

The Hive, Intu Potteries

Complete

Area

Client

Architect

2015

UK, England

Wates Construction

Weedon Architects

The Hive is a mixed-use leisure development of six restaurants and a nine screen multiplex cinema in Stoke-on-Trent. The Hive was developed as an extension to the existing Potteries shopping centre. The site covers 17,678 sq. metres and has over 80 retail outlets, making it the largest shopping centre in Staffordshire.



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Services provided

Description of services

Sandy Brown was employed by the contractor to develop the acoustic design and provide input during construction. Key details included:

- sound insulation between cinemas
- noise egress from the cinema to neighbouring units
- performance of roof and building envelope.

Special acoustic features

The design uses a high performance lightweight roof system which, was designed to control noise emissions from amplified noise in the cinemas to neighbouring commercial and residential properties. Sandy Brown liaised with suppliers to determine the maximum performance that could be achieved within the constraints of the design and advised the client on the implications of the performance that was achievable.

A split roofing system was used to reduce sound transmission paths between cinema auditoria. We also advised on detailing of interfaces between sound insulating partitions and the lightweight roofing system to control flanking sound transmission.

Within the cinema complex there are two places where one cinema auditorium is located directly above another. In each instance, the acoustic design includes a concrete floating floor above the separating floor slab and a mass barrier ceiling below to achieve a suitable level of separation.