



PROTECTAHOME LTD STRUCTURAL SOLUTIONS

Targeting problems with the **BEST** solutions

Established 1980

LATERAL RESTRAINT, PLYMOUTH ROAD, PENARTH

Case Study: 243a

THE PROBLEM

Protectahome were asked to inspect this three storey, semi-detached stone property in South Wales. The property is over 100 years old, constructed from Blue Lias Limestone and was suffering from a bowing right hand side elevation wall.

This was the result of a loss of bond between the inner and outer skins stonework and settlement of the rubble fill coupled with inadequate lateral restraint of the wall.

THE SOLUTION

Protectahome's surveyor completed a detailed inspection of the problem areas and concluded that an economical, non-disruptive means was required to stabilise the 500mm thick wall and to fully secure it to the main property.

A repair scheme was devised that utilised Helifix SockFix Anchors and HD BowTies to restore lateral restraint to the wall.

HD BowTies were installed at the first and second floor levels. Clearance holes were drilled through the wall and BowTies were then inserted and driven through the first two parallel floor joists before the outer ends were resin bonded into the stone work.

Following the core drilling of clearance holes, 3m long SockFix anchors were inserted through the wall and the floor joists around the landing areas. Once the SockFix anchors had been inflated with grout, they expanded between the joists to secure the wall to the floor structure.

Original cores were kept and later replaced following the installation, leaving very little or no sign of the structural repair work undertaken.

On completion of the work, a long term Protectahome Guarantee was issued to provide added piece of mind and security for our client.



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