

Lateral Restraint

Solid Stone Cottage, Goat Street, St Davids, West Wales

Client: Private Owner

Completed: 2015

Case Study No: 244

- Helifix Sock Anchoring
- Lateral Restraint
- Diamond Drilling

The Project:

To arrest movement of the gable end of this 150 year old holiday home in the UK's smallest city, St Davids, West Wales.



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Goat Street, St Davids - The Problem

This 150 year old, semi-detached property was suffering from separation between the gable end wall and the front and rear elevations at 1st floor and attic floor levels. The property, located in St Davids, West Wales, the smallest city in the UK, is currently used as a holiday home in the popular tourist area.

The outward movement of the 650mm thick, rubble filled, solid stone gable wall, was due to a lack of lateral restraint and had become apparent during renovation works where the removal of the roof to an adjacent single storey structure may have reduced lateral support for the wall further.



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Goat Street, St Davids - The Solution

In coordination with the manufacturer, Helifix, it was decided that Helifix SockFix Anchors were to be installed to the gable end wall at 1st floor, 2nd floor and attic floor levels.

The anchors were to provide lateral restraint across the whole wall, where voids were present, by providing a solid anchorage to the timber floor structure and internal wall structure.

Holes were drilled through the gable end wall and the first 3 floor joists, which ran parallel to the wall, and 22 No: 12mm x 1.6m Helifix SockFix Anchors were inserted through the wall and floor joists before being inflated with grout. The grout inflation causes the anchors to expand to fill all spaces within the wall and the gaps between the joists to provide a solid anchor.

In addition, 11 No: 12mm x 1.0m Sock Anchors were installed through the gable wall into the internal cross wall (115mm thick blockwork) to provide additional lateral restraint.

All of the anchors were installed from the outside of the property, meaning that only relatively small areas of floorboard needed to be lifted to expose the joists. This prevents added disruption and costly reinstatement work. This method of installation also leaves an aesthetically pleasing invisible repair.

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



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