## Sullart Street, Cockermouth Earthworks and Stabilisation



Client: Thomas Armstrong

Main Contractor: **Thomas Armstrong** 

Value: £275k

Location: Cockermouth, Cumbria

Duration: 8 Weeks

Volume of Firmafil Stabilized Soil: 17,000m<sup>3</sup>

Area of Firmabase Stabilized Soil: N/A



This was a subcontract for Thomas Armstrong Construction to undertake ground improvement works to a maximum 9m depth below a housing development. The site was a former gas works on significant slope and involved the excavation and deposition with *Firmafil* treatment of 9,000m3 of on site material and the same treatment to 8,000m3 of imported materials. The site also had significant areas of localized pits which were also successfully treated



The housing development was warranted by the LABC (local Authority Building Control). The site also had significant areas of localized pits which were also successfully treated



The ground solution was to place the fill to 5% CBR with compaction to >95% Maximum Dry Density and air voids averaging less than 5% air voids. This was selected in order to provide a bearing capacity of 150kn/m2. The completed surface was also subject to a maintained load dummy footing loading test, at locations selected by the LABC, to 150kn/m2 with a maximum allowable settlement of 10mm. The average settlement result was 4.5mm showing that the stabilised solution fulfilled the clients requirements and would not be susceptible to excessive-long term settlement.

