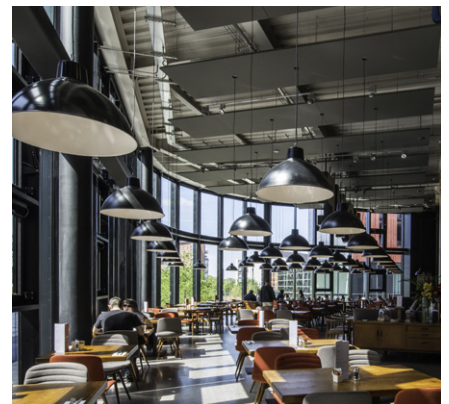


A CULTURAL HEART FOR AN URBAN LANDSCAPE



HOME MANCHESTER, UK

HOME is set to become a flagship new arts centre for a previously underused area of central Manchester. Expected to achieve a BREEAM 'Very Good' rating, the development incorporates a cinema, gallery, theatres and expansive café area, offering its audience a cultural experience in the heart of an inner city location.

The constrained site was previously a car park, and is neighboured by a masonry railway viaduct, the River Medlock and several other sites currently under development, while the River Tib runs directly underneath. BuroHappold Engineering addressed these conditions by capping the underground culvert carrying the River Tib and diverting the water to ensure the stability of the ground conditions, while carefully located piles were used to suit the complex underground environment.

The seven metre tall viaduct, combined with the busy Whitworth Street West main road, provided numerous challenges for our acoustics team, including potential ground borne vibration impact on the

structure and compromised acoustic performance within the artistic spaces. With the brief from the client that the space should offer tranquillity in a busy urban setting, our team provide onsite testing during construction and prior to opening to ensure optimal performance.

Further adding value, our experts worked within a Building Information Management (BIM) model to demonstrate the performance of the complex 'box within a box' structure to the architect and the client. A true demonstration of collaborative working, the model ensured that all services linked meticulously together. In addition, people flow modelling was used to establish visitor arrival and departure for key scenarios, identifying areas which were at risk of overcrowding.

Encapsulated in glass to provide reflections of the surrounding cityscape while offering the outside world glimpses into the environment within, HOME is a spectacular example of the future vision for this area of Manchester.

CLIENT
Manchester City Council

ARCHITECT
Mecanoo Architecten BV

PROJECT VALUE
Confidential

DURATION
2011 – 2015

SERVICES PROVIDED BY
BUROHAPPOLD
MEP engineering, physics modelling, lighting, civil engineering, ground engineering, sustainability and BREEAM, structural engineering, acoustic engineering, vibration engineering, fire engineering, people flow modelling