



SIKA AT WORK

ROOF REPLACEMENT AT SOLIHULL PREPARATORY SCHOOL **PROVIDES A LONG-TERM WATERPROOFING SOLUTION**

ROOFING: Sika® Decothane® Ultra, low-odour liquid-applied waterproofing system

BUILDING TRUST



ALICE HOUSE, SOLIHULL PREPARATORY SCHOOL



ALICE HOUSE, PART OF SOLIHULL PREPARATORY SCHOOL, IS A ONE-STOREY TIMBER-FRAMED BUILDING CONSTRUCTED IN THE 1970s. MAKERS CONSTRUCTION WERE COMMISSIONED TO UNDERTAKE A FULL ROOF REPLACEMENT AS PART OF A PROGRAMME TO BRING THE STRUCTURE UP TO CURRENT PERFORMANCE STANDARDS.

The original roof comprised 9mm plywood, with a saturated insulation layer and felt covering. This construction no longer met modern building regulations, necessitating a comprehensive upgrade to reinstate a functioning roof system. The first stage involved stripping the existing felt and insulation back to the original plywood deck. The team then installed 18mm OSB tongue-and-groove boards, providing a sound substrate capable of supporting the upgraded insulation and roofing system.



Following this, an air and vapour control layer (AVCL) and 130mm of modern insulation was installed across the roof, significantly improving thermal performance in line with current regulatory requirements. A carrier membrane was installed above the insulation, followed by the application of Sika® Decothane® Ultra, a low-odour liquid-applied waterproofing system.

The completed system not only ensures long-term waterproofing but also meets the enhanced thermal standards expected in modern construction, providing a safe and energy-efficient environment for the school's learners.

The Alice House project presented several logistical, structural, and operational challenges. The works had to be carried out during the summer holidays, providing a narrow five-week window to complete a full roof replacement. The building had recently undergone internal refurbishment on the upper floors, with new ceilings and carpets already installed. It was therefore critical to maintain watertight conditions every night, ensuring that the completed internal finishes were protected throughout the works.

The roof also featured drain outlets and an area prone to ponding, which posed a risk of water accumulation. Makers Construction Ltd worked with Sika® and the school's design team to incorporate a sump system, channelling water towards the drain outlets, eliminating standing water, while preserving the roof's structure and thermal performance.

The completed roof at Alice House represents a significant transformation. The upgraded insulation and Sika® Decothane® Ultra roof waterproofing system provided a clean, uniform finish, enhancing both the durability and visual appearance of the building.

Curved edges around the perimeter were executed with precision, creating smooth transitions that complement the building's timber-framed architecture. The finished roof not only improves functionality but also visually elevates the school building, ensuring a professional appearance that aligns with the school's standards.

PROJECT PARTICIPANTS

Size: 430m²

Client: Solihull Preparatory School

Contractor: Makers Construction Ltd



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SIKA LIMITED

Head Office
Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ
United Kingdom

Contact

Phone +44 1707 394444
E-Mail enquiries@uk.sika.com
www.sika.co.uk

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