

The Heights, Corporation Street, Birmingham



Located on the northern edge of Birmingham city centre, close to Aston University campus, this brown-field site redevelopment provides a total of 575 bedrooms, in a mix of new build volumetric modular and refurbished accommodation.

The new build en-suite modular student residences, providing 418 study bedrooms in 84 flats, are accommodated in two seven-storey blocks facing onto Staniforth Street and create quiet courtyards to the rear. The refurbished buildings provide the balance of the accommodation, including common room, laundry and management facilities.

A steel frame structure with pre-cast concrete floors was utilised for the core areas that contain the lift shafts, stairs and storerooms. The plan shape of the modular blocks provided adequate lengths of modular wall to enable all lateral wind loads to be transferred to the foundations by the in-plane shear resistance of the modular construction.

The foundations comprised traditional trench fill footings located under each wall line of the modular construction. In order to achieve the required level tolerance of +/- 3mm, a separate concrete plinth was cast on top of the trench fill footings.

The elevations were clad in masonry for the bottom five storeys and lightweight metal cladding to the top two storeys. The masonry ties and window details

were designed to accommodate the thermal movement within the external masonry cladding, this negated the requirement for brickwork support angles. Areas of proprietary render finish onto recessed brickwork panels are fixed to backing board onto the modules. A proprietary aluminium curtain walling system is included to the kitchens, with double glazed tilt and turn openings and single glazed look-a-like panels.

The roof construction comprised timber rafters spanning between the load bearing modular walls providing a shallow duo pitched roof.

Bringing to bear their experience of UNITE's modular system, the installation of the 500 modules was completed in just 50 days by Quadro.

UNITE's partnering contractor Carillion Building, selected modular construction for the certainty of delivery – "We constructed the project in a 50 week period and if it were a traditional build we would look for 70 to 75 weeks" said Carillion's Project Manager, Charles Baldwin - "The product was manufactured in a quality controlled environment in the factory and therefore we had very few defects and very little snagging to carry out on completion of the works."

Carillion is adopting the same system for the next phase of the development on an adjacent site, providing a further 500 bedrooms for UNITE in 2005.

Project Data

Client:

The UNITE Group

Architect:

Hadfield Cawkwell Davidson

Structural Engineer:

The BWB Partnership

Contractor:

Carillion Building

Modular Manufacturer:

UNITE Modular Solutions



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