

modular marvel

Terry and Shirley Rose's impressive new home in the Scottish Highlands started life in a factory in East Sussex

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When Terry and Shirley Rose originally dreamt of creating their own holiday home in a rural location, they were living in a busy Hertfordshire town and working long hours in their hectic jobs as a chartered surveyor and art teacher. Having an idyllic spot that they could escape to seemed like a beautiful but rather distant fantasy. However, when Terry's father sadly passed away and left the couple a sum of money, they were granted the opportunity to transform their vision into reality. "We wanted to do something really special with my father's money," explains Terry. "So we decided to buy a plot of land."

The couple began scouring the south east of England for a secluded patch of land to build on, but the high prices in this area meant it was impossible to find what they wanted within their budget. So they instead turned their attention to one of the most visually-spectacular regions of the UK – the Scottish Highlands. "We had friends living in Ullapool and we'd always loved going up to visit them," says Terry. "Although

THE ROSE FILE

NAMES Terry & Shirley Rose
OCCUPATIONS Managers of a B&B and self-catering accommodation
LOCATION Ross-shire
TYPE OF BUILD Self build
STYLE Contemporary
CONSTRUCTION METHOD Modular construction using structural insulated panels (SIPs)
PLOT SIZE 0.66 acres
LAND COST £60,000
BOUGHT June 2013
HOUSE SIZE 147m²
PROJECT COST £253,854
PROJECT COST PER M² £1,727
TOTAL COST £313,854
BUILDING WORK COMMENCED December 2013
BUILDING WORK TOOK 19 weeks
CURRENT VALUE £400,000





the region is remote, it's only one hour from Inverness airport so we knew it would be easy to fly there. The plots were a decent size, and some of the world's best scenery is right outside the front door!"

Assessing the site

The couple's self build journey began with the search for a suitable plot. "We initially focused our efforts on another site we'd spotted along the road we eventually ended up buying on," says Terry. "But it was steeply sloping, which made it too difficult to create what we wanted." However, a little further down the lane Terry spotted something interesting. "I discovered a broken estate agent's sign on some land and found that it was still available," he says. "It was immediately clear that the location would be perfect, so we agreed to the purchase, subject to obtaining satisfactory planning approval."

But buying this site took nine months as a result of its crofting status – a uniquely Scottish form of land tenure. "In the Scottish Highlands, a plot always has a landowner and then it's crofted for farming," explains Terry. "You can decroft a small portion of it to build a house, but then you have a time limit of five years to actually construct the property. When we first found this place we still had plenty of time left, but as a result of a slow legal process the decrofting rights almost ran out. We ended up finalising the purchase the day before this would have happened."

Stress-free planning

They may have had huge headaches from dealing with the decrofting process, but unlike many first-time self builders, Terry and Shirley sailed through a relatively pain-free planning experience. They obtained consent to go ahead with the scheme within eight weeks – a pleasant surprise, especially considering the fact that they were proposing such a striking, ultra-modern design.

“Boutique Modern hadn't previously built a dwelling of this size, but they were enthusiastic and prepared to work with us”



Much of the beautiful interior decor was planned and created by Shirley Rose. Most of the key fixtures and fittings were already in place when the modules were delivered to the site



The couple submitted plans for a single-storey dwelling with a flat roof that was covered in wildflowers. They wanted the house to blend into the surroundings and leave a clear view of nearby Loch Broom from the road. "I think the local authority was pleased to see high quality architecture, and understood we were keen for the structure to be at one with the landscape," says Terry.

A modern building process

After reading an article on modular construction, a method whereby the house is developed using factory-finished timber pods, Terry and Shirley knew that they wanted to go ahead and build their property in this way. "We'd always been keen to create an open-plan, contemporary home, so using this build system made sense," says Terry. "It enabled us to design something truly bespoke."

WE LEARNED...

CONSTRUCTING THE MODULES

in a factory ensured we built to very high standards without being bogged down by any concerns about weather affecting the timescale. Being situated close to the Boutique Modern premises meant we could travel there weekly to make decisions and check the project was progressing according to schedule.

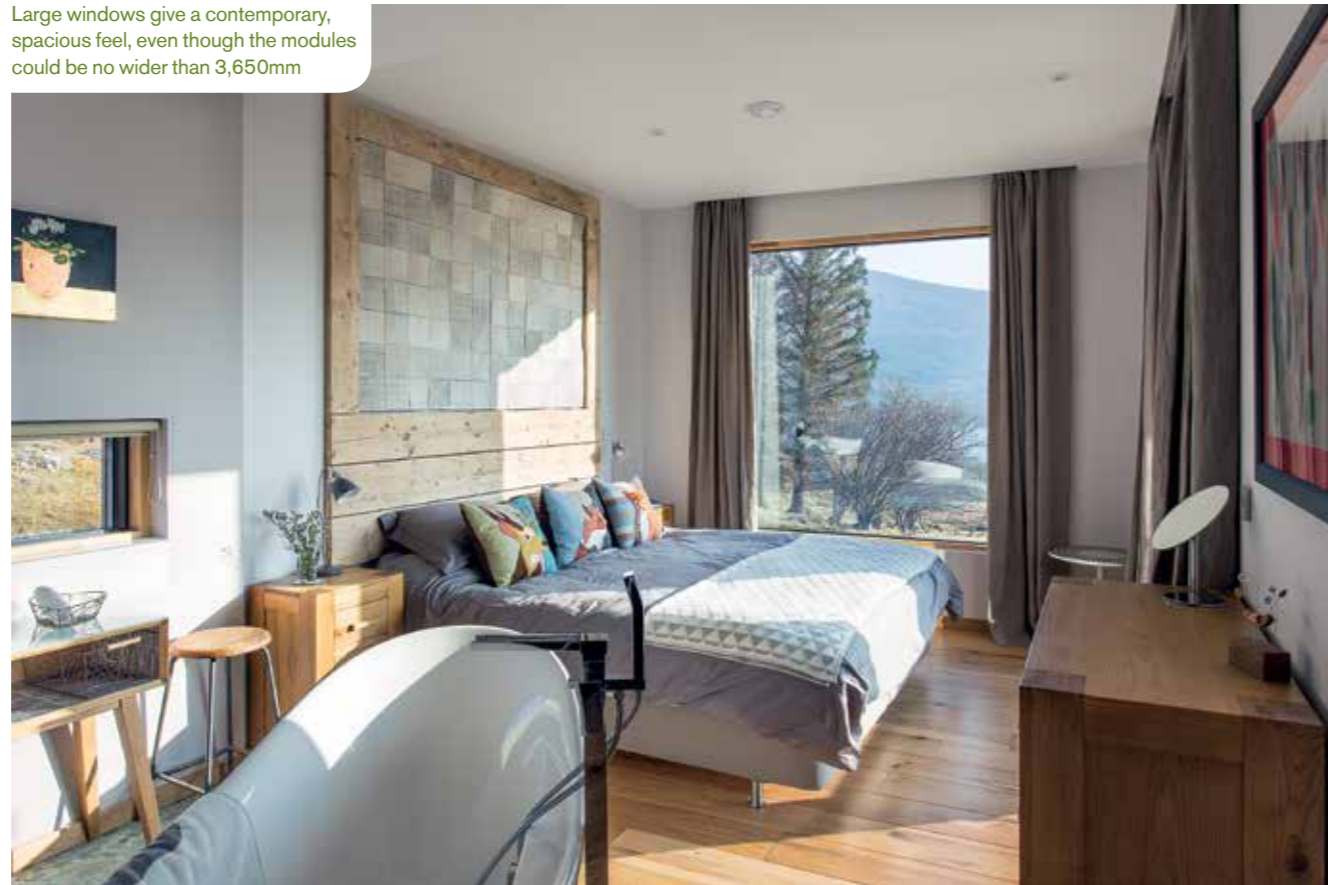
MEETING THE PLANNERS

to help them understand the scheme was very important. We took drawings, a Powerpoint presentation of the build process and watercolours showing how the house would sit in the landscape. They were positive about the details and didn't ask for changes. In fact, we were pleasantly surprised at how straightforward this part of the process was.

A SCOTTISH ARCHITECT

would have been able to help us prepare and present the Building Warrant documentation. As neither the contractor nor myself had developed a house in Scotland before, we weren't fully prepared for the different process involved, and building control did seem to pick up on this.

Large windows give a contemporary, spacious feel, even though the modules could be no wider than 3,650mm



Each of the three bedrooms has its own ensuite bathroom, complete with underfloor heating and impressive views

**Comfortable interiors**

Inside the completed building – which has been named Sealoch House – there are three double bedrooms, each with its own ensuite, and an open-plan lounge and kitchen-diner that's been divided into three distinct areas. This spacious zone overlooks the loch through large, triple-glazed windows. "Everyone comments on how big the place feels, so the width restriction imposed by the modules has not become an issue," says Terry. "What's more, the understated front elevation of the property doesn't fully prepare guests for the very first time they enter the main living area and set eyes on the wonderful view."

Going green

Terry and Shirley's house also has plenty of impressive eco credentials. As well as being highly airtight, the dwelling features a mechanical ventilation and heat recovery (MVHR) system. It has a wildflower and grass roof, in addition to solar PV panels that provide free energy to the electric immersion heater that powers the hot water tank. Thanks to the air source heat pump that is positioned under the building, the Roses also benefit from air-to-air heating

and cooling. There are no warmth emitters in the bedrooms, other than the electric underfloor systems installed in the adjoining ensembles. "This is a cost-effective solution that prevents overheating and can be used to warm and cool," says Terry. "The house is always very cosy, even in winter. Everything is fed from the electrical supply and the total running cost is between £500 and £750 per year."

So, what's the couple's verdict on their first self build? "It has completely changed our lives," says Terry. "After travelling back and forth a lot we decided to give up our careers and move to the Highlands permanently." In fact, the couple enjoyed the process so much they decided they wanted to tackle another challenge. "We agreed to let Sealoch House out as a luxurious holiday home and refurbish another building – Westlea House – to turn it into a B&B. I think everyone should self build at least once if they have the chance, as you can truly create your dream home."

The construction process is convenient as well, as each section of the house arrives on site in its completed form. The only significant restriction for this type of self build is that modules are limited to a maximum width of 3,650mm to enable transportation on roads without an escort vehicle for safety." To form the structure of the house, Terry and Shirley appointed Boutique Modern, a company based in Newhaven on the south coast of England. "I employed them as the main contractor to deliver a completed shell with a Building Warrant – another essential piece of documentation that's peculiar to Scotland," says Terry. "Boutique Modern hadn't previously built a dwelling of this size, but they were very enthusiastic and prepared to work with us. As a result, and because we were learning together, they gave us a discount."

This decision worked well. Terry and Shirley's Hertfordshire home was 600 miles from their site in Scotland, but only 80 miles from the Boutique Modern factory. This made it convenient for the couple to travel there for updates on how manufacture was progressing. Also, constructing the dwelling in a controlled environment meant that weather issues and any delays caused by sub-contractors did not affect the build and quality, and so the process was fairly straightforward. "The project could be planned well in advance and we were able to visit the factory on most weekends to meet the builder and go through any decisions needed," says Terry. "As our son was at university in nearby Brighton, we often decided to make a day of it and meet up with him afterwards."

The modules took four and a half months to create. As well as fabricating these, Boutique Modern project managed and liaised with the other sub-contractors on the couple's behalf. Terry got heavily involved in the home's design and managed the construction of the foundations, plus delivery of a new access road, the sewage treatment plant, dry stone walling and boundary fencing. He also ordered the kitchen and many other fittings and finishes, which were then sent to the Boutique Modern factory and added to the modules



before they were transported to the site in Scotland. For any other jobs, Terry employed local Ullapool contractors who had been recommended to him personally, overseeing the work himself.

Come rain or shine

As well as the different land laws, the Scottish weather was another obstacle to consider. The ground conditions varied significantly across the site and the team ended up laying the foundations in February when the weather was wet and cold.

The plot is in an exposed environment that experiences heavy rain, wind and snow, so the exterior finishes had to be specified to withstand these. This meant thorough seals and a smart choice of building materials was crucial. "We opted for Siberian larch cladding, left untreated, because it matched the local vernacular and offers a service life of at least 50 years," says Terry. "It will also develop a silver patina over time, helping the building blend into

the landscape." Fitting the timber covering took three months to complete, which was longer than Terry had anticipated.

On the other hand, erecting the structure on site was quick and relatively simple. The seven modules travelled the near 700-mile distance from East Sussex to Loch Broom on five lorries before being craned in and assembled within a day. The last four miles proved to be a bit tricky because the modules had to be transported down a single track road over narrow bridges, under low-hanging trees, and down a steep, curved drive into the site. The roof is a membrane system that was laid onto each unit. Incredibly, the building was weathertight and liveable after less than 24 hours.

The property was kept above ground level so water could flow down the sloping site without the need for retaining walls. By building out of the slope, the underside of the dwelling can be used to store garden equipment and wood for the log burner.



closer look

Modular construction...



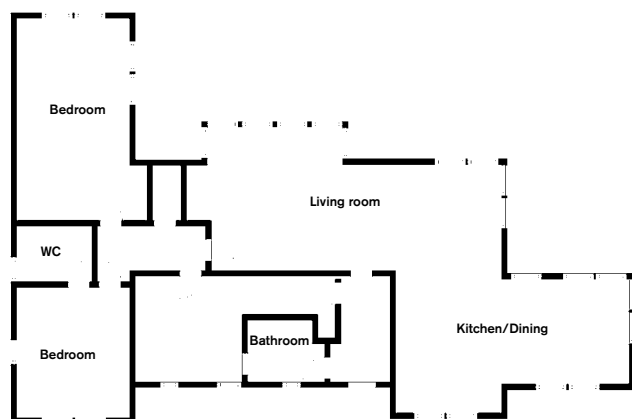
If you know exactly what you want, this is a good way to build a bespoke home, as quality, construction time, waste and costs can all be closely managed. Like Terry and Shirley Rose, you're able to work hand-in-hand with the manufacturing and construction team, who will be totally focused on your home because it's taking up space on the supplier's factory floor. The cuboid pods will come finished with windows, electrics, plumbing, kitchen and bathroom cabinetry installed. They are fully decorated and are then transported to the site on lorries, so erecting the house is a speedy process. In Terry and Shirley's case, the installation of the units took just one day and they were connected to power and sewage within 24 hours. "Modular construction was great for us, as it allowed us to create the dwelling we had imagined, even when we lived such a long distance from the plot," says Terry.



Craning in the pods



Floor plans



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TOTAL BUILD COST BREAKDOWN

Elements	Cost m ²	Cost %	Total cost
Foundations	£17	<1%	£2,460
Utility costs	£18	1%	£2,663
Construction package	£1,135	66%	£166,793
Transport/crane	£141	8%	£20,700
PV panels	£36	2%	£5,284
Heating/woodburner	£43	3%	£6,339
Groundworks/access road	£147	9%	£21,688
Fees for purchase	£18	1%	£2,692
Fees for building	£29	2%	£4,261
External works	£61	4%	£8,974
Sewerage treatment	£41	2%	£6,000
Building warranty	£41	2%	£6,000
Grand total			£253,854

Useful contacts

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