cost effective or environmentally friendly solution. Soil mixing is also quieter than piling and has zero vibration which meant there was no impact on the surrounding residents.

### FIND OUT MORE

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