

CASE STUDY

Roof Refurbishment

MAKERS

...makes the difference

PROJECT

Solihull Prep School- Alice House

STRUCTURE

Roof

CLIENT

Solihull Prep School

CONTRACT



Solihull Preparatory School is a leading independent day school located in the West Midlands, offering quality education for children from ages 3-18.

The roof at Alice House, which houses children from Nursery age to Infant Year 2, was in a significant state of disrepair, with the existing felt membrane overcoated with a solar reflective paint. The felt was aging with numerous leaks reported throughout the interior of the building. In addition, large amounts of standing water were present on the roof, demonstrating inadequate roof falls.

All works were to be completed on a very strict and tight programme during the school's summer break. This made works more difficult, as Makers needed to increase labour allocation for the whole project to ensure that it was completed on time and to Makers high standards; before the children returned from the summer holidays.

A full built-up Polyroof Protec Liquid Waterproofing System was selected for this project. Protec is a highly versatile, fast curing, fully reinforced cold liquid applied membrane system ideal for installation on school roofs, negating the need for any hot works.

Initial roof investigations uncovered that the existing felt membrane was in such disrepair that it was not suitable for an overlay. It was therefore decided that the existing roof build up should be removed to the timber deck and completely new roofing build up installed.

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Before



Before



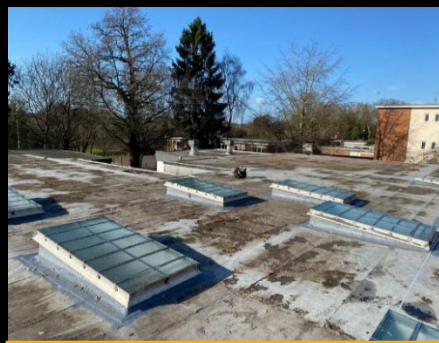
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Before



Before



Before- Rooflights

Once the existing roofing membrane and insulation were removed, it was discovered that the existing plywood deck was only 9mm thick. An extremely thin deck, such as this, could cause issues and risk collapse due to the weight of the new roof build up. To mitigate this issue, a new 18mm plywood board was installed over the top of the existing deck, across the whole roof. This offers significantly more support for the new roof build up.

Core samples on the roof area signified that the existing insulation was only 35mm in thickness. This offered very little thermal performance for the roof. Makers replaced the existing, thin insulation with a new specially designed cut-to-falls insulation scheme. This boosted thermal performance in line with current U-Value regulations. This will greatly reduce fuel bills and energy consumption for the school. Furthermore, the cut to fall scheme ensured that standing water would be eradicated from the roof, allowing any rainfall to be guided to the external roof gutter drainage system.

The rooflights were identified as being in considerably poor condition and a potential point of water ingress. As part of the roof renovation, Makers removed and replaced fourteen rooflight units with new domed units. This not only ensured no water ingress could occur through the rooflights, but also greatly improved natural lighting within Alice House.

The Polyroof Protec System was then installed to the roof area, all upstands and detail areas. This system offers a 20-year warranty on the roof.

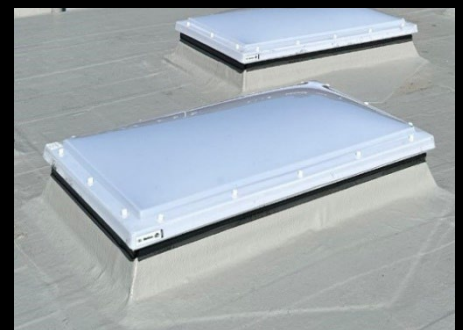
This job demonstrates Maker's ability to deliver roofing projects to a quality standard and under strict time constraints. The roof was completed entirely during the summer holidays, ensuring that the roof was watertight before the children's return to school. Thus, enabling their workspace to be leak free and ready for a new school year.



After



After



After- New Rooflights

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