RAD BUILDING, UNIVERSITY OF NOTTINGHAM

KEY FACTS
CLIENT
THE UNIVERSITY OF NOTTINGHAM

YEAR COMPLETED
2018

ARCHITECT
LEWIS & HICKEY LTD

CONSTRUCTION COST
£7M

PROJECT DESCRIPTION
The Research Acceleration and Demonstration (RAD) Building is a new £7 million research facility at the University of Nottingham’s Jubilee Campus. The research lab is set to be one of the most energy efficient buildings of its type in the UK. The development will include laboratory space for research ranging from harvesting and storing wind energy, to the development of new materials for hydrogen storage. There will also be high quality single and multiple occupancy offices, technical support bases and a central atrium with breakout spaces. The office zone will be made up of a ground floor, three upper levels and a roof space while the laboratory zone will have a double-storey ground floor, two upper levels and a roof deck.

The state-of-the-art building is unique in that it will be one of the first research constructions to combine the rigorous sustainability standards of BREEAM with the principles of the German Passivhaus system, which measures comfort alongside energy efficiency. BWB has been involved in the project from the start throughout all the RIBA stages, producing concept design through to full construction structural details.

SERVICES PROVIDED
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Structural Engineering
Drainage Strategies
Ground Investigation
Carbon Management, Energy and Sustainability
Environmental Consulting

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A key challenge has been dealing with the contaminated ground around the site. The ground had large amounts of asbestos and large diesel tanks that were removed as part of our remediation strategy. These constraints affected the way we designed the steel frame. After looking at various foundation solutions including vibro and ground improvements, our structural engineers designed a solution which incorporated CFA piles with pile caps and ground beams.

BWB has ensured that all the architectural features required by Passivhaus were being considered in the design including many sloping elements within the glazing and detail within the steel frame. We have detailed the slab at ground floor to the same level as the foundation to incorporate all the insulation and to prevent cold bridge. All the steelwork to the edge of the building has been set in line so the structural insulating panels can all line through with the air seal.

**KEY CONTACTS**

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