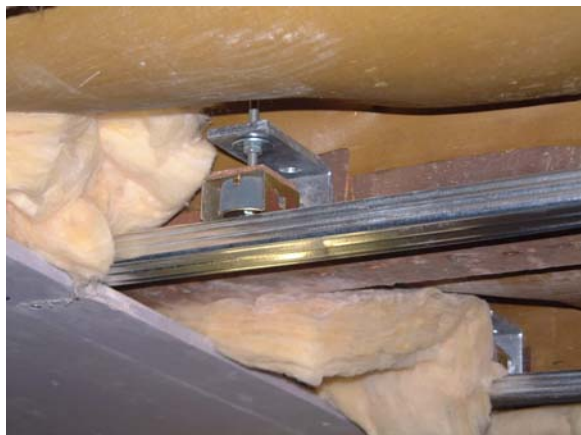


32 Emperors Gate



Floor & Ceiling Sound & Impact Isolation
CDM-ISO-TOPHAT, CDM-ISO-CC



Main Contractor	CC Construction
Architect	Daniel Hopwood
Acoustic Consultant	Paul Gillieron Acoustic Design
Area	3 rooms totalling 90m²

32 Emperors Gate, Flat 2, has been refurbished for a client who wanted to optimise the sound and impact isolation between his flat and the flats directly above and below him. The reason for this is that he wanted to play music loudly in his living room without the worry of disturbing his neighbours and he also wanted to have hard floor finishes in his living areas.

Mark Hornsby of Paul Gillieron Acoustic Design and CDM-UK proposed floor and ceiling systems that optimised the sound insulation and impact isolation of both constructions within the structural loading and architectural constraints.

The Floor: the floor construction consisted of deep joists into which was placed layers of mineral fibre sound insulation and barrier mat. On top of the joists were placed CDM-ISO-TOPHAT rails which supported SoundBloc plasterboard in the flanges as well as 2 layers of flooring plywood. On top of the system the floor finishes were installed which included timber and stone flooring.



The Ceiling: the main difficulty with the ceiling was the requirement to maintain the cornice details. This meant that there was very little room to lower the existing ceiling height. To accommodate this problem angles were fixed into the joists using coach bolts and CDM-ISO-CC hangers and CDM-ISO-PROFILAT rails were installed and levelled to create a rail system that was only 10mm below the bottom level of the joists.

In the void above layers of mineral fibre sound absorption and barrier mat were installed before 3 layers of SoundBloc plasterboard were installed.

To avoid contact of the suspended plasterboard with the walls a CDM-ISO-PERIMETERSTRIP is installed. This minimises flanking sound transmission through the walls.



CASE STUDY – CDM-ISO-BOX

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