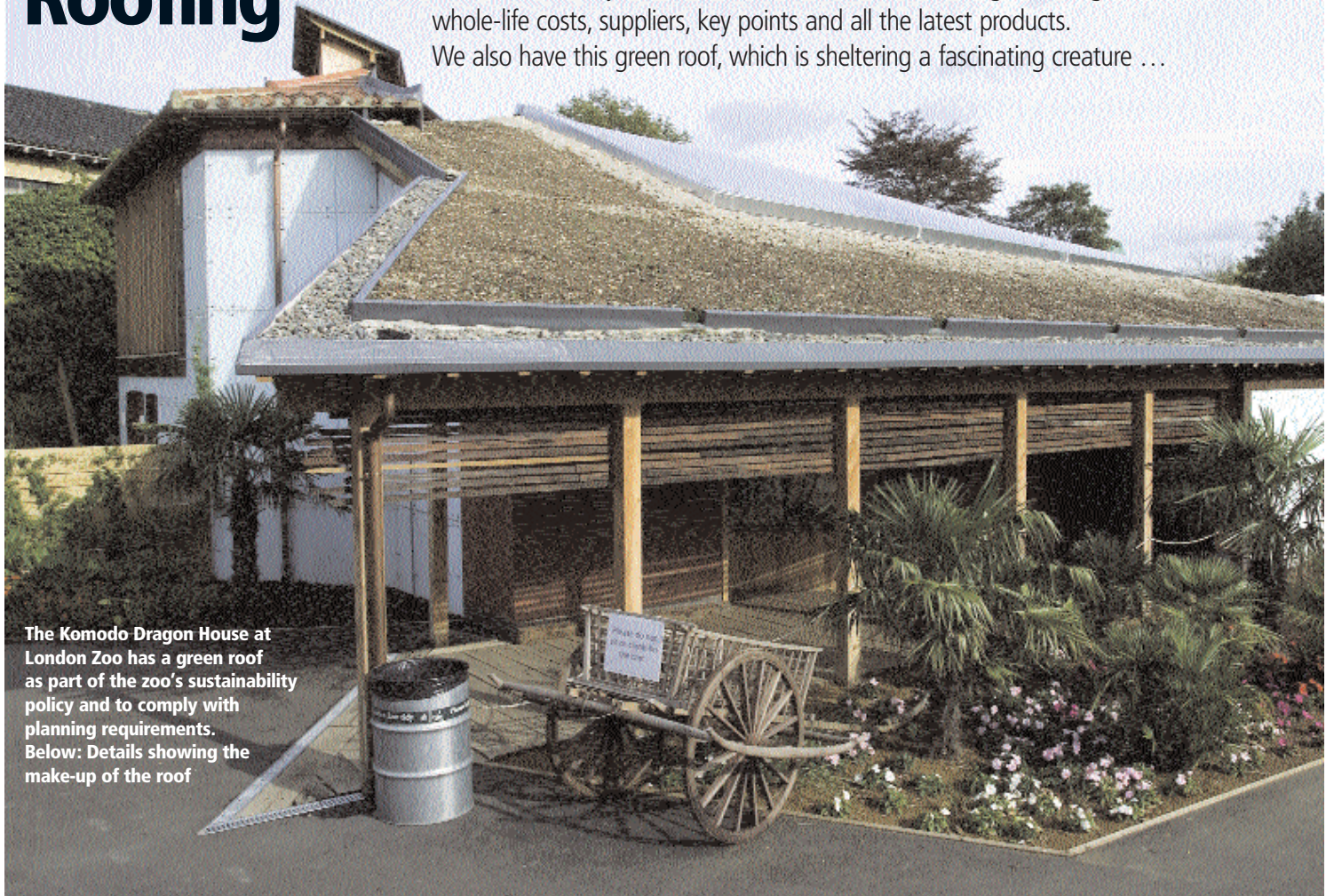


# Specifier

## Roofing

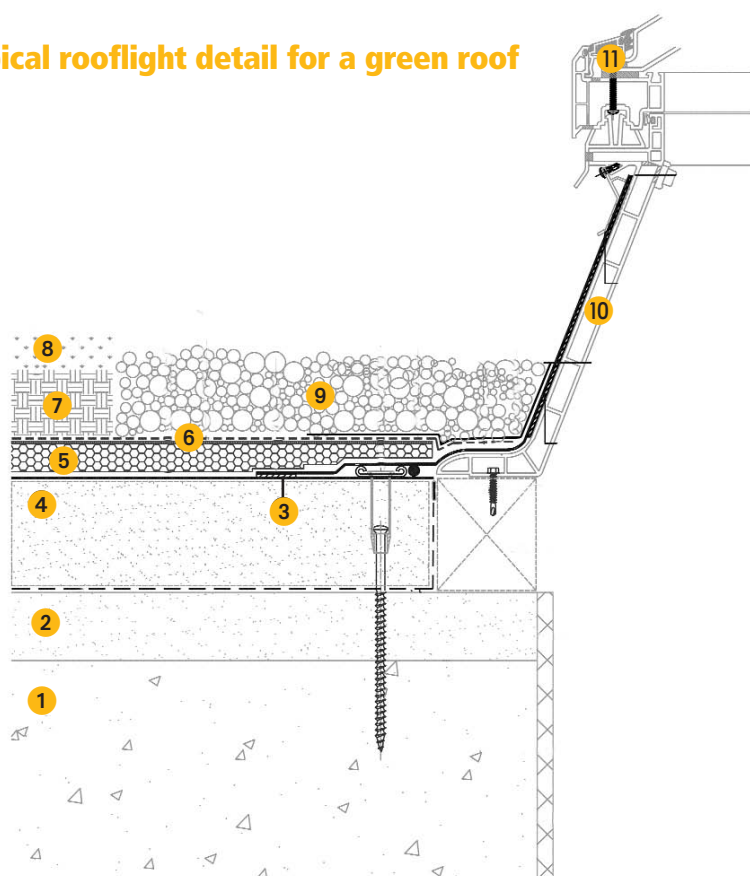
Our twice-monthly series continues with a look at roofing, including whole-life costs, suppliers, key points and all the latest products. We also have this green roof, which is sheltering a fascinating creature ...



The Komodo Dragon House at London Zoo has a green roof as part of the zoo's sustainability policy and to comply with planning requirements. Below: Details showing the make-up of the roof



## Typical rooflight detail for a green roof



- 1 Concrete roof detail 2 Screed 3 Waterproof membrane 4 Insulation  
5 Drainage/filter layer 6 Moisture retention fleece 7 Growing medium  
8 Planting mat 9 Ballast 10 Kerb 11 Rooflight

### Green with life

London Zoo built a bespoke lair for its breeding pair of Komodo dragons. Sadly, Nina, the female dragon, died in August from fall injuries after trying to scale the wall that separated her from her future partner, and the Dragon House is now a bachelor pad for the bereaved Raja. Because the public can see the building from Regent's Park, a planning requirement for architect Kozdon Wharmby was that the building should be concealed beneath a living roof. The 300 m<sup>2</sup> green roof shown here was designed to provide a habitat where local plants and wildlife could flourish high above the public areas.

The roof's design was based on principles developed in Switzerland for biodiversity and

adapted to the London environment by Livingroofs.org.

The zoo is the latest in a lengthening list of clients who have asked for a living roof. Others include buildings at London's Canary Wharf, and the Laban dance centre in Deptford, south-east London.

■ The new roof is launched on 2 November. Email [helenb@livingroofs.org](mailto:helenb@livingroofs.org) for details

### Project team

roof manufacturer **Samafil**  
[www.samafil.co.uk](http://www.samafil.co.uk)  
roof type **Sama vert Extensive Biodiverse Green Roof System**  
main contractor **ITC Concepts**  
roofing contractor **Miller Roofing**

## Tips for specifying a green roof

Last week, Richard Rogers, the mayor of London's chief adviser on architecture and urbanism, launched an initiative to promote green roofs in London. Green roofs, or living roofs, are designed to support vegetation and roof gardens. A green roof can provide a wide range of benefits to building owners and users. These include: creating a new outdoor space; enhancing biodiversity, helping to reduce flood risk by retaining rainwater; reducing energy consumption by enhancing insulation, and helping to improve the appearance of the cityscape. So how can you specify, install and maintain a green roof which will flourish?

### 1 Waterproofing

A waterproofing system must be root-resistant or it must include a root barrier. The area waterproofed should take into account the depth of soil necessary to support vegetation, and the system should be leak tested immediately before the installation of the green roof.

### 2 The roof system

Generally, a green roof will consist of:

- waterproofing layer
- drainage layer
- filter layer
- growing medium
- inspection chambers.

The type, size and design of each layer will depend on the needs of the vegetation. The saturated weight of the roof should be obtained from the green roof supplier for issue to the structural engineer.

### 3 Installation

Only contractors trained in green roof installation should be used. To ensure the roof is handed over in a healthy condition, the cost of post-installation maintenance (for a period of two years or more) should be included in the price. Ensure the system used is supported by manufacturers' and contractors' warranties.

**For more information on green roofs and further specification advice visit [www.livingroofs.org](http://www.livingroofs.org)**

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