

# REDBOURNE UPPER SCHOOL

PROJECT: Redborne Upper School and Community College, Ampthill

CLIENT: Parkway Construction

PRODUCTS: Em-Glaze monopitch smoke vents



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## Street-style thoroughfare incorporates natural light and smoke ventilation

### THE CHALLENGE

Redborne Community College is a large Academy School in Bedfordshire with over 1400 students. To accommodate the ever-growing number of pupils, the college planned to build both a new school hall and sixth-form classroom extension. The architects, Stephen George and Partners, developed an innovative layout which featured a street-style thoroughfare cutting through the centre of the proposed new build. During the planning stage Building Control stipulated that in addition to the planned rooflight, smoke ventilation would certainly be required to ensure occupant safety in this central area.

This condition meant that a free vent area of at least 10% of the thoroughfare floor space would be needed. The architects also wanted a light and airy space for the staff and pupils to enjoy, so the central zone would require high levels of natural light, as well as comfort ventilation. Whitesales was the clear choice to design and supply a solution that would meet the need for high specification, aesthetically pleasing glass rooflights that could still allow for safe smoke evacuation.

### THE SOLUTION

Whitesales supplied and installed a bespoke Em-Glaze monopitch rooflight, constructed from aluminium glazing bars with proprietary flashings. This was finished with colour-matched RAL polyester powder coating and incorporated double glazed with hermetically sealed units, with toughened outer and laminated inner glass, to provide an impact resistant non-fragile rooflight. In order to fulfil the primary design requirement, the unit also incorporated 14 electrically opening sections, operated by 24 volt DC actuators, opening to 80 degrees, providing a 14.40m<sup>2</sup> free vent area. The new unit floods the central area with natural light whilst being fully certified to CE EN12101-2, Smoke & Heat Control Systems.

### THE BENEFITS

- The Em-Glaze monopitch smoke vent supplied by Whitesales provides a dramatic lighting scheme within the street area, allowing further illumination of the connecting classrooms
- It is fully certified to CE EN12101-2 for guaranteed effective smoke evacuation, and also provides the required free vent area when fully open
- In addition, the electric openers are connected to an Em-Vent Smoke Control Panel with smoke and comfort ventilation. This enables the vents to be controlled during warmer periods providing day-to-day ventilation as required
- The unit is fully guaranteed for ten years and has a life expectancy in excess of thirty years

