

FIGURE 1 BRITTEN OPERA THEATRE - REVERBERATION TIMES

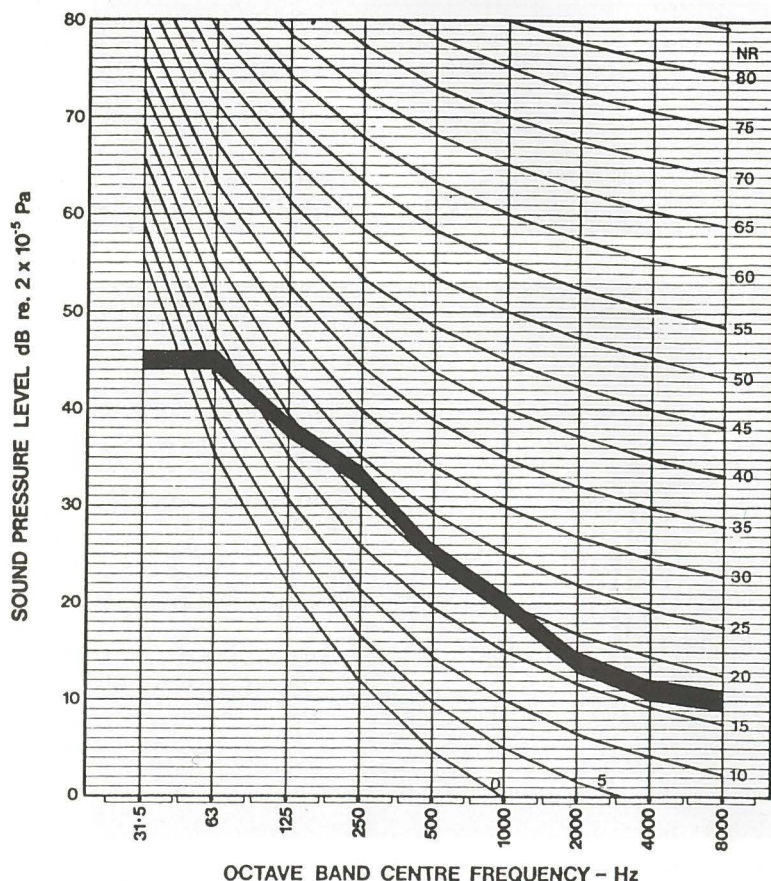


FIGURE 2 BRITTEN OPERA THEATRE - NR CURVE

concert hall and surrounded by a chorus of music practice rooms. The vagaries of the law relating to VAT on the extension of buildings combined with the insistence of the acoustic consultant ensured that there were no rigid links between the new theatre and the existing building. The roof was designed to match the performance of the masonry walls.

Particular care was taken to minimise noise penetration via the inevitable weak link of the stage lantern, by facing the opening lights inwards rather than outwards in the more conventional way and hence screened from the surroundings.

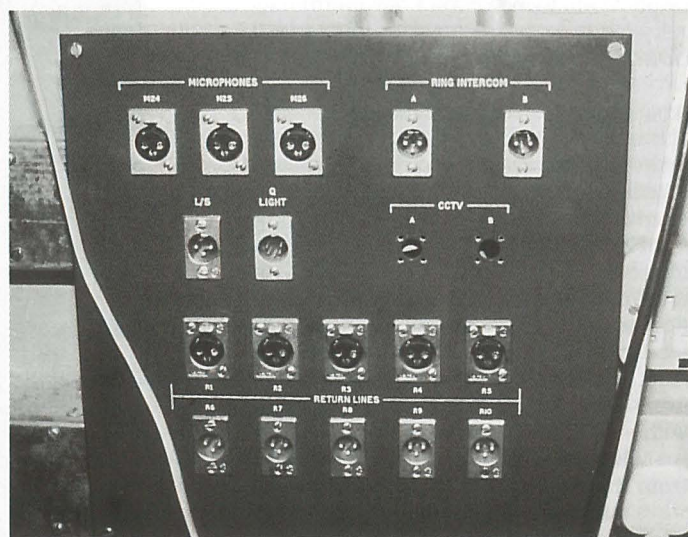
All access to the theatre, including access directly onto the stage from outside and from the workshop is via double doors and sound lobbies. The 6m high workshop doors were custom designed with steel frames and automatic drop seals. Acoustically these have proved very effective, but the weight of such heavy, hinged doors once moving does not, — to use current computer-jargon classify them as “user friendly”.

The main plantroom is beneath the rear stalls and a ‘floating slab’ was cast upon the structural floor to prevent any sound leakage into the auditorium.

In the early stages of the design attention was repeatedly drawn to the necessity for dealing with sound insulation for an outside broadcasting unit. A letterbox entry was provided in the rear wall and it is hoped that the temporary stage cloth seal will eventually be replaced by a proper sealed closure!

Services

The theatre is mechanically ventilated but not air-conditioned. The limitations of the site and the compactness of the design presented great difficulties in incorporating the mechanical plant and large ducts required for low air velocities necessary to achieve the low noise levels specified. The fans are fully enclosed with primary attenu-



Basic show relay/paging and twin channel ring intercom system have been installed as well as CCTV