



CASE STUDY

TOWER WORKS, LEEDS

KEY FACTS

Project title:	Tower Works
Services:	Mechanical & Electrical
Client:	Legal & General
Contractor:	Sir Robert McAlpine
Duration:	December 2021 - August 2023
G&H divisions:	Building Services



Situated in Leeds City Centre, Tower Works, part of the new Mustard Wharf development, boasts 245 modern one, two and three bedroom apartments across four blocks. Overlooking the Leeds Liverpool canal, the Built to Rent scheme forms part of the South Bank Leeds regeneration endeavour, and aims to revive the historic Holbeck area and connect it to the City Centre.

G&H Group was appointed by Sir Robert McAlpine to design and install the full mechanical, electrical and public health requirements, including fire protection systems to the apartments and landlord areas, with shell and core services to future retail zones.

HEADLINES

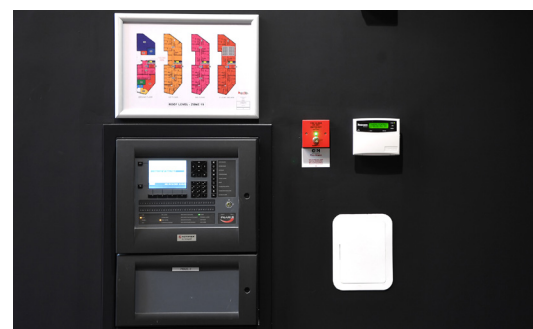
245 MODERN ONE, TWO AND THREE BEDROOM APARTMENTS ACROSS FOUR BLOCKS, INCLUDING FOUR DUPLEX APARTMENTS

PHOTOVOLTAIC PANELS GENERATE circa 77,000kwh OF ENERGY AND SAVE circa 40,000kg OF CARBON PER ANNUM

APPRENTICES WERE PART OF THE 55-STRONG WORKFORCE

MONTHLY HEALTH AND SAFETY VISITS

SECURED BY DESIGN





HOW WE DID IT

Designed in Revit, G&H Group's plans had to allow for a number of key considerations. Firstly, for adequate smoke ventilation and life safety, the designers had to see where they could introduce further air inlets on a number of the floors.

Designated windows were converted to air inlets, increasing levels of ventilation provisions for air quality in accordance with Homes Quality Mark requirements.

Due to the smoke ventilation plant and space designated for future air conditioning fit outs, the roof services had to be closely coordinated.

To confirm all equipment would fit and to help coordinate the designs, a mock-up of the mechanical and electrical cupboard that would feature in each of the 245 apartments was created in G&H Group's

in-house training centre by the apprentices and trainees. This avoided delays as we were able to determine that all of the 26 different types of materials and services would fit in the cupboard before undertaking the work onsite.

A further key consideration was ensuring that the external illuminations didn't cause light pollution and impact the bat box on the third floor of block B. Through its lighting software Relux, G&H Group's designers were able to calculate and determine that the external light illuminating the pavement wouldn't reflect upwards towards the bat box.

As always, energy saving features were at the forefront of the designers' minds, and the building's energy strategy was revised in line with the Standard Assessment Procedure for the





Energy Rating of Dwellings (SAP) updates in November 2022.

Energy features include the latest LED lighting complete with a Digital Addressable Lighting Interface (DALI) system. This connects each light to the network, allowing more precise and flexible control, as each one can be operated individually. Photovoltaic panels were installed on the roof and will generate 77,123kWh of energy and save 40,798kg of carbon per annum. Due to their low power consumption and high flow capability, water solenoid valves were installed on the ground floor.

Due to limited space in the apartments and an abundance of services above the ceiling, G&H Group worked

collaboratively with Sir Robert McAlpine to ensure that installations didn't clash. Utilising Sir Robert McAlpine's designated onsite portal, Fieldview, also ensured that all site drawings could be uploaded and viewed, assisting the smooth delivery of the project.

All quality assurance testing was carried out by G&H Group's bespoke, in-house app. The team at Sir Robert McAlpine had complete access to the app and could view G&H Group's progress and all of the test sheets within it.

Since all works were completed most residents have moved in and are enjoying living in their new, contemporary, waterside apartments.

KEY CONTACT

David Davis
Pre-Construction Director

e. david.davis@ghbs.me
t. 0113 255 6433

