

## Sowerby Bridge Copley Valley Development – Factsheet (2)

### Land Remediation: Soil Treatment

As part of the development scheme, approximately 14 hectares of land are being remediated: that's almost 13 full size football pitches. This factsheet explains some of the technical processes that are involved.



Plant working in the residential area to build up the site level

Remediation and earthworks on the project are undertaken in accordance with a 'Remediation Strategy' document that strictly manages environmental and geotechnical testing & monitoring of all materials utilised in these enabling works.

### Ground modification process

The process that the contractor is using is with lime only (although cement may be used at the surface, in lieu of capping thickness). Lime is used where schemes have very wet areas of soil or silts that need to be more workable to re-engineer back into the ground.

The lime introduced reacts with moisture in the soil – which is of very high content on this project. The lime effectively hydrates water (H<sub>2</sub>O) from the soil, which then evaporates from the soil as steam. The mist you can see rising from the processed area on the photographs below is steam as the lime reacts and hydrates the water from the soil. It is warm only to the touch.

The lime modification process makes the soil workable relatively quickly, enabling it to be engineered into the works in a traditional manner – i.e. by bulldozer and roller compacting managed layers, which are in turn sampled and tested by the geotechnical technicians resident on site.

A specialist subcontractor has been engaged to carry out the treatment works and the remediation process is described & demonstrated in more detail on their website (watch the video) - <http://www.beachstabilisation.com/process.php>

The photographs below show the different stages of the remediation treatment works:



Lime is mixed in with the soil to release moisture...



... to produce hydrated soil which can then be re-used across the remainder of the site.



Plant working in the employment zone to manage old watercourses and build up the site level