



New build



### Landscaped to Heather's design

The garden has been landscaped to Heather's design. A former overgrown bank has been terraced to provide practical useable areas, with views of the sea.

# Top of the class

Adrian and Heather Hayes have built a striking contemporary home to a green agenda on a tricky coastal plot in Cornwall.

Adrian and Heather Hayes were happy with their large traditional home in south Cornwall and never thought about selfbuilding beyond enjoying property shows on TV.

Then, they heard rumour of 1,200 new homes to be built close by, and considered moving. By chance, their estate agent mentioned a building plot for sale in the pretty fishing village of Mevagissey and, intrigued, then went to see it. "It was the only plot we looked at," says Adrian. "And we just fell in love with it," adds Heather.

Long and narrow, this former garden offered spectacular views across the sea to Chapel Point, but it came with some issues, too. The land was level with the top of the five foot boundary wall facing the road, which was the only access and, although it had been granted outline planning permission, there were constraints. These were mainly around the height of the proposed ridgeline, and the proximity of any new house to neighbouring properties.

"We were pretty naïve," admits Adrian "I think the consensus was, we would be mad to take it on."

The couple asked their builder, Dave Penhaligon, to look at the plot. "He had done work for us before, and it was an instant decision when Dave said he would do it...it was a big part of why we took it on," says Adrian.



They chose designer Adam Raspison from Atelier 3, though as good as their relationship was, when they sold up and moved into a smaller property during the build they didn't expect to find themselves living next door to their new architect. "Any problems, I used to toddle across in my slippers!" laughs Adrian.

When it came to giving Atelier 3 their brief, the Hayes found they drew inspiration from trips to a diverse range of places, from Switzerland to Sandbanks in Dorset.

"We wanted something to suit both of us," says Adrian. That meant an open-plan layout which makes the most of the views, a glass balcony and green technology where we could justify the expense."

Onto this deceptively broad canvas, their designer drew a unique contemporary three-bedroom property, designed around a central spine wall which extends into the terraced garden, and acts as a retaining wall on the lower ground floor. A largely glazed gable end overlooks the sea.

The Hayes loved it, and asked only for minor changes to the internal layout. Critically, the design took account of planning restrictions relating to the ridge height. Rather than build a single-storey home or challenge the planners for a conventional two-storey property, the design achieves two levels by creating a basement.

"We didn't try to change the constraints at all," says Adrian and, as a result, they gained detailed planning permission with no problems.

Unusually, the first task the Hayes tackled was the landscaping due to a lack of secondary access to the bank at the rear once the house was built. Heather designed the beautiful terraced garden and patio area, which uses 280 oak railway sleepers that Adrian sourced on eBay, quality granite paving that the couple describe as their 'best buy' costing just £50 per block.

Terracing the steep garden, digging out to basement level, and building an 18m long reinforced retaining wall, was a

### The thin blue line

The 18m blue spine wall which is an attractive feature of the design acts as a retaining wall.

The PV panels on the rear roof were installed in time to qualify for a generous government subsidy and are expected to pay for themselves within seven years.

*"I just enjoy standing with my back to the view and looking at what we've achieved."*







### Triple glazing

The windows are triple-glazed and fitted with self-cleaning glass and internal blinds.

huge job. More than 150 lorry-loads of soil were taken from the site and for a while the Hayes had nothing to show for their money except a gaping hole in the ground.

Adrian project managed the build, finding and ordering materials, writing the cheques, and spending hours on the internet researching and sourcing materials, where possible using local firms.

Dave Penhaligon was the site manager, and often worked alone, although Adrian tried to be on site as much as

possible. When other trades were required, Adrian trusted Dave to recommend people and was pleased with the results.

“It was like having a whole firm, but they were all independent contractors. We never had a cross word with any of them,” says Adrian.

Although the build went largely without a hitch, there were a few challenges. Most related to the narrow, 10m x 45m plot, such as getting the crane on site without closing the road. Storing materials was also a headache, with the railway

sleepers in particular getting moved several times. Yet it was the utilities that caused Adrian his only serious problems. He read the utility company plans incorrectly and thought they would be able to connect to the main sewer in the road. He later discovered that it was a pumping main with no connection option, so he had to install a sewage treatment plant on site.

So much soil was removed from the site that they hit rock in places. Worried the drainage wouldn't cope in Cornwall's

damp climate, the Hayes built in several soakaways. Since moving in last November in what has been a remarkably wet winter, these have been severely tested, and passed with flying colours!

Dave had recommended a conventional block build. “The thing that concerned us was the wind; we wanted a really solid build,” explains Adrian. The roof was cut on site and Kingspan insulation chosen for the ceilings (250-280mm) and walls (100mm).

### American white oak

American white oak supplied by Mid-Cornwall Joinery has been fitted throughout.





**Favourite feature**  
The Cumbrian slate fireplace and real fire in the living room is a favourite feature.



**Open-plan living**

Open-plan living was a priority for the Hayes. In the dining area, the glass top dining table helps to emphasise a sense of light and space.

The air tightness of the property was enhanced with triple glazing and a heat ventilation system which meant trickle vents were not necessary. Adrian was delighted to receive an ‘A’ rating for energy efficiency and an air permeability score of 2.7; a rare achievement for a house not manufactured off-site.

From the outset, Adrian and Heather were keen to build to a green agenda and wanted to go further than simply ensuring high levels of insulation. The plot has no mains gas, and the conventional options of oil, calor gas or solid fuel didn’t appeal. Air pumps were also ruled out because they would be too obtrusive on such a tight site.

The remaining option, as far as the couple were concerned, was geothermal energy and, specifically, the vertical variety. Two 98m bore holes were dug under what is now the garage, at a cost of £15,000. This, together with the heating system, including the underfloor heating, came from Source Energy, one of the best companies the couple had dealt with.

The ground source heat pump was more expensive than gas but the early indications are that it is economical.

Four kilowatt photovoltaic panels were installed in time to secure a generous government payback deal of 37 pence per unit, which means the panels should pay for themselves within seven years.

Heat recovery and ventilation systems were a mystery to the couple until they saw one at an exhibition. Serious about air tightness, it was an obvious choice and Adrian fitted theirs himself, with the aid of a subcontractor, a decision they haven’t regretted.

The house now stays at a very pleasant temperature without much heating, even in the depths of winter. This is partly thanks also to the solar gain from the triple-glazed composite windows (powder-coated aluminium exterior and oak interior), which were only £1500 more than standard double-glazed units.

The interior has been finished to a high standard, with white American white oak used for all the floors, architraves, skirting boards and doors. The Cumbrian slate fireplace, which houses a real fire, has sentimental associations for the Hayes, who love the county and became engaged while on holiday there. Colour is used well, with the largely white Art Deco-style curved kitchen units complemented by pale blue storage on one side, linking it to the blue spine wall that ties the house with the coastal landscape.

The Hayes were careful to keep their budget under control, and were as economical as possible. The tiles in the three stylish bathrooms, for example, only cost £1500.

**Practical kitchen**

The Hayes had a huge kitchen in their old house, but Heather prefers her new one as it is more practical. The units were chosen for their Art Deco look.

At the same time they were mindful that they didn’t plan to build again, so there was no compromising on quality or details; the balcony has frameless glazing, the balustrade on the steps is stainless steel and the fascias are power coated steel, in accordance with the design. A cheaper substitute may have destroyed the look of the house.

Although they only moved in a matter of weeks ago, following a longer than expected two-year build, the Hayes are still discovering the joys of life in a warm, well-designed home.

“I just enjoy standing with my back to the view, and looking at what we’ve achieved,” says Adrian. “If I was driving by, it’s a house which I’d stop and look at.”

**The bottom line**

The Hayes paid £210,000 for the plot. Their new home has not been valued

**Contacts**

**PROJECT**

**Builder** Dave Penhaligon  
**Design:** Adam Raspison at Atelier 3 architectural practice: 01208 895536 www.atelier3.co.uk  
**Agents for the plot**  
Lillicrap & Chilcott: 01872 273474

**STRUCTURE**

**Electrician** Dave Wright: 07876 524475  
**Complete heating system** Source Energy: 01872 300205  
**Heat recovery System** CVC Direct, Wallingford: 01491 836666  
**Photovoltaics** F&K Electrical: 01726 822288  
**Windows** DSL: 01872 261260  
**Railings/steel work** Mike Davis: 01726 816896  
**Paving and Drive** Michael Coon: 01726 844477  
**Plumber** M Keast: 01208 821364  
**Painter** J Brewer: 07846447594

**FIXTURES AND FITTINGS**

**Lighting** St Austell Lighting: 01726 65600  
**Glass balcony and stairs**  
St Austell Glass 01726 64406  
**Flooring** Hardy carpets: 01726 76541  
**Granite worktops** Morgan Masonry: 01872 870091  
**Glass wall feature** Jo Downs: 01566 779781  
**Fire and chimney** Kernow Fires: 01208 812527  
**Cumbrian slate** Burlington Stone: 01229 889661