

SEA Soil Nail Case Study - 10th September 2012

Site:

Private residential dwelling in Royal Leamington Spa, Warwickshire.

Problem:

Immediately to the rear of the property was a steep embankment which years before was home to a railway line. Beyond the old railway were more houses some 20 meters above the property.

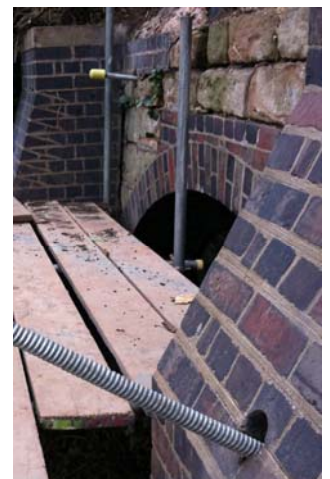
Running behind the property and down the length of the side garden was a retaining blue engineering brick wall (built at the time of the railway line) and sandstone. Movement in the wall had occurred over time and there

was a serious threat of the embankment collapsing into the garden and potential subsidence for the properties above.



Solution:

The embankment needed to be secured and soil nailing specialists, Piletec Geotechnical, won the contract and chose SEA's soil nails. Soil Nail lengths of between 3 meters and 9 meters were used through the blue brick, into clay, weathered sandstone and finally weak sandstone.



Materials:

- SEA T32mm 680 series soil nails with Ultimate Load of 285 kN
- SEA 90mm Star Cut Bit - With hardened blades and flushing holes behind the cutting edge for optimum grout delivery.
- Adaptor for 'Rope' Thread to 'T' thread.



Piletec's Rig Operator said he was very impressed with the strength of the SEA hollow bar with larger diameter hole which improved flushing and grouting speeds. The adaptor worked very well and unlike others, the bar did not seize in the drive but remained loose allowing for easy removal and additional lengths to be added without delay. Thanks to SEA the project was on time and within budget.