Case study

ROCKWOOL® ensures thermal consistency for maternity hospital

Bradford Maternity Hospital

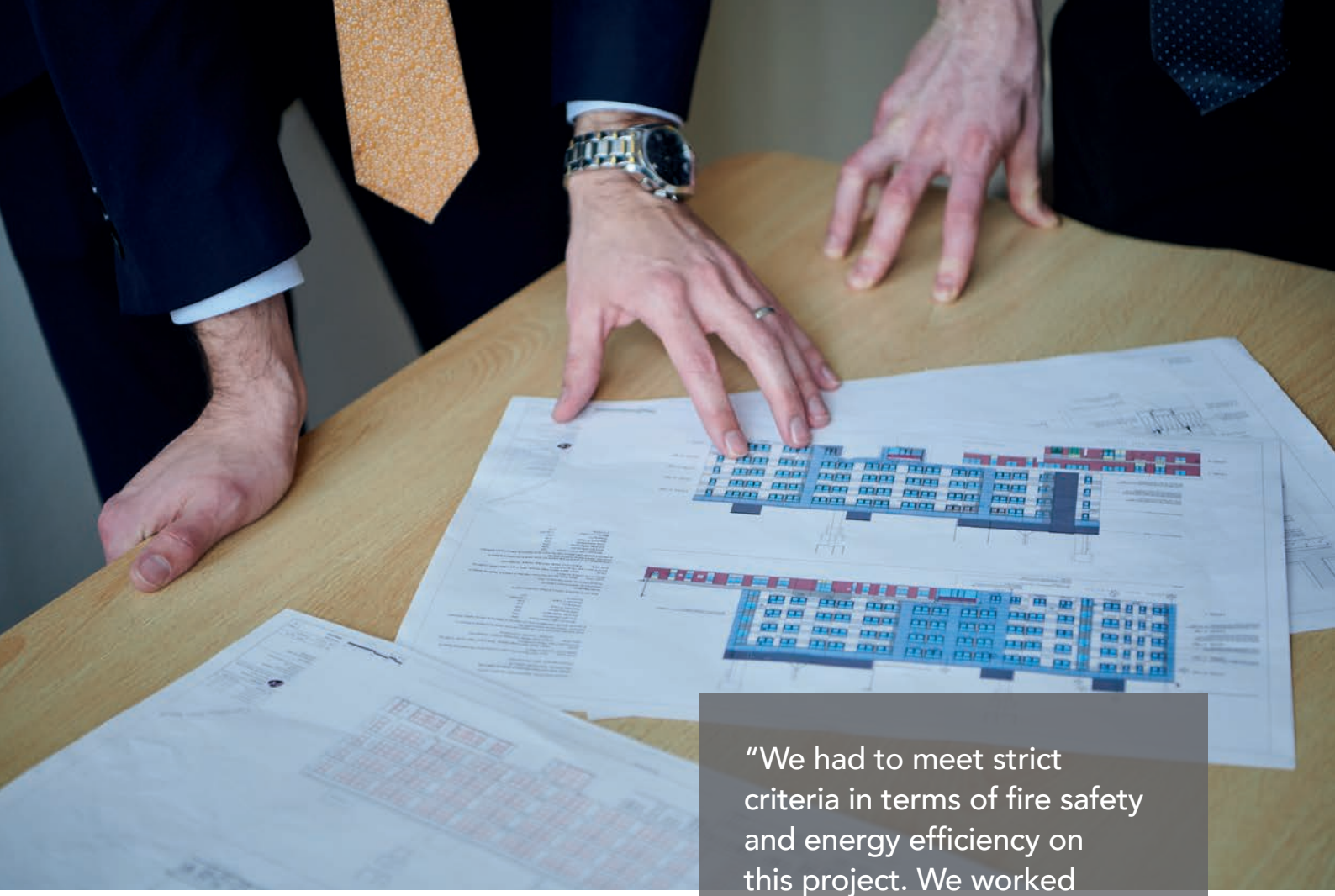
ROCKWOOL®

The project

Bradford Teaching Hospitals NHS Foundation Trust is responsible for providing hospital services to over 500,000 people across the Bradford district. Its Women's and Newborn Unit at Bradford Royal Infirmary is one of Bradford's most well-known hospital buildings, where over 200,000 babies have been born since it was built more than half a century ago.

The five-storey building on Smith Lane was transformed to improve the facilities for patients as well as making the building fit for purpose.

With the help of architect and lead consultant, Property Tectonics, working in combination with ROCKWOOL® and Rockpanel®, the £1.8m makeover also protects the building from bad weather and has fixed issues with heat loss, draughts, noise and leaks, allowing the Trust to conserve energy and cut costs.



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>
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> Principal Surveyor
> Property Tectonics

The challenge

The façade of the hospital's Women's and Newborn Unit had not been upgraded or changed since it was first built. It was extremely inefficient in terms of energy usage but also a cold and draughty space for patients and staff.

The windows were in need of being upgraded as Thomas Malloy, from the Trust's Estates Design Team, explained: "The hospital is a 1960s build with a concrete panelled structure and the building fabric was beginning to fail. Water leaks were beginning to happen through the walls and the roof. The windows were old metal frames that were draughty and let in a lot of noise from the outside as well as being energy inefficient."

There was a lot of aspects for Property Tectonics to consider as Richard Rhodes-Heaton, the company's Principal Surveyor, explains: "We had to meet strict criteria in terms of fire safety and energy efficiency on this project. We worked extremely closely with the hospital's estates team to demonstrate the robustness and safety of the design as well as the products we selected."

Another challenge on this project was that the Women's and Newborn Unit had to be fully operational while the work was underway. Therefore, all parties involved in the project had to be considerate of the patients and staff still visiting and working in the hospital.

The solution

Property Tectonics specified insulation from ROCKWOOL and cladding from Rockpanel as the perfect solution for Bradford Teaching Hospitals NHS Foundation Trust.

Property Tectonics installed ROCKWOOL RainScreen Duo Slab® at the hospital. This thermally efficient insulation is designed specifically for quick and simple application on this type of development. Made from stone wool, RainScreen Duo Slab has a Euroclass rating of A1, meaning it's non-combustible. It also brings the benefit of high resistance to wind and rain during construction, which, together with only 3 fixings per m² required, made installation quicker and easier for HH Smith.

For the exterior cladding, Rockpanel A2 façade board has been deployed to provide the attractive aesthetic finish on the project.

Richard continues, "When it came to selecting the cladding for the project, it was a truly group-based decision. Property Tectonics put together six different designs and the trust as well as the staff picked the option they preferred. It allowed us to involve everyone in the project and give them a say about how their place of work would look, which is important for employee engagement."

Applied on top of an aluminium supporting structure and fixed with blind rivets, the Rockpanel A2 boards have a Euroclass rating of A2-s1,d0.

The acoustic properties of the ROCKWOOL RainScreen Duo Slab insulation also help reduce urban noise transfer into the hospital. Its high-density makes it resistant to airborne noise and excellent at noise reduction and sound absorption, reducing sound energy as it passes through the material.

The result

Midwifery and Gynaecology Matron, Amanda Hardaker, said the whole team was thrilled with the end result: "The fact that we were able to keep services running as normal while all this work took place is testament to the support and consideration of the contractors.

"We are so pleased with the finished job: the main difference is that we're insulated now and fit for the future. We've gone from having to have extra heaters on in patients' rooms to a really balmy temperature, so that we often don't even need the radiators on."

Amanda Hardaker
Midwifery and Gynaecology Matron

"And most importantly it means that we can optimise outcomes for babies. The best thing for new born babies, especially ones which are underweight and more vulnerable, is that the heat service is consistent, which it absolutely is now."

Prof. Trevor Mole, Managing Director at Property Tectonics, adds, "The scheme represents a great example of teamwork and excellence in project delivery by hospital staff and their professional advisors cooperating and engaging at every level to produce a very successful outcome, creating the right internal environment which saves energy, protects the planet and improves the look and feel of the hospital estate; all achieved whilst maintaining full operation of the Unit."

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