

## Lancer Square, South Kensington

Complete	Area	Client	Architect
2022	London, UK England	Mace Limited CIT Real Estate Partners LLP Lancer Square Limited	Squire & Partners

Lancer Square is a 13,600 sqm mixed-use scheme on Kensington Church Street which includes four blocks ranging from four to seven storeys and includes fifty-one luxury residential apartments, a new-build office block with retail at ground level, and a large shared basement including spa and amenity spaces.

The building was designed to provide sound insulation standards at least 5 dB better than the Approved Document E standards for the apartments, and British Council for Offices standards were adopted for the office spaces.



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## Acoustic design

The Lancer Square development is located on Kensington Church Street which is a busy road and bus route. A key challenge for the design team was control of environmental noise ingress to the apartments on this elevation. An environmental noise survey was carried out to determine the noise climate at the site.

3D acoustic modelling was utilised to assess the required facade sound insulation performances to meet appropriate internal noise level standards. The building envelope design and details were carefully considered to ensure they met with the acoustic requirements.

The luxury residential apartments were designed to provide enhanced sound insulation standards. Concrete floors with resilient layers, twin-stud drywall systems along with carefully considered interface detailing were implemented to achieve the specified standards. Pre-completion testing was carried out to 10% of the apartments to demonstrate compliance with the requirements.



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The offices were designed based on achieving the British Council for Offices standards and obtaining compliance with the Hea 13 (Acoustic Performance) and Pol 08 (Noise Pollution) credits under BREEAM 2008.

3D modelling was also carried to assess the attenuation requirements for external and internal plant to ensure compliance with the relevant planning noise criteria and BREEAM Pol 08 outside nearby noise sensitive receptors.



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The development amenity spaces included a swimming pool, a gym/studio and spa. Appropriate acoustic standards for these spaces were developed. Noise and vibration transfer associated with the gym was mitigated through an enhanced lightweight floated floor system.