

Bolton Town Hall

Complete	Area	Client	Architect
2015	UK England	ISG Construction	JM Architects

Bolton Town Hall is over 150 years old and is designated as a Grade II listed building by English Heritage.

The redevelopment and refurbishment of this imposing landmark included the creation of large open-plan office space, upgrades to the infrastructure to improve the working environment and improved facilities. By creating extra space the council was able to dispose of surplus properties yet accommodate double the number of staff.

Alongside the initial renovation project, Sandy Brown was also asked to provide acoustic advice on the One Stop Shop area, where self-service computer terminals allow council customers to complete their own transactions online or attend drop-in appointments.

Key acoustic design requirements included achieving suitable indoor ambient noise levels in the office space, an appropriate level of speech privacy / sound insulation between noise sensitive rooms such as PODs and meeting rooms and ensuring that the reverberation time in the various spaces was suitable for use.



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Services provided

Sandy Brown was engaged to provide acoustic advice on the redevelopment of Bolton Town Hall and the One Stop Shop, including consideration of:

- design advice on room acoustics
- environmental noise ingress
- internal airborne sound insulation
- acoustic finishes
- ventilation strategies and service routes
- building services noise control.

Special acoustic features

Prior to the renovation project, the Council had received complaints about the level of speech privacy and sound insulation between some of the existing offices. For the new Town Hall they were seeking reassurance that the design would provide a sufficient level of acoustic privacy. Benchmark tests were carried out on the existing partitions and room fronts to establish the level of sound insulation that was provided in the old meeting rooms and develop a strategy for the internal spaces so that this could be made more effective. In order that this strategy was developed in full consultation with the Council, 3D models and an audio demonstration were provided. These demonstrated the various levels of speech privacy between the noise sensitive rooms and allowed the client to experience the extent of sound insulation that would be provided by the proposed constructions.

One of the aims of the project was that the architectural and historic interest of the building should be maintained and that the refurbishment should be sympathetic to the original features that are part of its character. In the One Stop Shop area, the hardwood parquet flooring has been left exposed, yet, with more than 40 consultation counters, this increases the amount of reverberant build up in the space due to the amount of speech that is often taking place at one time. As hard floor finishes do not offer additional absorption, the likely effect of impact sound – such as footfall – would also be significantly more noticeable.

To alleviate this risk, our proposals recommended additional treatments for the walls and soffits, which would be less noticeable than a change to the floor covering. The use of baffles instead of or combined with rafts helped to provide flexibility in terms of configuring these treatments with the layouts of light fixtures and services.