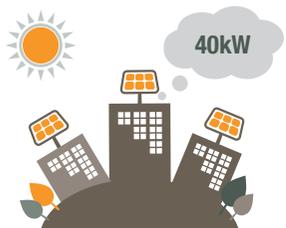




Carbon neutral school



40kW solar panels and a 500kW biomass boiler



Improving local biodiversity with badger gates, bat roosts and a new pond



99% of waste produced diverted away from landfill

CASE STUDY: STANLEY PARK HIGH SCHOOL, SUTTON

The new SEN Stanley Park High School reused the site of the last long-term hospital for people with learning disabilities, Orchard Hill Hospital, which closed in 2009.

SUSTAINABLE DESIGN

Rising from the site of the old building, BAM's design for the new Stanley Park High School, reflects the particular needs of its pupils.

Stanley Park High School is one of the first schools in the country to be designed to Department for Children, School and Families Carbon Neutral Standard. As part of our commitment to achieving a carbon neutral school, the design included improved insulation, natural lighting, energy efficient heating and cooling, as well as renewable energy technologies.

The team wanted to go beyond the minimum requirements, and really ensure that the new users of the school were involved throughout the project and felt a connection with the building.

TACKLING CLIMATE CHANGE

We recognise that the design of a building is fundamental to ensuring its future sustainability. Therefore passive design measures, such as decreasing the reliance on artificial lighting by using natural light in the glass covered atrium, help to reduce the building's energy consumption over its life.

Various energy efficient technologies were included in the design, such as a mechanical ventilation heat recovery system, a newly

constructed sustainable urban drainage system, 40kW solar PV and a 500kW biomass boiler. These will all help to reduce the carbon impact of the building in use.

BIODIVERSITY

Where possible we want to protect and enhance local wildlife. That's why we installed badger gates on the perimeter fencing to allow the species to continue inhabiting the site. We established a bat hibernation roost in the basement of the former hospital building, as well as a pond in the surrounding grounds to encourage aquatic flora and fauna.

RESOURCE EFFICIENCY

By considering resource efficiency early on we minimise the amount of waste produced and diverted 99% of the waste that was produced away from landfill.

During the project an extra 13,000m³ of spoil was retained on site, and used to re-profile the embankment around the playing fields. This also resulted in a saving for the customer of £325,000, and prevented 1,300 lorry movements across the local road network, minimising carbon emissions and local pollution and congestion.

'BAM WORKED WITH THE CUSTOMER TO ACHIEVE THE BEST COST SAVING SOLUTIONS WHILST DELIVERING SUSTAINABILITY.'

Peter Maguire, Senior Site Manager



Completed: January 2012

Customer: London Borough of Sutton

Architects: Haverstock Associates

Mechanical & Electrical consultants: CBG

Structural Engineer: Connisbee

Project Manager: Lend Lease Projects

Quantity Surveyor: Baqus Nigel Rose



Raised for Barnardo's



Iron Age burial site unearthed by archaeologists



Specialised training given to subcontractors

During demolition we reclaimed, cleaned, and packaged approximately 63,000 natural slates and 160,000 bricks from the Victorian buildings. This allowed us to both reduce waste and preserve the heritage of the building. Bricks and concrete materials unsuitable for re-use were crushed on site, certified, and used in the redevelopment of the site. We also recycled all excess timber and metal.

COMMUNITY ENGAGEMENT

To establish a dialogue with the local community, we invited local residents to visit the site on several occasions. The site team also worked with the editor of the local newsletter to keep local people informed of planned works and progress.

When the excavation works created localised dust, we arranged for all immediate neighbours to have their windows cleaned.

Our site team raised over £12,000 for our national charity partner Barnardo's, by taking part in a 'Store Wars' event alongside members of the school. The funds were used to support young people getting back into education, employment and training.

ENHANCING THE CURRICULUM

Working in partnership with the school, our team facilitated health, safety and environment sessions which supported students in achieving their BTEC in construction.

When an Iron Age burial site was unearthed by archaeologists on site, the team immediately recognised a learning opportunity. We organised for the archaeological consultants to present a school assembly, giving the students a chance to see the artefacts first hand.

HEALTH AND WELLBEING

The development and safety of our operatives is important. Therefore specialised training was given to sub-contractors working in Unexploded Ordnance (UXO) areas. We also ran Supervisors' Behavioural Training, to improve attitude and behaviour in respect to health and safety.

The project won several internal awards including the BAM Health and Safety Gold award and the BAM Education and Community Engagement Gold award. Our team also secured a Silver Award at the Considerate Constructors Scheme's Annual Awards in 2011.

