

LACK OF MOVEMENT JOINTS CAUSES MULTIPLE CRACKING OF CALCIUM SILICATE BRICKWORK

Client: Oxford City Council
Location: Oxford

A parade of five shops with two stories of flats above, constructed using calcium silicate bricks in the early 1970's, was suffering from extensive masonry cracking.

This was caused by shrinkage of the bricks over time and the lack of any movement joints across the width of the five properties, combined with some deflection of the support beams.



HELIFIX SOLUTION

- Helifix engineers devised the repair, undertaken by the Approved Installer, causing minimal disruption to the occupants or the structure and allowing the shops to remain open throughout.
- To stitch all the stepped cracks, single HeliBars were grouted into mortar beds at three levels between the first and second storey windows and double lengths at two levels below first floor windows across the entire front elevation. Single short HeliBars were used in other locations.
- Full height movement joints were created between each property by cutting vertical channels, stabilised each side with DryFix ties. Movement joints sets were installed with 400mm HeliBars bonded across the joint, at various levels, with one end free to move inside a special sleeve, before filling the joint with flexible mastic to complete full structural stabilisation.

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