

## Case Study

**Service:** Shear Testing Anchors

**Location:** Belsize Park, London

**Client:** CJ O'Shea & Co Ltd.

Swantest were employed to carry out a series of shear tests to determine the allowable resistance of Hilti anchors on a listed brick façade.

These anchors were safety critical as they will be used to restrain the listed faced over three storeys. Resolving the load capacity of these anchors was impartial for the design procedure of the façade retention system.

The test involved shear testing 10 anchors to failure, recording the applied load, the actual deflection of the anchors and to determine the failure mode of each anchor.

A custom made shear rig was used for the test combined with a digital pressure recorder to accurately apply and record loading.

All tests were in accordance BS8539:2012, BS8580-2:1986 and CFA Procedures for Site Testing Construction Fixings 2012

Key to images:

1. Test apparatus for Shear Test
2. Failed anchor under shear. The base material failed
3. Failed anchor under shear. Showing one of the three cracks developed on the base material.
4. Graph produced using a digital gauge showing the applied pressure to the anchor over time.

