

10-12 Farm Street, UK



Structural Isolation CDM Simple Bearings

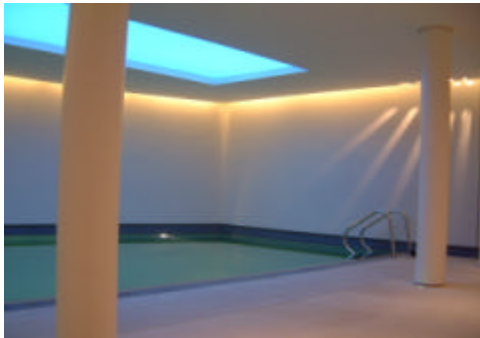


Main Contractor Kier London
Architect Barrett Lloyd Davis
Acoustic Consultant Bickerdike Allen
Structural Engineer Price & Myers
Weight 19MN

10-12 Farm Street is a luxury residential development in Mayfair, the most desirable residential area in the whole of the United Kingdom.

The development is directly above the Jubilee Line in between Green Park and Bond Street. The previous and adjacent buildings suffered from audible levels of re-radiated noise during train pass-bys.

The main building isolation occurred at ground level with the bearings under the front façade being sliding to allow for the probable movement of the retaining wall. The isolation system included bearings under columns, walls and beams.



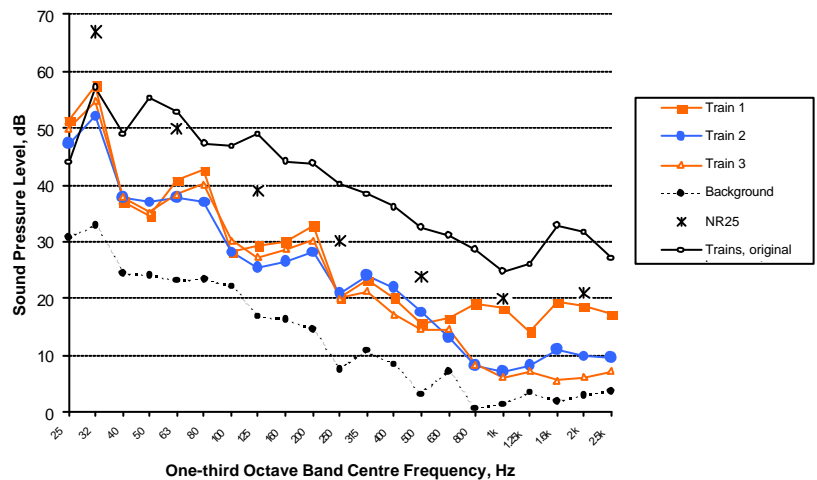
The basement floor areas that included a gym were constructed as box-in-box constructions with CDM-UK floating floors and isolated walls.

The swimming pool was also independently constructed on a CDM-UK floating floor with no solid mechanical fixings to the adjacent non-isolated structures.



After a vibration survey to determine the magnitude of the vibration, the acoustic consultant specified that isolation bearings with a natural frequency of 10Hz were required to bring the level of intrusive re-radiated noise to below NR25, the quietest likely background noise level from services in the completed building.

Measurements in the building after completion showed that significant reductions were achieved, easily meeting the specified criteria.



CASE STUDY – CDM-ISO-STRUCTURE

CDM-UK
 PO Box 7035
 Melton Mowbray
 Leics LE13 1WG



T: + 44 (0) 1664 482486
 F: +44 (0) 1664 482487
 E: info@cdm-uk.co.uk
 www.cdm-uk.co.uk