

# Built-Up Roofing

## Howard School & Rainham School for Girls, Kent



### Background

The Howard School and Rainham School for Girls occupy the same site but are separate institutions however they do share the sports facilities. Rainham is a technology college with 1500 pupils. The Howard School, which is the boys school and holds Specialist Sports College status, also has 1500 pupils.

### Challenge

MITIE were tasked with undertaking the complete refurbishment of the roofs over a period of 20 weeks of term time and holidays. The existing roof comprised a multi-layer build-up of felt and insulation on the original chipboard timber decking, with a number of glazed mono-pitch rooflights of Georgian wired cast glass set in glazing bars. The steel frame supporting the roof structures, particularly the mono-pitch rooflights, was found to be very “slender” and after a structural analysis was carried out, additional “top hat” steel supports were installed to the flat roof sections and the specification for the mono-pitch rooflights was changed to a lighter, composite panel construction.

### Solution

The sports hall was closed while the work was carried out, utilising safety netting internally and scaffolding externally. As the client’s budget did not allow for a temporary scaffold roof enclosure, stripping of the existing decking and glazing had to be carried out with even greater care than usual and was very reliant on the winter weather. The decking was replaced with new 19mm plywood. Icopal’s self-adhesive vapour control layer was used, with a tapered insulation scheme to the central roof areas used to redirect water to a new external guttering system. The waterproofing comprised the Total Torch Dispersion Layer and Olympic Thermaweld blue-grey mineral capsheet.

However, the contract was completed on time and within budget, the client subsequently instructing MITIE on four further roof refurbishment projects, resulting in the contractor being on site for an additional 42 weeks involving more than 3,250m<sup>2</sup> of Icopal materials.

#### Project:

Refurbishment of Sports Hall, Changing Rooms and corridor

#### Area:

1800 m<sup>2</sup>

#### Completion Date:

January 2010

#### System:

Total Torch & Olympic Thermaweld

#### Client:

Medway Council

#### Contractor:

MITIE Tilley Roofing Ltd, Sevenoaks