AJ Specification Awards

Winner

THE WINNING PROJECT IN THE ROOFING AND DRAINAGE CATEGORY

SIKA AT WORK

FITZWILLIAM COLLEGE CAMPUS, CAMBRIDGE

REFURBISHMENT: Sika® MonoTop®-610, Sika® MonoTop®-615, Sika® Ferrogard®-903+, Sikagard®-550W, Sikafloor®-420
ROOFING SINGLE PLY MEMBRANE: G410-18ELF Light Grey
ROOFING LIQUID APPLIED: Sikalastic®-621

Sarnafil®

BUILDING TRUST

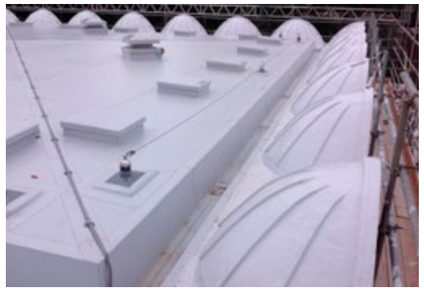
Sika®

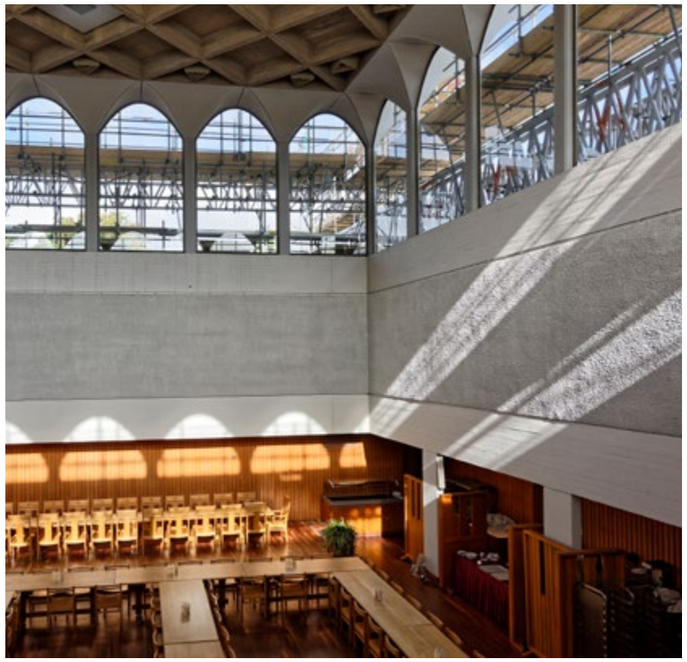
FITZWILLIAM COLLEGE CAMPUS CAMBRIDGE

SIKA PUTS WATERPROOF SEAL ON CHALLENGING UNIVERSITY REVAMP. Sika supplied the liquid-applied seal to help preserve the roofing detail at one of the UK's hallowed university sites.

The roof refurbishment at Central Building - part of Cambridge University's Fitzwilliam College campus - was one of the first projects to apply a pioneering approach. It included combining Sikalastic®-621; a highly-durable and elastic liquid polyurethane system, designed for areas with complex detailing, with Sika Sarnafil's single-ply waterproof membrane.

Working closely with architect Cullinan Studio, contractors Gunite (Eastern) and Roofing Contractors Cambridge (RCC), and the college, Sika's challenge was to create an appropriate waterproofing solution for the roof's intricate design





FITZWILLIAM COLLEGE CAMPUS CAMBRIDGE

The original Central Building was constructed in 1963 by renowned architect Denys Lasdun. Its flat roof's edge features protruding 'scalloped' detailing, hence the contractor's potentially challenging requirement: waterproof the flat roof - which itself had plenty of challenging details – and the scalloped areas, whilst maintaining the look and integrity of the roof and the building as a whole. Concrete repairs were carried-out to the underside of the protruding scallops. Initially, this involved applying Sika® MonoTop®-610, a high-performance, polymer-modified primer, in lieu of high-build concrete repair mortar: Sika® MonoTop®-615. The steel reinforcement was protected with Sika® FerroGard®-903+. This penetrates the concrete and forms a protective monomolecular layer on the surface of the reinforcing steel, to prevent its corrosion. The concrete was finished with Sikagard®-550W, a high-performance anti-carbonation coating, with crack-bridging capabilities, that protects the concrete, whilst meeting the aesthetic requirements of the structure.

Dave Stewart, RCC Managing Director, said: "Due to the unusual shape of the scallops, it wasn't aesthetically practical to install sheet membrane on them, so many, many discussions took place to decide how best to tackle this.

The Sikalastic® product ensured these unique details would be protected without altering their shape. It's not unusual for a project to incorporate small amounts of Sikalastic, but this is one of the first projects where the Sarnafil membrane and Sikalastic®-621TC have been used over large areas together."

For contractors, the crucial element of the project was ensuring the pinpoint precision of the seal. Working closely with Sika Sarnafil, RCC carried out multiple tests to ensure the junction between the Sikalastic®-621 and single-ply membrane was formed using the most effective detailing. The use of Sarnametal created a strong bond between the two products, enabling each to be successfully sealed.

Alex Abbey, Director at Cullinan Studio, who required the works to be sympathetic to the original building, said: "We needed a product that would not only effectively waterproof, but that would sit over the copper scallops and maintain the shape's detail. Sikalastic®-621 proved ideal, and worked in harmony with the Sarnafil membrane, as did the Sikafloor®-420, which was used on the façade and underside of the scallops – a complete solution from Sika."

It was thanks to the collaborative relationship between Sika Sarnafil's technical experts, RCC's highly experienced fitters and concrete repair contractor Gunite (Eastern), that the finished roof met the strict requirements of the architect and client.

Sikalastic®-621 - which features moisture-triggered chemistry and technology proven for more than 20 years – has played a huge part in ensuring the college building roof and its magnificent architectural features remain protected from the elements for many years to come.

Sika Sarnafil and RCC were commended for their work on the project as it won the award in the Roofing and Drainage category at the Architects Journal Specification awards 2019.

SIKA LIMITED
Head Office
Watchmead
Welwyn Garden City
Hertfordshire, AL7 1BQ

Contact
Phone +44 1707 394444
www.sika.co.uk
www.sarnafil.co.uk

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