

Great Ormond Street



Floating Box-in-Box CDM-ISO-MACHINE-FLOAT



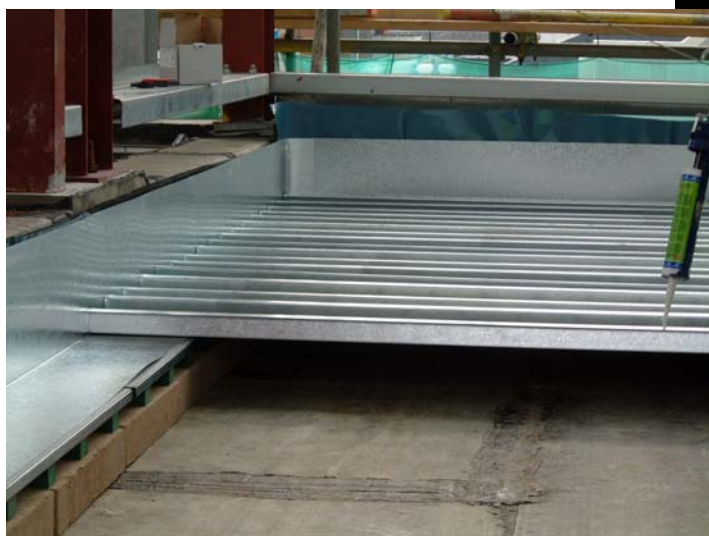
Model of the new extension building

Client	Great Ormond Street
Main Contractor	HBG
Architect	Anshen Dyer
Acoustic Consultant	Arup Acoustics
Area	37m²

The New Botnar Building forms part of the 20 year improvement programme set for one of the worlds best known and loved Children's Hospitals. The new six-storey building will provide the most up-to-date medical facilities providing excellent care conditions for the children.

The Emergency Generator for the building is situated on the roof directly above medical areas and the Acoustic Consultants, Arup Acoustics, specified that a floating box-in-box construction should be built consisting of a floating concrete slab which supports dense concrete block walls and a 150mm thick in-situ concrete roof. This construction not only protects the hospital from unwanted noise and vibration but also controls the level of noise emitted to nearby buildings.

CDM-UK proposed their CDM-ISO-LAT-SPECIAL system using isolation bearings with a 7Hz natural frequency. The system created a 150mm concrete slab over a 125mm air void thus maximising the overall system natural frequency.



Around the perimeter of the floating floor, a slip joint was installed between the CDM05 perimeter isolation and the metal edge closure. This allows the box-in-box construction to settle in relation to the supporting structure as the weight of the concrete floor, dense blockwork walls, concrete ceiling and generator are installed.

CASE STUDY – CDM-ISO-MACHINE

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