

Case Study

Service: Floor Loading Test
Location: 35-50 Rathbone Place,
 London, W1T 1HQ
Client: Erith Contractors

Swantest were employed by Erith Contractors to perform a load test on the roof slab of No.35-50 Rathbone Place.

The aim of this test was to determine if the reinforced concrete roof slab was capable of supporting the load of an 8 tonne excavator plus the extra load from demolition arising's.

After the roof slab was stripped of its waterproofing layer & any compressible material, we used hydraulic jacks to induce a factored load of 196kN (20tonne) on the slab. By utilising the lower slabs as restraint (shown in Figure3) the roof slab was loaded incrementally and monitored for cracking and deflections by taking floor to ceiling heights on each level throughout the test.

Our clients benefit from receiving a detailed report outlining slab construction details and a factual report on the response of the slab under load. The results of the test can be used to redesign the required propping scheme and select a more appropriate size of demolition machinery, hence minimising required propping and speed of demolition.

Key to images:

1. Test position & equipment arrangement on the roof slab.
2. Test location stripped of any compressible material.
3. Cross-section of test configuration.
4. Typical hydraulic equipment setup. Each jack has its individual pressure gauge and flow control valve.

