

hub by Premier Inn

Edinburgh, UK



Property Owner

Premier Inn



Main Contractor

Interserve



Structural Engineer

Arup



Architect

Archial Norr



Acoustic Consultant

WSP

OVERVIEW

A new hub by Premier Inn hotel has been built in Edinburgh on Torphichen Street which lies directly above one of the two running tunnels between Edinburgh's Haymarket and Waverley stations.

Stravifloor Deck, Stravibase SEB

- High-performance floating floor system for concrete and light wooden construction (Stravifloor Deck)
- Series of elastomer pads laminated to formwork (Stravibase SEB)



SOLUTION

The acoustic consultant specified that the building should be isolated on 8Hz [Stravibase SEB](#) bearings to make sure that structure-borne noise levels from trains did not disturb the occupants of the hotel.

The hotel was constructed as a Metsec frame on top of a one storey concrete frame. Our local branch worked with the design team to develop an isolation system that consisted of a fully isolated slab at first floor level that the Metsec frame was built off.

Ground floor hotel rooms were built off [Stravifloor Deck](#) floating floors to create box-in-box constructions and the lift pit also had a thick concrete floating floor to complete the isolation of the main hotel structure.

The type of construction created a moment frame that made the building extremely stable, sharing all horizontal and overturning forces across all of the bearings.

