

## Marylebone Square KIER CONSTRUCTION

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A prestigious mixed-use development in the heart of the historic Marylebone neighbourhood, the mixed-use development comprises 54 luxury and 25 affordable apartments, with over 53,000 sq ft of high quality retail and wellness space, including a five storey courtyard beneath a glass canopy.

Our friends at Kier required our expert input and services for building services and architectural acoustics through RIBA Stages 5 and 6. Designed to achieve BREEAM 'Excellent', the unique courtyard environment, with services running below the bespoke elevated walkways, raised certain complexities to overcome, but provided an engineering challenge – our favourite thing.

Appointed to discharge multiple planning conditions set by Westminster City Council relating to external plant noise, external noise intrusion and internal noise transfer between commercial and residential areas.

We demonstrated that the future residents will be exposed to noise levels substantially below the existing ambient noise climate, and that mechanical plant achieves the stringent noise emissions criteria.

External noise intrusion was well controlled, as was internal noise transfer between the commercial units, with a sound reduction performance of around  $R_w + C_{tr}$  65dB.

CSA provided their full suite of pre-completion sound insulation testing and acoustic commissioning of mechanical services for the apartments.

CSA also conducted post-construction compliance testing within the retail areas of the development to determine whether credits can be awarded under the Hea 05 issue of BREEAM UK New Construction 2014, and the development did indeed comply with Hea 05 Design Criteria.