

Avanti Architects: Learning & Research Building, Southmead Hospital, Bristol | Architecture Today

Avanti Architects' Learning and Research Building for the North Bristol Hospitals NHS Trust (NBT) and the University of Bristol (UoB) provides training, teaching accommodation and research laboratories. Procured by the Trust through the ProCure 21 framework along with the Pathology Building (Avanti Architects, with Design Buro) and the adjoining public square, the project consolidates activities and provides a sustainable, flexible facility.

NBT is in the process of modernising its whole estate. The Learning and Research building is part of the first phase of the academic and science quarter development, and therefore responds to the whole site masterplan for the Southmead Hospital as developed by Benson + Forsyth Architects at an early stage. This masterplan indicates restoring the original nineteenth century orthogonal order of the site to enable natural wayfinding, and to reintroduce views and 'green fingers' through the site. The Learning and Research Building, which is located at the periphery of the site, aims to mitigate between the new grand scale 'super hospital' building and the suburban surroundings, and to set a high quality marker for the start of the overall development process.

The new development is conceived as a part of a composition with the adjacent Pathology Buildings (both built and proposed), which together address the sweep of Monk's Park Avenue and the steeply rising site slope. The buildings themselves present a series of parallel planes ordered in a distinctive rhythm, following the natural terraces of the site. These planes are expressed externally through straight brick walls with projecting fins separated by open landscaped areas and fully glazed facades, and within the buildings through the use of solid balustrades along the direction of the planes and fully glazed ones continuing the transparency of the short facades and allowing the views through the site.

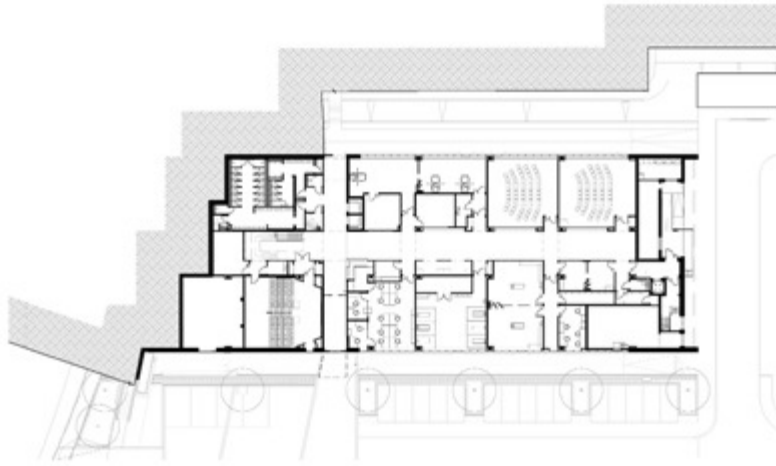
The Learning and Research Building combines previously separate functions for the first time: a centre for education and training for the staff of the hospital, and a research centre for the University of Bristol. To suit these requirements the building integrates training suites particular to resuscitation, clinical skills, manual handling and IT; generic teaching spaces in a range of 10, 20, 40 and 60 person size

seminar rooms and a lecture theatre seating 130; as well as custom laboratory facilities.



Photo: Nick Kane

These functions are arranged on the sides of a four-storey high central atrium space, which is traversed by cantilevered walkways along its length and floating bridges across. Main entrances into departments and seminar rooms are through portal recesses, which are lined with highly coloured solid core laminate, serving both as wayfinding markers and wall protection. This application of colour in the interior and the complementary use of similar coloured glass elements at the exterior of the building form part of the overall art strategy developed by lead artist Kate Blee in close coordination with Avanti Architects. She developed a palette of colours, which roots the building to the ground at lower level and blends into the colours of trees and the sky at the upper floors.



The building structure is a concrete frame with prefabricated columns on mass footings and in-situ post tensioned slabs with 9.9 x 9.9m spans. Steel framework is used to support the atrium roof and the full height curtain walling at the atrium ends. The external walls are dry construction plasterboard on metal framing with brick external face, which was chosen in response to the local context and history, the sustainability agenda, and to provide a building of permanence and solidity to reflect its status as an academic building.



Photo: Nick Kane

The long, horizontal window bands set into the brick planes, the roof light and the full-height glazed walls at the short facades of the building are constructed with polyester powder-coated aluminium double-glazed curtain walling systems, using opaque coloured glass panels (coloured resin system) to achieve the wide range of colours. Aluminium brises soleil, finished in the same colour as the window frames, provide protection from solar gain and, in combination with a set of projecting window boxes and frames, accentuate the elevations.

Project Team

Architect: Avanti Architects; landscape architect: Fira; structural engineer, acoustics, fire, CDM: Aecom; MEP engineer: Capita Symonds; lead & building artist: Kate Blee; planning consultant: WYG; qs & project manager (client): Gardiner & Theobald; NHS Procure 21 principal supply chain member (constructor): Laing O'Rourke; qs (contractor): Cyril Sweett; lighting consultant: Light Bureau; arts consultant: Willis Newson; healthcare consultant: MJM; client: North Bristol Hospitals NHS Trust and the University of Bristol; photos: Nick Kane.

Selected subcontractors and suppliers

Bricks: Ibstock Brick; curtain wall, entrance doors: Kawneer; insulation: Kingspan Insulation (walls), board: Lafarge Plasterboard; partitioning: Komfort Workspace; acoustic wall lining: Ecophon; suspended & acoustic ceilings: Rockfon (general), Ecophon (atrium); solid core laminate: Polyrey; paints: PPG Architectural Coatings; floor tiles: Grestec Tiles (atrium), Colchester Tiles (sanitary); rubber flooring: Nora; slip-resistant vinyl flooring: Forbo; carpet: InterfaceFlor; internal doors: Timbmet Door Solutions; ironmongery: Laidlaw; sanitary cubicles: Thrislington Cubicles.

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