



GREEN ROOF TO NEW VISITORS' CENTRE
NORFOLK WILDLIFE TRUST, CLEY MARSHES
NORFOLK

CLIENT: NORFOLK WILDLIFE TRUST
ARCHITECT: LSI ARCHITECTS LLP
CONTRACTOR: TH MOSS & SONS
COMPLETION: 2008



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BY LSI**



Two environmentally friendly roofing systems from Icopal have helped LSI Architects meet the brief for a flagship but sustainable visitors' centre at the UK's first Wildlife Trust nature reserve.

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NATURAL CHOICE

Icopal's Sure-Weld TPO waterproofing membrane has been laid under an Icopal green roof at the Norfolk Wildlife Trust's Cley Marshes nature reserve, which was founded 81 years ago as a blueprint for nature conservation throughout the UK.

Set in 400 acres of the north Norfolk coast, the new centre for visitors from all over the world had to be innovative and exciting to act as a flagship for the trust, but also of sustainable construction with a very low carbon footprint.

The green specification that LSI Architects LLP developed married with the modest budget for the project which as well as the barrel green roof incorporates a wind turbine, ground-source heat pump, solar water heating and rainwater harvesting. This means the building produces more than 70% of its energy requirements on site.

PRODUCT BENEFITS

The Icopal green roof also helps to attenuate rain water before it enters the SUDS system and is complemented with zinc roof trims which were specified for their resilience and recycling potential.

The roof is waterproofed by Icopal's Sure-Weld TPO – a fully recyclable advanced Thermoplastic Polyolefin single-ply membrane that is free of PVC and specially formulated for long-term exposure without the use of either polymeric or liquid plasticisers.

The 300m² extensive green roof system that was installed over it by Icopal-approved sub contractor TH Moss and Sons comprises a shallow and lightweight mat of sedum, which is a low-growing, drought-tolerant plant.

Their design for the single-storey building, which features a double-curved hybrid steel and timber roof with cavity wall construction below, was developed to form a seductive shape to suit the immediate landscape.

EXPERT OPINION

The month-long roofing element of the project proved quite a challenge for TH Moss and Sons from several points of view including the extreme environment and logistics – lorries were not allowed access to the site through Cley village.

"The roof proved to be quite a complex structure for the local contractor but was well worth the effort. It is very expressive and perfectly frames the views over 135°. It is a key element in the successful blending in of the building at the reserve, literally giving the building a green footprint."

Tony Calcott, LSI

Managing director Tim Moss said:

"With such an exposed location, late October was not an ideal time for us to start, with high winds stopping work on many days.

There were also many unusual details including a very steep roof slope and the roof perimeter details were incredibly tight. However, we persevered and managed to complete the work on time and subsequent visits have been rewarding as the sedum roof finish appears to have taken very well, negating our original concerns that in such a harsh environment it may struggle to grow."



LSI Associate, Tony Calcott added:

"We specified the Icopal products because of the pro-active assistance we received at design stage, the local sub-contractor network (we used local materials and labour wherever possible) and the fact that Greenpeace approved the TPO product. The client is really thrilled and the guest book on site shows that the thousands of new visitors the building has attracted are equally delighted."



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