

selfbuilder + homemaker

JAN/FEB 2023

Get on top of your thermal performance

Lisa Grosse of Cedral looks at why choice of roof is key to your home's energy credentials

The kit and caboodle

Scandia Hus' Derek Dawson gives a Q&A on why self-builders are increasingly looking to kit homes

A LESSON IN CLASS Q

The ups and downs of Class Q permitted development, as revealed in a Northamptonshire barn conversion

Sheffield steel

Kitchen thieves and a collapsing roof weren't enough to put Suzanne and David Williamson off creating a playfully designed refurbishment in their home city of Sheffield

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FROM THE EDITOR...

We emerge from another winter with a couple of pieces of good news to give cheer among an overall fairly gloomy global picture. Although proponents of ultra green living might not agree, due to the mysterious macro forces within the oil industry, petrol prices are continuing to come down. There may be a light at the end of the cost of living tunnel.

Of course, this doesn't mean that the focus can come off the need to produce ever-more sustainable buildings, as we continue to become more aware of both climate change, and buildings' contributions to it. When public transport is finally given the colossal investment it needs to make it a genuine alternative for most people, they might leave their cars.

The other good piece of news is that Defra has finally grasped the SuDS nettle – and is to make sustainable drainage a legal requirement in all new developments from 2024. Builders might not be happy, but all of us who love biodiverse settings will be.

While this looks to be a comprehensive piece of legislation (where the Floods Act failed to lead to anything approaching 'mandatory' SuDS), just how much it will actually affect individual self-builds remains to be clarified.

Whatever the case, it will mean some pain, but a lot of sustainable gains for schemes big and small, and their communities.

JAMES PARKER

DATES FOR YOUR DIARY...

BUILD IT LIVE4 - 5 FEBRUARY, MAIDSTONE
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WWW.NSBRC.CO.UK/WHATS-ON**NSBRC GUIDE TO PROJECT MANAGEMENT**25 FEBRUARY, SWINDON
WWW.NSBRC.CO.UK/WHATS-ON**SCOTTISH SELF-BUILD & RENOVATION**11 MARCH, INVERURIE
WWW.SCOTTISHSELFBUILD.CO.UK**ON THE COVER...**

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Ask the Expert: Fully kitted up

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Adding real value to your home...



Bi-fold Doors shown in Anthracite Grey (7016M)



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Fully kitted up



Your choice of construction method will affect almost every aspect of your project. Derek Dawson of Scandia Hus answers some common questions on kit homes, explaining how they can be the 'ultimate solution' for a self-build



WHAT IS A KIT HOME?

Kit homes are pre-fabricated properties manufactured offsite and then assembled insitu. Individual components are measured and cut in a factory, eliminating a significant amount of time that would be required if this was done onsite. The degree to which the house is constructed prior to delivery is dependent on the chosen supplier and build route.

Typically constructed from timber,

kit homes generally consist of a frame made of truss-graded timber studwork with OSB (Oriented Strand Board) fixed to the exterior side. This is known as an 'open panel', it becomes 'closed' once insulation and plasterboard have been installed. A breathable membrane is usually factory-fitted to the outside of each panel which acts as a waterproof barrier; this will then be covered by external cladding (brickwork, stone, weatherboarding, tiling, or render).

WHY BUILD A KIT HOME?

Building a kit home is rapidly increasing in popularity, because the offsite nature of the process provides numerous efficiencies in time and cost, and the resulting property tends to be of superior quality. With pre-fabricated kit homes, precision-made components are created to exacting standards under strict factory-controlled conditions and then erected on the building plot by experienced teams. This process ensures

It is possible to employ an architect to draw up your plans – and simply have the kit company produce the structure



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Quality self build timber frame homes



Precision-made components are created to exacting standards under strict factory-controlled conditions – and then erected on the plot by experienced teams

high quality is consistently maintained, with less scope for human error.

Once onsite, the property is erected quickly, allowing a rapid overall build process. The ability to construct the home in all weathers, unlike other systems, means there are fewer chances of unexpected and costly delays onsite. A structural shell is usually up within a few weeks, even in wet conditions. As timeframes are unaffected by weather disruption, the duration of the build as well as the costs can be better predicted.

Building with a timber kit also provides a greater degree of cost certainty because the frame, along with the design work, delivery and assembly are calculated and charged as a package. This allows the client to know in advance the exact cost of the supplied and installed superstructure.

WHAT IS INCLUDED IN A KIT HOME PACKAGE?

Another attraction of kit homes is that you're able to tailor the build package to suit your own requirements. Many suppliers offer a full 'turnkey' package which can take the project from design through planning, construction and to completion, or alternatively, clients can simply purchase the supply and installation of the structural frame.

Depending on the needs of the self-builder any number of elements can be included or excluded, as it is a completely flexible build system.

HOW DO KIT HOMES DIFFER FROM MASONRY-BUILT PROPERTIES?

In simple terms, the brick and block of a typical masonry house is replaced with a timber frame structure. The outside of the frame can then be clad in brick, block and render, stone, tiles or timber boarding according to the client's design, enabling the appearance to be anything from a traditional cottage look to a contemporary chalet style.

Once the home has been completed, it could therefore be difficult to distinguish from the exterior whether the structure has been created using brick and block or a timber frame kit. Inside, however, it would be more obvious in terms of energy efficiency; timber frame systems are far superior, producing airtight homes with low running costs.

DO I HAVE TO CHOOSE A STANDARD DESIGN?

In the past, suppliers sold kit houses from standard plans and styles, however, with personalised plans and bespoke builds in demand more recently, companies have



responded by offering tailored designs and in-house teams working with clients to meet their unique brief.

A kit home can now meet the needs of almost any self-builder, with each property custom-made to suit the individual in terms of layout, style, budget and plot restrictions. It is also possible to employ an architect to draw up plans and simply have the kit company produce the structure.

HOW LONG DOES IT TAKE TO BUILD?

Depending on the size and complexity of the design, as well as the build route employed (i.e. a turnkey package from a main contractor, or self-project managed), a kit home can take as little as six months to become a reality. On average, however, most properties are completed within 12 months of breaking ground.

HOW MUCH DOES IT COST?

The total cost will depend on a variety of factors, including site conditions, size, design and finish specification, as well as the chosen level of input. Guide cost forecasts can be made using a kit home supplier's per square metre/foot calculation.

WHAT ARE THE ENERGY EFFICIENCY CREDENTIALS?

Building using a timber frame kit has high eco-credentials generally; not only is timber a sustainable material, but it also helps to create an airtight structure. Combining the timber frame with triple-glazed windows and high levels of insulation produces a thermally efficient home with low fuel consumption. Such kit homes pair perfectly with renewable technologies such as heat pumps and solar panels.

Derek Dawson is managing director of Scandia Hus

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DESIGNS THAT WORK FOR YOU

Hybrid working is here to stay, so it's no surprise that a dedicated workspace has become a staple of houses' layouts. But where do you start when planning a home office? Steve Hird of Edward Thomas Interiors gets down to business

When looking at how to shape your home workspace, begin by thinking about what space you need and how it will be used. Will you be working full-time or part-time? Does your work require good natural light or room to be creative? Do you need access to a separate storage area for products or equipment? Will it be used solely as an office, or does it need to double as somewhere for children to do homework or study too? Self-builders have a unique opportunity to design and customise rooms to their bespoke requirements, rather than following the generic badging of a room as dictated by a housebuilder or estate agent.

Once you've established these parameters, you can think about location, and remember there's no right or wrong answer! Our preference is

always for a dedicated room (or rooms) as it allows you to close the door and switch off at the end of the working day. If you're desk-based, you'll need to avoid distractions and want to create a peaceful environment – perhaps opt for the first floor to be inspired by any surrounding views. If you'll have clients visiting regularly, choose a ground floor space with separate access. If you're crafty or artistic and are likely to have piles of stock, consider connecting rooms so you don't have to work amidst the boxes. And if space within the home is already allocated, why not add a garden pod? These structures have become extremely popular recently and can really help to create the distinction between work and home life.

Of course if the floorplan allows, it's also advisable to plan multiple spaces,



particularly if you have more than one adult working from home. As well as a permanent office away from the hustle and bustle of the main living areas, you might add 'breakout' spaces where other members of the family can work/study temporarily, or for you to use as a change of scene for phone calls or to read a document. Similarly, a homework space is a good idea – somewhere for teenagers to revise, or younger children to learn. Both these can be in shared areas of the home, for instance a partitioned zone within an open plan kitchen/diner, or somewhere more inventive like under the stairs, on a landing or among the eaves.

Once locations and rooms have been decided, it's time to think about furniture. What do you need to function effectively? One desk or two? A separate seating area? Shelving? Bookcases? A large table accessible from all sides? To help with your planning, draw or sketch





Bespoke items such as floor to ceiling cabinetry, floating or L-shape desks, and vertical hidden storage can add impact and ensure a clean, tidy and productive environment

out the footprint and then separately draw furniture so you can move pieces around to see how they might fit best. Don't forget about power sources too, for instance you might need floor boxes if working in the centre of a room.

Bespoke items such as floor to ceiling cabinetry, floating or L-shape desks and vertical hidden storage (for printers, cables, files, etc) can all add impact and ensure a clean, tidy and productive environment. We also recommend not overlooking your lighting. Maximise

daylight by positioning your desk at a right angle to the window. Then layer table lamps, floor lamps and task lights to brighten or dim as required.

Individual styling should be the finishing touch and certainly for office décor there are some colours and materials that will never be out of style – think forest green, slate grey, burgundy and a timeless black along with wood and leather for that traditional, serene appearance. If you want something more country chic,

switch out the leather for check fabrics and add accessories in ochre, soft blues or pinks. Throughout 2023, we're expecting to see more Miami pastels, natural materials and textures, and plenty of personalisation, whether that's a bold wallpaper, artwork that tells a story, or objects collected from your travels – your Zoom background will have never looked so good!

Steve Hird is the co-owner of Edward Thomas Interiors

1



INTERIOR INSPIRATION: LIGHTING

Whether it's for accenting individual items, creating overall ambience, or achieving the right light levels for working from home, getting lighting right is one of the first priorities for a great interior design. Here we round up a selection of elegant and useful solutions currently on the market



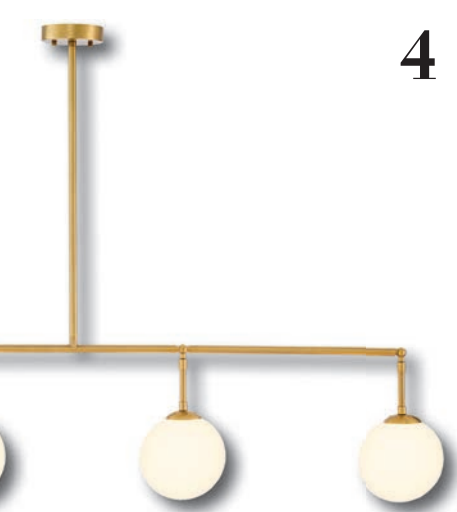
1. Handcrafted from sustainably sourced oak or walnut, the **Semper Pendant** by **Tom Raffield** features a centralised, cylindrical wooden frame secured by a solid brass axis, as well as two rotating outer timber layers. The pendant is well suited as a standalone centrepiece, or as a self-curated constellation for greater impact. Price: £255.
www.tomraffield.com

2. This **Violetta Table Lamp** by **dar lighting group** is a hand-crafted statuesque table lamp in distressed ceramic, finished in antique cream with a popular artichoke motif and an eye-catching mustard yellow glaze. It is sold as a base-only table lamp for you to use your own shade or choose from our selection of fine shades. Price: £154.
www.darlighting.co.uk



3. This **Bertie Large Pink Coloured Glass Pendant Light** by **Glow Lighting** brings some opulence into your home. The pink adds a pop of colour that brightens up a kitchen, sitting room or creates a stunning dressing room effect. The perfect pendant to hang above a kitchen table/island, it's priced at £315. www.glowlighting.co.uk

4. Illuminate your kitchen or dining room in style with the simple yet sophisticated **Tara Chandelier** by Eichholtz from **Sweetpea & Willow**. This elegant lighting fixture features a sleek, minimal design consisting of four white glass globes hung equidistant from one another and an alluring antique brass finish. Price: £1290. www.sweetpeaandwillow.com



5. The **Marlowe Nickel Swing Arm Floor Lamp** from **Laura Ashley** is a great light for reading. Free-standing, and with a double-jointed 'elbow' arm to swing with ease into your preferred reading position, it illuminates corners beautifully – as well as the pages of your book. The lamp is priced at £189. www.darlighting.co.uk/laura-ashley

6. **Lime Lace's Kalimantan Bamboo Table Lamp** is a stunning light that is sure to add a touch of natural elegance to any space. Handcrafted with bamboo strips that intertwine to create a unique design, this lamp is sustainable and eco-friendly, making it the perfect choice for those who are looking for an environmentally responsible product. Price: £150. www.limelace.co.uk



CASE STUDY

SHEFFIELD STEEL

Kitchen thieves, a collapsing roof, and then a pandemic would be enough to make anyone throw in the towel on a renovation project, but Suzanne and David Williamson are made of sterner stuff

TEXT & IMAGES HEATHER DIXON



The Williamsons had been searching for years for the right house to renovate in the right area of Sheffield, so they could create a family home specifically to suit their busy lifestyles. When they found one that ticked all the boxes they were not prepared to back down – whatever challenges they faced.

Suzanne, who is the founder of a yoga company, and David, who is in audio-visual sales, have two young daughters, and they needed to find a bigger house which would evolve along

with their changing family needs.

"We were living in a 1930s place which had been modernised by a developer, which gave us a good idea of what could be achieved, but we were really keen to find a property that we could renovate so we could put our own stamp on it," says Suzanne.

After years of searching on and off, Suzanne and her mum eventually stumbled across a tired old 1930s bungalow for sale and went to have a look – as she says, "sneaking" around the back

HIGH POINT

"Moving in and realising that the design and build had ticked all their boxes on every level"



“We had seen and loved architect Paul Testa’s work and he was based in our home city, so was a natural choice”

to discover a large garden hidden away behind the property.

“The size of the garden sold it to me in an instant. I put in an offer straight away,” says Suzanne. “David hadn’t even seen it and I hadn’t seen inside. We didn’t go to look around properly until the offer was accepted.”

REFURB & REMOVAL CHALLENGES

Their first impressions were that the bungalow was extremely ‘tired’. The roof was clearly bowing, and they knew it would have to be replaced. The kitchen was tiny and dated, and the property felt cold and damp throughout. Some of the windows and doors were rotting and everything looked ‘brown’. The large garden, however, sealed the deal – a transformation was possible.

“We agreed that we could live in the bungalow while we got planning permission to do it up,” says Suzanne. “We were excited by the possibilities, and knew it would be short term pain for long term gain.”

The first hitch came when a couple of offers on their own house fell through and they took a £15,000 reduction on the asking price in order to move things along. Fortunately they were able to negotiate a reduction on the bungalow, finally agreeing on £435,000. The money, however, was not transferred until the eleventh hour on completion day in October 2018, and the keys were not handed over until the following day.

“The removal men had been waiting outside to unload while we were frantically trying to finalise the completion. Then there was a mad panic with all hands on deck to get the furniture out of the van and into the house so

they could move on to their next job. It was all very stressful.”

They also faced the challenge of trying to fit everything into a smaller house which, at that point, had three bedrooms and much smaller rooms.

DESIGN OBJECTIONS

“One of the first things we did in those first few days was contact architect Paul Testa,” says Suzanne. “We had seen and loved his work, and he was also based in our home city of Sheffield, so for us he was a natural choice.”

Within weeks they had the ball rolling on their proposed design, which included an extension across the back of the house, a second storey with glazed roof panels, and wooden shingles on the exterior. Sheffield City Council’s planning department objected to everything, based largely on concerns from neighbours who said the proposed house was too large and out of keeping with the area.

“It was hugely disappointing,” says Suzanne. “By this time the roof was getting considerably worse, creating so much pressure that it was pushing the walls out and there was a massive gap developing around the patio doors. There was also a crack around the bay window in the girls’ room, and mould was coming through the walls.”

They sought advice from a structural engineer who said there were no guarantees that the roof would hold up for much longer.

“We were under pressure to get things moving pretty quickly,” says Suzanne. We needed to come up with a plan which couldn’t be refused.”



“We were really keen to find a property that we could renovate so we could put our own stamp on it”

BACK TO THE DRAWING BOARD

Going back to the drawing board they agreed to make best use of permitted development without compromising their idea of creating more accommodation in the roof space and opening up the ground floor to bring more light into the property. This meant the height of the property could remain the same and the overall footprint would not make the building stick out in the neighbourhood. Planning permission was finally granted in November 2019, and the family moved into rented accommodation just before Christmas.

With the cracks in the house getting bigger at an alarming rate, the Williamsons put the building work out to tender to begin what turned out to be a long process.

The first tender came in at £500,000 – much higher than they had hoped or expected. The next builder never came back with a quote but with the third builder – Whitshaws – they ‘struck gold’.

COVID-PROOF BUILD

“By this time we were paying a lot of rent which was eating into the build budget, but Whitshaws the builders were our saviours,” says Suzanne. “They suggested it would be cheaper and easier to demolish the bungalow and effectively start again, for which we had to go back to planning for further approval.”

Luckily there were no objections and in March

2020 they were given the go-ahead, only to hit a setback they could never have predicted: the pandemic.

Fortunately the building team was able to continue working, and in June they started to demolish the bungalow, armed with a huge skip and a digger. They began the demolition at 8 am one morning. By 9 am most of the building was a pile of rubble.

“They knocked out the bowing roof timber and the whole roof caved in,” says Suzanne.

Once the site was cleared the builders started work on the foundations. The original bungalow had been built directly on top of clay so there were no traditional foundations to speak of. The builders dug a one metre-deep concrete foundation before building the breeze block walls, specifically chosen for their insulating properties.

The exterior walls were eventually rendered for a modern, unifying finish. “The walls went up quite quickly,” says Suzanne. “It was summer and the weather was really warm, so the builders were able to make good progress.”

Suzanne kept an eye on things – “I was on site most days to make sure everything was going according to plan and to answer any questions that arose along the way.” She says that the most striking thing was that “at this stage in the build, the house looked very small. I started to worry that we hadn’t made it big enough and that we would run out of space.

LOW POINT

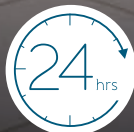
Trying to get planning permission before the roof caved in, and then keeping watch on the house after the burglary. “We didn’t get a lot of sleep!”

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DOORS AND WINDOWS

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Clear View Doors and Windows
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RESIN FLOOR

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UNDERFLOOR HEATING

Underfloor Heating Shop
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BATHROOMS

Clifton tiles & bathrooms
ctb.co.uk/showrooms/sheffield

GARDEN DESIGN

Lush Garden Design
lushgardendesign.co.uk

GARDEN LANDSCAPING

Wildwood

LOFT CARGO NET

Loft Nets
www.loftnets.com

KITCHEN

IKEA
www.ikea.com/gb/en

It's an illusion, because all that changes as the build progresses."

The joiners employed by the builder made and fitted the new roof trusses, and the pantiles were laid to make the property watertight from above, ahead of the windows going in.

The triple glazed windows were sourced from Internorm and meticulously measured – but they took so long to manufacture that the progress of the build was delayed by several weeks, forcing the team to complete other jobs while they waited. This included installation of the rooflights, fitting steel beams to support the main open plan living space at the heart of the property, and boarding the window openings so they could complete first fixes and plaster the internal walls.

Underfloor heating was laid, topped by screed and resin. Unfortunately the house was still boarded up and the interior was too damp to allow the resin to properly set. To add insult to injury, the ceiling plaster had soaked up moisture from the floor and collapsed onto the resin. In the end, the first layer of resin had to be ground off and repoured and the ceiling plaster reskimmed.

"It worked the second time, but it was a bit of a setback," says Suzanne. "Nothing could be done while the floor was drying out and that took well over a week to reach the stage where we could walk on it."

AN ALARMING MOMENT

The windows had still not arrived when the kitchen units were delivered, so they were stored in one of the rooms, which was fitted with a burglar alarm.

"One evening we were at the rented property when the alarm went off," recalls Suzanne.

"David went down to the site but there was no one about, so he sat guard in his car until 11pm, then I took the next shift, because we knew that whoever had been in the property would return at some point. It was a cold January night and by 2 am I'd had enough and went home."

At 6.30 am the alarm went off again, and they rushed to the site, only to discover the boarding had been ripped from the window and the kitchen had gone. Fortunately they had comprehensive insurance, but the experience understandably left them upset, and on edge.

Unable to move into the half-finished house, but worried about leaving it unattended, Suzanne put a call-out for help on a community social media site. A neighbour immediately got in touch and offered them his caravan so they could live on site until the windows were installed, second fixes completed and the house fit to move into. "We will always be grateful for that support," says Suzanne. "It was well into February before the windows and doors were finally installed and the property secured."

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Product displayed: OS-20, Colour shown: Pebble Grey - 7032M



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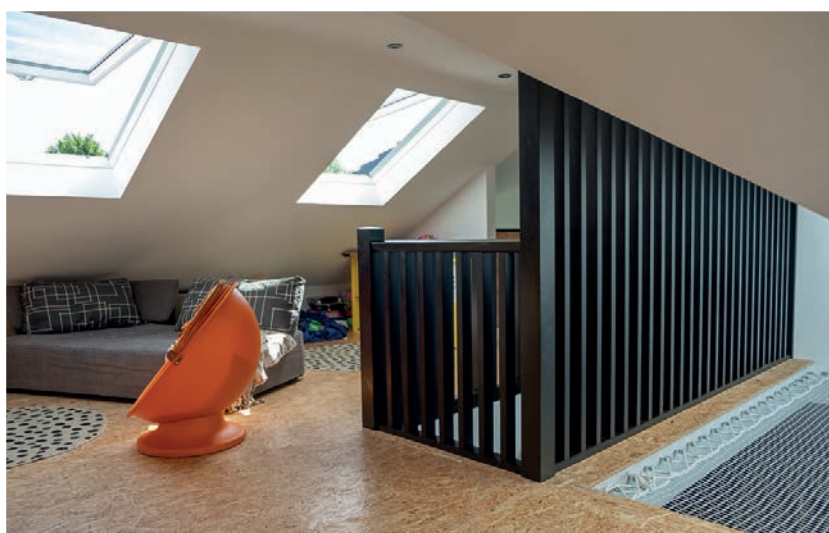
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After that stressful incident, the pace started to pick up. The OSB floors upstairs were completed, the kitchen and bathrooms were installed and the staircase went in.

"We originally chose a metal and glass staircase, but the OSB option was a lot less expensive and looked just as good," says Suzanne. "By this time we were running over our £375,000 budget because the windows were more expensive than we had allocated for. We didn't want the spend to run away with us."

SUCCESS AT LAST

Suzanne, David and the girls finally moved back into the new-look, completely redesigned house in April 2021 before all the finishing works were complete.

"It was a huge relief," says Suzanne. "It had taken 16 months and been a bit of a roller coaster at times, but we moved in thinking we never have to move again if we don't want to. The house is future proofed and has everything we wanted, with more space than we thought possible."

Having moved in, they were able to turn their

attention to the finer details of decorating and designing the garden. Although the garden was planned alongside the rebuild, so that the two worked together as a whole, very little was done to the plot until September 2021.

"We wanted something different, inside and out," says Suzanne. The garden features black painted reclaimed brick walls, structured patio areas and tropical planting, much of it linked to the house via full height glazed doors.

Inside, Suzanne has allowed her creative skills full rein with black floors and walls, a huge play net separating the two floors over the stairwell and a large sliding barn door – made to Suzanne's design by the joiners – between the main living space and the snug.

"We wanted the house to be quirky, bold and fun," she says. "We did go way over our budget, but we saved on the staircase and the resin floor, which is much less expensive than tiles, and we invested in the really important things like the windows and the quality of the build. Thanks to Paul Testa, the architect, it's exceeded all our expectations and it works for us in every way as a family. We absolutely love it." ■

Complete creative freedom

Product displayed: OI-30 French Door, Colour shown: Jet Black – 9005M



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Keller opens brand new office



Keller Kitchens, who is part of the DKG Group, has just opened its brand new office complex at its Bergen Op Zoom base! The new head office, which accommodates 300 employees of the DKG Group, features plenty of workplaces, meeting rooms and also a restaurant. The Netherlands-based company boasts one of the largest kitchen factories in Europe with a surface area of 65,000 m². Recently several major investments have been made into the production facility so that the group optimises today's technology, raises productivity, and remains at the forefront of the industry in terms of sustainability initiatives. Keller is well known for offering the widest range of colours (2050 NCS) and finishes in the kitchen furniture market.

www.kellerkitchens.com

Selfbuilder & Homemaker website



The Selfbuilder & Homemaker website is an online provider of past and present products and news items for all those involved in and working on a self-build project. www.sbhonline.co.uk is a one-stop source for all the latest press releases, providing visitors with access to information about products and services that they may require. From the website, you can find links to digital issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible. You

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The self-build market is an aspirational one, with many media titles targeted towards those people who are merely dreaming about building their own house. Unlike some newsstand magazines, Selfbuilder & Homemaker (SBH) has a focused readership of genuine self-builders, renovators and agents, reaching only the people who already own their land or property, have planning permission and are ready to start work. As well as the magazine, SBH has an established online presence. Its informative website is a one-stop shop source for all the latest press releases, providing visitors with access to information about products and services that they may require. A variety of features offer inspiration and practical advice, and each in-depth case study tell a unique self-build or renovation story from the owners' perspectives. From the website, you can also find a complete company directory that has live links to advertisers' websites. You can choose to subscribe to receive regular copies of the printed and digital versions of the magazine, or sign up to the monthly email newsletter. In addition, Selfbuilder & Homemaker has expanded its social media portfolio, meaning that you can now follow us on LinkedIn and Instagram as well as Twitter to keep you as informed as possible.

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Paving responsibly for rainwater runoff

Chris Hodson from Interpave explains the importance of taking a responsible approach to rainwater runoff from paving around both new and existing homes to protect them and the wider community

Another year of flooding around the UK provides a timely reminder of the importance of sustainable drainage (SuDS) and permeable paving in the fight against flooding. As our towns and cities continue to grow, more rainwater is captured on streets, car parks, drives, roofs and other sealed surfaces – which then flows into sewers, rivers and streams. Existing drainage systems simply cannot cope, causing downstream flooding.

In addition, roads, car parks and driveways collect pollution – from car exhausts, tyre and brake wear (including electric vehicles), oil leaks and other sources – and when it rains this gets washed into sewers, harming rivers and streams.

WE MUST ACT NOW

Climate change means more frequent and heavy rainstorms leading to more flooding. This is because 'sealing up' our towns and cities also stops rainfall soaking into the ground naturally. The water table levels drop causing more water shortages, streams and ponds to dry up, and trees to be deprived of water. It could also affect the foundations of your home, particularly on clay soils, as they dry out and shrink.

These problems are made worse when gardens are sealed-up too, particularly when water runs straight to roads and sewers. Of course, one small area of paving in isolation is not going to cause major flooding – but the cumulative impact of numerous properties can. For example, the area of paving in front gardens for car parking in London is equivalent to around 5,200 football pitches. Simply allowing rainwater to run straight off roofs and paving into drains is no longer an option.

SUSTAINABLE DRAINAGE SOLUTIONS

For over 20 years, it has been recognised that SuDS are essential in curbing

flooding and pollution from rainwater runoff. SuDS manage rainwater by slowing it down and cleaning it up – copying, as closely as possible, the natural drainage from a site before any building work takes place.

SuDS manage rainwater near the surface and as close to its source as possible, slowing the flow and providing additional benefits including clean water for wildlife, planting or recycling. Typical SuDS include living (or green) roofs and permeable paving, as well as planted features like rain gardens.

For new developments, SuDS will generally be required as part of the planning process, although this will depend on which part of the country. In some cases, a single house may be exempt but, increasingly, local policies affecting planning applications will demand SuDS. For example, the 'London Plan' says that "development proposals for impermeable paving should be refused where appropriate, including on small surfaces such as front gardens and driveways".

Using SuDS is a low-cost solution, and the responsible thing to do.

PAVING AROUND EXISTING HOMES

For some time now there has been wide-ranging encouragement to use SuDS widely. Although changes to planning rules in both England and Scotland were instigated years ago, growing awareness of the importance of permeable paving in the fight against flooding means increasing enforcement by local authorities in the light of climate change.

Installing drives or other paving anywhere in your garden used to be considered 'permitted development' – in other words an automatic planning permission. But these rights have been removed from new or replacement paving – unless it's 'permeable paving' or drains onto a permeable area within the



property, planning permission will need to be sought.

If you are creating a new drive or parking space, you must also have 'dropped kerbs' onto the public highway with a special highway authority licence and, in some cases, planning permission. Again, the drive should meet 'permeable' requirements and not drain water onto the road. Going against these requirements could result in local authority enforcement action or legal problems when the house is sold.

PERMITTED PAVING

Interpave's 'Paving for Rain' – referred to in government rules and free to download – offers guidance on concrete block permeable paving, which allows

Growing awareness of the importance of permeable paving in the fight against flooding means increasingly robust enforcement by local authorities in the light of climate change

rainwater to filter through grit-filled joints between the blocks to store the water for a short time, and rain gardens – where conventional paving simply drains to a landscaped depression, maybe with plants, to hold water.

In both systems, water is held back on your property during heavy storms to avoid flooding and filtered to remove or trap pollution. What happens next depends on the ability of the ground to absorb water (known as 'permeability') and whether you want to recycle the rainwater.

MAKING THE MOST OF PERMEABLE PAVING

There is a wide choice of products available from manufacturers specifically for permeable paving, with more shapes, styles, finishes and colours than ever. They have the same performance as conventional concrete blocks and



slabs: slip resistant, durable, strong and sustainable. The difference with permeable paving is joints filled with stone grit – but never sand (like conventional block paving) or mortar. This ensures that water will continue to pass through the joints over many years.

Concrete block permeable paving can be laid level and still avoids puddles without the need for drainage gullies and pipes. It provides a safe surface for everyone, unlike gravel and other loose material. It can also provide a gradual supply of clean water to planting – particularly trees. In fact, it works in harmony with trees allowing air, as well as water, to reach tree roots, so that they grow downwards and don't damage the paving over time.

Chris Hodson is a consultant to the trade body Interpave



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STA Assure is designed to benefit both members and their clients by promoting the differing accreditations and quality standards held by individual STA member companies. This scheme offers reassurances to the construction community that its members meet or



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Building a case for keeping it clay

A campaign has been launched to inform self-builders on why they should stay with clay brick rather than look at concrete newcomers. Keith Aldis of the Brick Development Association explains further



The campaign we have launched features an illustrated comparative guide to the sustainable credentials of clay brick, as compared with concrete brick alternatives. So for those who are seeking to self-build, the guide might help you consider the pitfalls of choosing the right type of brick for your build.

The aim of the guide was to demolish the myth that a brick is just a brick, and that all bricks are the same. This is absolutely not true. Bricks come in all manner of shapes, sizes, colours and densities. They are designed to perform different functions, from providing an aesthetically pleasing material to offering hard-wearing – and even flood resistant – cladding and paving.

The humble clay brick is one of the most beautiful of materials for external walls on a home, office or industrial building. But, because of clay brick's popularity, beauty and proven performance, we are increasingly seeing a number of imitation products coming into the market, including vinyl brick-like coverings, plastic cladding

Unlike concrete bricks – which are known to fade over time – clay bricks become more beautiful as they age

boards pre-shaped like bricks, and of course the so-called concrete 'brick.'

THE LONGEVITY OF BRICK

The thrust of the BDA's new campaign was to provide further information for those wishing to use a more sustainable product such as clay bricks and to explain why for example, concrete bricks, like

other imitations, were not the panacea for reducing carbon.

At the 2022 Brick Awards, it was pointed out to an audience of key architects, suppliers and brickwork contractors, that clay bricks have been around for at least 9,000 years, and in the UK, for over 2,000 years; and some of those early bricks are still performing well. Clay bricks have been proven over time to do the job they are made for. They are truly sustainable on so many levels, and some may argue they are ever lasting.

At the same time, clay bricks come in a wonderful variety of colours and textures which can enhance the vernacular. Unlike concrete bricks – which are known to fade over time – clay bricks become more beautiful as they age, enabling self-builders to create truly memorable buildings. The BDA's Clay v Concrete Brick Comparative Guide can be found on our website at www.brick.org.uk.

Keith Aldis is CEO at The Brick Development Association

Windows and doors for a low energy living

Windows and doors create synergies between inside and outside spaces, bringing ventilation and light in every room, but can also be the biggest offenders when it comes to heat loss. For this reason it is important to choose the right product when planning a self-build project. VELFAC composite windows deliver the durability of aluminium and the beauty of natural wood, together with great energy performance. VELFAC triple glazing windows offer U-values as low as 0.8W/m²k, and bring maximum daylight into every room thanks to the 54mm slim frame, which increase the solar gain - free heat from the sun - reducing the amount of energy needed for heating and lightning your home.

But don't just take our word for it - read about two recent projects where VELFAC is helping deliver low energy living.

PAVILION HOUSE, SUFFOLK

Set in rolling Suffolk countryside, Pavilion House is a beautiful, minimalist 'inside out' home designed by Bjerre-Poulsen from Norm Architects. The home is 'in keeping with the traditions of Scandinavian design,' say its owners, and combines 'timeless aesthetics, natural materials and upholds the Modernist principles of restraint and refinement.'

In 2013 Pavilion House owner asked Norm Architects to create a long, low building with minimal walls and maximum glass, where 'the countryside could be the star'. Bjerre-Poulsen immediately specified VELFAC windows, both to sustain the minimalist aesthetic and deliver the insulation and air tightness required to ensure a 'glass house' would be both comfortable to

©Jonas Bjerre Poulsen



live in and energy efficient.

The extensive front elevation, and the narrow sides, are entirely glazed in a combination of VELFAC fixed triple glazed units and large sliding doors, all fronting elegant kitchen, dining and living spaces. On the rear elevation large sliding doors are set between walls clad in local larch, providing bedrooms with access to a stylish terrace. 'The design of the facade is all about transparency,' says Norm Architects, 'letting nature be an integral part of the interior and framing views of the extraordinary settings.' Externally, dark grey VELFAC aluminium frames are 'as subtle and as discrete as possible so that the wooden character of the house becomes the dominant expression', while internal timber frames are clear lacquered, adding warmth and natural texture to a colour scheme of white walls and pale wood floors, designed to deliver a feeling of space, light and tranquility.

THE PARTY HOUSE, BUCKINGHAMSHIRE

A radical remodelling of a 1950's house has given filmmaker and photographer Stuart Chapman a beautiful, and impressive, family home. The transformation includes multiple VELFAC composite windows installed as individual units, combined in a two storey window wall, and - in the open-plan roof top 'party room' - an extra-large VELFAC double sliding door to provide light, air, and wonderful views.

'I had seen the VELFAC system in projects on TV's 'Grand Designs' and really liked the minimalist external frames, the uniform sightlines and the Scandi-style interior finish,' says Stuart. 'I realised that VELFAC composite windows would deliver the ideal aesthetic - clean, modern, and very contemporary.'

Stuart specified mainly top hung and fixed VELFAC units, and opted for white painted internal timber frames and black external aluminium. As a bespoke solution, VELFAC could also supply the multiple different shaped units Stuart needed to create the glazed screen, rising above the front door, the triangular roof windows and the angled fixed units flanking the large sliding door in the 'party room'.

VELFAC delivered more than just a clean aesthetic, adds Stuart: 'The VELFAC windows replaced old, poorly performing PVCu units and together with improved heating and insulation, our energy use has totally changed. We definitely turn the heating on much less than before, and rarely use the radiators in the party room. Yet the house always feels comfortable, well ventilated and with good air circulation, and we no longer experience any condensation as we did with the old windows.'

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The Brick Development Association is the national authority on clay bricks and pavers. Our membership accounts for almost 100% of the sector's productivity here in the UK. Our role is to communicate the collective interests of our members and to ensure their products remain the material of choice in the UK's built environment.

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Secure in the knowledge

Burglary is common in the UK – a new break-in occurs every 106 seconds – that's 34 burglaries per hour, 817 per day. There's a one in 43 chance of your household being burgled. With the colder, longer, darker nights, we especially start thinking about home security and keeping down our energy bills – a particularly important consideration during the current cost of living/energy crisis. **Crittall Windows**, the pioneer of iconic steel frame window manufacture for almost 180 years, says its advanced steel framed window, HomelightPlus ticks all the boxes for making your home more secure and helping keep down costly energy bills.

Russell Ager, managing director of Crittall Windows, says: "Look to the innovation in window frame development. For example, our re-engineered HomelightPlus range of residential windows is the 21st Century enhanced version of the original Standard Metal window first made by our company during the 1920s. It brings new-look styling and window profiling, plus higher energy-savings, performance, and enhanced security. "Whatever the type or size of your property, it's an authentic 'like for like' steel window. Peace-of-mind is reassured through an improved, robust, security multi-point locking option tested to the Enhanced Security PAS 24 standard – so the window is especially secure."

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Image: Burgess Architecture

Yeoman Rainguard launches new brochure

Yeoman Rainguard has launched its new Aluminium Product Brochure. Showcasing the highly commended XL and SL range of Aluminium gutters and downpipes the brochure introduces, new to the market, Yeoman Rainguard Aluminium Flush Fit Downpipes and Aluminium Security Downpipes.

Another new addition is the Squareline range of Aluminium Fascia, Soffits, Copings, and Cills, already proving popular in the commercial market. With a recently expanded colour range, which can accommodate options from RAL and BS ranges along with contemporary shades from Farrow & Ball and Little Greene for example, Yeoman Rainguard's comprehensive Aluminium range can offer that perfect finishing touch for all styles of buildings. A printed version of the new Yeoman Rainguard Aluminium brochure is available on request or can be downloaded from the website.

As always Yeoman Rainguard takes great pride in the expertise gained over 40 years in the market and customer services provided, including free site surveys and samples, help clients make the right choice of rainwater systems for their construction projects.

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SWA members dealing with demand



The predicted fall off for RMI work after the pandemic has failed to affect the order books of **SWA** members, as customers from both the commercial and residential sectors have continued to seek expert help in refurbishing their steel window systems across properties of all ages. President of the SWA, Kris Bennell, confirmed: "The make-up of our membership ranges from those with the capacity to tackle very large-scale replacement programmes, as well as new-build contracts, to those who specialise in

repair work. Across the country and across the sectors, they are reporting renewed demand from commercial and domestic clients seeking to maintain and improve their buildings."

www.steel-window-association.co.uk

Selfbuilder & Homemaker website



The Selfbuilder & Homemaker website is an online provider of past and present products and news items for all those involved in and working on a self-build project. www.sbhonline.co.uk is a one-stop source for all the latest press releases, providing visitors with access to information about products and services that they may require. From the website, you can find links to digital issues that have live links to advertisers' sites, as well as daily email alerts to keep you as informed as possible. You

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CASE STUDY

BEST OF BOTH WORLDS

Dealing with planners can be a frustrating business, but to modernise a substantial Victorian building in Devon, Geoff Hall also had to negotiate heritage surveyors, ecologists, conservationists and archaeologists

TEXT EWEN MACDONALD IMAGES CO CREATE ARCHITECTS





A ramshackle 19th century home in Devon has been restored to its former period glory, with more than a nod towards a modern, liveable style with new additions to complement and contrast the existing property.

The Priory is a beautiful manor house in the picturesque village of Ipplepen. The Grade II listed property sits on a quiet site among tall trees, on land historically linked to a 13th century Augustine Priory. A Devon-based practice – Co Create Architects – helped renovate the existing manor house and create two modern, zinc-clad extensions.

The building had been left unloved and unchanged for many years when Geoff Hall and his family discovered it by accident. And it was love at first sight. “On the walk up the driveway, we were instantly taken by the property,” he says. They viewed it by chance, when they were visiting another house in the village.

The Priory quickly became their favourite. Work began in June 2020, and was completed in January 2022. “We were still living in London at the time and so hired a local, recommended builder after a short phone call. They started work shortly afterwards, sending photos of how the build was going at the end of each week,” he says. “Our inspiration throughout was to return this tired property back to its former glory.”

One of the first problems they faced was financial. Because of its condition, the house was considered too big a risk by mortgage companies. “Unloved is an understatement,” says Geoff. “The property at the outset wasn’t considered to be mortgageable; another stumbling block.”

Even for the most experienced self-builders, taking on a Grade II Listed building is no small task. In this case, there was even more pressure as the site dated back much further than the late-Victorian architecture would suggest.

The property and its surrounds have a complicated history, which had to be unravelled

in order to create something new that would respect its history. A Devon Longhouse was built where the current home site sits, and which formed the heart of a farm. A longhouse is a single-storey building with thatched roofs, built from the 14th to 18th centuries. Known for their distinctive shape, longhouses were built to house both people and livestock in a shared building.

Farm buildings were removed and a 19th century single home was built around the structure of the longhouse, with additional wings added at later dates. As well as being a Grade II-listed building, The Priory sits in a conservation area, in an area of archaeological sensitivity. Prompted by the rumour (substantiated by Wikipedia!) that the building was on the site of the historic Ipplepen Priory, Geoff commissioned a number of heritage reports.

“It was assumed the Priory was on the site of a Medieval monastery,” he says. However, from the research, this assumption was incorrect. “The most amusing part of the history was that the former owner was a surgeon and left a skeleton in the loft, and when Jamie Allaway [the architect] was undertaking a survey late at night he got a bit of a surprise!”

All this history – and the need to respect its real as well as somewhat fictional heritage, meant creating a careful design. The exterior was purely returned to how the property would have looked when it was first built. But it underwent a major change that involved the complete restoration of the client’s home.

The land was cleared of numerous ramshackle outbuildings including a side garage to allow space for side and rear extensions. The loft space was also converted for use. A zinc garage now covers the area that previously sited a cluster of outbuildings. Inside is modern living within a period property, but past features have been restored. “The changes we made were to reinstate period features that had been lost,”

GEOFF'S TOP TIPS

- “Work with people you trust”
- “Commit to the design, but with flexibility to meet all the needs of planners, conservationists and heritage consultants”
- “Respect the listed building elements and heritage protections in place”
- “Bite your tongue with planners – arguing will delay or cause negative outcomes”



says Geoff. "For example, much of the cornice had been removed; we reinstated plaster cornice throughout.

The family are experienced renovators, which helped them prepare for the adventure they were about to embark on. "Our previous home was a full refurbishment, the townhouse was separated into flats, although was being used as one house when we bought it," he explains. But their experience made them more confident about taking risks. "We lived in a one-bedroom Airbnb whilst we raced to get the property habitable. Similar to the current renovation, we hired a builder known through a previous kitchen install and undertook the project without a contract or specification of works in place."

There are many challenges to taking on a Grade II listed building, mostly in the materials that had to be used. Renovations had to match with a like for like replacement. "It meant using local builder's merchants Brunel Supplies and reclamation yards, such as Kenmart," he says. All of the heritage windows had to be replicated by local craftsmen, and the render was sourced and applied by a specialist.

21ST CENTURY UPGRADE

The 1800s were a time of great architecture, but designs weren't known for their eco-credentials. "As most Grade II buildings are single glazed, we knew we needed to do our best to make the property economical to run," continues Geoff. "We installed ground source heat pumps to the rear garden to heat the main house, air source to heat the pool and solar arrays on the pool house and the bat house to offset as much as our

electricity usage as possible."

The property incorporates solar and geothermal energy systems integrated to support the regeneration of the building, where underfloor heating to the entire ground floor allows for sensitively-controlled heating to the listed building fabric. The geothermal water system is in one individual area to reduce impact across the archaeologically sensitive site. The building incorporates breathable lime render to allow the listed building fabric to breathe.

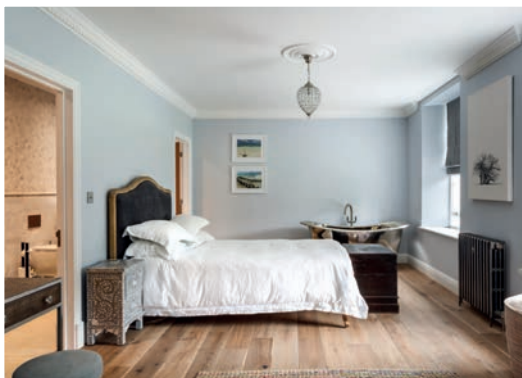
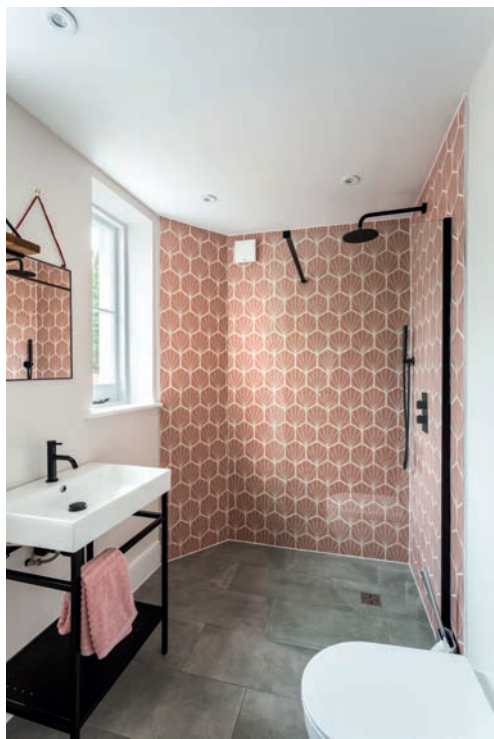
The family also considered the impact on the local wildlife. A bat house was constructed to compensate for the disturbance to the loft space in the main house.

MAKING MISTAKES

Geoff admits: "We knew we'd make mistakes, as we had no project manager." Negotiating with local planning and conservation was "painful," he says. "But Jamie [the architect] approached the planners in a collaborative way, even when it felt as though they were trying to make our life hell."

Geoff continues: "We relied heavily on our site foreman, Dan Teague of DT Carpentry & Building, who remained calm throughout and always came up with solutions to any problems." He adds: "We were also frequently saved by a local farmer who had looked after the gardens of the property for several decades, and knew a lot of background history that helped the build."

For architect Jamie Allaway, the planning process was key. "Planning permission and listed building process is challenging with this type of listed building and setting with demolitions



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and alterations, and balancing client aspirations with what is achievable," he says. "The arrival of Covid made the communication process with all parties occur at distance for key parts of the project. And working with the local authority – who are under huge resource pressures – was the biggest hurdle to overcome for the project to be a success."

21ST CENTURY LIVING

England boasts more than 300,000 Grade II-listed properties. The status isn't just about its age. Grade II listing means the building has been chosen because of special interest, warranting all of the efforts to preserve it. The architect admits his own favourite feature is inside the building – the double-height original window to the hall with the renovated staircase.

For those who buy and want to make such a building habitable, being on Historic England's List means it is subject to regulations which protect its historical and architectural significance. Alterations and building work can't be carried out without written consent from the relevant authorities. And somewhat ironically, it can mean work designed to renovate and protect it can be subject to many checks and run-ins with planners and history buffs who want to maintain the original building.

As well as the owners and planners, this meant the project required collaboration with heritage surveyors, ecologists and archaeologists, as well as the local council's conservation team, which at times proved challenging.

The overall design principle around heritage and conservation was to make the building 'read as old and new' in terms of form and material. Zinc was chosen for the additional buildings, to allow for a sharp modern form as a contrast to the heavier two-storey rendered masonry of the main house. Zinc is

also a favoured material by local authorities and conservation officers, as it can provide contrasting form and detail and can be finished in a range of tones and textures to complement any existing buildings.

Zinc can last for 50-plus years with minimal maintenance, meaning the replacement of materials with new additions is minimised and thus carbon footprint is reduced.

But for its new owners, the work has all proved worthwhile. "We love the front garden with the huge old trees – it's a beautiful view from the bedrooms – as well as the huge Georgian windows and high ceilings. We've managed to restore the old shutters which are a lovely feature. Fixing the old chimney so we can enjoy an open fire is also a favourite part," he adds.

There were a few extravagances along the way, Geoff admits (the original brief was renovating a Victorian 18th century building fabric with 21st century living additions). The house had a pool and while the most economic approach would have been to fill it in, the couple refurbished it, and built a pool house with a bar sauna!

After their experiences, what advice would they give to anyone considering embarking on a self-build project, especially renovating a Grade II-listed building? "Use local people. Architects, builders, suppliers. Once you employ someone, give them agency, and trust and avoid micromanagement. And bite your tongue with planners – arguing will delay or cause negative outcomes."

Jamie Allaway adds his own advice for getting the right architect for your project. "You need a good communicator with patience to understand the differing perspectives of the parties in a project such as this." He adds: "Someone who can also balance aspirations and constraints for the best outcome." ■

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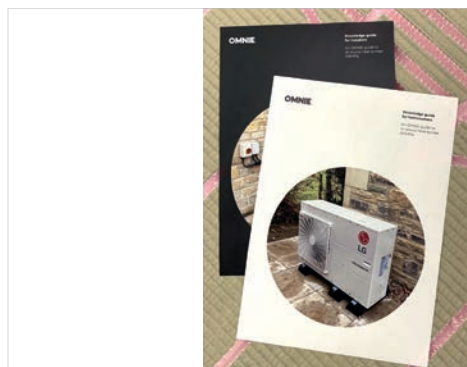
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OMNIE launches ASHP guide for installers

OMNIE has launched a new Knowledge Guide for installers, which offers a comprehensive overview of air source heat pumps (ASHPs), and the help that is available in obtaining a BUS – or Boiler Upgrade Scheme – voucher. This downloadable, seven-page publication starts by explaining about the company's 'Experience on tap' before reassuring installers regarding the 'tried, tested and trusted' nature of OMNIE's product ranges. This is followed by a page outlining key points such as stressing that performance is a top priority for the company's technical experts, while dedicated project managers are on hand to offer guidance from the planning stages to installation and handover. Impressively, OMNIE boasts three decades' experience in the field which has resulted in its industry leading Whole House System philosophy, which seeks to constantly improve indoor air quality as well as delivering optimum efficiency. Other key points include OMNIE's products being award winning, while its free design service not only sizes the heat pump, but covers heat delivery, controls and DHW provision, while commissioning is taken care of by its partner company. The remainder of the guide concentrates on the all-important, Government funded Boiler Upgrade Scheme – and it is here where the installer is assured how the OMNIE team takes care of the application for the £5,000 grant as well as how their customers qualify.

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CASE STUDY

CONVERTED TO CLASS Q

For Kat & Tris Baxter-Smith, the challenge of converting an agricultural barn on the farm belonging to Tris' family – to his own design – became a lesson in the pros and cons of Class Q permitted development

TEXT ROSEANNE FIELD IMAGES T. BAXTER-SMITH PHOTOGRAPHY



Kat and Tris Baxter-Smith were ready to take a step up the property ladder and find a bigger house, but property prices in the area of Northamptonshire they live in made it almost impossible. With Tris' family owning a farm, the couple's thoughts naturally turned to the idea of building a house somewhere on the land.

Unbeknownst to them, green belt rules meant it was highly unlikely they'd ever be granted planning for a new house on the land – but thankfully they found this out before getting stuck into designing their project. "I asked my land agent friend for advice," says Tris, and he said because we're outside the village envelope, it would be incredibly difficult." We had no idea!" Kat adds. "We just thought – we own the

Green belt rules meant it was highly unlikely they'd ever be granted planning for a new house on the land

field, so we can build a house on it!"

Tris' friend advised they consider converting a barn on the land which was currently in use as a machinery store, under Class Q permitted

HIGH POINT

"Getting our planning permission was nice, as was seeing the windows go in. It felt like such a moment; it actually felt like a house rather than just a barn."

— Kat Baxter-Smith

LOW POINT

"Probably the time we spent without windows in the winter with all the elements coming in – it was very muddy, not a fun place to be. And Covid, the effect of increased material costs. It was quite a depressing winter to be building in."

— Tris Baxter-Smith

"Standing there with all this wind and rain coming in. A lot of the build happened last winter and the weather wasn't great!"

— Kat Baxter-Smith



development rights, which allow the conversion of an agricultural building into a residential dwelling. "Neither of us had ever thought about that before," Tris says.

Tris had been hoping to build a bigger barn on the farm – to keep grain dry. However, this meant more obstacles than they had anticipated. "Once you use permitted development rights, that's it," Tris explains. "Normally a farm would have permitted development rights to build a barn. But because we used it to build the house, we had to use full planning permission for the barn."

Despite some extra hoops to jump through, Tris says it "wasn't onerously costly or difficult." Likewise, should they choose to extend the house in the future – which they plan to – no matter the size they will have to apply for full planning permission.

Although they found the planners to be particularly strict, they understand why: "They're becoming more aware of people misusing Class Q," Tris says. "The legislation is there to allow farmers to free up an income stream or enable future generations to stay within the farm by developing buildings."

Class Q guidelines don't allow for the barn to be demolished and rebuilt in the same footprint, but say the building 'must be suitable for conversion' — which is determined by each local authority. They weren't prepared to take any chances, so with the barn's foundations and steel beams suitable for conversion, they also explained they would reuse all the wood and attempt to retain the cement fibreboard roofing, subject to Building Regs (although the building inspector later told them this unfortunately wouldn't be possible).

Tris believes the strictness of the guidelines are frustrating for planning officers, constraining them on various elements. "Our planning officer

commented on things she would like kept within the building, and our builder was very quick to say things wouldn't pass Building Regs" he says.

It's increasingly common for Class Q applications to go through on appeal, which Tris' land agent friend believes is down to the fact the council isn't responsible for the appeals process and therefore doesn't shoulder the responsibility – the situation Tris and Kat found themselves in. "It's time consuming, it's stressful, but you just have to get through it," he says.

Aware of the potential problems, the couple chose to do a pre-application, which although not strictly necessary, Kat says proved fruitful. Originally, they hoped to excavate or build higher in order to accommodate a second floor, but they were advised these would never be approved: "that saved us time further down the road."

As well as the pre-app, Kat and Tris held a meeting with the neighbours to explain what they wanted to do. "We were keen to engage them, so that we knew upfront if there were going to be any serious problems," explains Tris. "If you leave things to planning it can hold the whole thing up."

DESIGN & BUILD

Although confined by the barn's footprint, Tris argues it almost made the design easier. "When you're essentially given a fixed box to work with, it makes you think a bit more creatively; what's the most efficient way of filling it with rooms."

They enlisted architect Toby Pateman, primarily to put together the full detailed plans, and builder Nick Burles, but Tris did the design himself. Nick assisted, including advising they would be able to include an existing lean-to and include a mezzanine level – Kat says this has "given us loads more space." "He's converted barns before – it was really good to have his



experience," she adds.

Tris had often cycled past Nick's own barn conversion and posted a note through the door asking who had built it. With his son, Nick agreed to help with their build, and the couple praise him for managing to quickly progress from there. He managed the subcontractors and knew how to negotiate the best rates, including paying by job rather than a day rate. "A lot of stuff got done quicker because of the way he managed things," she says.

They had a few 'must-haves' for the design – for Kat, big windows were important, and Tris wanted a large, open plan living/kitchen/dining area. "You would think it doesn't make sense if the building you're working within is confined because you want to maximise the amount of rooms, but actually I don't think that's how space works," he says. "I think our home feels much bigger than it is because you've got this massive space, and if we extend in the future we can get those additional rooms."

They were living in Tris' small cottage – another conversion he'd undertaken when he inherited it in his early twenties, which he says he learnt a lot from. "It really helped, because

I could foresee pitfalls," he explains. They mortgaged the cottage to pay for the build, and now have tenants.

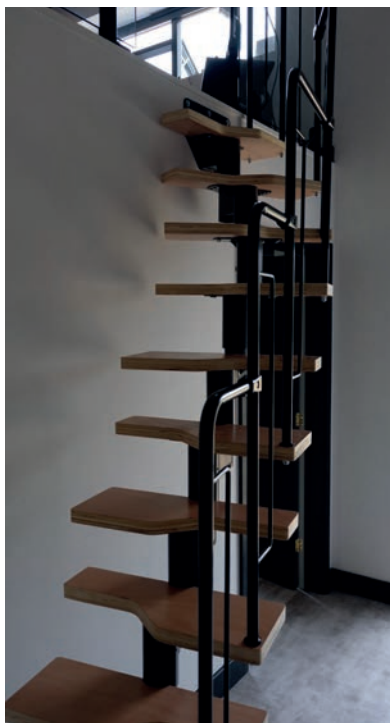
The barn itself wasn't in a bad way: "It was relatively modern, the steel and everything was in pretty good condition," says Tris. "The concrete slab it was built on was judged sufficient so we didn't need to do any underpinning. We were fortunate." Although the slab is around seven to eight inches deep, each steel pillar supporting the walls sits on 2.5 metres of concrete, taking the load of the external and (single block) internal walls. "It was probably on the simpler end of barn conversions," says Kat.

Although not strictly necessary, the couple had a structural engineer come out prior to submitting their planning application, so they could also submit his report, and they believe this helped their case. Tris believes some 'DIY' Class Q developments end up not being realised as they don't meet Building Regs, making them uninsurable and unsaleable – this was something they were determined to avoid.

Their architect helped them with heat loss calculations, informing Nick the level of

TRIS & KAT'S PLANNING TIPS

- "Don't rush to submit the planning application. Make sure you've thought of every objection they could give and answer it"
- "Provide evidence with the application like a structural engineer's report to justify material choices etc."
- "Don't go too crazy with what you're trying to do (especially if it's Class Q!) – the rules are there, and if planners can see you're trying to work within those rules they're much more accommodating"



“Because we used permitted development to build the house, we had to use full planning permission for the barn” – Tris

insulation he needed to make the house as efficient as possible – something the couple were passionate about. “We like the idea of being self-sufficient,” explains Kat. This is why they installed solar panels, battery storage, and an air source heat pump, which Tris confesses “is the bit I got really nerdy on! I really love all this stuff.”

Despite the structure itself being in good condition, the same couldn’t be said for the utilities. The barn had a water supply, but it was deemed to be not compliant due to its low pressure. As well as a better water supply, they wanted to futureproof against rising electricity prices – “we wanted three-phase, as we’ve got a large solar PV system and battery storage.” They opted not to connect to gas, choosing instead to install an air source pump for their underfloor heating and hot water.

They had a minor delay with connecting the utilities as it had to connect via a neighbour’s driveway which links to theirs. Fortunately, the property used to be part of the family’s farmyard and when it was sold they retained access and right of connection.

Managing the project was largely down to Nick, with Kat and Tris in constant communication with him, visiting the site whenever possible. Although both working full time, they both work partly from home and so between them managed to be onsite most days. “There wasn’t really a day go by without a decision, which Nick would never make without

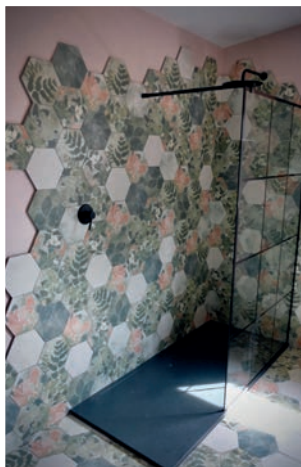
asking us first. It took up a lot of our time,” says Kat. “We were really pretty reliant on having somebody that we built up a trust with,” adds Tris.

Work began onsite in July 2021, and the couple moved in in August 2022, with just the patio left to finish. “I never thought it would only take a year,” says Kat. “I’m amazed we managed to get it done so fast.”

There were a few minor issues, partly down to the nature of the barn, where walls weren’t as straight and in line as they would have been had it been originally built as a dwelling. “Working around that gave them some headaches,” Tris admits. They also faced a two month delay getting their windows, due to a shortage of a certain essential component. “We managed to rejig the schedule to work around it somewhat, but we probably lost the best part of a month,” says Tris.

The couple weren’t that ‘hands on,’ in part because of time, but also because they had the budget to spend on getting people in to get things done quicker. “If you do it yourself, you save money, but things take longer,” says Kat. They did a lot of the decorating and finishing, though Tris estimates they could have saved a third of their cost if they’d taken on other elements themselves.

They went roughly £60K over their budget, partly because of materials price rises following Covid, and also because they didn’t want to compromise on certain aspects. “We spent a lot



more than we budgeted for on things like the kitchen and flooring," says Kat.

Builder Nick presented them with an itemised invoice at seven stages during the build, having already put together a full spreadsheet at the start. "It was very transparent," says Kat. He also took care of ordering the vast majority of materials which, says Tris, has made doing the VAT reclaim much simpler as everything was purchased at a reduced 5% rate.

Tris stresses the importance of triple checking everything in your VAT reclaim, as there's only one chance to submit it. It wasn't until putting it together he realised the kitchen had been charged at 20% VAT, but as it was a supply and fit job it should have been 5% – an error that had he not spotted, would have meant their entire claim was scrapped. "It was refunded to us so it was fine, but it's a little thing to think about," he warns.

LAYOUT & INTERIOR

The focal point of the home is the open plan living/kitchen/dining area. There's also a utility room on the ground floor, leading through to a cloakroom, and a study, then the main bathroom. The master bedroom has an adjacent walk-in wardrobe, and a mezzanine level sits above the second bedroom, overlooking the kitchen and living area.

When it came to designing the interior, they

knew they wanted it to be modern but to also feel warm despite the high ceilings. Kat used Instagram for inspiration: "I spent a lot of time trawling through barn conversions, getting ideas," she says. The pink and neutral-coloured kitchen was one of the first things they chose, and much of the colour scheme throughout the house grew from that, as well as the idea of using green to bring the outside in. "Kat was really good at finding inspiration from various sources – stuff that you would never have thought of doing and works so well," Tris says.

Although enjoyable, Kat admits she found decisions on the interior some of the most stressful – in particular the flooring. They also say that given the chance they'd change the external wood cladding, which they admit they compromised on in terms of price. "We just didn't have the money to do fancy cladding," says Kat. "It works, people who see it think it looks great, but you're never going to be happy with everything," Tris says. "There's always going to be things that only the owner will really see."

Despite some stress, they're both over the moon with the finished house. While Kat says she'd consider doing it again, Tris isn't so sure: "I'm pleased that it's done," he jokes. "I don't think I'd rush to do another one!"

For more on Kat & Tris' self-build journey visit their Instagram @red.kite.barn ■

CONTACTS/SUPPLIERS

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Money to burn?

Installing a wood burning stove in your home can not only save you money on your heating bills but can also enhance the aesthetic value of your living space. Dennis Milligan of the British Flue & Chimney Manufacturers Association (BFCMA) explains more



Installing a wood burning stove can complement a heat pump in your home, but will also provide heat security during severe winters

Wood burning stoves have always been seen as a positive economic choice in times of high gas and oil prices. The Stove Industry Alliance (SIA) has reported that stove sales in the second quarter of 2022 were 40% up on last year. Households are increasingly choosing a stove as a cost-effective and efficient method of heating their living space. A stove can also be particularly effective in the spring and autumn when it is not cold enough to justify turning on the central heating.

It is clear that homeowners do not just purchase a stove to reduce the cost of heating. They also choose a stove for aesthetic reasons – the cosy, warm feeling that a wood burning stove

generates. Interviews with stove owners indicate that the visual impact of wood burning in a stove enhances the feeling of warmth.

A LOW CARBON HEATING CHOICE

The BEIS Heating Strategy is based on sustainable low carbon heating solutions that can be rolled out across the country. Stoves are regarded as secondary heating, and as such are not included in their strategy. Heat pumps work best when they are kept at a constant temperature. A stove can complement a heat pump in cold weather by quickly boosting heat. Heat security has also become an important consideration in severe winter conditions. As a stove is

independent of the electricity supply it can keep the house warm when the electricity is out.

Concerns have been raised about particulate emissions (PM) from wood burning. Defra published its new Environment Act last year which sets out more stringent emission limits that wood burning stoves must comply with. The new limit for particulate matter is 55% lower than the previous limit for Defra Exempt stoves. Many stoves already produce lower particulate levels than the Defra limits, and that is where the independently verified scheme – Clear Skies – can be of assistance when purchasing a stove. The Clear Skies scheme identifies stoves that not

only meet the emission limits required by Defra, but also stoves that produce fewer emissions.

Wood burning is a low carbon form of heating. Logs are generally the offcuts that come from pruning trees. Woodlands need to be managed to stay healthy and part of that management is pruning. Interestingly, burning wood in a modern stove will produce less carbon than if it was left to decay on the woodland floor.

FLUES AND CHIMNEYS

It has been common practice to include a 200 mm flue and a standard fire opening when building a house. Wood burning stoves require a smaller flue diameter, typically 150 mm. Installing a smaller diameter flue has the benefit of substantially reducing the air loss in the SAP calculation. The general opinion is that new open fires may not be able to meet the new emission limits, and therefore it is worth checking this before deciding to have an open fire.

The stove and the associated flue/chimney should be considered as one system. The purpose of the flue/chimney is to safely conduct the products of combustion into the atmosphere. A straight chimney is always the best

solution, but where this is not possible – due to the construction of the dwelling – the number of bends should be kept to a minimum and not exceed more than four. Also, the angle of the bends should be no greater than 45° from the vertical, so the route of the chimney within the dwelling should be thought about at the design stage.

Another important consideration is consistent insulation along the complete length of the flue (the inner tube within the chimney that transports the flue gases). Clay, concrete and pumice liners require insulation to be prepared and added onsite. Stainless steel and ceramic system chimneys are supplied with effective insulation. Double wall pumice chimney systems have an air gap between the walls of the inner and outer blocks. The air gap combined with the natural insulating properties of pumice provides effective insulation along the length of the chimney. Maintaining the flue gas temperature will enable the flue gases to freely escape into the atmosphere.

CORRECT INSTALLATION

It is worth remembering that installing a stove and flue is not a DIY job. It should only be undertaken by a competent person and the work must be inspected

by Building Control. England and Wales operate competent schemes which allow the registered installer to self-certify the installation. HETAS and OFTEC are two of the main companies running such schemes.

The Environment Act also recognises the need to burn dry wood, and to regularly maintain the wood burner. Burning dry wood, and regularly sweeping the chimney or flue will reduce the build-up of soot and help keep the flue gases flowing freely. Dry wood, with a moisture content below 20% produces more heat and fewer emissions than wet wood, so the stove owner and the environment both gain from burning dry wood. Logs banded 'ready to burn' are guaranteed to have a moisture content of less than 20%. If you prefer to gather your own wood it must be dried before it can be burnt. Typically, drying or seasoning wood can take 18 months.

Installing a wood burning stove may not be at the heart of the government's heating strategy, but it can enhance the heating of any home. It can complement a heat pump, and provide heat security in severe winters.

Dennis Milligan is vice president of the BFCMA



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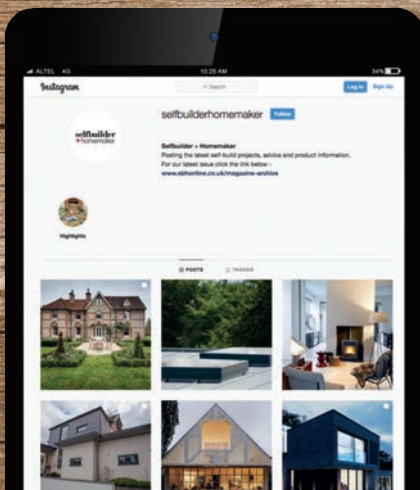
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OPTIMAL DRAUGHT

SHORT CHIMNEY = CHIMNEY FAN

Traditional chimney design required a minimum flue height of 4.5 m. In theory, this was enough to ensure sufficient natural flue draught to clear the products of combustion from a wood-burning stove.

Unfortunately, the chimney draught was never guaranteed and the provision often resulted in unsightly tall chimneys when appliances were installed in single-storey buildings and orangeries.

A recent change in chimney design (see source) states that a chimney can be designed using the calculation method in BS EN 13384-2005 which allows for the installation of shorter chimneys, provided sufficient chimney draught can be proved. A chimney fan will guarantee this chimney draught even on a shorter flue design.

"[...] the calculation procedure within BS EN 13384-1:2005 can be used as the basis for deciding whether a chimney design will provide sufficient draught."

Source:
Document J Building Control
Combustion appliances and fuel storage systems
page 30 - §2.8 - "Height of flues"

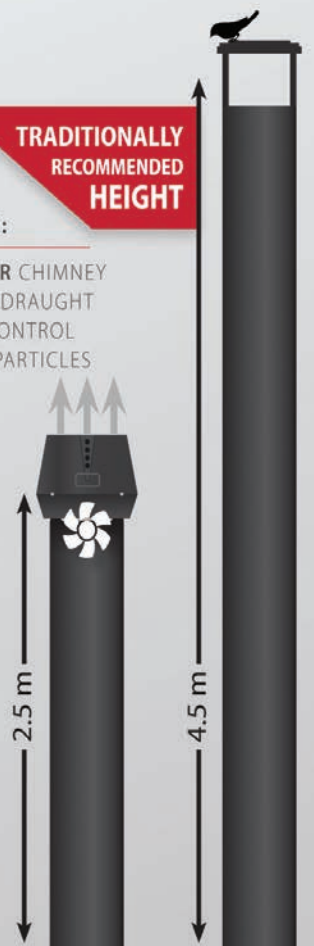
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FIT FOR PURPOSE

During their long saga to build a home with stables on an exposed site on the west coast of Scotland, David and Louisa Wallace discovered that bigger isn't necessarily better when they had to edit their plans down

TEXT NIK HUNTER IMAGES DAPPLE PHOTOGRAPHY



Louisa Wallace had always dreamed of a home with enough land to keep her own horses, and in 2005, she and her partner, David Johnstone decided to realise it. Although their goal was clear, including starting a livery business, the odds were not in their favour when it came to finding a suitable property on Scotland's west coast. "Property prices were going through the roof, and after a couple of years of searching, we decided we would stay put," David recalls.

However, one day David came home to find that Louisa had put some property details on his desk. "It was for a steading (farmstead) development with land." Part of a former (now subdivided) dairy farm in South Lanarkshire, the couple made an appointment to view it. Unfortunately, in the flesh it didn't really appeal. Adjacent to the development, however, was the

remainder of the farmland, which was also being sold off.

David: "We made some enquiries with planning, and I came away with the impression that we could have a house on the site within a couple of years. Firstly, we needed to establish the stables and unfortunately, we hadn't realised how established that business would have to be before we could take on a house build too."

The couple bought a new, three-bedroom, static caravan and moved onto the plot in 2007. It took time to build up the business and they ran into some planning hitches, but eventually in 2012 they were granted planning permission for a generous 350 m² new build.

But another setback occurred when planning was granted with obligations, known as Section 75 Agreements in Scotland (Section 106 Agreements in England and Wales). These can

HIGH POINT

"There were several, but after 14 years in a caravan waking up and not knowing what the temperature is outside is still right up there!"

Matt's design was a fraction of the size the couple originally had planning permission for





“How do you create a family home in such a way to allow the money to flow into the areas that make the biggest impact?” - Matt Loader, architect

be entered into at any stage of the planning process, and can include financial contributions towards schools, roads, transport, the public realm and affordable housing. In David and Louisa's case, this slowed down their application to finance the build. After several years they managed to get the Section 75 removed but by this time, the world was a different place, and financing a 350 m² property was now out of the question.

CONCISE DESIGN

“In 2018, after a recommendation, we approached architects Matt Loader and Iain Monteith,” David recalls. “We gave Matt the remit to build a house fit for purpose for to how we wanted to live, and the lifestyle we have.” Following this brief, his design was a fraction of the size the couple originally had planning permission for. Indeed, the 185 m² footprint he initially agreed with David and Louisa was reduced further to 155 m².

“Our first discussions were really about how to make David and Louisa's budget go as far as it possibly could,” Matt remembers. “What does value for money look like when it comes to architecture? How do you create a building that is a family home but is designed in such a way to allow the money to flow into the areas that make the biggest impact?”

Matt's concept was to eschew the traditional layout of a family home with bedrooms upstairs and reception rooms downstairs. “If you don't have a garage within the house there's quite a bit of ‘fat’ in the property, and that was the case with the previous plans. The bedrooms were upstairs with rather palatial living areas downstairs.”

A more efficient plan was agreed upon by moving one of the four bedrooms downstairs with the further three bedrooms located on the first floor along with the family bathroom.

These were the core principles for the actual building, but Matt also had to take into account the rural location, the views over the 25-acre farm and to ensure that the new build was connected to, but somewhat separate from the business. “The house needed to embrace the landscape and take advantage of the wonderful views and be cosy and warm when the wind was blowing.”

SENSIBLE SAVINGS

One of Matt's solutions to keeping costs down was in the choice of materials. “Render, metal roofing in particular, and to a degree, timber cladding, are not expensive materials. The question we asked ourselves was once you make a decision on what something is made out of, how do you make it the best possible version of that?”

David's original choice was for a stone facade which was, he recalls, prohibitively expensive: “I really wanted a stone gable end so instead, Matt suggested two different styles of render – rough and smooth. It's worked really well, it's quite unique and contrasts well with the black painted larch.”

Another suggestion that Matt proposed was for the ‘profile 3’ roof which David wanted to amend to the same profile as the existing barns and stables. “I didn't think it would fit in but actually now I might change the other roofs to the same profile!”

An external detail that certainly stands out is

LOW POINT

“I was skiing in Italy and stopped halfway down the mountain to take a call from Matt and he told me the proposed contract price. I thought well that's never going to happen; time to buy a new caravan! I'm pleased to say once we returned home, Matt managed to reduce the footprint, changed things about and eventually the price almost halved!”



“We went back to Matt, and he came up with the balcony underneath the roof which is absolutely brilliant” – David Johnstone

MATT'S TOP TIP

- “Never scrimp on windows, especially in a severely exposed location”

the ‘red box,’ which is effectively a bay window [in aluminium] with an internal bench seat that forms part of the dining nook. “It originated from a very early sketch that we did,” says Matt. “We drew the living room and said that we wanted it to look out over the countryside – and we coloured it in on the sketch. It led us to think ‘what happens if we did actually mark that part out in colour? It’s playful and enjoyable to look at, and from an environmental point of view it’s really good because at the end of its life, you can melt it down and reuse it.” Internally, the splay allows the views to be seen as wide as possible.

David enthuses: “The red box is all from Matt, and I love it. Everyone comments on it, and internally the design affords us more room in the living area. The installers constructed it all on site, did all the folding, and it was great to watch.”

Material savings were also made internally with cleverly considered design decisions such as the staircase which in itself is a piece of architecture. Here, the biggest cost was the design aspect

of the staircase rather than the actual materials and build time. “It’s a standard off the shelf stair,” says Matt. “We designed the handrails and specified the floor finishes to make sure they complemented each other. It was reasonably inexpensive to build, but we invested design time in it to make sure it drew the light down from the top of the house.”

Longer term savings were made with the installation of an air source heat pump, a highly insulated shell, triple glazing and underfloor heating. “Never scrimp on windows,” Matt cautions. “Especially in a severely exposed location such as this. These decisions are what save you money in the long run. Likewise, financially the heat pump was a good sustainable option with the schemes that were available at the time.”

REACHING OUT

While there weren’t many changes made to the original design, there was one development that occurred during the construction phase, and



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which David is delighted he instigated. "At the very start we had planned an outdoor space under the span of the roof on the ground floor, but we decided against it." However, once the build commenced, the builders mentioned that they effectively had a room with empty space above it. You arrived at the top of the stairs and were met with a window, when you could actually go out further. "We went back to Matt, and he came up with the balcony underneath the roof which is absolutely brilliant. It's great for watching the sun come up with a wee cup of tea or for a beer at the end of the day."

"Fortunately, David and Louisa were happy to spend a little bit more money to make this happen and it's a really nice little space," adds Matt. "We designed the house so where the views are the neighbours aren't."

Maximising the views and avoiding overlooking the neighbours was also one of David's initial concerns, along with how the house would fit into its surroundings. He thinks that Loader Monteith has done a fantastic job of siting the property into the location.

It is oriented so that the ridge of the house runs north to south, with the main elevations east and west. To the south there are farm fields until the next property a mile and a half away. To the west are other properties, but all the reception rooms look out to the east. "The house was designed to not overlook the neighbours, and to benefit from the fantastic uninterrupted views. The picture outside is

simply what the weather's doing, and I really like that." David adds: "I wanted a property that was in proportion to the 30-acre plot that it sits in. There's a bit of me that would have liked it a bit bigger but then I think – why? However, I think Louisa would have reduced it even more."

Going from a 350 m² design to a 155 m² result is quite a leap, but did living in a 35 m² caravan for 14 years help? "It certainly prompted us to decide what we really needed," says David.

"The caravan might have sufficed were it not for the fact that the bedrooms were tiny, we had already decided that we wanted a living space that was similar to what we had in the caravan – open plan kitchen/diner/sitting room."

Having finally moved into a 'real home,' there's not quite as much family time now. "Our kids are obviously older – 15 and 18 so they are out more – but in the caravan, we had to use the open plan area to congregate, as their bedrooms were so small."

Today, however, the house is everything that David and Louisa wanted, and gives the family everything they need. "We're 18 months in and we use every single room in this house albeit the spare bedroom and the snug less so, but they're handy to have. Whether this would be everyone's cup of tea I don't know? If you were a big socialiser, it might not work – but Louisa, the kids and I are outdoors a lot." He concludes: "We asked Loader Monteith to design a house for us and how we live, and this is exactly fit for purpose." ■

Future-roofing

With a global gas supply crunch, issues with renewables and strong demand pushing up energy prices, the energy efficient design of roofing and insulation is vitally important for homeowners, as Lisa Grosse from Cedral explains



In 2025, The Future Homes Standard will come into effect, designed to ensure all new homes are future-proofed, with low-carbon heating systems and higher levels of energy efficiency.

One quarter of all heat energy in a home escapes through the roof. With insulation you can more easily regulate the temperature in your home. The better your insulation, the less heat will escape when it's cold outside. Conversely in summer, good insulation will keep your home cool when temperatures rise.

It can get very hot under your roof. If your HVAC ducts pass through your attic, they will also require insulation against heat. With hot roof insulation, your ducts can remain cooler as your attic has a more conditioned stable temperature.

Cold outside temperatures often lead to condensation on the inside of your roof if it's not insulated well. Insulation can also help to prevent moisture

problems and ice dams by preventing the heat of the home from melting snow on the roof.

A WARM OR A COLD ROOF?

There are two ways to categorise how a roof has been set up to manage heat – a warm roof or a cold roof. Knowing which one your property has can provide guidance on measures that need to be taken to ensure the building's long-term energy efficiency.

A warm roof is normally constructed when living accommodation is within or partially within the roof space. Insulation is installed as part of the roof deck, on top of a vapour control layer and underneath the roof covering. This set up is designed to provide improved thermal performance, with the insulation placed within and/or onto the roof rafters. It reduces heat losses and balances your home's temperature both in winter and summer. However, this may come at

the expense of space and head height if installed within an existing roof or may require a higher roof pitch at the construction stage. You also need ventilation below the roof slates or tiles to avoid condensation.

Cold roof insulation is placed between and over the wooden joists above the ceiling of the building's top floor. This insulation above the ceiling keeps the heat or cool air in the summer from escaping from the rooms under it. But as the roof rafters and remaining roof structure are not directly insulated, the loft remains 'cold.' If the installation is not correct however, the temperature of the building can be affected through thermal bridging, with the cooler temperature of the roof rafters transferring to the structure below or heat escaping into the loft.

Whether you have a warm or cold roof, correctly installed insulation will provide greater energy efficiency by

Understanding how the roof contributes to your thermal performance can help you to make your home more energy efficient

ensuring the room below is warmer during the winter and easier to regulate during the summer. This makes it easier to control the energy levels required to heat the house, without increasing carbon emissions.

MEASURING THE EFFECTIVENESS OF INSULATION MATERIALS

There are three different values that are used to express the quality of the insulation material.

The R-value measures a material's thermal resistance – the higher the R-value, the lower the heat loss. Insulation material with a high R-value needs to be less thick than a product with a lower R-value to achieve the same insulation quality. Or, the higher the R-value, the less you need of the material.

The Lambda value measures a product's thermal conductivity. It is the opposite of the R-value – the lower the lambda value, the lower the heat loss.

For your insulation to be as efficient as possible, you want to use materials with a low lambda value, but a high R-value.

A U-value is the sum of the thermal resistances of the combined layers that make up your roof. The lower the U-value, the better insulated your roof is and the more energy you save.

DIFFERENT ROOFING SOLUTIONS

In a climate like the UK's, roofs need to withstand lots of rain. A pitched roof which diverts precipitation from the roof thanks to the slope, is a standard solution for residential buildings and there is a variety of materials to choose from.

Three commonly available roof materials are concrete tiles, terracotta tiles and fibre-cement slates. Concrete tiles are relatively heavy and notorious for absorbing moisture and water. This can cause frost damage in winter or lead to the build-up of mould, unless they have a protective coating. Terracotta is a natural material and its porous

nature of this makes it susceptible to frost damage without an additional protective layer or glazing. Fibre cement roofing slates are increasingly popular. Made of a mix of naturally available ingredients: cement, fibres, sand, water and air, they are robust for all weather conditions, with an excellent fire performance classification, lightweight and easy to work with, and compatible with all of these types of insulation. When a roof pitch is made higher to accommodate a warm roof system – and hence has longer rafters – fibre cement slates are a good option, as they are lighter than natural slates and other heavier materials, and last just as long.

Understanding how the roof contributes to the thermal performance of a home can help you to make your home more energy efficient in the coming years.

Lisa Grosse is brand manager for Cedral

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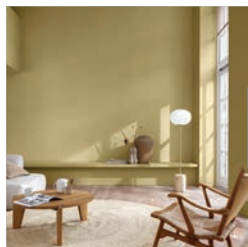
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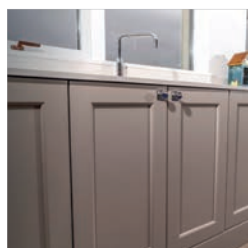


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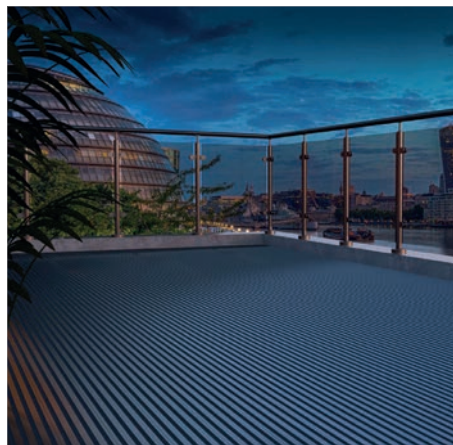
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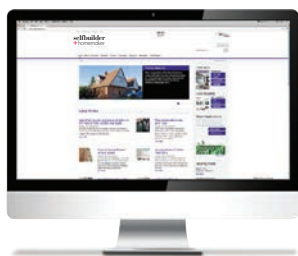
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www.grantwestfield.co.uk

BI FOLDING & SLIDING DOORS

Garador Ltd
01935 443 722
www.garador.co.uk

DOORS, WINDOWS & CONSERVATORIES

Kloeber UK
01487 740044
www.kloeber.co.uk

FINANCE & INSURANCE

Self-Build Zone
0345 230 9874
www.selfbuildzone.com

FIRES & FIREPLACES

Capital Fireplaces

01462 813138
www.capitalfireplaces.co.uk

Clearview Stoves
Tel: 01588 650401
www.clearviewstoves.com

GLASS & GLAZING

Red Glazing Systems
0203 478 9610
www.redglazingsystems.co.uk

PUMPING STATIONS

JTPumps Ltd
0844 414 5800
www.jtpumps.co.uk

STAIRS & STAIRCASES

Complete Stair Systems
Ltd
01794 522444
www.completestairsystems.co.uk

TIMBER & JOINERY

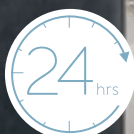
The Oak Designs Company
Ltd
01273 400411
www.oakdesigns.co.uk

Osmo UK
01296 481220
www.osmouk.com

To get your company listed
here, contact us today on
01435 863500

Complete creative freedom

Product displayed: OW-80 Gable and Fixed Windows, Colour shown: Slate Grey - 7015M



To find your local installer, visit
origin-global.com/find-local-installer



INTRODUCING THE WINDOW COLLECTION

The Origin Window Collection consists of two different systems – the OW-70 Slimline Window and the OW-80 Premium Window. Available in a wide range of configurations, colours and bespoke personalisation options, its versatile nature means it can offer effortless elegance to your property.

Casement



Bay



Gable



View the rest of the range at
origin-global.com

Complete COLOUR freedom

Product displayed: OI-30 French Door; Colour shown: Carmine Red – 3002M



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INTRODUCING THE INTERNAL DOOR COLLECTION

Whatever the space, divide it with style. The Origin Internal Door provides a sleek and stunning solution for creating functional footprints within your home. Now available in over 150 colours, this steel-look internal door and wall system allows you to give your interior décor a new lease of life.



Fir Green - 6009M



Oyster White - 1013M



Anthracite Grey - 7016M