

Perfection in pre-fabrication for medical excellence

Designed to achieve a BREEAM 'Excellent' accreditation, the latest phase of the University College London Hospital (UCLH) main campus regeneration with the specialist Ear, Nose, Throat and Dental facility is an exemplar project, defining the future of pre-fabrication. Situated in a Bloomsbury conservation area that is characterised by traditional brick buildings with portland stone pediments, detailing and string coursing, architects Pilbrow & Partners have designed a sophisticated and carefully considered, contemporary scheme that is sympathetic to the heritage of the site whilst pushing the boundaries of construction technology in architecture and manufacturing and delivering a top-class facility.

The perforated bay window panels use handmade Charnwood Multi Brindle bricks to serve an aesthetical purpose by offering a contemporary reinterpretation of the adjacent 19th century mansion block bays. These integral elements also provide solar shading to the waiting areas behind the street façade and improve the thermal performance of the building. The pre-cast concrete, brick and aluminium curtain walling are united into pre-fabricated panels, suggesting that many contractors had to work in cohesion throughout the duration of the construction programme to deliver these high-quality architectural components.

In 2016 Mace was appointed as principal contractor to construct the new state of the art centre which also results in the co-location of outpatient services on the Bloomsbury Campus, as part of the Trust's estate-wide strategy. Mace has been instrumental in achieving this project to exceptional standards and co-ordinating the contractors to work together. The benefits of the pre-fabrication elements meant that they could be manufactured ahead of time and delivered to site, ultimately reducing the programme from an estimated 40 weeks (if using traditional construction methods) to 15 weeks. It also gave Mace the ability to ensure the highest quality as they were able to inspect the panels ahead of being delivered to the building. Other benefits include the reduction of time spent working at height as they were produced in a controlled factory environment.

Nicola Scammell, Mace's Senior Project Manager, said: "Michelmersh was a fantastic supplier and delivered exactly the results we needed for this complex project.

"During the design stage of the project Mace, Swift Brickwork and the project architect, Pilbrow & Partners, visited Charnwood to understand the aesthetic variances that would occur in the face of the bricks due to the different manufacturing requirements for the special bricks used in the perforated panels versus the 'frogged' bricks used for the prefabricated panels.



"Collectively we worked with Charnwood to look at how we could tweak the manufacturing process to minimise these differences to ensure a consistent aesthetic across the whole façade. Full size off-site mock-ups and benchmarks of the different panel types were constructed ahead of the works to ensure that the quality was of the highest possible standard."

Swift Brickwork's craftsmanship is admirable, and the technology involved in the thin bonded joints of the 'hit and miss sails' in front of glazing has demonstrated the next step for pre-fabricated brickwork. This exemplar scheme proves to architects that designs that were previously impossible are now achievable, advancing construction possibilities for the future. The design of these façade details sympathetically addresses the site's heritage, environment and the privacy of the hospital's patients simultaneously. The architects have successfully achieved their goal of creating a stimulating, sensory environment that promotes well-being and health. Designed to put patients at its heart, both the design and building navigation of the new facility reflect how patients are treated.

Michelmersh is proud to have been involved in this influential project, exemplar for delivering a highly innovative structure through a wide variety of parties. The British manufacturer is excited to play a role in the future of off-site pre-fabricated brickwork, improving technologies and processes to the next level. We look forward to future challenges and working together with architects and contractors to push the limits of design further.

