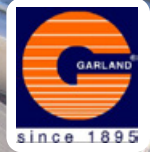


TCRC Case Study: Stoke Park Primary School, Bristol



Insulated Roofing Solution for Historic, System-Built School

Stoke Park Primary is an academy school based in the picturesque suburb of Lockleaze, Bristol, adjacent to the historic Grade II listed Stoke Park and Garden. It is run by Bristol's prestigious Cathedral Schools Trust.

On this impressive 3,200m² project, TCRC were selected to upgrade the school's multiple roofs with a new high performance warm roof waterproofing system, including new thermal insulation to raise the U-Value to 0.18.

Complete System with Full Range of Accessories

The specified solution for Stoke Park School was Garland's Stressply Flex, incorporating the latest elastomeric modified bitumen membranes. The waterproofing compound used in this material is made from a special grade of bitumen containing SBS elastomers and fillers. This polymer modification boosts the thermal, mechanical and aging characteristics of the product, whilst the non-woven spun-bond polyester carrier reinforcement provides the membrane with excellent tensile strength, puncture resistance and elongation properties. A full range of complementary accessories was also installed by TCRC as part of this project, including bituminous vapour control layer, insulation, rooflights and new rainwater outlets.

Fire-Safe Installation

During the initial roof survey, all areas of potential fire risk were identified and highlighted to the client and inspections were carried out on specific areas noted within the designer's risk assessment. TCRC then worked closely with Garland to ensure that appropriate flame-free, self-adhesive membranes were used in any fire risk areas, ensuring that the specification and installation was carried out in full compliance with the NFRC's Safe2Torch guidelines.

Project Name: Stoke Park Primary School

Location: Lockleaze, Bristol

Client: Cathedral Schools Trust

Surveyor: TrinityClifton Ltd

Products: Garland Stressply Flex
Warm Roof Waterproofing System



TCRC Case Study: Stoke Park Primary School, Bristol

Designing a Bespoke Engineered Solution

The extraordinary construction of the 1950s, system-built school presented rare challenges in upgrading the original roofs and windows. In the post-war era, when the requirement for military aircraft diminished, the Bristol Aircraft Company found opportunities for its fabricators in the demand for new schools & housing. Aluminium components were produced in Bristol and exported in kit form across the world, with thousands of schools replicating the prototype construction at Stoke Park.



The School's two classroom wings represent the largest roof areas. The wings are of aluminium construction, with sheets, strips, castings & extrusions riveted together 'aircraft style' to form lightweight structures. Seventy years on, and mindful of the building's 20-year design life, extensive investigation was undertaken ahead of the refurbishment, including structural surveys, stress tests and borescope inspections. Windows and wall sections were removed to inform design strategy, with the resultant scheme engineered to preserve key features while providing a robust new roof system for the School.



Project Summary

“The additional complexity encountered in this project called for seamless collaboration between Garland Roofing, The Complete Roofing Company and glazing specialists, AA Glazing. Despite this challenge, all works were delivered on time and within budget which is testament to the excellent partnerships formed between these companies and among wider stakeholders.

This fantastic project was completed to the complete satisfaction of the client who also benefitted from a full 20 year labour, material & insurance backed warranty.”



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