## Westborough School, Westcliff-on-Sea, Essex: Zero Carbon Redevelopment

## COTTRELL AND VERMEULEN ARCHITECTURE LTD

1b lliffe Street London SE17 3LJ T 020 7708 2567 F 020 7252 4742 info@cv-arch.co.uk www.cv-arch.co.uk Contact Brian Vermeulen

## Architect

۲

Cottrell and Vermeulen Architecture Ltd Client

Westborough School/ Southend-on-Sea Borough Council/ UK Department for Education

Main Contractor Balfour Beatty Construction Ltd

**Building Services Engineers** OR Consulting Engineers Ltd *p*74

Photography Anthony Coleman/VIEW

We have had a close working relationship with Westborough Primary School for many years and have designed many of the buildings which make up the school campus, including the multi-award winning 'Cardboard Building'. The 'Zero Carbon Refurbishment' aims to provide a testbed for ways of refurbishing older school buildings in a sustainable manner and providing a model for future projects throughout the country.

The target is for a 90% reduction in carbon emissions for the refurbished areas of the school, with the location for the majority of the work being the school's Edwardian red-brick main building. This has been re-ordered, generally refurbished and modernised to current academic requirements. Windows have been replaced with highly insulated glazing, wall insulation has been improved, photovoltaics have been introduced on the roof of a new canopied walkway around the building perimeter and a biomass boiler now provides the school with space heating. New systems throughout the school allow the school's energy use and carbon emissions to be monitored.

The main school entrance has been redesigned to accommodate a new reception and waiting area with improved access.



۲







۲