



*Sunscoop  
Tubular  
Rooflights  
Optimising  
Natural  
Daylight*

*Glidevale Helps Zoo  
Conservation*

**C**olchester Zoo is taking conservation beyond the animals - to the detail of its buildings with as natural an environment as possible for its human visitors!



Colchester Zoo is applying the philosophy of conservation to its new buildings, including elements such as rainwater harvesting to re-use throughout the park, and optimising use of natural daylight: demonstrated in the new Playa Patagonia catering outlet opened this spring.

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### *Glidevale Helps Zoo Conservation cont.*

The new monopitched single storey catering outlet includes 10 Glidevale Sunscope tubular rooflights to maximise natural

daylight inside, supplementing the outlet's windows. The Zoo believes in using 'green' elements as much as possible throughout the Zoo, and maximising natural daylight throughout the facilities to avoid reliance on electricity and artificial light. Whilst windows were included in the catering outlet it was always the Zoo's intention to get as much natural daylight as possible. The Sunscopes significantly improve the amount of natural light in the outlet making it an even brighter, more pleasant environment

for visitors.

Natural daylight is proven to provide positive benefits for building occupants; rooflights allow up to three times more daylight into a building than a comparable sized window. Glidevale Sunscopes capture daylight through a polycarbonate dome on the roof and reflect it down a silvered tube ducted through the roof space and ceiling into the room below, minimising reliance on supplementary, artificial electric lighting.

## *Lighting up Salford Regeneration*

New light is being shed on special needs housing in Salford with the construction of innovative accommodation.

Salford First Housing Association (part of the Manchester Methodist Housing Group) has tasked Nuttall Construction with the building of 12 new bungalows and two houses specifically to the requirements of special needs tenants in the Seedley area of Salford, Manchester. The design of the bungalows meant it was not possible to ensure natural light into the bathrooms via conventional methods, prompting the installation of Glidevale Sunscope tubular rooflights, one in each bathroom.

Jeff Gaskell, Nuttall Construction site manager, commented, "Because the bathrooms are internal, there was no way we could put in a window or other traditional natural light source. The Sunscopes ensure there is enough natural daylight into the bathroom during the day, so residents can see without having to turn the light on." David Sedman, Regeneration Project Manager at Salford First, added "A number of residents have begun to move into the bungalows and are very happy with the results of the Sunscope tubular rooflights."



## *Glidevale helps light up New Homes in Historic York*

Contemporary homes in historic York are optimising space and light, energy efficiently, through use of innovative technology.

Bellway Homes is building 35 new two-bedroomed apartments and penthouses in Lawrence Square in the centre of the City. Ranging from £125,000, the homes are being fitted out to appeal to the discerning buyer. To enhance the environment of the penthouses in the eaves of each of the 11

blocks, Bellway has chosen to fit Glidevale Sunscoop tubular rooflights.

Strategically located in each penthouse hallway and above stairwells in each block, the Sunscoop lights the area without electricity. A roof mounted polycarbonate dome catches natural daylight throwing it down a reflective tube through the roof space to a ceiling mounted diffuser in the hallway. Each Sunscoop includes an 'LSD' (light and sun deflector) that intercepts light even when the sun is low in the sky and would normally miss the Sunscoop's mirror tube. The specular silvered aluminium tubes allow 95% reflectivity into the stairwells below, whilst the external clear glazed dome provides up to three times the amount of natural daylight into the room than a comparative sized vertical window.

Tony Paler, Bellway Yorkshire Sales Director, commented, "It is acknowledged that sunlight enhances the overall ambience of any room, so we wanted to make the most use of this natural resource as far as possible within the Lawrence Square development".

"Because the penthouses are up in the eaves,



it would not have been practical to incorporate windows in the stairwells and hallways, which could have made those areas potentially dark.

Glidevale's Sunscoops gave us an effective and discreet means of maximising natural daylight into those areas, with the added advantage of being environmentally friendly as they only use daylight, no electricity."



## *Derby Council scoops Natural Daylight to help improve Housing*

Partners, with Derby City Council have adopted an innovative approach to upgrading housing stock built with the Unity method.

Some 93 homes on the city's Mackworth estate are being significantly upgraded in a partnering scheme between Bramall Construction, Derby Homes (the property management arm of the City Council), and Corporate Services (the city council's design and property maintenance division). All the homes - a mix of two and three-bedroomed houses and flats - had originally been constructed as "Unity" properties - a construction form listed under the defective housing act.

To find a cost-effective way to maintain housing stock levels and bring the Mackworth estate properties up to modern standards, Corporate Services has redesigned the interiors, rebuilding to



current thermal regulations and simultaneously improving the internal layout. In one three-bedroomed house and 14 two-bedroomed first floor flats, the

creation of more useable space within the homes has meant enclosure of the stairwell and subsequent loss of natural daylight on the stairs. Yet Building Regulations and common sense required the stairwells received a source of natural daylight.

Corporate Services' solution, to achieve maximum natural light within budget constraints, was to use Glidevale Sunscoop tubular rooflights.

Some 15 Sunscoops have now been installed within the properties, to provide maximum natural daylight onto the stairwells. Karen Lingard, of Corporate Services, commented, "Re-working the internal layouts meant original windows on the landings were incorporated into useable room space so the 'new' stairwells had no natural light. Sunscoop maintained provision of natural light, aesthetically and at a competitive price."

## *Sale Grammar School improves Learning Environment and Counteracts Vandalism*

An innovative approach to optimising natural daylight is simultaneously improving the internal learning environment, minimising energy consumption and counteracting risk of vandalism at Sale Grammar School.

The school, which achieved specialist school status in the Visual Arts in September 2003, wanted to extend and improve facilities in line with its new status. The solution was the construction of a new, single storey extension between the existing school building and sports hall, providing a multi-media resource centre, 3D and ceramics suite along with exhibition and display areas. The design of the new building had to take into account that it needed to blend in with the existing buildings,



and overcome a lack of daylight due to one elevation being in close proximity to the Sports Hall.

Architectural Project Officer John Ramsbottom, of The Built Environment specialist architectural services within Trafford Metropolitan Borough Council, proposed the use of 12 strategically located Sunscoop tubular rooflights from Glidevale Ltd.

“The Sunscoops are a huge success. Natural

light is so much better than fluorescent light, not only for the students to work in, but to show off the art work,” said the school’s Business Manager and project co-ordinator Mrs Jeanette Buonocore. “The architect had the idea, because of concerns from staff that users would have to rely heavily on artificial lighting. Sunscoops solve that problem, and bring a huge amount of natural light into the whole facility.”

## *Adopting a natural approach to School Lighting Design*

A new village school, which was commended by CABE (Commission for Architecture and the Built Environment) for its “coherent and well considered design” is achieving its objective to provide a “well lit and comfortable” learning environment - in part with help from Glidevale Ltd. Kidderminster based Howl Associates was commissioned by Cradley C of E Primary School in Worcestershire to design a new five classroom school to replace the old school buildings dating back to 1865. A specific element of the brief was to maximise natural daylight within, while Howl’s own aim was to include features that would stimulate the education of the children and maximise the sustainability of the architecture. When the design was submitted to local planners, it was

referred to CABE and the design was “commended for its coherent and well considered design”.

The solution for meeting the natural daylight element was the inclusion of in-plane rooflights in the classrooms, and 16 Glidevale Sunscoop tubular rooflights colour matched to the zinc roof above the long, curving corridor which runs the length of the building.

Philip Howl of Howl’s Associates elaborated, “We wanted to maximise natural daylight throughout the school, but had a service void above the corridor so couldn’t use conventional in-plane rooflights. Sunscoop gave us a cost-effective solution, and its simple hemispherical form from the outside was aesthetically pleasing. We specified

inclusion of a Skyview lens in the ceiling diffuser to give us additional spread of light and provide an interesting appearance. The Sunscoops have been amazingly effective in lighting what would otherwise have been a very dark part of the school.”



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