

3 Acoustic criteria

3.1 Establishing the acoustic criteria

It is important to establish adequate acoustic design criteria for healthcare premises. This document presents the minimum recommended criteria. Developments may differ considerably, so some of the recommendations may not suit each and every unique situation. Therefore, the application of common sense and good design is also expected.

At the outset it is recommended to prepare a brief statement of acoustic criteria for each project and discuss with the project stakeholders. This will establish the acoustic requirements and any particular acoustic issues that affect the development.

The presumption will be that these criteria will equate to those listed in this document. The responsibility will be on designers to identify if the identified acoustic criteria can be achieved. If that is not possible, set out a mitigation strategy or an argument for changing them.

If in doubt, seek the advice of a specialist Acoustic Engineer.

3.2 Pre-design noise survey

It is important to assess the development site layout to optimise the acoustic performance. The building location/ plot can be investigated in terms of noise exposure during the planning stage.

Following that, a noise survey can be carried out before the design starts. Ambient noise levels would be required during the design. Vibration readings may also be required e.g. site being close to a railway. A qualified, competent acoustical consultant can be engaged to carry out the noise survey at suitable locations and times.

As a minimum, the survey should cover the highest daytime noise and if relevant vibration levels. In addition, capturing the night time lowest levels for the same area is necessary.

The design needs to account for any future changes on and around the site e.g. construction of a new highway. Evaluate and assess the noise generated by nearby buildings that are to be retained and the impact of the new development. The recorded noise levels on site, may dictate the ventilation strategy, space planning, building massing and layout.