Solarspot D-38 systems for The Old Cow Shed, Warwickshire

Shedding light on the Old Cow Shed

Sometimes difficult builds require innovative solutions. The Old Cow Shed in the heart of the picturesque Warwickshire countryside is a case in point. When Peter and Isobel applied for planning to build a large extension as part of their dream renovation, they were turned down flat as the planners were not prepared to allow anything that would impact 'negatively' on the landscape. The only solution left to them was to go underground.

The planners agreed to let them build four double bedrooms, with en suites, along with a 20 metre long living space, all set below grown around a central light-well court yard. The problem was the living room windows faced north in the light-well and meant that there would be limited natural light, and no direct sunlight.

The other stipulation was that the living room roof had to be 'integrated' seamlessly into the adjoining wildflower meadow. The roof was constructed with 300mm thick reinforced poured concrete with a 500mm layer of topsoil, deep enough to prevent it drying out in the summer months. In addition, it was important to minimise the visual impact so large square turrets with curb-style flashings were ruled out.

The solution was three Solarspot D-38 light tube systems, with spun aluminium flashings with insulated turret extensions that allowed the domes to sit at ground level. The systems employ active light capture technology in the domes that harvest the available daylight from the south and deliver it to the living area below. What would have been a dark, dreary space is brought to life with an injection of brilliant sunlight.

Solarspot D-38 systems pipe light though 500mm of soil and a 300mm thick concrete deck into the 20 metre living space below. RIR light-capture lenses capture direct sunlight and pipe it down into the north-facing room below.

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