



Acoustic Solutions for Medical Facilities



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The Hodgson & Hodgson Group has gained an enviable reputation for the design, manufacture, installation and commissioning of a wide range of medical diagnostic, consulting, treatment and interview rooms to comply with the relevant Building Regulations and design and build criteria laid down by the National Health Service. The scope of supply extends from the building of new rooms of the highest specification, to the up-grading of existing rooms for optimum acoustic performance with minimum financial outlay. Rooms are designed to provide a comfortable working environment for staff and a relaxed atmosphere for patients.

The Hodgson & Hodgson Group specialises in providing a complete service to meet acoustic performance criteria laid down by clients or the specifying body. Individual budgets and the following regulatory guidelines are generally taken into account during design:

HTM 2045 (NHS Estates) specifications

'A Design Guide for Hospital ENT Services' document DS 32/74

NHS Building Note 12 Supplement 3 - ENT, AC and HA Centres 1994

'Standard Procedure for Testing & Qualification of Audiology Test Rooms' document CE (76).

Highly qualified design engineers and acoustic consultants are available to offer assistance and advice on all aspects of a project. A routine maintenance manual is issued upon completion, or alternatively, a maintenance contract is available covering an annual visit for both routine maintenance and acoustic integrity checks.

Diagnostic Audiology Suites

Diagnostic audiology suites can be designed to meet full engineering and build criteria. Typically, this involves building a number of rooms for testing, observation and interviewing. Each room, built on the 'room within a room' principle, is mounted on a high performance floating floor and incorporates an acoustic ceiling, timber and/or steel acoustic doors and an entrance lobby.

Vestibular Test Rooms

Vestibular test rooms can be supplied to provide a very quiet environment whilst not necessarily meeting the stringent criteria of a full audiology suite. They may also be used for non-clinical applications such as behavioural analysis and research. Vestibular test rooms may be located in areas with an external window and can be designed to include such features as wash basins.

Kiosks

Separate one or two person audiometric test kiosks are available with a single door, ventilation, lighting and a multi-socket patch panel for the transmission of audio data. Kiosks provide internal ambient noise levels of NR 30 or NR 25 depending upon individual requirements and kiosk location.

Consulting and Treatment Rooms

The privacy factor of existing rooms can be improved significantly by acoustically treating the walls, ceilings and/or floors and by fitting an acoustic door. In addition to the benefit of excluding external noise, the internal finishes provide a bright and relaxing environment for consultation work.

Walls and Roof

The walls and roof are constructed using steel CoustiPanels which are strong and extremely adaptable. CoustiPanels are 100mm thick with a mass-enhanced, inert, non-combustible, acoustically absorbent in-fill. They are designed to be assembled on-site and form a robust, rigid structure that can be dismantled and re-located at a later date if required.

Floors and Floor Coverings

A multi-layer, isolated floating floor system is designed to suit the acoustic environment of each site. Floors are finished with an anti-static quality carpet or carpet tiles, both of which are available in a choice of colours to complement the interior design and decoration of the room.

Doors

A wide range of high quality steel and timber acoustic doors are available for internal or external use. SilentDoors are designed for ease of operation and can be sized to provide wheelchair access if required. Single doors can be installed to provide acoustic ratings from Rw 38dB to Rw 50dB. Alternatively, two doors can be fitted in a 'back to back' configuration to form an air lock, or spaced to create a lobby system to further enhance acoustic performance. Fire rated acoustic doors are also available on request. SilentDoors are supplied in various wood veneers and powder coated metal finishes complete with door frame, threshold seals, a choice of door furniture and vision panels.

Interior Design

Internal walls are usually lined with decorative SoftSound panels manufactured from sound absorptive mineral fibre covered with an acoustically transparent fabric. Alternatively, walls may be covered with a StretchFabric system for a seamless finish. Two standard fabric ranges are available, each with a choice of 40 colours subject to minimum order quantities. Cara fabrics have a relatively open weave, providing a hessian effect, whilst Screen fabrics have a closer weave for a smoother finish.

Ceilings and Lighting

A suspended ceiling system is normally fitted below the steel CoustiPanel roof to ensure acoustic requirements are met. A variety of white ceiling tiles are available for fitting into a metal grid. Low noise lighting, specifically designed to eliminate glare and reduce reflection on VDU screens can be recessed into the ceiling or wall mounted. Emergency lighting is incorporated as standard for use in the event of a mains power failure.

Ventilation and Electrical Services

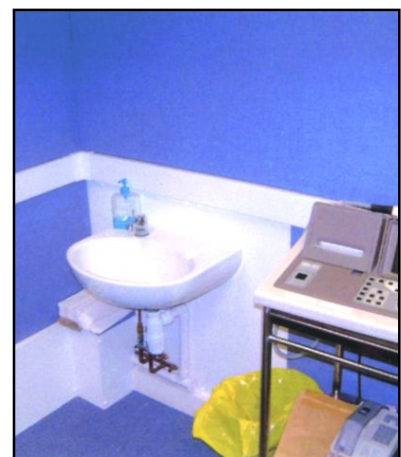
For clinical testing rooms, the ventilation system is an independently installed and operated DX unit, fully controlled from within the room. Existing ventilation systems can often be adapted, modified and silenced for use in other rooms. Electrical wiring is neatly hidden in white PVC trunking which can be positioned at skirting board level or dado rail height. This enables equipment and furniture to be repositioned within the room when required.

Windows and Observation

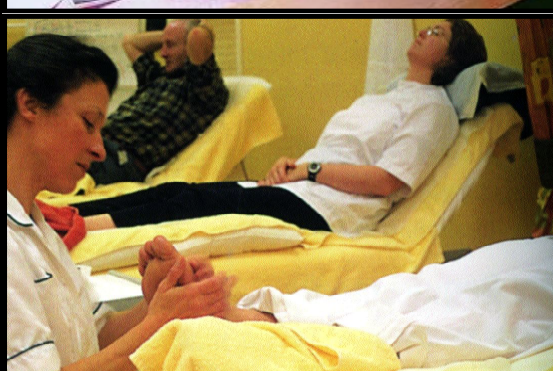
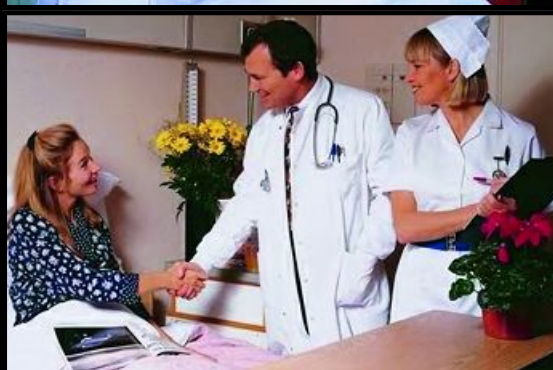
Where it is possible to retain natural light, additional high quality laminated safety glass can be fitted to the existing external windows, thus providing double or triple glazing to maintain the acoustic integrity of a room. Double or triple glazed observation windows with a patch panel below can be incorporated into the interior walls where required. All window reveals are lined with SoftSound to match the wall finish.

Safety and Other Features

In addition to emergency lighting; smoke and fire alarms, nurse call buttons and infra-red alert systems can be incorporated into the overall design of the room. Cat 5 pre-wired patch panels are often installed below the observation window to allow data transfer during diagnostic testing and for communication with patients. Hand wash facilities can be included for personal hygiene.



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