

Homebuilding & Renovating

MAY 2020

BRITAIN'S NO.1 FOR SELF-BUILDERS AND HOME EXTENDERS

30
1990 - 2020

HOW TO REMODEL YOUR HOME

A practical guide to
getting started

25

tips every
renovator
should
know!

Self-build
your way
to a low
carbon life

EXPERT ADVICE

- ✓ Polished concrete floors
- ✓ Building in blockwork
- ✓ Metal roofing guide
- ✓ Timber worktops

Save £££s on your build

REVEALED! THE BUILDING MATERIALS
THAT WILL SAVE YOU TIME AND MONEY

INSIDE

How to start
your self-build

Loft conversion
design ideas

Repairing doors
and windows



Maximise your space, whatever your style...

Love your home seamlessly, from the inside out, with the Origin Sliding Door. A perfect blend of functionality and aesthetics, each Slider glides open effortlessly to integrate your home and garden, so your family can enjoy your space in an entirely new way.

Whether you have a large period property, a small cottage or a modern apartment, the bespoke Origin Slider will help you love your home like never before.

Manufactured and designed here in the UK, each system is made from premium grade, thermally efficient aluminium and is guaranteed for up to 20-years. Rest assured – you're making a green choice today, as not only is the Origin Slider built to last, but it's also infinitely recyclable in the future.



For your nearest showroom, please call **0808 168 5816**, email enquiry@origin-global.com or visit origin-global.com

Doors

Windows



wundatherm[®] Rapid Response



UNDERFLOOR HEATING WITH **NO NEED TO DIG UP FLOORS!**

floor heating **available now**

LOW CARBON, FULL COMFORT IN 30 MINUTES

Wundatherm boards bond to any existing floors with no need to dig. The aluminium coated boards and aluminium cored pipe sits directly beneath the floor giving you **instant control** unlike screed systems.

- 100% leak proof pipe with a life time guarantee
- Approved for all floor finishes including Marble, Stone & Ceramic Tiles
- Expert advice, exceptional quality, low prices & great customer service
- 60% cheaper to run than electric Underfloor Heating & 25% cheaper than radiators
- No quibble Industry leading guarantees

All direct from Wunda Group, the developers and manufacturers since 2006



UKAS accredited testing
for thermal resistance



Proud to be members of
The Tile Association

40m²
SYSTEMS FROM
£1,189
Inc VAT

★ **Trustpilot** 4.8/5 ★★★★★
Based on genuine trade customer reviews

For a chat with our experts call: **0800 083 2677**

If you already have plans send them to: **plans@wundagroup.com**

Or watch the videos on our website: **wundagroup.com**

WUNDA

Wunda Group PLC.
Underfloor Heating Specialists Since 2006



PAGE 126
Everything you
need to know

PAGES 86,
144, 78, 155
Industry experts share
their knowledge



PAGE 177
Kickstart your project
with our beginner's guide

PAGE 67
An architectural
moodboard

PAGE 141
A step-by-step
guide

PAGE 109
Avoid project pitfalls
with these great tips

PAGE 121
Build a greener home

PAGE 133
Ian Rock delves
into the world of
construction choices



162

Readers' Homes

14 **Natural additions**
Two oak frame extensions bring light and life into a dated cottage in Monmouthshire

44 **Built for £220,000**
A first-time self-builder completes a contemporary Passivhaus kit home in Scotland

92 **Rural challenge**
Two brothers convert a derelict brick barn in Kent into a unique, contemporary home

162 **Oak-framed fusion**
A traditional oak-framed family home with wow factor is built by tapping into the surrounding Scottish vernacular

News

23 **News**
Up-to-the-minute build news, plus a curated selection of the latest products, design ideas and events for self-builders, extenders and renovators

32 **Enter our 2020 Awards**
Find out how to enter your completed project into The Daily Telegraph Homebuilding & Renovating Awards

38 **Your news**
Your projects and top tips

40 **We're 30!**
We're celebrating our anniversary by looking back at our favourite moments

Design & Materials

63 **Behind the design: Creating high ceilings**
Architect Allan Corfield details what to consider when maximising volume in a self-build or extension project

67 **10 clever loft conversion ideas**
From master bedrooms and home offices to storage solutions and material choices, find some innovative ideas on this popular home improvement project

77 **What it's like to live without taps!**
Mark Brinkley has tapped out of tradition and embraced digital bathroom technology



92

The Build

78 Essential buyer's guide to zinc roofs

A versatile solution for both traditional and contemporary builds, here's what to consider before choosing this material, including the costs

85 The latest boiling and hot water taps

Our pick of the latest multi-function taps for modern homes

86 10 need-to-know things about polished concrete

Find out what goes into this sleek, low-maintenance flooring finish — from costs, DIY advice and retrofitting in an existing home

109 25 top tips every renovator should know

Practical wisdom on how to achieve a successful project

121 Choosing timber for sustainability

Tim Pullen argues that timber is the natural choice for the sustainability-aware self-builder

126 How to remodel your home

Natasha Brinsmead advises on what to consider when removing internal walls, moving bathrooms and relocating kitchens

133 Save time and money on your extension

Ian Rock weighs up the pros and cons of building methods and materials and explains why they could aid your project

141 Repairing timber windows and doors

Step-by-step advice on fixing common issues with timber windows and external doors

144 The ultimate guide to blockwork

Everything you need to know about building with this popular construction material

155 The building clinic

Our experts answer your building and renovation questions

161 The renovation diary

Serial renovator Katie Thomasson offers her on-site advice

177 A beginner's guide to self-build

202 Signing off

The HB&R team's favourite news and products

OAKWRIGHTS®

Beautiful by Nature

Oakwrights are widely recognised as the uk's most forward-thinking company in the oak framing market. From **garden buildings, garages** and **home extensions**, right through to our incredible timber framed **homes**, building with oak starts with Oakwrights.

01432 353 353 | enquiries@oakwrights.co.uk



oakwrights.co.uk



Homebuilding & Renovating

1990 - 2020

CLAIRE LLOYD
has been a
member of the
*Homebuilding &
Renovating* team
for 12 years.
She's recently
completed her
renovation.



EDITOR'S LETTER

Earlier this year, the Welsh Government and the Development Bank of Wales launched a rather revolutionary new scheme, Self Build Wales, with the aim of helping more people to build their own homes.

So, what's the scheme all about? In brief, you apply for a plot from a designated list, and if successful, you will be required to pay a 25% deposit. The plots available are 'oven ready', with planning permission already in place. Now, here's the unique part: the remaining 75% of the plot balance, together with the cost of the build, are covered by a self-build development loan. This loan is then repayable upon completion of the house, usually in the form of a 'standard' mortgage.

The scheme is still in its infancy, with many potential plots 'under consideration', but Self Build Wales is a big step forward for self-build in the UK. Crucially, the scheme has been designed to help remove some of the key roadblocks that budding self-builders face — namely, finding a suitable (and affordable) building plot, obtaining planning permission, and securing funding. The scheme will also put undeveloped and vacant land into use and help small building companies to boot. A win-win situation all round?

We're hoping to keep you up to speed with any new developments (visit www.homebuilding.co.uk/news), but in the interim, you can find more details, and register your interest, at: selfbuild.wales.

On to this month's issue... If you're considering blockwork ('masonry') as a means of constructing your new home or extension, then look no further than Ian Rock's excellent guide on page 144. A fundamental part of our role as a magazine is to, quite literally, help 'build' your confidence and knowledge. After all, you'll probably be spending life-changing sums on your project, and it helps to be armed with the right information to make informed decisions. We hope this in-depth guide will break down key jargon as well as explain why there's more to know about blockwork than you might have initially anticipated.

Finally, for those hoping to extend, we also weigh up some of the pros and cons of key building materials, and explore how they could save you time and money on your build — turn to page 133.

I hope you enjoy this packed issue! **H**



SUBSCRIBE & RECEIVE THE HOUSEBUILDER'S BIBLE FREE!

Turn to page 56 to
find out more about
our offer and free
gift, the brilliant
Housebuilder's Bible,
worth £25!



The Perfect Pocket

Nowadays an essential part of your modern day living area.

More space to move around in and more options with furnishings.

Rocket Door Frames fit UK standard door sizes so you can supply your own for more style and more space at the same time.

The Inexpensive Alternative

From
£119.50
Plus VAT

WARRANTY
12
YEARS
WARRANTY

**NEXT DAY
DELIVERY**

**EXCELLENT
CUSTOMER
SERVICE**

Visit: rocketdoorframes.co.uk
0330 998 0617

 **ROCKET**
DOOR FRAMES

The Team

HOMEBUILDING & RENOVATING EDITORIAL AND HOMEBUILDING.CO.UK

Editor Claire Lloyd
Associate Editor Natasha Brinsmead
Assistant Editor Michelle Guy
Production Editor Jacob Barlow
Web Editor Sarah Handley
News Editor Jack Woodfield
Editorial Assistant Amy Reeves
Video Editor Matthew Gibbs
Contributions by Alison Wall

ART

Head of Art Billy Peel
Senior Art Editor Emily Smith
Art Editor Karen Lawson
Contributions by Cliff Newman
and Gary Stuckey

MARKETING

Events Marketing Director
Melanie Kay 01527 834452
Group Marketing Manager
Eve Mulvaney 01527 834445
Group Marketing Manager
Anjuman Tariq 01527 834493
Marketing Manager
Hema Dhingra 01527 834483
Senior Marketing Executive
Alicia Maragh 01527 834402
Senior Digital Marketing Executive
Vicki Wilson-Lees 01527 834409
Marketing Executive
Kerry Waite 01527 834445

ADVERTISING AND EXHIBITIONS SALES TEAMS

Group Media Director
Mark Wright mark.wright@futurenet.com
Strategic Partnership Director
Jackie Sanders 01527 834426
jackie.sanders@futurenet.com
Print and Digital Sales Manager
Kelly James 01527 834471
kelly.james@futurenet.com
Print and Digital Sales Manager
Rebecca Vincze 01527 834415
rebecca.vincze@futurenet.com
For all media sales enquiries please contact
Rebecca Vincze 01527 834415
rebecca.vincze@futurenet.com

MAGAZINE AND WEB PRODUCTION

Head of Production Mark Constance
Production Project Manager Clare Scott
Advertising Production Manager Joanne Crosby
Digital Editions Controller Jason Hudson
Production Manager Nola Cokely
Digital Manager Tom Burbidge
Digital Production Executive Nicholas Robertson
Email Delivery Manager Alison Nash
Web Operations Manager Laura Sturgess

Homebuilding & Renovating

PUBLISHING AND EXHIBITIONS MANAGEMENT

Managing Director Aaron Asadi
Brand Director Paul Newman
Content Director Jason Orme
Commercial Finance Director Dan Jotcham
Commercial and Events Director Nick Noble
Director of Content and Product Development
Michael Holmes

PRINTED BY

William Gibbons & Sons

DISTRIBUTED BY

Marketforce, 5 Churchill Place, Canary Wharf,
London, E14 5HU
www.marketforce.co.uk Tel: 020 3787 9060



We are committed to only using magazine paper which is derived from responsibly managed, certified forestry and chlorine-free manufacture. The paper in this magazine was sourced and produced from sustainable managed forests, conforming to strict environmental and socioeconomic standards. The manufacturing paper mill and printer hold full FSC and PEFC certification and accreditation.

All contents © 2019 Future Publishing Limited or published under licence. All rights reserved. No part of this magazine may be used, stored, transmitted or reproduced in any way without the prior written permission of the publisher. Future Publishing Limited (company number 2008885) is registered in England and Wales. Registered office: Quay House, The Ambury, Bath BA1 1UA. All information contained in this publication is for information only and is, as far as we are aware, correct at the time of going to press. Future cannot accept any responsibility for errors or inaccuracies in such information. You are advised to contact manufacturers and retailers directly with regard to the price of products/services referred to in this publication. Apps and websites mentioned in this publication are not under our control. We are not responsible for their contents or any other changes or updates to them. This magazine is fully independent and not affiliated in any way with the companies mentioned herein.

If you submit material to us, you warrant that you own the material and/or have the necessary rights/permissions to supply the material and you automatically grant Future and its licensees a licence to publish your submission in whole or in part in any/all issues and/or editions of publications, in any format published worldwide and on associated websites, social media channels and associated products. Any material you submit is sent at your own risk and, although every care is taken, neither Future nor its employees, agents, subcontractors or licensees shall be liable for loss or damage. We assume all unsolicited material is for publication unless otherwise stated, and reserve the right to edit, amend, adapt all submissions.



Future plc is a public company quoted on the London Stock Exchange (symbol: FUTR)
www.futureplc.com
Chief executive Zillah Byng-Thorne
Non-executive chairman Richard Huntingford
Chief financial officer Penny Ladkin-Brand
Tel +44 (0)1225 442 244

THE BRAND



Meet our experts and attend seminars and masterclasses on an array of building topics at our eight shows across the UK (www.homebuildingshow.co.uk).



Our website is bursting with expert renovation, extension and self-build advice, and design ideas (www.homebuilding.co.uk).



Keep up to date with daily highlights on social media, discuss topics and discover events. Search for homebuildingandrenovating.



Watch videos of completed projects, 'how tos' and more. Search for Homebuilding & Renovating.



Never miss a thing with our regular posts showcasing everything from bathroom design to planning advice (@myhomebuilding).



Be inspired by beautiful photography of completed projects and our favourite house trends (@myhomebuilding).



Send us your questions, comments and suggestions via email to homebuilding@futurenet.com



Pin your favourite shots from our featured projects. Search Homebuilding & Renovating.



On the hunt for your next project? Plotfinder is a great way to discover plots and conversion and renovation projects up for sale.

BESPOKE DESIGN • OAK FRAME SPECIALISTS • TURNKEY • PLANNING EXPERTS • COST CONTROL



01249 479890
www.thecompleteoakhome.co.uk



Extend

Improve

Renovate

Self-Build



**Come for the
inspiration.
Stay for the
expert advice.**

Visit the Homebuilding
& Renovating Show.

Homebuilding & Renovating Show



Get 2 FREE TICKETS
worth £24* by visiting
homebuildingshow.co.uk/magmay

SEC, Glasgow
30-31 May 2020

Sandown Park, Surrey
27-28 June 2020

For more details visit www.homebuildingshow.co.uk

*Terms and conditions apply. Offer expires 3pm day before show opens. Saving based on one day door price ticket. Children 16 and under go free.



Natural Additions

Guy and Sarah Bowden have renovated and extended a neglected cottage, sat within five acres of Welsh countryside, to create their dream home



PROJECT NOTES

HOMEOWNERS Sarah and Guy Bowden
LOCATION Monmouthshire
PROJECT Cottage renovation and two oak-framed extensions
BUILD ROUTE Main contractor
BUILD SIZE 132m²
BUILD TIME Nov 2016 - Jul 2017



After Guy Bowden retired, he and his wife, Sarah, began their search for a plot in the Monmouthshire countryside, on which they hoped to build a new oak-framed home. What they ended up buying was an old cottage severely lacking in wow factor. “We wanted a plot with a view — this has a limited view, isn’t a plot and came with five acres that we didn’t know what to do with!” begins Sarah. “The cottage was the second place we saw: it was small and very orange. The estate agent suggested we ‘blow it up’ and start again.”

The couple continued their search in the area for a smaller site for a self-build, but each time they were drawn back to the land and the cottage. “We viewed the site six times before even looking inside the house. We tried to talk ourselves out of it, but fell in love with the location; there are no neighbours so it’s peaceful and quiet.”

Finally, after five months, the Bowdens bought the property with a plan to knock down the cottage (which is not listed) and replace it with their dream home. However, after getting in touch with a planning consultant before completing on the sale, it became clear that this would prove a challenge. “He said we could probably apply to replace it, but we’d have a fight on our hands and it might take a couple of years,” explains Sarah. “We’re not very good at arguing so we decided to work with what we had!”

Designing new spaces

Although the Bowdens wanted to keep the traditional cottage aesthetic, the whole property was in dire need of renovation; the house had an old lean-to pigsty that was being used as a store, a very dark kitchen and a pokey bathroom to the rear on the ground floor.

Local planning restrictions limit the volume of extensions; new additions can be no larger than 30% of the volume of the original house. And the planning development officer advised against the couple’s initial ideas for an L-shaped extension as it was felt it would obstruct the existing building. So the Bowdens designed a solution whereby the small

lean-to would provide the footprint for a new music room, while a new extension, set slightly back, on the opposite side would house a living room and dining space. The kitchen was also repositioned next to the new dining area, with a new utility and larger bathroom planned to sit in its place.

Still keen to build in oak, Guy and Sarah spoke to a few oak frame specialists and were impressed by Welsh Oak Frame's design flexibility. "They were happy to include softwood where oak wasn't necessary to work within our budget. We love the homely feel oak gives but now we have the best of both worlds," says Sarah.

Emyr Davis, design director for Welsh Oak Frame, was on hand to help develop the Bowdens' designs. "By the time we started talking to Emyr, the planning consultant and local planning officer had given us a clear idea of what we could and couldn't do. Really the design had to be done in a certain way," Sarah explains.

"In the first design Welsh Oak Frame showed us the living room and music room with oak purlins that run from one end to another and the ridge in oak, but the rafters were going to be softwood and not visible," she adds. "The fact that they were so mindful of our budget from the start meant we could push a bit, and change the softwood to exposed oak rafters, which was terrific. They always made us feel it was our house, not their design."

Building work begins

Once planning for the new extensions was approved, Sarah and Guy rented a house nearby so they could be on site every day. They hired local builder Chris Jenkins to manage and carry out tasks such as laying the foundations for the new extensions, and renovating the cottage.

Welsh Oak Frame erected the oak frame and SIPs (structural insulated panels) extensions. The company also replaced the old, ill-equipped roof; the vaulted oak design gives the illusion of extra space in the bedrooms. "It's my favourite feature," says Sarah. "We thought the oak roof would come as a kit, but Welsh Oak Frame were careful to build it piece by piece because the walls weren't perfectly straight. The entire roof was bespoke and it meant it fitted perfectly — the team was great!"

Internal walls were removed during the works in order to create a more cohesive layout. The rear conservatory and front porch were demolished, and the rotten floor joists replaced. "At one point we were down to three-and-a-half walls and no roof, windows, doors or floor!" remembers Sarah.

Retaining the charm of the older building was important. While digging the foundations for the living room extension, builder Chris saved the stone and used it to face the new doorway between the kitchen and music room. He also ensured there were no sharp finishes, with the new window reveals rounded to create a traditional look.

"The extensions look integral with the house and it feels comfortable, cosy, lovely and warm," concludes Sarah. "The house is absolutely gorgeous, it's exactly how we wanted it to be and it's lovely to live in." **H**

“

The house is absolutely gorgeous, it's exactly how we wanted it to be



SYMPATHETIC ADDITIONS

The age of the cottage is unknown but some parts may date back to the early 1800s. The building is thought to have been some kind of rest place or shelter rather than a permanent dwelling. The new music room is built with SIPs and oak frame and clad in oak and stone; the latter was sourced from the ground while digging the foundations.





KEY SUPPLIERS

DESIGN AND FRAME Emyr Davies at Welsh Oak Frame: www.welshoakframe.com

STRUCTURAL ENGINEER Bob Johnson
Consulting Structural Engineers:
www.bjse.co.uk

QUANTITY SURVEYOR Simon J Biggs Ltd:
www.simonbiggs.co.uk

PLANNING CONSULTANT
Alan Southerby Planning Ltd:
www.alansoutherbyplanning.co.uk

MAIN CONTRACTOR
Chris Jenkins: 01873 853953

GENERAL BUILDING MATERIALS Robert Price:
www.robert-price.co.uk

WOODBURNING STOVE
Decoheat: www.decoheat.co.uk

BATHROOM SANITARYWARE
Castle Plumbing & Heating: www.castle-plumbing-and-heating.co.uk

FLOORING Woodpecker flooring:
www.woodpeckerflooring.co.uk

KITCHEN IRONWORK Oldfield Forge:
www.oldfieldforge.co.uk

LIGHT FITTINGS Original House Antiques:
www.original-house.co.uk





COSY NEW ROOMS
The woodburning stove from Decoheat adds further traditional charm to the living room and the large amounts of glazing mean Guy and Sarah can make the most of their wonderful plot.



ZONING SPACES
The entire ground floor, while open plan, cleverly uses the oak frame to visually divide the kitchen, dining area and living room. The engineered oak flooring throughout is from Woodpecker Flooring. The kitchen was made by a local joiner.

BUILD TIMELINE

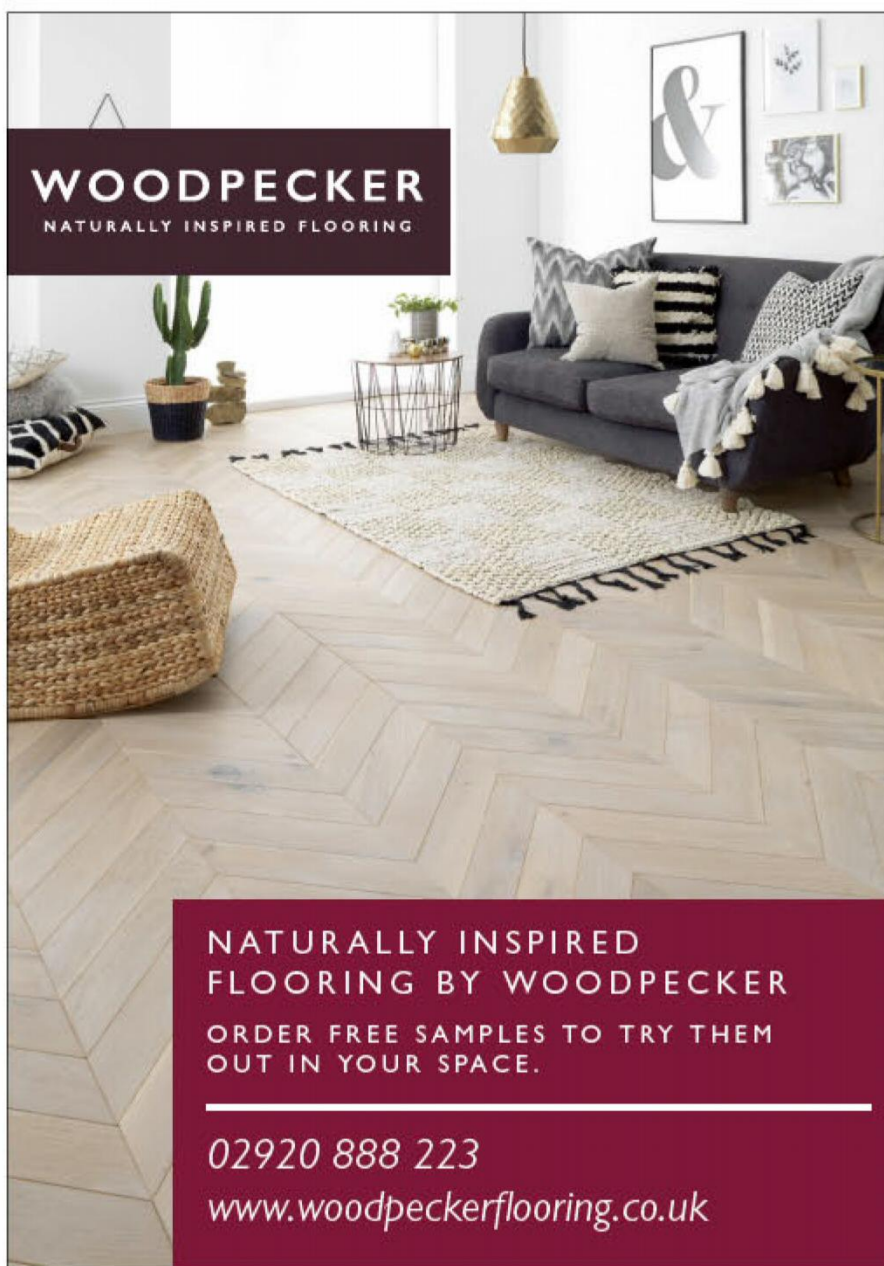
OCTOBER 2015 Talks with planning consultant begin
JANUARY 2016 Bought plot
JULY 2016 Planning submitted
SEPTEMBER 2016 Planning approved
NOVEMBER 2016 Work started on site
JANUARY 2017 Foundations
FEBRUARY 2017 Roof
APRIL 2017 Construction of the two extensions starts
JULY 2017 Moved in

THE KNOWLEDGE: EXTENDING IN OAK

Although their hopes to construct an entire home in oak frame were halted by planning restrictions, Sarah and Guy liked the warm, characterful feeling it offered so chose it for their extensions. “Extending in oak is really no different to extending in any other way,” says Emyr Davis, design director of Welsh Oak Frame and designer on the Bowdens’ project. “It works well with any type of property when the design is carefully considered to work with the aesthetic of the existing property.

“Guy and Sarah incorporated a lot of oak, which generally gives a more traditional look and the extensions were sympathetically designed to work with the existing cottage. Replacing the roof with exposed oak and adding an oak framed porch has added character to the existing house and ties everything in beautifully. Anything like this needs to be bespoke, you couldn’t just have an off-the-shelf design. It has to work with the existing house.”

Getting Welsh Oak Frame on board early on in the project meant the practicalities of the structure were considered before any issues arose. “Challenges can be avoided by using a designer that understands the build system from the start. They will have an understanding of spans, truss positions, frame positions, load bearings and so on. This is particularly important for older properties where there are minimal foundations,” Emyr Davis continues. “Oak works very well with traditional cottages but this doesn’t mean it doesn’t work for more modern houses as well. Modern materials, such as white render or wood and aluminium cladding give a contemporary exterior finish, as do large amounts of glazing in floor-to-ceiling windows, bifolding doors and rooflights.”



WOODPECKER
NATURALLY INSPIRED FLOORING

NATURALLY INSPIRED
FLOORING BY WOODPECKER

ORDER FREE SAMPLES TO TRY THEM
OUT IN YOUR SPACE.

02920 888 223
www.woodpeckerflooring.co.uk



Search

S3i garden screens 

★ **Trustpilot** ★★★★★

Tel 01302 752 504
Email sales@s3i.co.uk
Visit www.s3i.co.uk

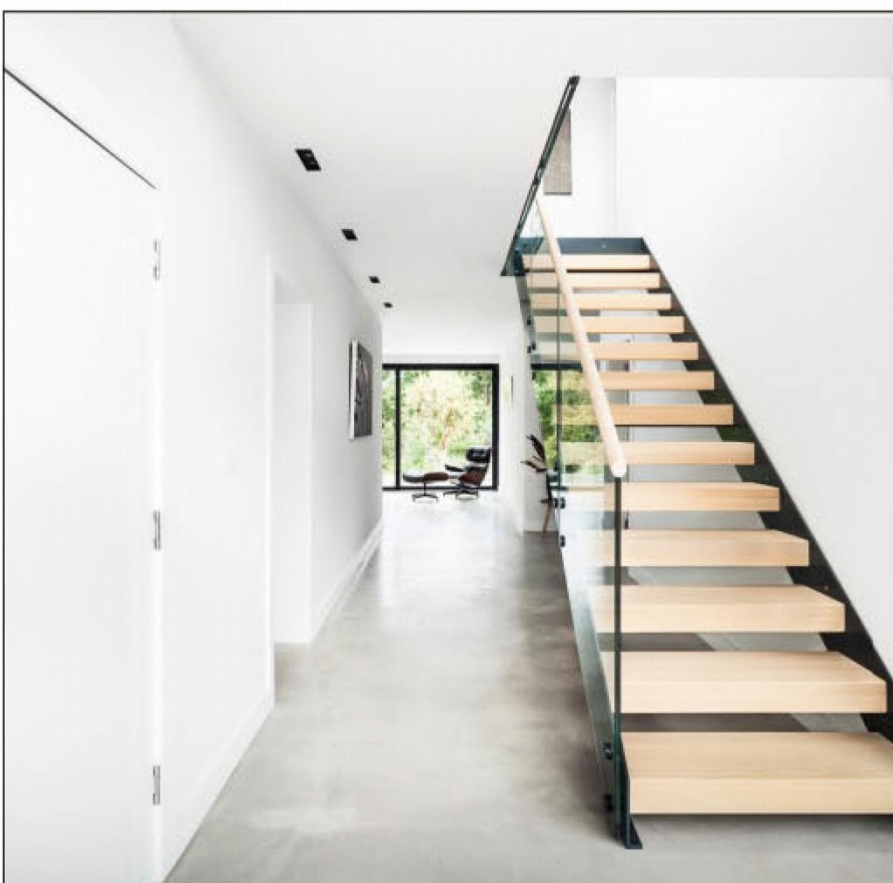
S3i
GROUP



architectural
BRONZE CASEMENTS

HANDMADE REAL BRONZE WINDOWS, DOORS, SCREENS &
SECONDARY GLAZING

01476 249494 www.bronzecasements.com



CUSTOM SPIRAL STAIRCASES | CUSTOM STAIRCASES
Create a stunning visual impact.

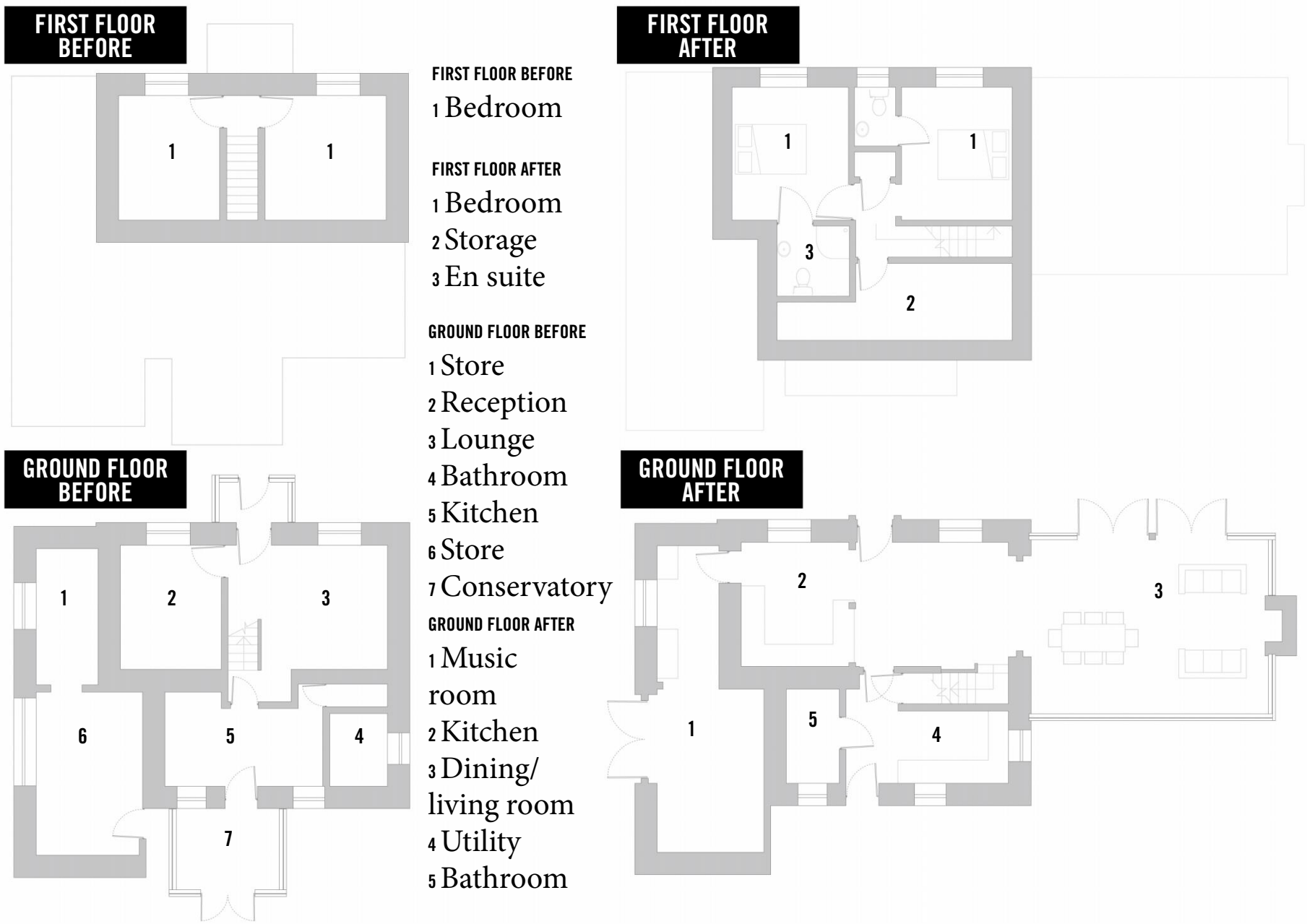
For Staircase inspiration visit - www.completestairsystems.co.uk
for pictures, advice and guidance.

Complete Stair Systems Ltd.
Romsey, Hampshire
T: 01794 522444
info@completestairsystems.co.uk
www.completestairsystems.co.uk



THE FLOORPLAN

The ill-positioned kitchen was moved to the front of the cottage to sit alongside a dining area and living room in the new extension. Meanwhile, shifting an internal wall allowed the bathroom to be moved to the other side of the old kitchen, which became a utility room, and the lean-to was replaced with a music room extension. On the first floor, the Bowdens were unable to increase the size of the bedrooms, but adding a vaulted oak ceiling has made the rooms feel much larger.

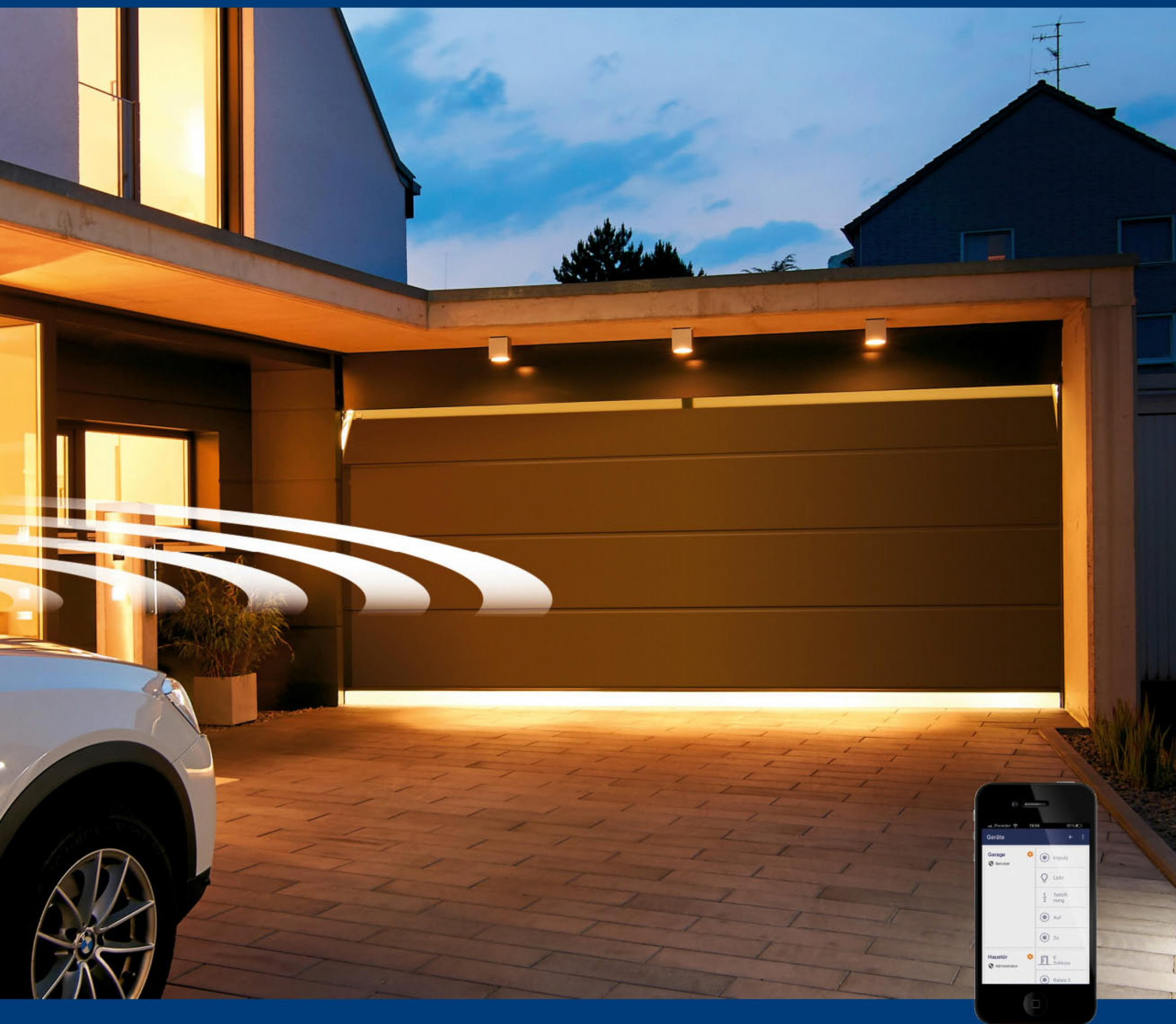


THE BUILD...

The PVCu porch was replaced with an oak structure and the dated conservatory at the back of the cottage was demolished. Sarah and Guy used the footprint of the lean-to for the side extension and, with the help of Welsh Oak Frame, designed the side extension for the living room and dining area.



Open garage doors the smart way



- **NEW: Hörmann BlueSecur App for smartphone control**
- **NEW: Garage door operator SupraMatic 4 up to 75 %* faster**
- **NEW: Efficient LED lighting for more light in the garage**

* In comparison with the Hörmann ProMatic 3

01530 516868
doorsales.lei@hormann.co.uk

HÖRMANN
Doors for Home and Industry

News



BUILDING REGS COULD BE BACKSLIDING

The government's proposed changes to the Building Regulations 2020 have faced criticism from leading architects

Proposed changes to the Building Regulations for new homes have been criticised for “not being ambitious enough”, while campaigners believe the changes will actually “make buildings less energy efficient”. The changes to Part L (Conservation of Fuel and Power) and Part F (Ventilation) of the Regulations will be introduced this year, laying the framework for the Future Homes Standard, a new standard set to be implemented from 2025 which aims to futureproof new-build homes with low-carbon heating systems. A public consultation on the upcoming changes closed on 7 February, and the government will now collate the public feedback before publishing its outcomes.

ENERGY PERFORMANCE

A prominent criticism of the proposed changes to Part L is the removal of the Fabric Energy Efficiency Standard (FEES), which places a

maximum limit on new buildings' energy demand — the energy needed to maintain comfortable internal temperatures. This is influenced by the U values of the building's external envelope, so it promotes good thermal insulation.

Proposals to remove the standard have led to concerns that the energy performance standards of buildings could drop. The Royal Institute of British Architects (RIBA) believes the standard's removal risks homes being built with less insulation than was required by Part L of the 2013 Building Regulations, and could hide the use of poor building materials.

“The proposed changes to Building Regulations are simply not ambitious enough to meet the scale of our environmental challenge,” says Professor Alan Jones, president of RIBA.

London Energy Transformation Initiative (LETI), a voluntary group of over 1,000 architects and engineers, said that removing the FEES is a “step backwards”. Clare Murray, head of sustainability at architecture firm Levitt Bernstein, says: “The proposals are framed as an improvement, but they represent a reduction in the energy performance standards of buildings. They make the building look like it is performing better, when the reality is it could be much worse.”

Self-build & renovation



COUNCILS UNDERMINING ASPIRING SELF-BUILDERS

Councils are using “shocking practices” to restrict access to the Right to Build registers

Some local councils in England are undermining the Right to Build registers, according to Andrew Baddeley-Chappell, CEO of the National Custom and Self Build Association (NaCSBA). He said in an interview on BBC Radio 4’s *You & Yours* that he had seen “shocking practices” from councils trying to restrict access to the Right to Build registers. Around 11,400 registrations have been added since the start of 2019, but this figure does not reflect the underlying demand.

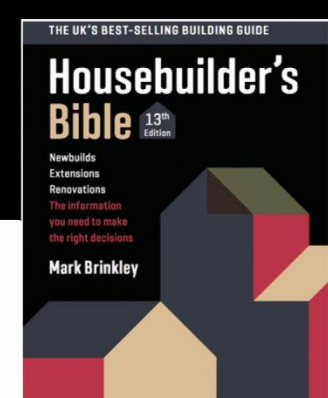
“A significant minority of local councils are undertaking steps to resist or thwart the will of government and the needs of the people,” says Andrew. “We’ve found some pretty shocking practices from local authorities that have made it more difficult for individuals, either by making it too hard to join the registers, or removing people once they are on the register, or simply counting

all new permissions as potentially suitable for custom and self-build even if they know that a major housebuilder is going to build on the site.”

The Right to Build legislation requires local authorities to help aspiring self-builders find suitable plots through the Right to Build registers. In April 2020’s issue of *Homebuilding & Renovating*, we reported on the so-called ‘dirty tricks’ that NaCSBA alleges councils use to prevent people joining these lists. Later this year councils will have to demonstrate their ability to meet the demand all over again, and Andrew Baddeley-Chappell is concerned that the situation could worsen. “Problems that are building up now are just going to grow into a greater problem in years to come,” he said. You can find your local self- and custom build registers on NaCSBA’s Right to Build Portal (www.nacsba.org.uk/campaigns/right-to-build-portal/).

51%
of homeowners are
unhappy with their
home’s overall
cleanliness*

**SUBSCRIBE
AND RECEIVE THE
HOUSEBUILDER’S BIBLE
FREE!**
(TURN TO PAGE 56 FOR MORE)





Be inspired by beautiful
imagery of our favourite
featured projects on
Instagram:
@myhomebuilding

BUILD EVENTS IN APRIL AND MAY

25 APRIL 2020 GUIDE TO RENOVATION PROJECTS

**National Self Build and
Renovation Centre,
Swindon**

This one-day course, run by *Homebuilding & Renovating* writer and energy-efficiency expert David Hilton, will guide you through what to expect with your renovation project.

25 APRIL 2020 NATURAL PLASTERS & RENDERS

**The Reid Building,
Glasgow**

The School of Natural Building's one-day course will deliver important information about building with sustainable materials, and how this will impact upon your build costs.

30-31 MAY 2020 SCOTTISH HOMEBUILDING & RENOVATING SHOW Scottish Event Campus, Glasgow

The Homebuilding & Renovating Show travels to Glasgow, bringing with it expert seminars and one-on-one advice.

Regardless of what stage your project is at, our expert panel of architects, planners and builders will be on hand to offer tailored advice. Just be sure to arrive early as spaces fill up fast! Over the two-day event the scheduled sessions include 'Creating the ultimate low-cost home' and 'Self-build: the most common mistakes and how to avoid them'. There will also be a comprehensive array of products on display.



Did you know?

A new standard that will govern woodburning stoves' efficiency and emissions, originating from an EU directive, comes into force in 2022 as part of DEFRA's Clean Air Strategy. The SIA Ecodesign Ready label identifies those stoves that are compliant with the new law, and stoves are already coming out that fit the bill, like the innovative Arada Ecoburn 5, shown here.

BOOK OF THE MONTH HOME EXTENSION DESIGN

Author and architect Julian Owen's second edition of *Home Extension Design* distills practical information needed to manage a project from the design stage through to completion. Illustrated and featuring a wide range of case studies, the book makes useful suggestions for making the most of your project. Available for £45 (www.waterstones.co.uk).



HOT PLOTS

A pick of the best plots, renovation and conversion opportunities from www.plotfinder.net*



£140,000

Wenlock, Shropshire

An excellent opportunity has arisen to acquire a building plot for two detached cottages, within walking distance of the town centre.



£200,000

Stoke-on-Trent, West Midlands

Outline planning permission has been obtained for a two-storey detached house to be built on this superbly-located plot.



£117,000

Tidworth, Wiltshire

A plot is available in Wiltshire with planning permission included for a two-storey, three-bed detached house, as well as vehicle access.



£375,000

Burley Gate, Hereford

A freehold building plot with fabulous countryside views has outline planning permission for two detached houses and three terraced houses.



Design : Planning : Self Build & Turnkey Packages : Project Management : Fixed Price : Bespoke : Plots



1980-2020

40 years of exceptional oak framed homes

01568 708 752 | www.borderoak.com | enquiries@borderoak.com

Smart home tech



HYDROGEN GAS BOILER UNVEILED

A new boiler prototype that can run on 100% hydrogen has been unveiled by Worcester Bosch. Hydrogen is being widely explored as a solution to the UK's heating problems, because

it is a carbon-free fuel source. The 'hydrogen-ready' boiler, which also runs effectively on natural gas, will mean that moving to hydrogen in the future will be easier, as it offers the option to convert to hydrogen without the need to install an entirely new heating system.

Martyn Bridges, director of technical communication and product management at Worcester Bosch, says: "With fully developed prototypes, various trials planned and many heating engineers and manufacturers in agreement that this could be a viable solution to decarbonise heating and hot water, we are hopeful that the future will be hydrogen."



WARDROBE THAT KILLS GERMS

Samsung Electronics has released a smart wardrobe that kills germs and removes dust. The AirDresser (£1,999) provides convenient garment care by using jets of air and steam to sanitise clothes, leaving them smelling fresh and looking smart.

The wardrobe is straightforward to operate: hang a garment inside, then initiate the cycle and wait for the AirDresser to complete its course. During the cycle, the AirDresser's Jet Air and Air Hangers release powerful air to remove dust ingrained on clothes, while the Jet Stream tech removes germs by infusing high-temperature steam deep into the fabric. Samsung says the AirDresser is quiet enough for any room inside the home, including the bedroom.

SMART FIRE ALARMS

Energy-efficiency expert David Hilton looks at the evolution of smart fire alarm technology designed to fit our changing lifestyles

In the world of smart connectivity and home automation we are becoming ever more reliant on electronic devices and central control of all the services in our homes. So many of the things that we take for granted can now be smartly connected for better efficacy.

Take the smoke alarm, for example. The smoke alarms we used to fit were simple. They had batteries in them, which would go flat. This would often result in the batteries being removed, but not replaced, leaving the property vulnerable. Mains-powered alarms became popular as a solution to this problem. Another change was that different alarms began to be specified to suit different areas: smoke alarms in the bedrooms (or anywhere where a smouldering fire could prevail), heat alarms in the kitchen, and carbon monoxide alarms in areas where combustion appliances are installed.

In a new build, or when a complete rewire is needed, another common practice is to link alarms so that, for instance, a fire in the kitchen will alert anyone sleeping in an upstairs bedroom. In an existing house it is not easy to retrofit this feature. Many 230-volt alarms are installed and wired back to existing power supplies (such as lights) but linking them together is usually not possible without chasing new wires into the property.

COST-EFFECTIVE OPTION

Fire Angel has introduced a new range of alarms that offer a cost-effective system with the potential to solve this problem. The Specification range is designed to futureproof properties, as it can be upgraded to a smart system after installation by simply fitting Fire Angel's Smart RF radio modules into smoke, heat or carbon monoxide alarms.

The Smart RF technology eliminates the need to channel walls or fit invasive trunking as it provides wireless interlinking of up to 50 alarms. Individual alarms can be easily upgraded or remotely monitored through the Fire Angel Connect Gateway, and the Fire Angel patented technology identifies and highlights dangerous patterns of behaviour. According to the manufacturers, the Fire Angel RF alarms only cost around 60p each to run over a 10-year period.

For any homeowner, the health and wellbeing of their home's occupants must be at the top of their priority list. As such, it makes sense for them to make full use of the latest technologies and to make sure that their home's alarm systems are not only optimised and fully functional but also able to keep up with the rapidly changing requirements of our lifestyles. **H**

DELIGHT IN THE EVERYDAY

Reflect your colourful personality
with the Miami Colour Pop range



DESIGN DETAILS MATTER

DOWSINGANDREYNOLDS.COM

Limited Edition Colour Pop Tinkisso Tap £99.99

Kitchens



PUSH THE LIMITS OF KITCHEN DESIGN

Benchmarx has released a new collection to allow homeowners to match joinery in its open-plan spaces with its new kitchens. The Cambridge, a pared-back take on traditional Shaker cabinetry, is available in a range of contemporary and traditional colours, including Midnight Blue, Stone Grey and Forest Green.

The high-quality laminate units are designed to be ‘mixed and matched’ with options for dresser-style units, bootrooms, TV units and a breakfast nook. An eight-unit Cambridge kitchen in Midnight Blue (pictured) will start from around £1,700.

FINISHING TOUCH: ISLAND COOKER HOODS

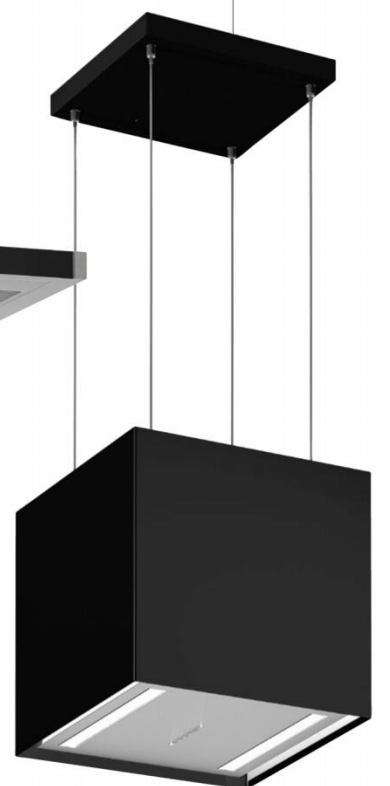
With three different stages of extraction, the June Iconic pendant cooker hood from Elica also doubles as stylish lamp with atmospheric halogen lighting. £999.



Pairing practicality with stunning aesthetics, Elica’s Pearl cooker hood has an opal glass design, four neon lights, and a powerful motor to clear cooking vapours quickly. £2,399.



With three power levels and two boost settings, the Neff I96BMV5N5B is quiet and efficient. Touch sensitive, electronic controls are complemented by Home Connect functionality, allowing control via a smartphone, tablet or Wi-Fi enabled hob. £1,299.



The Profession Series up and down hood from Bertazzoni offers three different speeds with remote electronic controls. Four LED lights provide task lighting while you’re cooking. £1,899.

The Duravit logo, featuring a stylized blue bird icon followed by the word "DURAVIT" in a bold, blue, sans-serif font.

**Shower-toilet SensoWash® Starck f.
Iconic design. Maximum comfort.**

Duravit and Philippe Starck present SensoWash® Starck f, a new generation shower toilet for state-of-the-art, natural toilet hygiene. Maximum comfort is guaranteed thanks to technical finishing touches such as a motion sensor for automatic lid opening through to a wide range of setting options for seat heating, water spray and the controllable warm air dryer. Combinable with all Duravit design series thanks to its uncompromisingly puristic design. www.duravit.co.uk



Bathrooms

SPRING COLOURS

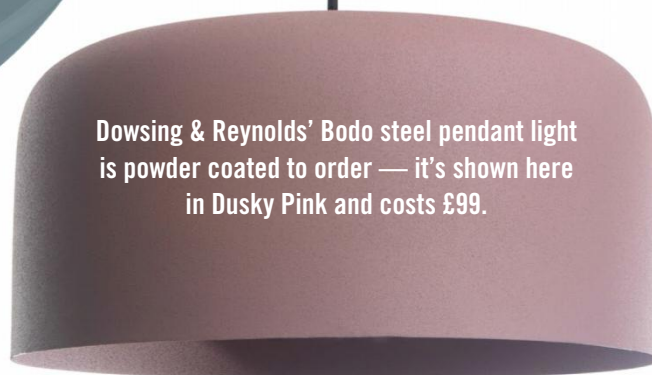
Two-thirds of homeowners are embarrassed by their homes, with 16% of the people surveyed stating the bathroom was the room in the house that caused them most shame, according to a recent survey by Wickes. Simple renovations can make a great deal of difference, whether it is retiling with fresh designs, changing a dated light fitting or modernising the sanitaryware. As we eagerly welcome spring, here are our picks to refresh with a splash of colour.



Calm, neutral tiles are paired with a vibrant yellow Boat bath from BC Designs. £1,233.33.



The Vive solid-surface countertop basin from BC Design can be through-coloured at no extra cost. Shown here in Powder Blue B, the basic costs £378.33.



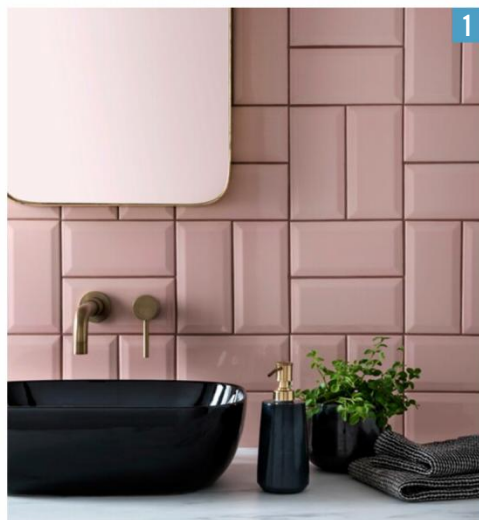
Dowsing & Reynolds' Bodo steel pendant light is powder coated to order — it's shown here in Dusky Pink and costs £99.

Add a little sunshine to your morning with Drench's Matt Hexagon shower screen in Lemon Yellow, from Alternative Bathrooms. £795.

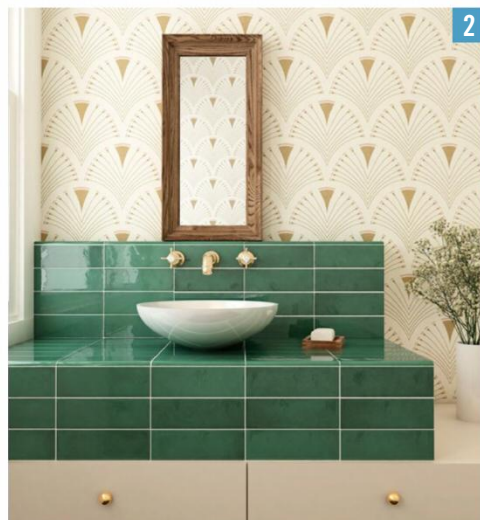


THREE COLOURFUL METRO TILES

A simple way to brighten up a bathroom



1



2



3

1. The contemporary Metro Blush tiles from Topps Tiles are £30/m².

2. With a high gloss finish, Tile Mountain's Village Emerald Green tile cost £29.99/m².

3. Walls and Floors' Pickett tiles in Navy cost £33.95/m².

The Daily Telegraph
Homebuilding
& Renovating
AWARDS
2020

COULD YOUR PROJECT BE OUR HOME OF THE YEAR?

We want to hear all about your completed building projects, as we launch The Daily Telegraph Homebuilding & Renovating Awards 2020

Calling all self-builders, renovators, home improvers, converters and extenders — this is your chance to showcase your completed project in The Daily Telegraph Homebuilding & Renovating Awards 2020. Our awards scheme has been celebrating Britain's most inspiring home projects for well over two decades, and continues to encourage others on their own build journeys.

The Awards not only highlight the best home designs, but also the spirit and ambition of the self-builders and renovators behind them. We want to hear all about your experiences, and also about the wonderful teams behind every successful project.

From self-builds that evoke the best of vernacular architecture and modest, well-designed extensions, to the latest remodels and radical conversions, the Awards scheme celebrates projects of all shapes, sizes and budgets — with 10 categories to enter. Plus, one of the shortlisted projects will be crowned by the judging panel as 'Home of the Year', with the homeowner receiving £1,000 of John Lewis vouchers.

The Awards entry form takes just a couple of minutes to complete (either online or using the entry form on page 37) and it's free to enter.

We can't wait to see the photos of your home and hear all about your projects. Good luck with your entry!

THE CATEGORIES

- Best Traditional-Style Self-build
- Best Contemporary-Style Self-build
- Best Extension
- Best Renovation
- Best Conversion

- Best Sustainable Home
- Best Interior
- Best Value Home
- Spirit of Self-build
- Home of the Future

See overleaf for more information on the categories...



AWARD WINNERS
Last year's award winners included Amy and Bryn Jones, who extended and renovated this period property in Powys (above); Samantha Parr, who built an oak frame home (right) on a challenging and

tight urban plot in just 15 weeks; and Richard and Tavia Vint were named last year's overall winners for their self-build (top right). Judges praised their use of simple, affordable materials and amazing value for money.

IMAGES: JEREMY PHILLIPS (CENTRE & RIGHT);
SIMON MAXWELL (TOP RIGHT)



HOW TO ENTER YOUR PROJECT

THE ESSENTIAL INFORMATION

Submitting a project into the Awards is easy to do and free! The closing date for entering the Awards is 18 May 2020. The project must be finished (or at least very close to finishing) in order to qualify for the competition. Entries, whether submitted online or by post, will need to have attached:

- Floorplans ('before' and 'after' for renovation and extension projects where possible)
- At least three 'before' photographs where relevant
- Five to 10 interior images (living room, kitchen, bedrooms, etc)
- At least one photograph of the exterior of the house.

Shortlisted projects may be visited in person by our Awards panel and will be featured both in the magazine and online, so you must be prepared for you and your home to be photographed.

Some winners will also gain coverage in *The Daily Telegraph*.

ONLINE

Complete the online entry form at www.homebuilding.co.uk/awards and upload the floorplans and images as required.

BY POST

Use the entry form on page 37 or print it off from www.homebuilding.co.uk/awards and attach the photographs and floorplans. (Photocopied entry forms will be accepted.)

Submissions should be addressed to:
The Daily Telegraph Homebuilding & Renovating Awards, 2 Sugar Brook Court, Aston Road, Bromsgrove, B60 3EX.

If you have any queries about entering the Awards, email homebuilding@futurenet.com.



Double Roller Pure White Blind
FROM **£25.60**

blinds2goTM
made to measure, made simple

★ Trustpilot

★★★★★ Based on over 85,000 Excellent Reviews

blinds-2go.co.uk

THE CATEGORIES

THE DAILY TELEGRAPH HOMEBUILDING & RENOVATING AWARDS 2020

BEST TRADITIONAL-STYLE SELF-BUILD

A category for exemplary homes built in a period style, perhaps using natural materials and demonstrating fine craftsmanship

BEST CONTEMPORARY-STYLE SELF-BUILD

The judges are looking for self-build projects with wow factor that showcase the best of modern design in the UK



Sponsored by Potton
Over the past 50 years, self-build package company Potton has designed and built high-quality homes for thousands of self-builders. Our expert team of architects, designers and planning consultants are on hand to help you achieve your dream home. To make the whole process simple, we design bespoke homes to suit your lifestyle, budget and plot. (www.potton.co.uk)

BEST EXTENSION

Have you extended an existing property to create a home that works perfectly for your lifestyle? Then enter this category



Sponsored by IDSystems
For almost 20 years IDSystems has led the market for award-winning glazing products. From the EDGE2.0, our ultra-slim 20mm sliding doors, to German-made SUNFLEX bifold doors and innovative Swiss-designed slide and turn doors, our systems have been installed across the UK in thousands of renovation, self-build and extension projects. (www.idsystems.co.uk)

BEST CONVERSION

We want to see barns, schools, churches and other such non-domestic buildings that have been transformed into homes fit for 21st-century living

BEST RENOVATION

We're looking for previously unloved homes that have been saved through restoration, imaginative remodels or ambitious renovation

BEST SUSTAINABLE HOME

Have you built or retrofitted a home to the very highest sustainable standards?



Sponsored by Greentherm
Icynene is a spray-applied insulation system with an open, cellular composition that provides outstanding insulation performance yet still allows the building to breathe naturally. Icynene expands 100-fold within seconds of application, sealing all gaps, service holes and hard to reach spaces, minimising air leakage and cold bridging, helping reduce energy bills. (www.uksprayfoam.co.uk)

SPIRIT OF SELF-BUILD

Has your home delivered against all odds, or has it significantly improved the lives of its occupants? We want to hear from you



Sponsored by Sips Eco
Sips Eco is the UK's premier award-winning structural insulated panel home manufacturer, designing and manufacturing highly energy efficient homes across the UK. As industry leaders, they create homes that are seven times stronger than timber frame and three times stronger than brick and block construction. Extremely quick to build, highly insulated and eco-friendly, the future of building is here! (www.sipsecopanel.co.uk)

BEST INTERIOR

Do you have an eye for detail and flair for finishing touches? The judges want to see your hard work

BEST VALUE HOME

A category for homes that represent exceptional value for money or projects that have been achieved on a tight budget

HOME OF THE FUTURE

From the very latest renewable technologies and cutting-edge smart home integration to futureproofed, innovative designs, this category is for forward-thinking homes



Sponsored by ecoHaus
ecoHaus is one of the largest suppliers and installers of windows and doors into new build and extension projects throughout the UK. As the number-one Internorm partner, we specialise in timber composite high performance windows and doors. For 2020 we have launched our own new Visiline range of aluminium windows and doors. For more information visit www.ecohausuk.com.

The Daily Telegraph
Homebuilding & Renovating
HOME OF THE YEAR

HOME OF THE YEAR

Chosen from one of the shortlisted houses, the UK's Home of the Year celebrates the most outstanding project entered into the The Daily Telegraph Homebuilding & Renovating Awards 2020. The winner will also receive £1,000 of John Lewis vouchers.



An Icynene home is a cosy home

A well-insulated home means a healthier, quieter and more energy efficient home with better comfort levels and lower heating bills.

And nothing does a better job of insulation than Icynene – the first name in spray-foam insulation.

Icynene expands 100-fold when applied, sealing all gaps, service holes and hard to reach spaces, completely eliminating cold bridging and helping reduce winter fuel bills.

What's more, its open cell structure lets the building breathe naturally.

Icynene. It's the modern way to insulate homes, old and new.

For more information on the benefits of Icynene visit icynene.co.uk



 **ICYNENE**®



CE Mark
Approval

Certificate No
08/4598

ISO 9001

Accepted

23 YEARS AGO



Aegean bath - 2 sizes manufactured

Albion's founders had a mission - to create the ultimate bath tubs. After two years of development, Albion had it sorted. A new material was created from an amalgam of high technology resin and a special reinforced mineral. Manufactured in our Essex factory, this material was named Iso-Enamel. To this day, our special process is unique and offers benefits that other materials cannot provide. So what's so good?

- An Albion bath is less than half the weight of a cast iron bath. The average weight of our baths is 70kg.
- Your bathing water will stay hotter for up to five times longer.
- Clean an Albion bath with all modern liquid cleaners.
- An Albion bath has a hard, high gloss interior that gives years of sterling service.
- Customise the bath exterior with any colour.

Request your brochure of our range of over 50 free standing bath tubs, taps and sanitaryware items.

ALBION

01255 831605
albionbathco.com

BATH COMPANY
HAND MADE IN ENGLAND

Please complete and return with **a set of floorplans and interior and exterior photos** to: The Daily Telegraph Homebuilding & Renovating Awards, Future PLC, 2 Sugar Brook Court, Aston Road, Bromsgrove, B60 3EX. The **deadline** for entries is 18 MAY 2020. You may use a photocopy of this form. Your project must be complete by the time judging takes place in summer 2020, and should have been completed within the past three years. By entering, you agree to potential publicity in *The Daily Telegraph* and *Homebuilding & Renovating* magazine.

NAME OF ENTRANT

ADDRESS

EMAIL TEL. NO:

NUMBER IN FAMILY AND AGES

Size of property (internal area) in m²:

Please provide the area of any garages separately. Please also state the number of bedrooms and the number of storeys:

.....

Which best describes your property? (please tick):

- ☐ New build
- ☐ Conversion (eg barn or church)
- ☐ Remodel and/or renovation of an existing house
- ☐ Extension of an existing house

Which category/ies are you entering? (please tick):

- ☐ Best traditional-style self-build
- ☐ Best contemporary-style self-build
- ☐ Best extension
- ☐ Best renovation
- ☐ Best conversion
- ☐ Best sustainable home
- ☐ Best interior
- ☐ Best value home
- ☐ Spirit of self-build
- ☐ Home of the future

Name of the owner and address of property (if different from above):

.....
.....

Date when work commenced:

Date occupied/completed:

What was the cost of the building plot/house?

(please provide an estimate if already owned)

What was the cost of the project/the build?

.....

What is the current/estimated value of the property?

.....

Please provide the name of the designer or architect:

(if applicable)

.....

What makes your project special?

(you may provide additional information to support your entry)

.....
.....
.....
.....
.....
.....
.....
.....

If your project is shortlisted we will contact you and may request further information. The initial round of judging is based entirely on the details on this form, and importantly, the images of the interior and exterior of your house that you provide with your entry.

These images do not need to be of professional quality but in order to portray your home in the best way these should be comprehensive and, if possible, taken on a bright day with a well-lit interior.

Rules of entry: 1. The competition is free of charge to anyone aged over 18 (including architectural practices) except for employees of The Telegraph plc and Future Publishing and their families. 2. The closing date for entries is 18 May 2020. 3. Responsibility cannot be accepted for entries lost, damaged or delayed in transit. 4. Photocopied entry forms will be accepted. 5. No cash alternatives will be offered in lieu of prizes that may be offered. 6. We cannot guarantee the return of entries, including drawings and photographs. 7. Details of entrants and their projects (not including specific location details) may be published in *The Daily Telegraph* and *Homebuilding & Renovating* in print and online at the discretion of the editors and may be used in publicity material (including publicity material used by the sponsors). 8. The judges' decision will be final and unchallengeable. No correspondence will be entered into. 9. The judges reserve the right not to award winners in any category if entries do not reach the required standard. 10. Unsuccessful entrants may not necessarily be contacted or have their entry returned. 11. In addition to these rules, standard Telegraph rules apply and are available on request from: The Daily Telegraph, 111 Buckingham Palace Road, London SW1W 0DT. 12. You are advised to keep a photocopy of this form for your own information.

☐ Please tick if appropriate. I wish to receive offers from The Telegraph plc, Future Publishing or companies approved by The Telegraph plc or Future Publishing.

☐ I agree to be bound by the rules of entry. Signed Date

Your projects

The planning process seemed to take a lifetime!

First-time self-builders Craig and LB and Charlie and Helen are building adjacent cottages in Herefordshire. This month, Craig explains why achieving planning permission took seven months



It took seven months for Oakwrights, who are designing and building the frame of our cottages, to achieve full planning permission — albeit with what seemed like a never-ending list of conditions.

The 16 conditions ranged from the usual kind you would expect (such as materials), to some which were pretty obscure. The planning permission process shouldn't usually take longer than eight weeks, so as you can imagine, seven months seemed like a lifetime!

There were three main areas we needed to focus on before we were able to commence the build. We had to produce an ecological method statement, present the list of materials we would be using for the external fabric of the building to the planners, and arrange for a full and written soil and gas prevention specification.

The latter two took the most time, requiring involvement from third party specialists. The ecological method statement took around four weeks to pull together and needed to detail how we planned to mitigate damage to nesting birds, tree planting and ensuring we would help to protect bats.

The soil and gas specification was due to the site being located close to an old landfill site. This took us eight months in total: we needed the involvement of third parties to assess the ground conditions, as well as detailed specs as to how we were going to vent and alleviate any gas exposure risks.

Thankfully we were able to start right away once these had been signed off and the building process has seemed much less time-consuming in comparison!



CHARLIE, HELEN, LB AND CRAIG

STAY UP TO DATE

Both couples are documenting their builds on Instagram: Craig and LB @selfbuildlife and Charlie and Helen @cottage.church. Take a look as they live through the highs and lows of self-build.



VANESSA & TOM



We're extending our dream home while living abroad!

My wife, Vanessa, and I always had a desire to live in the countryside around Cambridge but we struggled to find the right house. We had just started a family (our daughter is now almost two) and we were looking for a large home so we could grow as a family. When we first looked at this house we absolutely loved the location; it is so close to the city centre of Cambridge but also surrounded by green fields. The house only had three bedrooms and we wanted a more modern home so we made sure we could get planning permission before we put in the offer.

However, trying to get planning approval for an extension that would effectively double the size of the house, of course comes with issues. We worked with some fantastic architectural designers at Ely Planning Company, who helped us get through that process. Over a glass of red wine, Vanessa and I planned our dream extension on paper and took it to the designers who then worked their magic and managed to come back with something really similar.

We wanted the extension to be symmetrical and to mirror the large existing gable, so it wasn't subservient, which a lot of extensions have to be. We knew we wanted certain features, such as an open-plan kitchen diner, a big master suite with a lovely vaulted ceiling, and sliding doors at the back of the house with views over the garden.

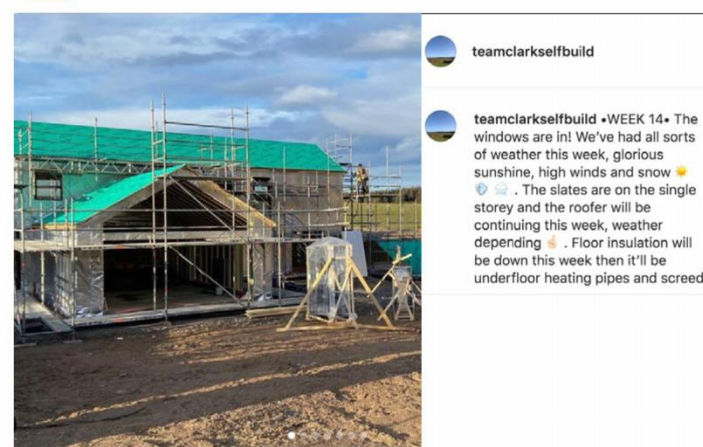
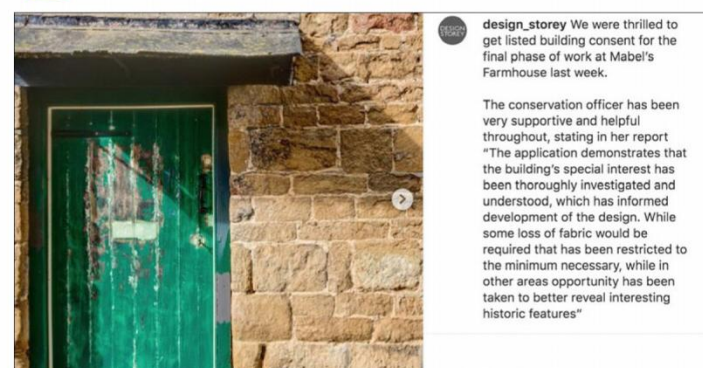
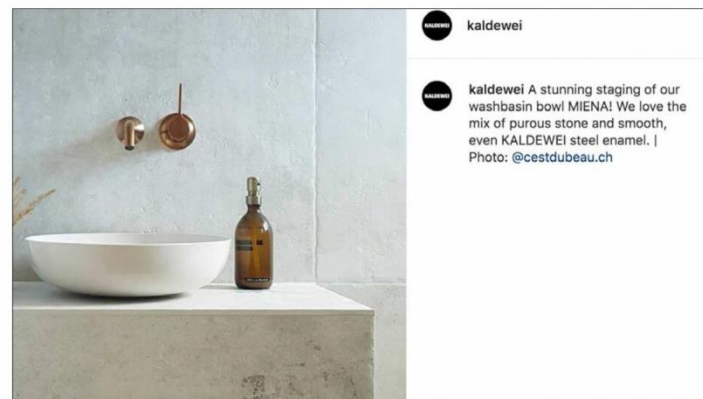
MANAGING OUR BUILD REMOTELY

However, within a couple of weeks of getting planning permission an opportunity to work in Switzerland came up for both of us which was not in 'the plan' but we had to take the work!

We've helped project manage everything remotely which is probably not the most ideal way to do things. We had only ever undertaken cosmetic renovations to previous homes, and this is the first time we've had builders involved, so one of the biggest challenges for us was to find a contractor we felt comfortable with before we moved away. We have put our trust in our main contractor, Peter from Ablewood, and at the moment it has been going fantastically well! The build is still in its infancy and we have around five months to go, but it's lovely to see the extension taking shape. Although I think we will be abroad for a while longer, we're excited to make the house our forever home.

SOCIAL ROUNDUP

Our favourite posts from Twitter and Instagram...



We are now being funded by Ministry of Housing, Communities and Local Govt @MHCLG to run workshops with Local Authorities needing to meet their duties under the #righttobuild! Get in touch if you know an LA which could benefit via <https://tinyurl.com/yzmtc2o2>



Our design guide on Sustainable Renovation contains best practices to improve homes for energy, health and the environment. All of our guides, including others on Airtightness, Deconstruction, and Toxic Chemical Reduction in Buildings are available at <https://seda.uk.net/design-guides>

30

Homebuilding & Renovating

1990 - 2020

WE'RE 30!

Homebuilding & Renovating is celebrating three decades helping self-builders and renovators build their dream homes

In the summer of 1990, a weighty tome entitled *Individual Homes* landed on the newsstand. Brought into fruition by founding editor Peter Harris, the magazine's aim was simple: to educate and inspire those hoping to create a one-off home — whether that involved building a new home, renovating or extending an existing property, or converting a redundant building into a dwelling.

By autumn 1997, the quarterly title has become a monthly magazine edited by Michael Holmes, and had a new name: *Homebuilding & Renovating*. Michael handed the baton to then-Deputy Editor Jason Orme in 2004, who became the magazine's longest-serving editor before Claire Lloyd took on the role in 2016. You'll now find both former editors sharing their wisdom at our HB&R Shows.

Over the years, the magazine and its readers have weathered a major recession, numerous revisions to

planning and building legislation (both good and bad), and changing design trends. And the self-build and renovation market continues to evolve to this day.

What has remained a constant is the pioneering spirit of the self-builder and renovator — a willingness to push the boundaries and to tread the often challenging but rewarding path to creating an individual home.

Homebuilding & Renovating has evolved over the last 30 years, too. We now have eight UK Shows, a website (www.homebuilding.co.uk), a plotfinding service (www.plotfinder.net) and more recently, video and social media channels, meaning we're on hand 24 hours a day, 365 days a year.

Over the coming months, we'll be sharing some of our favourite memories and bringing you special content to mark the occasion. (Also visit www.homebuilding.co.uk/anniversary.) Thank you for celebrating with us.



WITH THANKS TO OUR 30TH ANNIVERSARY PARTNERS:



OUR FAVOURITE PROJECTS: #4

BRIGHTON BUDGET SELF-BUILD: PUBLISHED JULY 2015

This eco house built in the centre of Brighton may be small (at just 80m²), but it's testament to the mighty spirit of its self-builders. Jason and Sarah Thawley toiled to find a plot to fit their total budget of just £160,000 when they found a triangular paint shop with planning permission for a replacement two-bed house.

Trained as a product designer, Jason, along with aid from a structural engineering friend, created plans for the new home. The design utilised every inch

of the small plot, with rooms featuring large windows and oversized doorways to give the illusion of height and depth.

Truly a story of determination, Jason worked to complete the house on a largely DIY basis, after Sarah was diagnosed with a brain tumor in the late stages of pregnancy. The couple and their young children were able to enjoy the fruits of this hard work for a few years after completion, before Sarah sadly passed.

To see more of this unforgettable project, go to www.homebuilding.co.uk/brighton-self-build-for-90k.



LOOKING BACK...

Chartered surveyor and author of Haynes Manuals Ian Rock reflects on his time writing for HB&R...

A quick delve through the archives has reminded me that I've been writing for HB&R for an astonishing seven years now. Luckily, there's plenty of extra space in our new extension, which has come in useful for stashing all the back issues!

It's a real accolade to be part of such an exalted team of talented writers, each with their own distinctive styles and areas of expertise. I get a lot of satisfaction formulating and refining articles to communicate key technical issues — hopefully without inducing

'involuntary sleep episodes' in the readership!

Homebuilding & Renovating is a great platform for dispensing honest, impartial advice — something that's especially worthwhile in today's sales-driven world. But if I had to pick one particularly rewarding thing it would probably be answering 'Ask the Expert' questions, providing tailored advice based on my experience to help guide individual readers. In a similar vein, people struggling to resolve worrying building defects sometimes track me down from HB&R articles online; one mark of whether my advice has been of any use is when a mystery delivery arrives some weeks later with an attached thank-you note.

A big milestone for me was being invited to submit a series of monthly on-site diary articles about building our extension (right). The brief was to write in the first person and 'make

it personal'; it was fun recounting some of the quirky and humorous things that happened during the build, rather than just focusing purely on U values and mortar mixes.

Last but not least, warm words are in order for the patient editorial team whose skillful work goes a long way towards making HB&R the success it is today.

“

It's a real accolade to be part of such an exalted team of talented writers



Big names join the celebrations

As we continue our 30th anniversary celebrations, five of the market's leading names join us to mark the occasion. And we couldn't have done it without them, and the many others, who have supported HB&R over the years, providing our readers with the quality products and services they need to build their dream home



“Icynene is one of a new breed of spray-applied insulation systems”



Over the years, we've seen a growing trend among HB&R readers for creating energy-efficient, highly insulated homes — whether that's renovating old, previously cold and draughty barns or building brand new homes. It's a trend that we're delighted to be part of.

Traditional forms of insulation are relatively inefficient in creating a 'sealed box' environment, as they can't completely fill all voids or seal the interface between the insulation and the building structure. Nor can they cope with small structural movements which will often lead to air gaps.

Minimising air leakage is one of the most effective ways of reducing a building's heat loss, as up to 40% of the heat loss is

due to air leakage. Icynene is one of a new breed of spray-applied insulation systems. Developed in Canada to cope with the country's extreme winter temperatures, Icynene FoamLite is a flexible open cell material with a soft and yielding texture. This not only provides outstanding insulation properties, but also allows the building to breathe naturally, resisting internal condensation.

Icynene is a water blown foam, applied using a pressurised gun system as a two-component mixture that mixes at the tip of a gun, forming a foam that expands 100-fold within seconds of application, closing off all gaps, service holes and hard to get to spaces. For more, visit: www.icynene.co.uk.

The Self-Build Zone team is excited to be celebrating HB&R's 30th anniversary — we understand just how important expert, up-to-date advice is to self-builders and renovators alike, and why site insurance is such an important part of ensuring a successful project. Self-Build Zone has been providing specialist insurance to self-builders since 2003 and is the current market leader. We can cover any type of construction method approved by Building Regulations, from grand designs to chapel conversions. Site Insurance protects you and your project from the moment you start work until completion. It also protects any existing structure you have on site, so if you're doing an extension, renovation or conversion we can cover the building and the new works.

A Structural Warranty is a lender requirement in the UK and our warranty is approved by UK Finance, meaning the majority of lenders in the UK will accept it. All our products are backed by 'A' rated insurers

“Site insurance is such an important part of ensuring a successful project”

giving you the ultimate protection if something goes wrong. Our in-house team BZSS can facilitate all your surveys. BZSS can combine your building control and technical audit surveys to save you time when it comes to site visits.

As well as offering advice on insurance, the team can advise self-builders on many other aspects of their build, such as risk management.





“The Korniche is the definitive lantern solution”



Here at Korniche, we'd like to offer our warmest congratulations to the HB&R team on their 30th anniversary, and reflect on our own journey. Our award-winning slimline Korniche aluminium roof lantern provides a traditional timber look with the advantages of a thermally broken aluminium construction. Precision engineering, optimisation and modern manufacturing techniques have created a beautifully proportioned, thermally efficient, strong and secure lantern solution ideal for flat roof home extensions.

The Korniche delivers great aesthetics for modern and traditional settings. Providing internal elevation and architectural interest through a slim ridge and spans, the Korniche has various structural combinations that will deliver as much light as possible into a home. Thermal efficiency has also been guaranteed by high performance glazing and the elimination of cold bridging, achieved by isolating the external profiles from the internal ones. Strong and secure, it can be specified in any RAL or BS colour, or a standard colour — Gloss White, Matt Grey and Matt Black. In fact, the Korniche can be produced in any size of square and rectangular orientations up to 6 x 4 metres, due to the 25 degree pitch solid aluminium central boss design that allows for various combinations.

Airflow Developments is proud to be supporting HB&R's 30th anniversary. Founded in 1955, Airflow has grown from one man's expertise in fan design and air flow measurement into a thriving international group. Renowned for its innovative approach to new product development and air movement techniques, its wide variety of ventilation solutions means the team can specify a perfectly designed system for new build or retrofit projects.

Airflow provides solutions from a simple extractor fan through to whole house solutions and larger commercial specifications. With products certified by the Noise Abatement Society, Passivhaus and Red Dot Design, its ventilation solutions are certified for meeting and exceeding standards. Airflow's units have also been recognised by industry specialists. Charlie Luxton has Airflow's Whole House Heat Recovery System – the Adroit – fitted and installed into his property, as he recognises the high performance of the unit. Paired with its Airflex Pro, semi-rigid ducting, the system meets Passivhaus standards.



“We have a wide variety of airflow solutions”

Kloeber UK is delighted to be a HB&R 30th Anniversary Partner and celebrate the Year of Self-Build with such a well-respected name within the self-build and renovating sector. Kloeber believes that 30 years championing self-builders and renovators, by offering expert advice and inspiration in its magazine and website and at its exhibitions, has to be recognised.

HB&R is a perfect match for market-leader Kloeber, which offers self-builders and home improvers a range of bespoke doors and windows in beautifully engineered timber, low maintenance aluminium and alu-clad. The full Kloeber range includes bifold, sliding, French and front doors as well as a wide selection of window options, rooflights and fixed glazed elements. Its Euro set size products give a saving on the bespoke lines, without compromising on the quality or

“Kloeber offers self-builders and home improvers a range of bespoke doors and windows”



the signature Kloeber style.

Kloeber was the first company to be accredited Secured by Design for timber bifold doors; it also holds this certification for its award-winning FunkyFront timber entrance door systems as well as many other products.

Kloeber provides its clients with the full package, from the initial meeting and showroom visit, where you can discuss your project with an experienced team member, through to liaising with architects and builders. The company can also offer a detailed site survey to guarantee a smooth installation carried out by its own in-house fitting teams. **H**



Passivhaus self-build

WORDS Caroline Ednie PHOTOGRAPHY David Barbour

Built for £220,000

First-time self-builder – and self-confessed DIY novice – Paula Harte has saved thousands by project managing the build of this Passivhaus kit home in Scotland





PROJECT NOTES

HOMEOWNER Paula Harte
LOCATION Elgin, Scotland
SIZE 125m²
BUILD TIME 18 months
BUILD ROUTE Project managed subcontractors
PLOT COST £59,000
BUILD COST £220,000
VALUE Unknown

Brae Spinney is a house of firsts. It's the first Type C kit house completed by Caber House, pre-designed to the Passivhaus standard by Colin Potter of Dunoon-based Architeco. It's also the first time owner Paula Harte has built a house. The result is a highly energy efficient and elegantly tailored self-build that sits seamlessly within its leafy setting close to Elgin town centre.

"I didn't even have any DIY experience before taking on this house," admits Paula, who relocated to north-east Scotland from the south of England for work before taking on the project.

"I was looking for a house that was energy efficient and I couldn't find anything. After chatting to a few people who had built their own homes, and as soon as I started looking into it, I caught the bug when I realised it could be a possibility. I had sold my house, so didn't need a mortgage, and that helped."

Assembling the team

The breakthrough came when Paula met architect Colin Potter at a Homebuilding & Renovating Show. "I thought I could really work with Colin," begins Paula. "The design-build part of it I really liked and also the fact that I could make changes. So I chose the 'Caber Type C' kit and added the bathroom upstairs, and a few extras, not much really. Colin also looked at the site before I purchased it and he was able to offer advice, and a design for the site."

"We give free advice on what to look for in a site and in this case we did a site audit and identified that the ground was sand, which would put up the cost as a raft foundation would be needed," Colin explains. "We also took into account that the plot is very close to a listed building so needed to be mindful of this. But other than that it's a gem of a site, set into parkland with great views."

Following a straightforward planning process the project started on site in summer 2017, and once the watertight shell was erected by Caber House, Paula took over, managing the build while also working a full-time job nearby. What finally emerged following the 18-month construction was a one-and-a-half storey house with a double-height living and dining area, kitchen, bedroom, bathroom and utility area on the ground floor, and bedroom, bathroom and mezzanine level, featuring office/studio space, above.



A fabric-first design

“We took a fabric-first approach with the house,” says Colin. “It’s constructed using structural insulated panels (SIPs), with high levels of airtightness. Originally the house was going to be heated by a woodburning stove but Paula chose not to include it to stay in budget, so we put in more insulation. The hot water is provided by an air source heat pump, and heat loss is controlled by a mechanical ventilation with heat recovery (MVHR) system. There is minimal heating (only a 3.5kW peak heat load) that is provided by underfloor heating, served by the air source heat pump.

“We detailed the aesthetic to be in keeping with the adjacent listed mansion using an aluminium standing seam roof,” he says. “Although it’s a modern material, it echoes traditional materials seen on older buildings.”

The house has also been orientated to make the most of the surrounding views. A double-height picture window in one gable looks out over its parkland garden and mature woodland, and makes best use of solar gain. The extensive glazing reflects the surroundings, including a mature copper beech, and the bedroom window is positioned opposite a gate, to give a framed view down the valley.

Internally, the house is designed to be simple and functional, with an easy flow. It’s open and airy, with lots of attention given to detail and proportion. “I always design with an eye on the flow and feel of the spaces within the house, and I think Paula’s house encapsulates this very well. The proportions and large, light-filled spaces are designed to make the most of the site,” says Colin.

SELECTED COSTS

Foundations, supply of kit to wind and watertight (including £14,000 for windows)	£106,000
Builder	£12,000
Joinery works	£28,000
MVHR and heating	£13,000
Electrical	£8,400
Plumbing	£6,300
Roofing and gutters	£22,000
Kitchen (without appliances)	£2,000
Internal finishes	£12,000

LOCAL INSPIRATION

The 45° roof pitch and rendered gables were designed to echo the vernacular of nearby buildings. Paula chose Siberian Larch with Sioux treatment for the exterior cladding rather than stone.

WARMING UP

Underfloor heating and the highly insulated panels means the house is a comfortable temperature the whole year round, although Paula also included a freestanding bioethanol fire to provide an interesting focal point.





“

After chatting to a few people who had built their own homes... I caught the bug when I realised it could be a possibility





Starting work on site

Construction went relatively smoothly. Architeco and its build partner were responsible for the Caber House kit delivery and installation, which was wind- and watertight within two weeks. The main challenge faced by Paula, who self-project managed, was the compact nature of the site. The site entrance was tight, so allowing access for large machinery required careful consideration.

“The sandy, sloping site also meant a drainage connection had to run uphill — we used a raft foundation and a pumped sewerage system to overcome this. Other than that, it was a very smooth build,” adds Colin.

To keep costs down, Paula kept a careful eye on the materials and supplies used throughout the build. “I went as local as possible to save on delivery charges. If I did a self-build again I would use all local contractors,” says Paula. “I also went to fancy showrooms and then went to suppliers like Howdens and they were amazing. They had a really good kitchen designer and it is so much cheaper.

“The only change I made to the house during construction was to change the stone cladding to wood to save costs. But I like the wood cladding — it looks good. That was an early decision and there weren’t any other major changes during the build. I was bearing in mind that every time you change your mind it could have a cost implication.”

Since moving into her new home in 2019, Paula now has the comfortable, energy efficient house that she was looking for from the outset. “The house works well — in the summer it doesn’t get too hot with the solar gain as the design of the full height living space means that it can cope with the large window and glazing.”

Following the full-on experience of managing the build, Paula has no regrets. She now sees her contribution as the achievement it clearly is, rather than focusing on any of the on-site ups and downs. “This is a one-off, although I would never say never in terms of self-building again, if I had to move,” she says. “But I wouldn’t work full time again and build a house. That was crazy!” **H**

LIVING SPACES

Paula has decorated the living spaces with brightly coloured furniture to contrast against the neutral walls. The flooring on the ground floor is ‘Driftwood’ LVT (luxury vinyl tile) from Earthwerks. The pendant lighting is from John Lewis, and the inexpensive kitchen is from Howdens.



**32 years of Carpenter Oak projects,
each one different from the last.**

**Vote for your favourite at
carpenteroak.com/hbr
to win a free and exclusive
Carpenter Oak design package.**

01803 732 900

hello@carpenteroak.com



KEY SUPPLIERS

ARCHITECT Colin Potter of Architeco:
www.architeco.co.uk

CABER TYPE C KIT SUPPLIER

Caber House: www.caberhouse.co.uk

STRUCTURAL ENGINEER Cowal Design Consultants:
www.cowaldesign.co.uk

MAIN CONTRACTOR/JOINER Jason Grant,

JG Building Contractor:

jgbuildingcontractors@yahoo.com

EXTERIOR CLADDING Russwood: www.russwood.co.uk

ALUMINIUM STANDING SEAM ROOF COVERING Mark Copper

Roofing: copper.roofing@btinternet.com

WINDOWS AND EXTERIOR DOORS

Nordvest: www.nordvest.co.uk

ROOFLIGHTS Velux: www.velux.co.uk

HEAT PUMP AND MVHR Curtis Heating & Energy

Solutions: www.thermsaver.co.uk

KITCHEN Howdens: www.howdens.com

BATHROOM AND SHOWER ROOM William Wilson, Elgin:

www.williamwilson.co.uk

FLOORING Earthwerks: www.earthwerks.com;

Forbo Flooring Solutions: www.forbo.com

HARD LANDSCAPING Seaside Landscaping:

www.seasidelandscaping.co.uk

ELECTRICIAN Campbell and Mchardy: 01343 543516

PLUMBERS Anderson and Simm:

andersonandsimphs@gmail.com



AIRTIGHT AND LIGHT

The house features triple glazed rooflights to achieve the rigorous Passivhaus standards, as well as letting natural light into the mezzanine level. The bathrooms were from William Wilson, who has a local branch. "I went as local as possible to save on delivery charges," says Paula.

urban | front®
#doorcouture

steel reinforced
natural hardwood doors
entrance doors
internal feature doors
garage doors
oversized doors
passive house certified doors
made and designed in the UK

urbanfront.com
info@urbanfront.co.uk
+44 (0)1494 778787

For beautifully handcrafted
contemporary handles visit
pushpull.co.uk

PULL
HANDLE



THE *natural* CHOICE FOR YOUR HOME



T: 0800 030 2222

E: sales@dalejoinery.co.uk

www.dalejoinery.co.uk

HIGH PERFORMANCE TIMBER WINDOWS & DOORS
Perfect for new build & renovation

For builders, self-builders and homeowners alike, there is a growing determination to choose timber windows and doors - an inherently beautiful material that adds value and desirability to every build.


DALE
· JOINERY ·

THE KNOWLEDGE

STAYING ON BUDGET

“Initially I was going for a turnkey contract, but the quotes I received were way above my budget,” says Paula Harte. “I then realised I could do it myself. Architeco have a build partner that puts up the house to make it wind and watertight and I then found local contractors to take the project to completion.

“By project managing the build myself using mainly local contractors, I cut the overall build cost by some considerable margin. We didn’t cut any costs on the fabric of the house such as the insulation and triple glazing. That was my main aim, to build an energy efficient house.

“Once I got a local builder and joiner on board it all fell into place and I got it back on budget. The local joiner became my main contractor and he knew lots of people in the area as they’d all worked together before, so this worked really well.

“I was relaxed about the timescale but there were a few challenges caused by the weather during the 18-month construction. I started building at the end of August, got the foundations in and the house was wind- and watertight before winter. But we carried on building during the winter and found that it was too cold for the taper [to finish the plasterboarding] and it also took longer for the floor to dry out. But then when it came to the following summer it was too hot for the render! You can’t win!

“In terms of budgeting you have to be astute and often have to react quickly. For example, I had to make sure that the quotes I received for the scaffolding charged for labour separately — if you are quoted for labour and hire as a package you will be charged VAT. This saved around £1,000. Also, the kitchen is from Howdens and is incredibly inexpensive (£2,000). You can get caught up in the internal finishes of the house and forget you’re building the whole house.

“Colin also helped with the hardest bit of the whole process for me, which was dealing with officialdom. Colin sorted out the planning permission and the Building Warrant and tidied things up for the sign off. I took photos all through the build and this was invaluable in terms of producing a photographic record when building control asked for information. Colin was in the background throughout the build, which was reassuring, and if the joiner had any questions he could just phone Colin.

“By project managing I managed to stay within the budget, and I enjoyed working with the build team. However as I was project managing and working full time, everything else in my life just stopped! I was keeping the site tidy and doing the waste disposal as I was keen to recycle as much as I could. Doing the clearing up saved money. I also did a lot of the painting myself. The build site was between my previous house and my work so all I was doing was going to work and building a house. I dropped in before going to work in the morning, occasionally I came by at lunchtime, and then I was on site again after work. That’s the only way I got through it!”



BUILD TIMELINE

STARTED WORK ON SITE August 2017

WIND AND WATERTIGHT SHELL COMPLETED

End October 2017

HOUSE COMPLETED Feb 2019

www.caberhouse.co.uk

C A B E R  H O U S E

Zero Carbon | Passivhaus | Positive Energy

contact@caberhouse.co.uk

01369 701 988



MY BEST BUILD DECISION

“The part of the build that I am most pleased with is that I kept going with the landscaping. At the end you feel that you just want to stop but I managed to push on and get the landscaping completed. This is the area where most people give up on, spending all their money on the house and forgetting what is around it,” begins self-builder Paula.

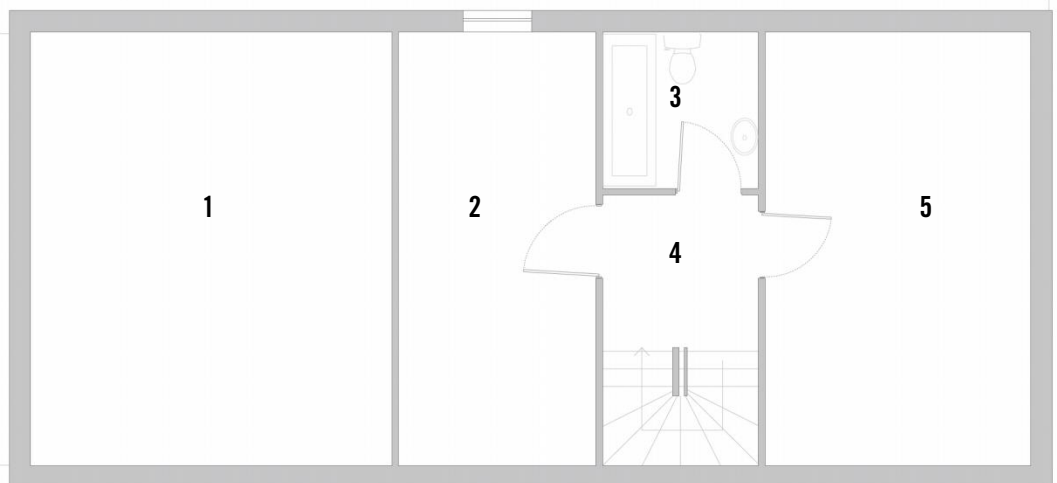
“The landscaping has made the house sit extremely well in the surroundings. It’s also an ace place to sit in good weather. The landscape designer at Seaside Landscaping that came on board was amazing, paying enormous attention to detail. He was keen to provide what I wanted, but do it in a practical way. He knew what I wanted and made it work.

“The fence was a collaboration — we’ve got a lot of boundary as it is a small plot, so I was keen to get this right. The ramp was also done so that it didn’t look too ‘ramp-like’. The design was in tune with the woodland feel that is around the house. I also have a problem with deer, so I now have a deer-resistant garden! Two large herb beds are raised on the decking and then at the front is a modern cottage-type garden with foxgloves, Michaelmas daisies and so on. It’s a naturalistic garden and contrasts with the crisp path area. Crab apples will also form a screen to my next-door neighbour. The planting is in now so next year everything should look great.”

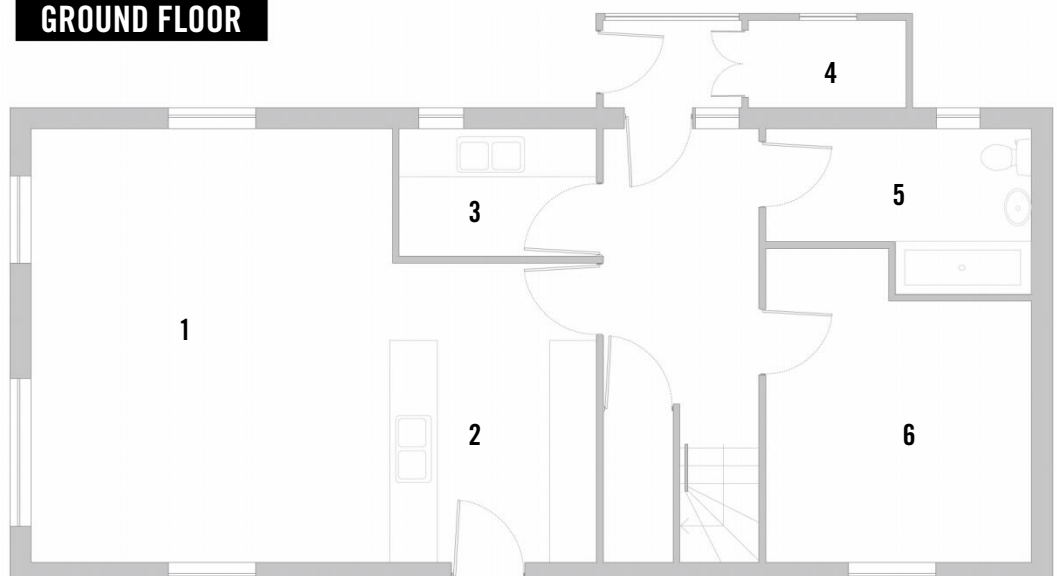
THE FLOORPLAN

The Caber House Type C is designed as an option for anyone who wants to work at home, and/or offers adaptable spaces for those who may be looking for the flexibility to accommodate guests with ease, with a mezzanine or study/bedroom upstairs. In Paula’s home, the ground floor offers a large double-height space for the kitchen, dining and living area. This is open to the underside of the roof slope, fitted with rooflights, providing a bright and airy space. The hallway provides access to the stairway, downstairs bathroom, store cupboard, utility room and a downstairs master bedroom.

FIRST FLOOR



GROUND FLOOR



GROUND FLOOR

- 1 Living/dining space
- 2 Kitchen
- 3 Utility
- 4 Plant room
- 5 Bathroom
- 6 Bedroom

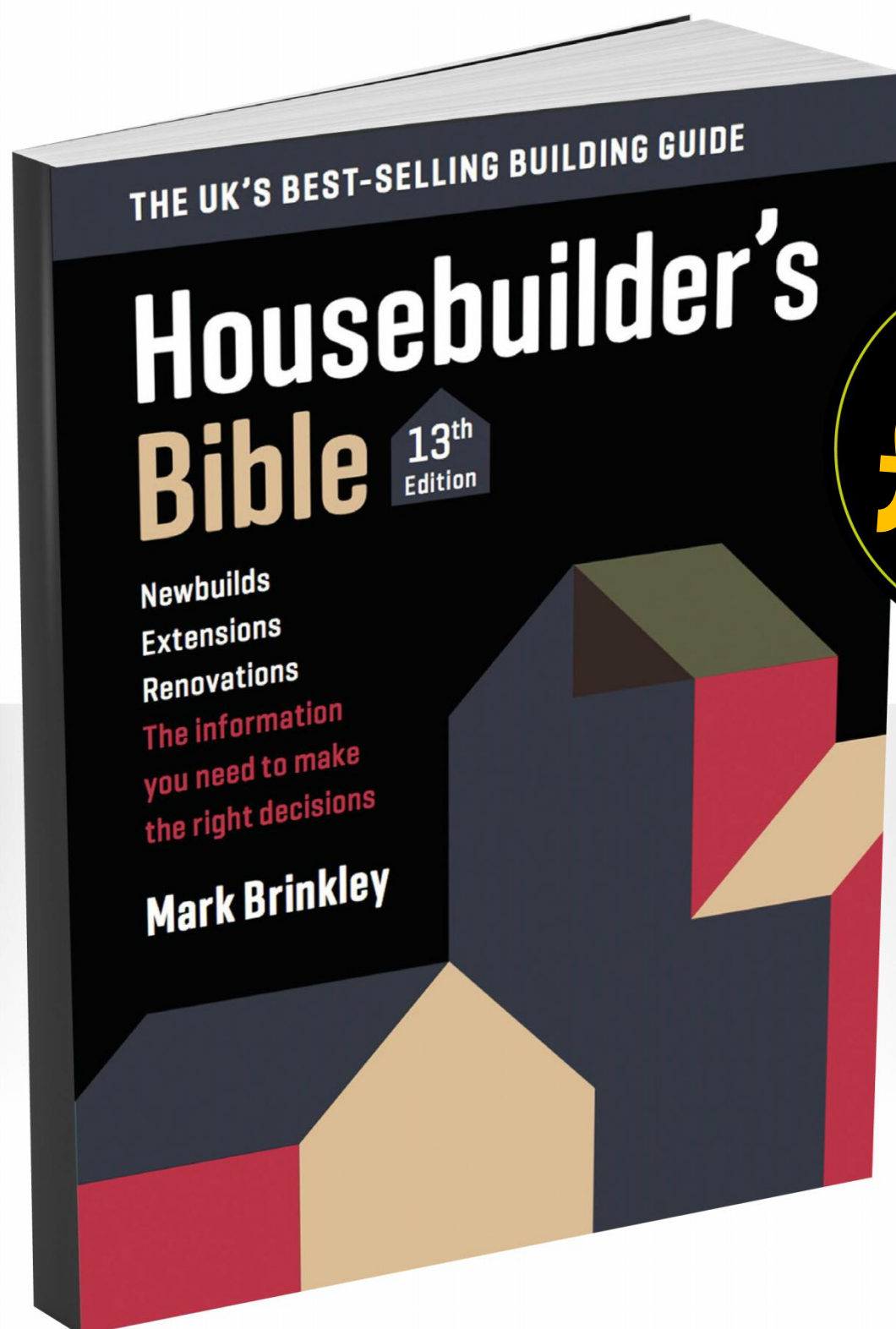
FIRST FLOOR

- 1 Void
- 2 Studio
- 3 Bathroom
- 4 Landing
- 5 Bedroom

**SUBSCRIBE
FOR £18.50**

PLUS

**RECEIVE A FREE
HOUSEBUILDER'S BIBLE**



**WORTH
£25**

GREAT REASONS TO SUBSCRIBE

BRILLIANT VALUE — SAVE MONEY ON THE COVER PRICE

TWO TICKETS TO ALL EIGHT HOMEBUILDING
& RENOVATING SHOWS

EVERY ISSUE IS DELIVERED IN AN ECO-FRIENDLY PAPER WRAP



Homebuilding & Renovating
BRITAIN'S NO.1 FOR SELF-BUILDERS AND HOME EXTENDERS
30 1990 - 2020

HOW TO REMODEL YOUR HOME
A practical guide to getting started

25 tips every renovator should know!

Self-build your way to a low carbon life

Save £££s on your build
REVEALED! THE BUILDING MATERIALS THAT WILL SAVE YOU TIME AND MONEY

EXPERT ADVICE
✓ Polished concrete floors
✓ Building in blockwork
✓ Metal roofing guide
✓ Timber worktops

Renovation know-how
✓ DIY: what to tackle and what to leave to the trades!
✓ A renovator's guide to the Building Regs
✓ Updating old heating systems

HOW TO... Get design details right Buy the best roof slates Choose the right materials

INSIDE How to start your self-build Loft conversion design ideas Repairing doors and windows

building & renovating
BRITAIN'S NO.1 FOR SELF-BUILDERS AND HOME EXTENDERS
30 1990 - 2020

15 ways to get the best from tradespeople

YOUR BUILDING PROBLEMS SOLVED

OAK FRAME
WHAT YOU NEED TO KNOW BEFORE BUILDING IN OAK

How to add a balcony

www.myfavouritemagazines.co.uk/hbrmay20
or call 0344 848 2852

Terms & Conditions

This offer entitles new UK Direct Debit subscribers to pay just £18.50 every six months plus receive a free Housebuilder's Bible worth £25. You will receive 12 issues in a year. You can write to us or call us to cancel your subscription within 14 days of purchase. Payment is non-refundable after the 14 day cancellation period unless exceptional circumstances apply. UK calls will cost the same as other standard fixed line numbers (starting 01 or 02) or are included as part of any inclusive or free minutes allowances (if offered by your phone tariff). For full terms and conditions please visit: bit.ly/magtandc. Offer ends 31st April 2020.



find out more at

idsystems.co.uk/vistaline

† 01603 408804 • info@idsystems.co.uk

See **vistaline** at

- ▶ **The Building Centre** in Central London
- ▶ **Our Comprehensive Showroom** in Norwich
- ▶ **Exhibitions** across the country



vistaline

innovative Swiss designed
slide & turn doors

Capable of creating a complete opening like bifold doors yet with slimmer frames like sliding doors, **vistaline** is a contemporary glazing solution that consists of non-connected panels that stack to one end. The doors provide an industry leading combination of precision Swiss engineering, outstanding thermal performance and ultra-slim 45mm sightlines.

IDSystems  **20**
innovative glazing years of
glazing
innovation

sliding doors · bifold doors · slide & turn doors · windows · glass roofs · front doors · balustrades

STRUCTURAL WARRANTY SITE INSPECTIONS SITE INSURANCE



SELF-BUILD INSURANCE

Self-Build Zone provides Site Insurance and 10-Year Structural Warranty policies for anyone starting new building works, as well as covering any existing structures on site. We can aid Building control and Technical Audits through our in-house Technical Services Company, Build-Zone Survey Services.

Your New Build, Renovation, Conversion, Extension deserves the best cover

0345 230 9874
WWW.SELFBUILDZONE.COM

Design & Materials

Design guides, ideas and inspiration, plus product advice for your project



HIGHLIGHTS INCLUDE:

pg. **63** >
How to
design
high
ceilings

pg. **67** >
Amazing
loft
conversion
ideas

pg. **77** >
What it's
like to live
without
taps!

pg. **78** >
Buyer's
guide to
zinc roofs

pg. **85** >
The latest
boiling
and hot
water taps

pg. **86** >
Polished
concrete
floors: what
you need to
know

nuie

We do
bathrooms
differently



FIND YOUR OWN IDEA OF PERFECTION

*Whoever you are, wherever you live,
you deserve a beautiful bathroom.*



nuiebathrooms.com



ALLAN CORFIELD
runs Allan Corfield Architects, which he set up in 2009. He is an expert in designing high-performing, energy-efficient homes

BEHIND THE DESIGN

High ceilings

Allan Corfield explains how to create a striking effect by going big with your interior spaces

This month, we're looking at a broader subject — one that's relevant to the presentation of the majority of the features we've discussed previously in this series: volume. Thinking about the use of volume in your home can be the key to creating stunning spaces.

Unfortunately, in the UK, the majority of our homes are mass produced to a fairly uninspiring standard, with very low ceilings and negligible design interest. When creating or remodelling your own home, you have an opportunity to forget the norm and create something special.

High ceilings can create the perception of space and help to enhance our sense of well-being in the home. Think of a cathedral: they have very high ceilings, creating roomy spaces filled with light that uplifts the soul. Conversely, low ceilings often feel oppressive. Your home is your castle — so it makes sense to make it an inspiring cathedral rather than a depressing grotto!

To do this, you first need to work out where you want higher ceilings. For instance, when we design an entrance space, we try to create a double-height atrium with a large floor area for welcoming guests, where the high ceilings will give an instant wow factor. When your home

has a space like this, the height impacts how you use it. You naturally welcome people into the double-height space, then move to lower, more intimate spaces like those under walkways as the conversation warms up.

Large atriums also make great multipurpose rooms; our clients often fill them with a dining table, sofa or piano. In the double-height space shown above right, our client spends a good deal of time sitting on a first floor sofa, looking over the room. Given that his home has a floor area of around 340m², this shows how powerful this sort of space is!

Another advantage of building a double-height room is that it provides an opportunity to expose the structure. For example, here you can see the vaulted roof is supported by a large glulam beam. This provides a nice focal point in the space, which has been accentuated by the bespoke light feature.

Our other favourite type of high-ceilinged space is the vaulted master bedroom. Your bedroom is your reward for all the hard work that you put into your build, and for every penny you saved over the years to be able to afford it, so make it special. Centre the bed in the room, and have it looking out through a glazed gable that floods the space with light.



The Beauty of Bespoke Shutters

British-made styles fitted
in four weeks

THOMAS SANDERSON

SHUTTERS • BLINDS • CURTAINS

Book a consultation: 0800 688 8118 or visit thomas-sanderson.co.uk



If there is a specific design idea that you would like us to feature, then please get in touch:
homebuilding@futurenet.com



Top tips to pump up the volume

1. Decide on your construction method early in the design process, especially the roof construction
2. Use an architect or designer who can show you the designs in 3D, not just in 2D drawings, or you will never grasp the power of the volume
3. Use different heights in different spaces, depending on the mood or feeling you are trying to create
4. Large central atriums make your home feel open and spacious, and are ideal for a large dining table, piano or even a dancing space at parties!
5. Use small volumes for smart storage, like the upper part of a sloping ceiling or eaves space in a one-and-a-half storey house
6. High volume spaces are a great place to show off many of the other features discussed in this series, such as floating stairs, a glazed gable or glass balconies.

How to get high ceilings right

Work out which spaces you are going to go big on early in the design process, and lock these choices in. Make sure you aren't working exclusively from 2D drawings — viewing your designs in 3D is essential to make sure that you really understand the size of a space. It's also vital to use a construction method that can create a high space without a lot of roof structure getting in the way. There are a number of options for this, but the most common are a timber cassette roof or a SIPs (structural insulated panels) roof.

When designing a space with high ceilings it's important to

get the proportions right. If the room is too narrow or too long, then it will feel stretched and uncomfortable. You also need to make sure that your heating and ventilation system has been designed to accommodate the larger volume of air.

Leading lights

Another consideration with high ceilings is how you will light the space. Large windows and rooflights will provide natural lighting that changes through the day, constantly evolving as the sun tracks around the space. For all other lighting we recommend getting specialist advice from a lighting designer. Light can be the vital ingredient that makes or

breaks a space, so this isn't the place to be cutting costs.

And finally...

High ceilings will increase your costs without providing additional floor space, but they are a striking feature that will give you joy every time you walk into the room. If your budget can't stretch to a large space, then maybe open things up over a staircase, or raise a ceiling's height from 2.4m to 2.7m. This is still a standard construction size, so the increase in cost should be manageable.

That's it for this month. We hope that this series continues to inspire you. **H**

NEXT MONTH: Window seats



Lighting can be the vital ingredient that makes or breaks a space, so this isn't the place to be cutting costs

NEW CATALOGUE NEW PRODUCTS!

FAMILY
MEMBER OF



UK'S BIGGEST RANGE IN STOCK for
Next Day Delivery. Now with an additional
500 products. Request your **FREE** catalogue today.



CALL: 7am-8pm 7 days a week

0808 168 22 73



ONLINE: Shop 24/7

IronmongeryDirect.co.uk

IronmongeryDirect

MASTERS OF OUR TRADE



REBECCA FOSTER is an experienced homes and interiors writer with a particular passion for Victorian architecture

10 clever loft conversion ideas

These projects show how smart design can transform a loft space into a zone that's both functional and fabulous...

Think outside the box

If a conventional loft conversion isn't possible in your home, it's worth bringing in a skilled architect who can find a creative solution. This Victorian house in London unusually has three floors to the rear and two at the front, with impressive 3m-high ceilings. As such, a standard loft conversion was impossible. Instead, Proctor & Shaw Architects (www.proctorandshaw.com) opened the attic up to establish large rooms with two floor levels — an ideal solution for a fun child's bedroom.

LOFT CONVERSIONS

*Add space,
Add value,
Use your loft.*

ECONO^{LOFT}

GET A QUOTE NOW

NEW Loft Cost Estimator - Visit our website for an instant quote of the approximate cost for your loft conversion

For a **FREE no obligation** brochure or home visit please telephone: **0800 269765**, email: **sales@econoloft.co.uk** or visit our website:

www.econoloft.co.uk

PLEASE QUOTE REFERENCE: HBR0420





Create extra height

Adding a dormer window to your loft can be a straightforward way to incorporate more space overhead. However, in this loft conversion by Konishi Gaffney Architects (www.konishigaffney.com), strict planning rules within this local conservation area meant installing a conventional dormer window wasn't possible. Instead, a low profile, long dormer was fitted. The structure is more than twice as long than is normally allowed, as the low-lying shape has less of a visual impact than a dormer positioned close to the eaves. The addition has been clad in anthracite zinc.



Subtle illumination

In this top floor master suite, Neil Dusheiko Architects (www.neildusheiko.com) incorporated exposed Douglas fir ceiling beams to infuse the space with extra warmth. Concealed dimmable LED lights have been fitted along the perimeter to give the timber structure a soft glow.



IMAGE: ANDREW BEASLEY (RIGHT)

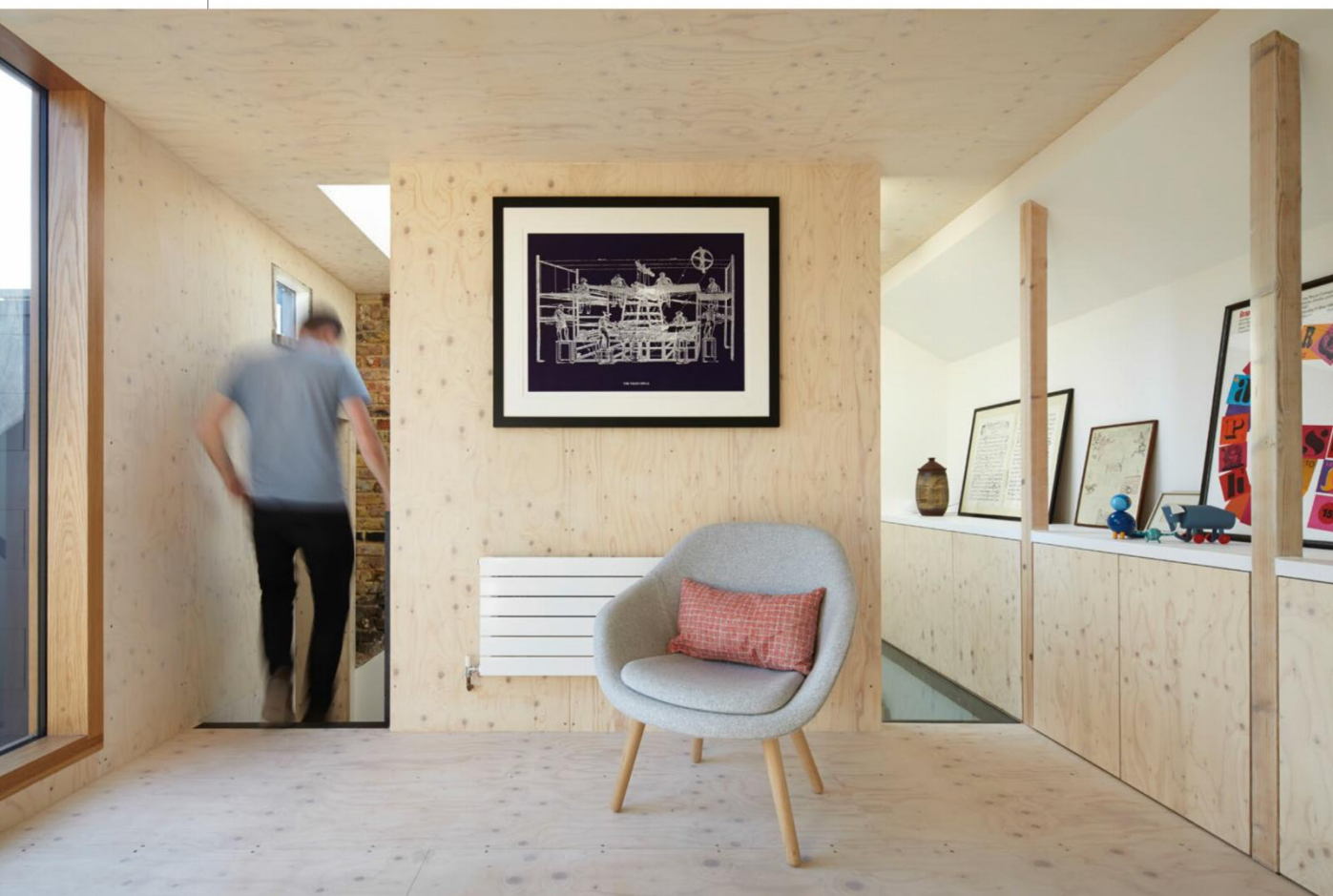


IMAGE: JACK HOBHOUSE (ABOVE)

Savvy storage

Granit Architects (www.granit.co.uk) maximised every inch of space in this loft bathroom by incorporating recessed storage units into the eaves space. Open shelving has been incorporated to house lotions and potions, while closed units store larger items, such as towels.

The warmth of wood

This ply-lined attic space provides a tranquil reading room for the two academics who live here. Shelving has been incorporated in the eaves to display the owners' eclectic array of ornaments and artwork. The scheme was completed by Studio Octopi (www.octopi.co.uk) under Permitted Development rights.



Rooftop sanctuary

There's no reason why the top storey of your house shouldn't benefit from access to outdoor space. Designed by Edward McCann Architects (www.edwardmccann.studio), this loft extension to a terraced house opens out onto a small outdoor terrace. Folding doors have been used to maximise the width of the aperture, establishing a bright and breezy feel inside.

IMAGES: LYNDON DOUGLAS (LEFT + BELOW)



EXCEPTIONAL BRITISH MADE TIMBER DOORS, ROOF
LANTERNS SLIDING SASH & CASEMENT WINDOWS



accoya

JOINERY MANUFACTURER



01245 326510
WESTBURYJOINERY.COM

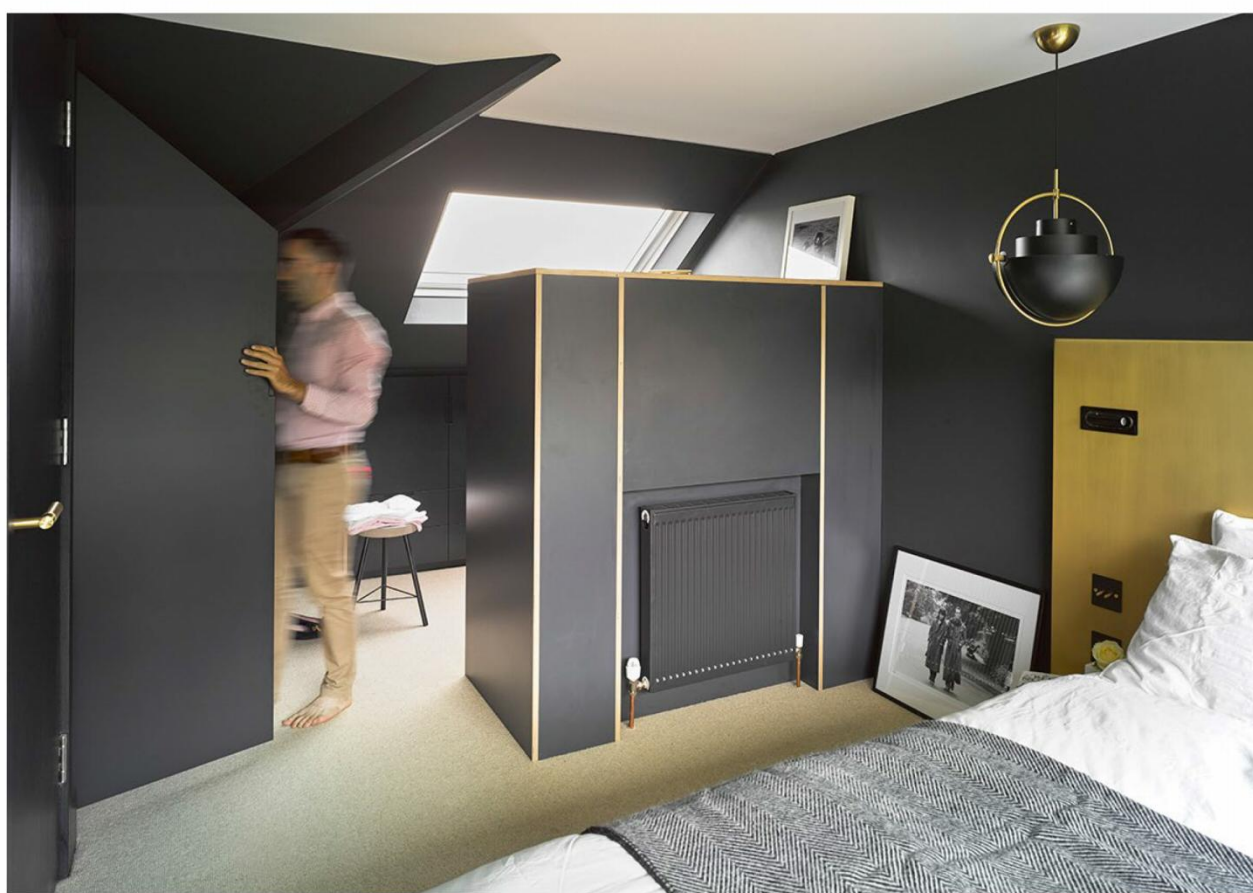
WESTBURY
WINDOWS & JOINERY

BOOK TO VISIT US IN
LONDON OR ESSEX



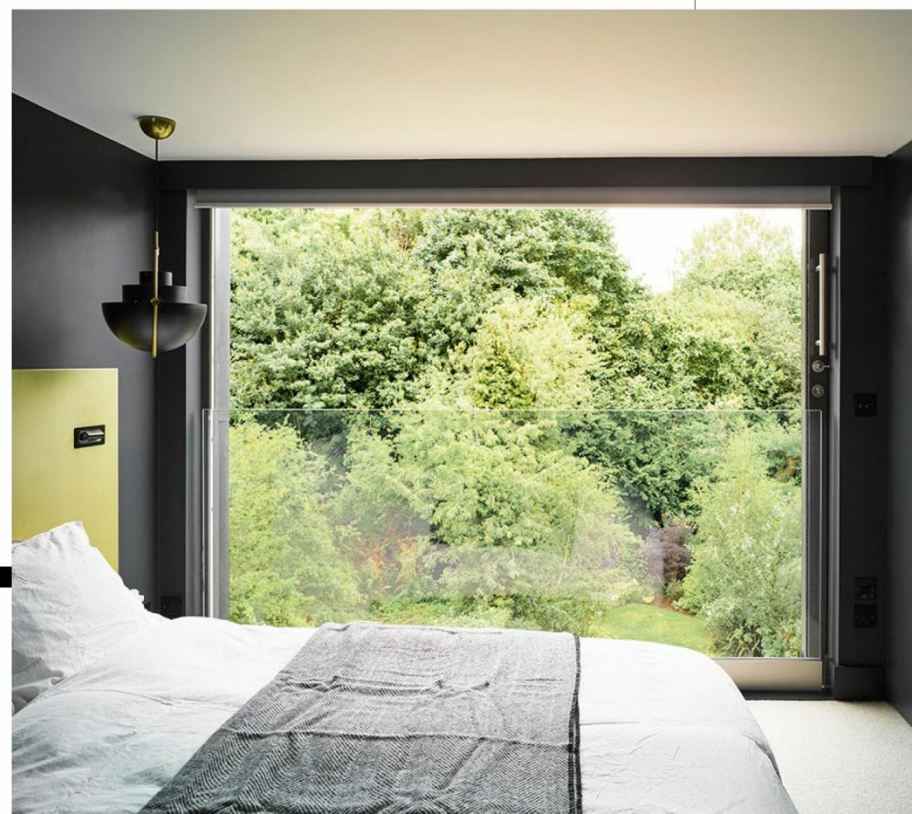
Play with texture

Mixing products, materials and finishes can work beautifully to infuse the attic space with design panache. Mustard Architects (www.mustardarchitects.com) refurbished and extended this house at loft level, creating a modern open-plan home office on the top floor that retains plenty of traditional Victorian character. White timber boarding on the walls and ceiling has been paired with painted exposed bricks to add depth and texture. An alcove in the existing brickwork also provides a handy space for storing office paraphernalia.



Be bold

Darker tones can be paired with metallics to create a luxurious yet cosy feel in an attic master suite — and, in this example, mean the all-important view remains the focus. This stunning loft conversion is the work of Mulroy Architects (www.mulroyarchitects.com). A large floor-to-ceiling window with sliding glazed doors makes the most of the great views. The bespoke dark grey low-level partition cleverly conceals a dressing area while still letting in the light.





WELSH
OAK
FRAME



Bespoke Oak Frame Buildings

Homes | Extensions | Garden Rooms | Garages

Planning - Architectural Design - Build

e: info@welshoakframe.com t: 01686 688 000 w: welshoakframe.com



Design & Materials

YOUR ARCHITECTURAL MOODBOARD

Natural brightness

Rooflights can be used as a smart way to flood your loft space with natural light. Velux's (www.velux.co.uk) Cabrio balcony system drenches this top floor den in sunshine. Comprising two glazed panels, each of the windows can be opened in two ways. The top pane sits flush with the roofline when shut and can be opened in the same way as a conventional rooflight. When the bottom panel is also pushed back, it is attached to a set of rails that slide out of the window to form a dormer-style balcony.

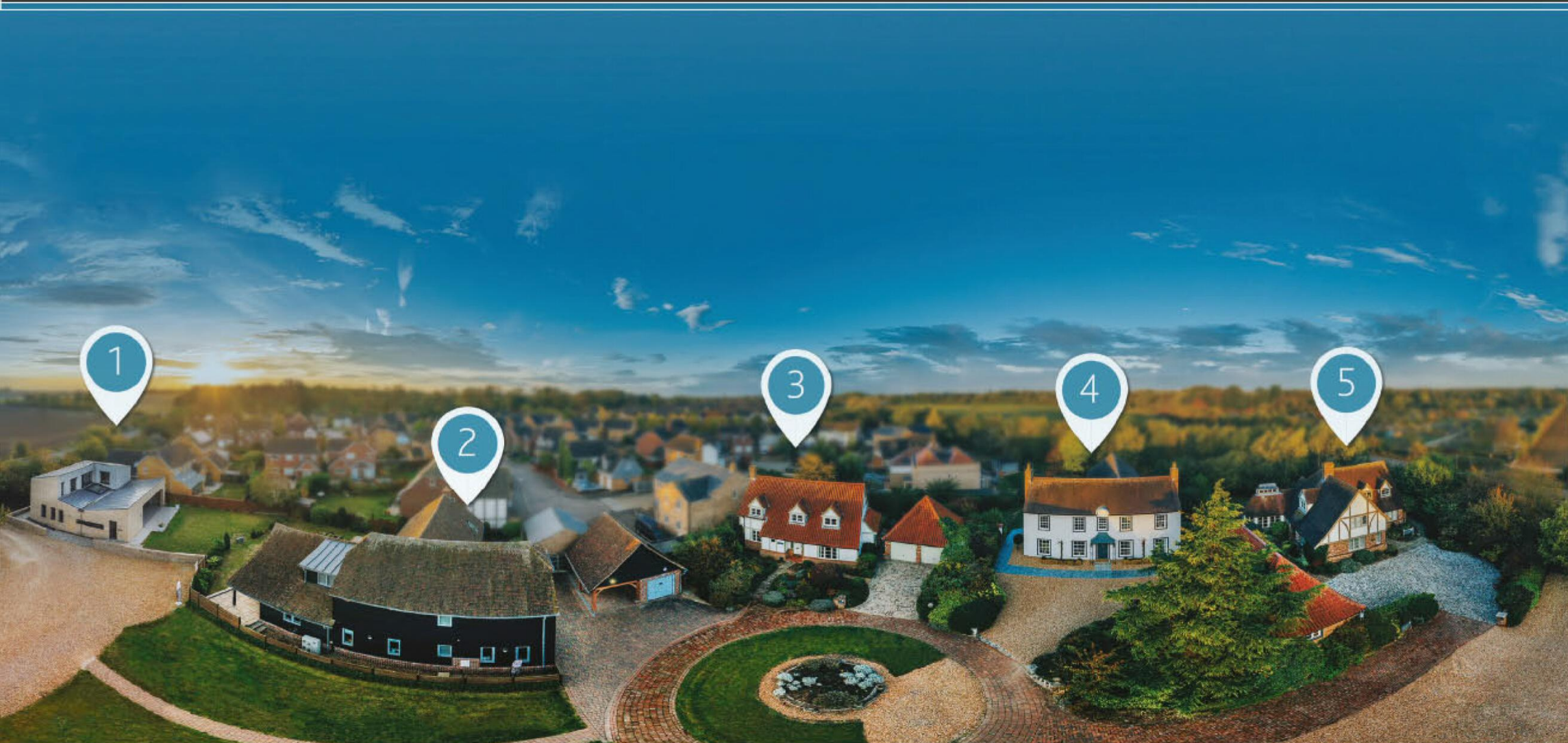
Living at the top

Studio Octopi (www.octopi.co.uk) has transformed this London loft space into a sun-soaked living area, complete with its own kitchenette. The zone provides a self-contained lounging zone for relaxation, away from the open-plan area downstairs. **H**



Isn't it time you visited our ...
Self Build Show Centre

5 FULLY FURNISHED SHOW HOMES
HOME TO THE SELF BUILD ACADEMY
EXPLORE OUR PRODUCT CENTRE & BUILD SYSTEMS
DISCUSS YOUR PROJECT WITH OUR SELF BUILD CONSULTANTS



For more information please visit ...

www.potton.co.uk

Call us on ...

01767 676 400

Potton Self Build Show Centre

Mill Lane, Little Paxton, St Neots, Cambridgeshire, PE19 6EF

Opening Times

Monday - Friday: 9am - 5pm Saturday: 10am - 4pm



MARK BRINKLEY is the author of the ever-popular *Housebuilder's Bible* and an experienced self-builder

WHAT IT'S LIKE TO LIVE WITH No bathroom taps!

Mark Brinkley has opted out of one of the core elements of traditional bathroom design as he joins the digital revolution

Let me introduce you to a new word: 'taplexia' (with the emphasis on the second syllable, 'plex'). It describes the state of befuddlement brought about by being faced with an array of taps and levers in a strange shower or bath. We've all experienced taplexia, often in hotel rooms and usually standing completely starkers in the shower. Which outlet will be brought to life by which lever? Are we about to get scalded or frozen? We have no idea at all what we are doing, and the controls facing us give nothing away.

Back in the day, there used to be a hot tap and a cold tap. Conventionally, the cold tap was mounted on the right-hand side, so you had a good idea of what you were doing even if the taps themselves were unmarked. Not that this convention was ever widely understood. I myself had difficulty remembering it until I was 60 and came across a useful mnemonic: "It's right cold in Yorkshire." You need to say it like Geoff Boycott for it to make sense, but once you've taken it on board you'll never forget that the cold should be on the right.

The mixer tap was designed to do away with this hot-cold double act, but it arrived at the cost of even more user confusion. Mixer taps are not easy to

understand. They separate flow and temperature into separate controls and a lot of the time they completely fail to make it clear which one is which.

Step forward the digital shower, which does away with taps altogether. At the push of a button it springs to life at an agreeable flow rate and works itself up to a preset temperature. You just wait for the temperature gauge light to stop flashing and then you can step into the perfect shower. To turn the shower off, you just press the button again. Nothing could be simpler.

So why aren't all modern showers digital? One obvious answer is that they are rather more expensive than their conventional counterparts, and this undoubtedly puts people off. More telling though, is the fact that I've never seen a digitally switched shower in a hotel room, which suggests that most people are still unfamiliar with them.

Personally, I am a big fan. I was an early adopter and had a digital shower (an Aqualisa Quartz) fitted in my first self-build, 15 years ago. I loved the simplicity and convenience.

On my latest build I went one better and fitted a digital bath filler as well. Here there are no taps; the water is delivered via a concealed outlet behind the

overflow mechanism. The bath filler controls are mounted on a stainless steel panel fixed to the wall. This has an on/off button, similar to the shower, and two dials. One dial controls the temperature, the other the depth of fill. You program the bath depth when you commission the filler and, from then on, the bath filler automatically turns itself off at the pre-arranged depth. Now that's a feature I absolutely love: a perfect bath every time, with the right temperature and the right depth. You don't even need to hang around in the bathroom while it's filling up. **H**

DIGITAL REVOLUTION? Digital bathroom fittings, like the Mason package from Drench, might represent a glimpse into the future.





REBECCA FOSTER is an experienced homes and interiors writer with a particular passion for Victorian architecture

Buyer's guide to zinc roofs

Versatile and durable with an impressive service life — we take a look at the advantages and key considerations to bear in mind when specifying zinc

From traditional green-hued copper to streamlined stainless steel, there's an array of options when it comes to metal roofing. These natural materials offer self-builders a high-quality, long-lasting solution — and zinc is no exception. While you may think of this type of metal as a contemporary roofing material, it's actually been used to top buildings for the better part of 200 years. However, there's still a lot to consider before specifying a zinc product, including the finish, maintenance, service life and cost.

The options

"Zinc comes from many sources all over the world," says David Boyton from Rheinzink. "The main mining areas are Canada, Russia, Australia, US and Peru." The raw material is processed into flat sheets and typically supplied to the UK market in coiled [rolled] form.

One of the beauties of the material is the sheer array of colours and finishes it is available in. It's worth spending plenty of time discussing the options with your architectural designer and supplier during the design phase of your project. Natural zinc, for instance, features a shiny, metallic surface that develops a patina over time. However, pre-patinated

products such as VMZinc's Azengar provide a smooth, matt surface. Roller-applied textures can also be incorporated at the fabrication stage, creating attractive textured finishes including grooves, ripples and even fish scales. Pre-pigmented varieties mean you can specify zinc in an array of shades, too, including warm red, rust orange or rich purple, to name a few.

In terms of fixing methods, the most common type of application is a standing seam roof (page 83). Shingle systems (small individual metal sheets) are available too, for a different aesthetic.

Why choose zinc?

As a roofing material, zinc comes with a raft of advantages. "One of its key pros is its longevity," says Trevor Corser from JTC Roofing Contractors. Providing your roof is properly installed and detailed, it could offer a service life of between 60 and 100 years. "Zinc roofs are extremely corrosion-resistant, too, and unlike other metal roofs they are self-healing. This means that any scratches on the surface will recover on their own over time," says Trevor. From an aesthetic perspective, zinc roofs blend well with slate roof coverings and are also an excellent solution for agricultural-style buildings.

As a relatively thin building material (usually just 0.7mm), zinc can be shaped to follow interesting curves and angles, while still retaining its durability. "It's a versatile solution," says Ian Armstrong, a director at Arco2 Architects. "It allows for complementary and robust detailing to fascias and flashings to ensure they are in keeping. Another benefit is that the system is fairly quick to install."

Low maintenance is also among zinc's advantages. Aside from ensuring the roof is free from fallen debris such as leaves, little upkeep is required. "Another attraction is the fact that zinc is 100% recyclable and environmentally friendly," says David Boyton from Rheinzink. From a sustainability angle, zinc takes less energy to produce than other metal roofing solutions because of its lower melting point. This means less energy is required to convert the raw material into a usable form.

"The folded upstand where sheets of the material meet provide the perfect fixing for solar panels, allowing a clamped fixing which is fast to install and sits low on the roof," adds Ian Armstrong. Zinc is also weather-proof and is not degraded by UV light.

Key considerations

To ensure your zinc roof offers maximum longevity, correct installation and detailing is vital. Careful specification of the entire exterior materials palette is key. "Zinc doesn't react well to the water runoff from tannin-rich timbers such as cedar, larch and oak," explains Sean McHugh, sales director at The Metal Roof Company. To avoid corrosion or staining, careful detailing

TOP

Positioned within an area of greenbelt, this barn-style home was designed by Clear Architects. The first option was to have charred timber cladding that wrapped around the curved roof of the building, as this profile was required by local planners in order to mimic the appearance of the barn that had previously occupied the site. However, it was not possible to achieve the required radius using timber, so zinc was specified as a more malleable alternative.

RIGHT

A zinc roofing system was chosen for this contemporary home, built using structural insulated panels. The project was delivered by SIPS@Clays.



Renovation Plan

The specialist renovation insurance policy providing cover for properties under construction, renovation or conversion

Cover can be provided for residential or commercial projects and can include:

- Building
- Contents
- Contract Works
- Public Liability
- Employers Liability
- Own Tools & Plant
- Non-Negligence Liability
- Hired in Plant
- Advanced Loss of Rent or Interest
- Terrorism
- Flexible Policy Terms
- Refunds on Cancellation
- Site Huts/Caravans

Renovation Plan is a trading name of Aston Lark Limited Registered in England and Wales
No: 02831010 Registered office: Ibex House, 42-47 Minories, London, EC3N 1DY
Authorised and regulated by the Financial Conduct Authority
RR-AD-001-0120

For more information contact us
01621 784840 | www.renovationplan.co.uk



Churchwood
handmade kitchens and furniture



Get in touch now for a FREE consultation:
01298 872422 info@churchwood.co.uk
www.churchwood.co.uk



RIGHT

VMZinc provided the zinc roofing and cladding system for this timber frame house, designed by Mole Architects. The zinc surface wraps down the southern elevation of the house, contrasting with the white painted brickwork.



is required. “Alternatively, if you’re using any of these types of timber, other metals such as colour-coated galvanized steel may be a better option for your project,” he adds.

From a Building Regulations perspective, the roof pitch is also an important factor. “Zinc roofs require a minimum fall of 3° as built,” says Jonathan Lowy from VMZinc. This gradient means a fall of just over 50mm in every metre to create the slope. The issue with a low-pitched standing seam roof is the risk of water ingress at the seams of each strip, especially during heavy rainfall, when water can build up where seams overlap.

To alleviate this risk, a seam sealing tape can be used at the joins. However, this will not entirely remove the risk of water penetrating the structure. “In flat areas, other techniques, such as a traditional batten roll finish, can be used,” says Sean McHugh. “While there is the Code of Practice 143-5 and British Standard EN 501, manufacturers generally supply more detailed information when it comes to assessing the quality of the product,” says Jonathan Lowy from VMZinc.

Special care should be taken if you’re self-building close to the coast, too. Because the air in marine environments contains a significant amount of salt, staining and corrosion of some metal surfaces is a possibility.

RIGHT

elZinc’s Slate Grey zinc was installed on this new build in Guernsey. The roofing system was installed by The Metal Roof Company.

Generally, salt deposits will be washed away from the surface of your zinc roof by rainfall.

However, soffits and fascias will also attract salty deposits from the air, and the rain can’t reach these areas of your house to clean them. One potential solution is to use a paler shade of zinc so that any staining (which looks like white orange peel) is less visible. Alternatively, pre-treated types of zinc are available for these parts of your roof structure. You may even choose to use a different metal for the soffits and fascia.

Finding an installer

Traditional metal roofing is a specialist skill, so be sure to employ a professional contractor who has plenty of experience installing zinc roofs. “They will be a registered member of the FTMRC (Federation of Traditional Metal Roofing Contractors) and ideally the NFRC (National Federation of Roofing Contractors),” says Trevor Corser. See www.ftmrc.co.uk/contractor-search.

Installation

Zinc roofing systems are delivered to site in coil form. “Your installer will have the specialist equipment



COLD VS WARM ROOF CONSTRUCTION

There are two main types of roof construction: cold and warm. “There are no hard and fast rules about the choice of one solution over another, but considerations such as ridge height, U values (a measure of heat loss) and budget may influence this aspect of your design,” says Sean McHugh from The Metal Roof Company.

On a cold roof, the material used underneath the standing seam metal is usually 18mm WBP plywood or softwood planks. This supporting timber must be kept ventilated to prevent condensation.

“If a cold roof is used as part of a building design, then a ventilated area beneath the supporting plywood or timber boards must have the correct clearance,” says Sean. “This is usually 50mm for a zinc roof. Gaps at the eaves and ridge should allow air movement through this 50mm void.

“On a warm roof, where the insulation is above the rafters, and where there is no air flow-through, the insertion of a foil-backed bituminous-core vapour barrier located on the bottom (warm side) of the insulation must be incorporated.”

Korniche®

ALUMINIUM SYSTEMS



SLIMMER WARMER STRONGER EASY INSTALL

A BRIGHTER CHOICE

Ask your builder or specifier about Korniche today.

Engineered aluminium products that deliver class leading structural and thermal performance. Uninterrupted sightlines provide unrivalled interior views.

For more information CALL 0800 083 9178
enquiries@korniche.co.uk

www.korniche.co.uk



**2020
SHORTLISTED**

Best Rooflight
Supplier

Homebuilding
& Renovating
Awards

NEW
BI-FOLD DESIGN

See us
at the

**The Homebuilding &
Renovating Show**
BIRMINGHAM NEC
26-29 March 2020
Stand B123



The Metal Roof Company installed elZinc's Rainbow Red Zinc on this new build home to establish a striking contemporary aesthetic.

ALTERNATIVE METALS

Sean McHugh from The Metal Roof Company shares his top tips on a selection of alternative metal roofing solutions:

- **Copper can be purchased in a wide variety of finishes, including aged Verdigris green copper and bright raw copper. Once installed, the metal will immediately start to oxidise and lose its bright natural patina.**
- **Coated aluminium is lightweight and comes in a range of colours. It uses similar installation techniques to zinc. However, aluminium cannot be soldered, which means certain installations may need to be approached in a different way.**
- **GreenCoat PLX is a coated steel that's popular across Scandinavian countries. It's made using eco-friendly coatings such as rapeseed oil. It's ideal as a zinc alternative because of its lower cost and similar installation technique. It looks very similar to zinc but can be supplied in RAL colours to match windows and doors.**

needed to uncoil the metal and form it into roofing panels," says Sean McHugh. "The metal will be uncoiled and passed through a machine that makes a small upturn (undercloak) on the edge of the sheet. On the opposite side of the sheet will be a similar upturn (overcloak)."

At this point, the zinc strips are then cut to length and laid next to one another on the roof, usually from left to right across the surface of the structure. "They are seamed together, usually by hand, using crimping irons," says Sean. "This technique of creating a small raised seam gives the process its name — standing seam metal roofing." The newly formed sheets are known in the industry as 'trays'.

The clip fixings are hidden from view and are normally screwed or nailed into the substrate below the metal layer. Trays larger than 1.5m require a combination of fixed and sliding clips to allow for thermal movement.

Prior to delivery, it's vital that the roof structure is kept dry. If moisture builds up in the roof and is not allowed to dry out, this can lead to corrosion on the underside of your zinc after the metal is laid. The risk of this happening is increased if you've chosen to

use a warm roof construction (as described on page 81).

For heritage or flat roof projects, a batten roll method, where (generally) wooden battens are fixed to the plywood or timber roof substrate to form ridges, is a good alternative. Sheets of zinc are placed over the flat surface and strips of zinc are placed over the battens to replicate the effect of upfolds and crimping in standard seam zinc roofing.

Setting your budget

As a minimum, expect to pay £100/m² for your zinc roof. "The location, size and complexity of your project will obviously have an influence on the cost," says Jonathan. "But generally, the supply and fit of a zinc roof will range between £100 and £150/m². For the installation of an average-sized home with a 100m² roof, this would give a figure of approximately £13,000." Typically, this sum excludes elements such as the plywood substrate of insulation.

Prices tend to increase for more complex installations where areas of the roof structure are curved, tapered or have apertures for roof windows. Zinc roofs may also cost more for homes where access is challenging. **H**

The best under the sun.



| Brand



| Website



| e.g. markilux pergola compact



reddot design award
winner 2017

Designer awnings. Made in Germany.

Innovative technology and highest quality, outstanding when it comes to relaxing outdoors. Create the most alluring shade in the world. For additional information please go NOW to markilux.co.uk

markilux

The best under the sun

THE LATEST Boiling and hot water taps



CUBE SYSTEM FROM QUOOKER, FROM £2,300

This system boasts filtered water, boiling water and sparkling water. Paired here with the Flex tap, the package costs from £2,300, depending on finish and size of the tank.



GROHE'S RED PILLAR MIXER TAP AND BOILER SYSTEM, £2,122.34

The Grohe Red pillar mixer tap and boiler system can produce water up to 99°C and comes with child-safe touch buttons, as well as a filter to reduce limescale.



QUETTLE 4-IN-1 TAP WITH BOILER TANK AND UNDER-SINK FILTER SYSTEM, £498

This 4-in-1 tap can deliver water heated to 100°C or cold and filtered, in addition to normal hot and cold supply. It employs a two-stage safety system with a removable clip and button.



FOHEN'S 3-IN-1 TAP, £799.99

Featuring a touch screen to adjust the temperature between 75°C to 98°C and a child-safe spring lock, this tap costs £799.99 with the boiler and carbon purity filter.



ABODE PROVINCE 4-IN-1, £1,495

With a period Antique Brass finish, this tap's thermally insulated spout keeps it cool to touch, even when dispensing water heated up to 98°C. Available from John Lewis.



THE ABODE PROFILE 4-IN-1 TAP, £1,045

This tap provides hot water between 80°C and 98°C and offers filtered water in addition to usual domestic features. In matt black from Benchmark Kitchens.



FRANKE'S MINERVA 3-IN-1 TAP, £1,139

Featuring a compact spout and a separate mondial design, this 3-in-1 tap delivers water up to 100°C, and is available from John Lewis. 



NATASHA BRINSMEAD is *Homebuilding & Renovating's* Associate Editor. She's just renovated an Edwardian cottage

Lazenby's Iron Grey polished concrete flooring features their trademark mottled effect.

10 things you need to know about polished concrete flooring

Sleek, subtle, low-maintenance and available in all sorts of colours and textures — what's not to love about polished concrete flooring?

Polished concrete flooring is exactly that — concrete (a mix of cement, gravel, sand and water) that is poured onto the floor, before being polished to the required sheen.

Of course, as with everything, it isn't quite as straightforward as that. Chemical 'densifiers' also tend to be added to the mix, in varying combinations. These act to increase the density of the surface of the concrete floor and will also fill any holes and pores that might otherwise appear.

Once the concrete is poured and set to the required hardness, diamond polishing tools are used to grind the surface until the level of sheen you want is achieved. The concrete can also be coloured with pigments or finished with decorative effects.

1 The 'flooded bay' installation method is the most popular

A technique known as the 'flooded bay' method is the most common way for a polished concrete floor to be installed.

Before the concrete is poured, insulation should be put down and, if using, underfloor heating put in place.

Ready-mixed concrete is then poured on site onto a steel reinforced mesh. The concrete is sometimes reinforced with fibres that work to reduce the risk of the concrete cracking as it dries out. A depth of 100mm is typical.

Expansion, inducement or control joints should be cut into the surface of the concrete using a neat saw (a process that should be carried out within 24 hours of the concrete pouring). This is to ensure the inevitable shrinkage cracks occur in neat lines. These lines can then be filled with an expandable

sealer in a colour that matches the rest of the floor. This kind of joint is also often used in doorways.

Once the whole space is filled, it will be levelled using a laser and a combination of rakes, vibration machines and floats, all designed to eliminate air pockets and surface indentations.

A hardener will then be applied to the surface – either plain or coloured – using the ‘dry shake’ method. This will be smoothed over using a power float or, in some cases a trowel or hand float. This tends to be repeated throughout the day until the surface is smooth.

Next, a hand trowel or power trowel is used on the surface until a sheen is achieved — a process that normally takes from four to 14 hours, depending on weather conditions and size of the floor.

The poured concrete cannot be polished or sealed until the concrete is hard enough to take the weight of the polishing machine and its operator — usually after around a month. In the meantime, the surface is covered while it cures.

After this time, the floor will be cleaned and polished, either with a scrubbing machine or a light diamond polishing machine. For it to be considered a ‘true’ polished concrete floor it should be finished with a diamond grinding machine until a level of 400 grits is achieved, although this is not to everyone’s liking.

Finally, the floor is finished off with a breathable sealant.

2 The whole process takes at least a month

Although a floor can be installed in around three days, including setting up and pouring, the floor must usually be left to

cure for around 28 days before it can be polished and sealed. In fact, many suppliers state that the floor will not reach its final hardness for a full six to 12 months, although it can be used much sooner than this.

3 Costs should include finishing and sealing

The price of a finished polished concrete floor will vary, but work on costs of around £120-£150/m², including finishing and sealing. Costs may well be higher if you opt for a special decorative finish or colour.

If you have an existing concrete floor that you wish to have polished, you are looking at costs of around £50/m².

4 Consider retrofitting carefully

People do choose to pour concrete floors over an existing concrete slab or tiled floor. If you take this route you must ensure that the subfloor you are covering is stable, damp-free and undamaged. Movement or cracks in the subfloor will be transferred to your new concrete floor.



PERFECT POLISH
Top: This floor was poured on a DIY basis by Phil and Flo Coe. Above: Two shades of Lazenby concrete – Dark Grey and Off White – were used to create visual zones in this project by Robert Dye Architects.

It is also important to consider whether the floor you are covering will be capable of taking the extra weight of the concrete. In addition, bear in mind the floor level will be raised by at least 100mm, not including extra insulation or uncoupling mats if required. As such, ceiling heights will be reduced and doors may need to be rehung.



The finest quality stonework for your self-build and renovation projects.

Visit us at stand C158 at the NEC Homebuilding & Renovating Show

Call 01604 770711
Visit haddonstone.com



HADDONSTONE

Terzetto

STONE & PORCELAIN TILES



Stone & porcelain tiles from £15.65m²
(EXC VAT & DELIVERY)



www.terzettostone.co.uk

sales@terzettostone.co.uk

■ YORKSHIRE SHOWROOM ■

Unit 24 Centre Park, Marston Moor Business Park,
near Wetherby YO26 7QF
Tel: 01423 358855

■ CHESHIRE SHOWROOM ■

17 King Street, Knutsford, Cheshire WA16 6DW
Tel: 01565 755884

■ WARWICKSHIRE SHOWROOM ■

116 Regent Street, Leamington Spa, Warwickshire, CV32 4NR
Tel: 01926 427470

Design & Materials

TOP TIP

Concrete should not be poured in rooms where the temperature is lower than 5°C, as it can be damaging to the materials. Likewise, if the room is too hot, cracking can occur

5 It is possible to polish an existing floor

If you find you have a generally sound, level and damp-free concrete floor, you can have this polished up and save yourself the cost and trouble of having a new one poured.

6 Concrete is a superb heat conductor

Concrete floors work really well with underfloor heating. They are easily poured over the pipework and absorb and hold the heat produced well. Take advice from your installer before switching your heating on though — too soon and the floor could crack.

In rooms that benefit from plenty of solar gain, concrete floors will suck up all that heat from the sun and gradually release it back into the room.

7 DIY polished concrete is tricky to achieve

To achieve a professional finish this really is a job best left to the professionals, who will not only have the skills and experience required, but will also be in possession of all the correct tools for the job, which you would otherwise have to buy or hire.

Some DIYers do give it a go, but often this is only for small areas, or in rooms such as basements where a perfect finish is less important.

8 Alternatives are available

If you like the idea of a polished concrete look but want something you can lay yourself or buy off-the-shelf, there are alternatives. It is possible to have bespoke pre-cast concrete panels



SHADES OF GREY

Above: This floor from Contemporary Concrete Floors was topped with a Pics Stone Buff colour hardener.

Right: Seamless floor from Senso Floors.

designed, made and delivered to site. Additionally, there are now a whole host of concrete look-a-like ceramic and porcelain tiles available — and the larger the format, the more convincing the final finish.

9 Polished concrete works outside, too

If you are after a seamless finish you will be heartened to know that polished concrete is suitable for exterior use, too — so is the ideal solution where a level threshold is required between indoor and outdoor spaces.

10 Non-slip additives can be used

If you are worried that a polished concrete floor will be slippery — a particular concern when it comes to bathroom and kitchen flooring — fear not. Mixing in a non-slip additive to the final stain or sealant usually works a treat.

If you are still worried, a less highly polished finish may be a good idea — opt instead for a textured, more rustic look. **H**





BRITISH STANDARD

BY PLAIN ENGLISH

CUPBOARDS FOR YOUR KITCHEN
britishstandardcupboards.co.uk
 41 Hoxton Square NI 6PB 020 7870 7688



100s of PRICE REDUCTIONS

GET YOUR FREE CATALOGUE TODAY!

- OVER 15,000 PRODUCTS
- FREE NEXT DAY DELIVERY*
- QUALITY PRODUCTS
- LOW PRICES

Over **40 YEARS**
Expert Service Since 1975

Plumbing, heating and gas supplies... FAST!

Order online at **bes.co.uk**
 or call **0800 80 10 90**

BES
We've got it!

ROOF LANTERNS FROM ONLY £995

Expertly crafted from a combination of timber and aluminium



SAVE 10% WITH DISCOUNT CODE HBR10
 offer ends 1st June 2020

ALIWOOD
ROOF LANTERNS

REQUEST A QUOTE TODAY

01245 967107
info@aliwood.co.uk
www.aliwood.co.uk

ALL MADE IN UK



Advertising feature

REALISTIC REPLICA

Get the look of real wood and stone with practical Luxury Vinyl Tile from Amtico

There's so much choice in flooring and if you're taking on a self-build or renovating a house from top to bottom, you'll have lots of flooring decisions to make!

For more than 50 years, Amtico has been perfecting Luxury Vinyl Tile (LVT), flooring that brings an authentic look of wood or stone into your home. LVT not only provides a host of practical benefits for modern living including variety in design, durability and long-lasting warranties, but it also has huge advantages over real wood and stone while beautifully recreating these popular finishes.

Natural woods

A popular floor design that's easy to create with Amtico LVT is an elegant and timeless parquet (pictured above). LVT wood-effect planks can be laid in many different patterns – parquet being one of them – to enhance the impression of a real wood floor. The grain detail crafted into Amtico LVT woods, particularly in the Form collection that includes the Artisan Embossed Wood Parquet range, creates a characterful floor highly representative of the traditional material.

Where real wood planks can shrink, warp or curl in high-moisture environments, such as bathrooms and kitchens, LVT is water-resistant and will keep its appearance and shape over time.

LVT woods and stones look realistic and are a

durable choice throughout the home. The designs available from Amtico combined with the many distinctive laying patterns make it simple to create authentic wood and stone floor designs with all the practical benefits of a material designed and guaranteed to last.

Sought-after stones

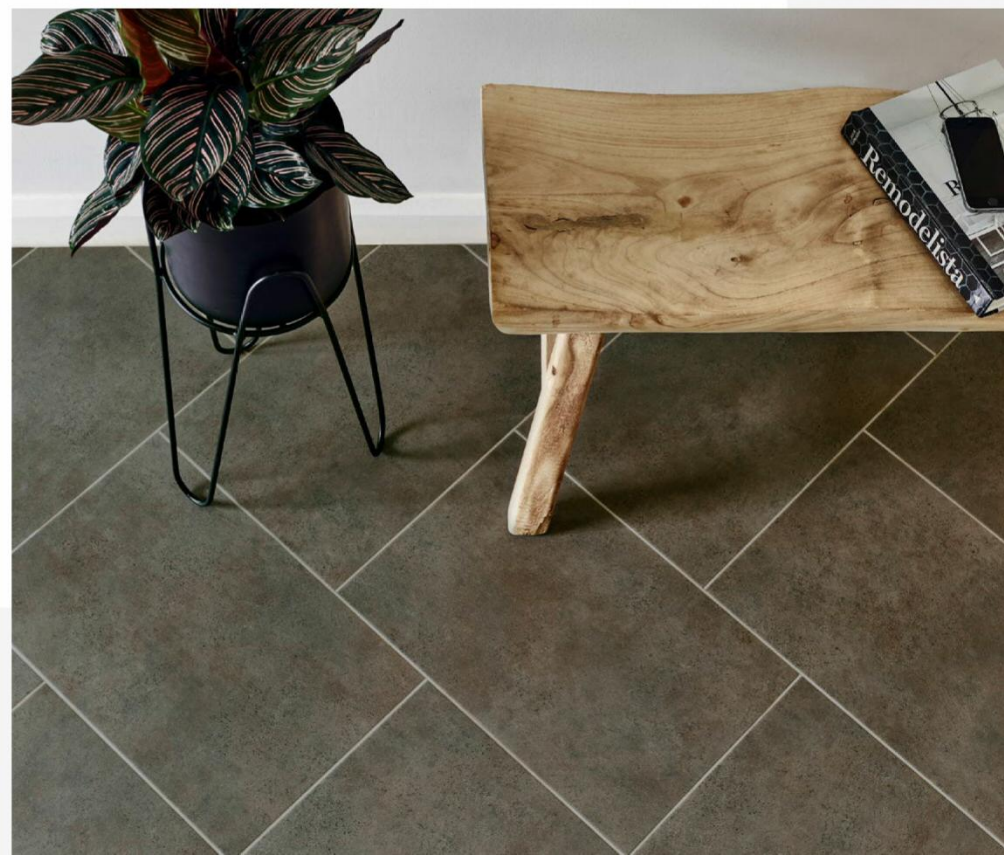
Another current trend is polished concrete floors for both modern and classic homes. These floors are sleek and perfectly create a seamless look between the inside and out.

An alternative way to achieve this in a quick-to-install, hardwearing and easy-to-clean material is to opt for LVT in one of the many concrete- or stone-effect designs available. Amtico offers plenty of choice across all tones and finishes in its Signature and Spacia (pictured below) collections.

For a traditional ceramic or stone scheme, adding grout-style thin strips, known as 'stripping', helps to define the laying pattern and replicate the look of a classic tiled or stone floor. You get the look you want in a floor that's warmer and quieter underfoot, suitable for use with underfloor heating and won't crack or chip over time.

Visit www.amtico.com/retailers to find your nearest retailer or call 0121 7450800. 

amtico





Rural challenge

Brothers George and Will Pound saw the potential in a large but long abandoned brick barn deep in rural Kent. The result is a unique and characterful property

PROJECT NOTES

HOMEOWNERS

William and George Pound

PROJECT Barn conversion

LOCATION Near Sandwich, Kent

BUILD TIME May 2018 – May 2019

BUILD ROUTE Main contractor

BUILD SIZE 400m²

CONSTRUCTION Interior steel frame

BARN COST £83,000

BUILD COST £651,000

VALUE £1.2million

Hidden down a leafy country lane in east Kent – so peaceful that there are virtually no neighbours and certainly no noise – lies a barn conversion centred around a courtyard that would once have rung out with the noise of clattering hoofs and the shouts of farm workers.

Left empty for at least 20 years, this sizeable brick barn has now been given a makeover that properly celebrates its intriguing features. And a new name, Roseyard, that celebrates virtually the only thing still growing on the dilapidated plot: roses.

William and George Pound saw the potential of the abandoned agricultural building when it came onto the market in 2015. “We could see that the structure was basically sound,” George begins. “And it seemed a shame for such an interesting building to just be left to rot. It was a real voyage of discovery for all of us working on the project — including our builders and contractors.

“We found some fascinating equipment just left in situ and marvelled at how well-built a seemingly ‘unimportant’ structure like this was. There are still some mysteries — not least why such large, almost industrial Crittall-style windows were used high up in the barn.” They make a huge statement in the main living area, whatever their original purpose.



BUILD TIMELINE

2015 Barn purchased

2018 Planning application approved

SPRING 2018 Work commenced

WINTER 2018 Building watertight

SUMMER 2019 Completed

Embracing the vernacular

The main barn is part of a group of buildings arranged in a loose multi-yard farmstead layout, with the buildings shown on the historic maps from at least 1840. “There is evidence of the brick barn part of it being built circa 1818,” explains George. “The farmhouse next door is earlier and it’s possible that the stable may have originally been timber framed and dated to around 1750. Over the 200 years that the farm operated, it’s likely that they farmed everything from hops to chickens, potatoes to apples.

The property had been in the same ownership for over 70 years. “Mr Bones – a keen local historian – lived in the farmhouse from the 1940s until his death in 2015,” Will reveals. “The barn had been used as part of the farm when he was younger, but I suspect that they haven’t been used for at least 20 years.”

“Our chief aim was to maintain the character of the farm,” adds George. “It was important to us that when we finished the conversion works, the farm’s appearance would remain almost unaltered. Internally we worked around the building to show off its features, trying not to domesticate the space too aggressively.”

Importantly, the brothers got to know the building before they started work. Before the conversion, George and his wife Sophie had their wedding reception in the shell of the barn. Now the interior is unrecognisable and comprises seven en suite bedrooms, an entertainment room, kitchen diner, mezzanine lounge and two further cloakrooms. While it is a large building, that’s still a lot to fit in. But there is no feeling that space has been compromised. George and Will have gone for clean lines and simplicity wherever possible and the modern finishes introduced balance beautifully with occasional original rustic elements.

The challenges of converting an agricultural building

Anyone who has converted a non-domestic building before will know that doing so comes with challenges. “Maintaining a level threshold throughout the building was a nightmare,” George laughs. “The thresholds to each building and room varied so much that when pouring our paths and floors, we had to make sure that the levels were spot on. It took a great deal of meticulous planning.”

“Another tricky element was getting the stairs right. As the floor level was fixed due to the thresholds and



Internally, we worked around the building to show off its features, trying not to domesticate the space too aggressively



QUALITY FINISHES

The copper splashback will develop a characterful patina to complement the quartz worktops. The 4.8-metre dining table was specially designed for the space.



the trusses, getting the stairs to work around the aisle posts at the media end of the barn was difficult.” Fortunately, Will and George took over their father’s building business in 2014, so were well equipped to deal with the challenges.

The design and floorplan was based around the existing structure of the building and determining how they could achieve what they wanted within that. “Almost all of the decisions we made were based around the historic structure. The rooms in the main barn fall between five king post trusses,” explains Will. “The kitchen and mezzanine take advantage of the split height through the barn, and the single-storey arm that was once a chicken run lends itself to bedrooms.”

Re-use and recycle

The brothers have consciously re-used, where possible, anything of use that was unearthed along the way. “We’ve tried to upcycle as much of the farm paraphernalia as possible. We’ve used smaller chicken feeds as planters and steel water tanks as plant feeders; we turned Crittall windows into mirrors, and concrete troughs into planters,” says George.

The finished product gives no hint of the massive scale of the work undertaken to bring it back to life. Crucially, it manages to successfully straddle the difficult line between spacious and welcoming. Well-thought-out spaces and the high-end finishing serve to elevate this project above its humble origins.

George has the last word: “There are a couple of things we hoped to achieve. The first was not to over-domesticate the barn or force it in a direction where the spaces felt uncomfortable. The second was that when we were finished, we would be able to close the barn doors and for it to appear as if we hadn’t been there. I think we got pretty close and perhaps, once the plants have matured and the buildings have weathered, it really will.” **H**

FLOATING ABOVE
The mezzanine level was added to make the most of the large Crittall-style windows. Original parts of the structure have been used wherever possible, such as the beams, struts, and a low-level wood partition.





A photograph of a modern wooden staircase with a glass balustrade. The staircase is made of light-colored wood and has a glass balustrade. A circular window is visible on the wall above the stairs. The floor is tiled with large, light-colored tiles. A wooden cabinet is visible on the left side of the image.

Affordable, bespoke staircases

Made with precision and character

Design and Buy Staircases Online

from only **£230** +VAT

Visit [StairBox.com](https://www.stairbox.com) or call 01782 832555

Over 100 years woodworking expertise



ADDING WARMTH
The distinctive light in the entertainment area was made from reclaimed strip lights sourced from The Light Keeper in Margate. The polished concrete, created by Contemporary Concrete Floors, throughout the ground floor hides over 2km of underfloor heating cables!

KEY SUPPLIERS

DESIGNER/ARCHITECT

The MPL Group:
www.themplgroup.co.uk

INTERIOR DESIGNER Gabriel Holland:

www.gabrielholland.com

LIGHTING DESIGN Darklightdesign:

www.darklightdesign.com

WINDOW TIMBER Andrew Jaynes:

www.andrewjaynes.co.uk

GLASS DOORS Finepoint:

www.finepoint.glass

KITCHEN SUPPLIERS JMM Joinery:

www.jmmjoinery.co.uk

BATH Lusso Stone: www.lussostone.com

SANITARYWARE Victorian Plumbing:

www.victorianplumbing.com

DOORS XL Joinery: www.xljoinery.co.uk

STAIRS Stairbox: www.stairbox.com

GLASS BALUSTRADE Glass and Stainless:

www.glassandstainlessuk.co.uk

GARDEN Mark Lane Designs:

www.marklanedesigns.com

TIMBER FLOORING Lalegno:

www.lalegno.be/en

POLISHED CONCRETE Contemporary

Concrete Floors: www.contemporaryconcretefloors.co.uk

BRICKS Imperial Handmade Bricks:

www.imperialhandmadebricks.co.uk



UTTERLY BRILLIANT



At a fraction of the cost to buy, install and maintain, Brett Martin's Cascade rainwater and soil system is the perfect alternative to aluminium or cast iron rainwater systems. Suitable for restoration, conservation and new build projects, it delivers cost saving heritage style without compromise.

CONTACT US TODAY TO FIND OUT HOW YOUR NEXT PROJECT CAN BE ENHANCED WITH CASCADE.

Tel: 01246 280000
Email: building@brettmartin.com
www.castironstyle.co.uk

Cascade

CAST IRON STYLE RAINWATER AND SOIL SYSTEM



Plumbing & Drainage



SELECTED COSTS

Electrics	£60,000
Plumbing	£70,000
Flooring	£35,000
Kitchen	£35,000
Landscaping	£25,000
Windows	£40,000
Internal doors	£6,500
Prelims	£220,000
Materials and labour	£160,000



CALM RETREAT

The finishes and materials throughout the house provide a cosy yet luxurious feel, from the unique features left exposed, to the marble-tiled bathroom (from Topps Tiles) and the engineered wood flooring, from Lalegno, in the bedrooms.



The Traditional Verandah Company

Porches | Verandahs | Gazebos | Wedding venues | Commercial projects

Telephone 01233 636025 www.ttvco.co.uk sales@ttvc.co.uk [f](#) [t](#)

10% off when you mention Homebuilding, quote HBRMAY20

*Terms and conditions apply

THE BUILD...

The barn’s height gave Will and George the opportunity to install a first floor mezzanine and bedroom area, but they have cleverly left two voids between to ensure the rooms below benefit from impressive double-height ceilings.



BEFORE WORKS BEGAN



THE CHICKEN RUN BECOMES BEDROOMS



THE MEZZANINE TAKES SHAPE



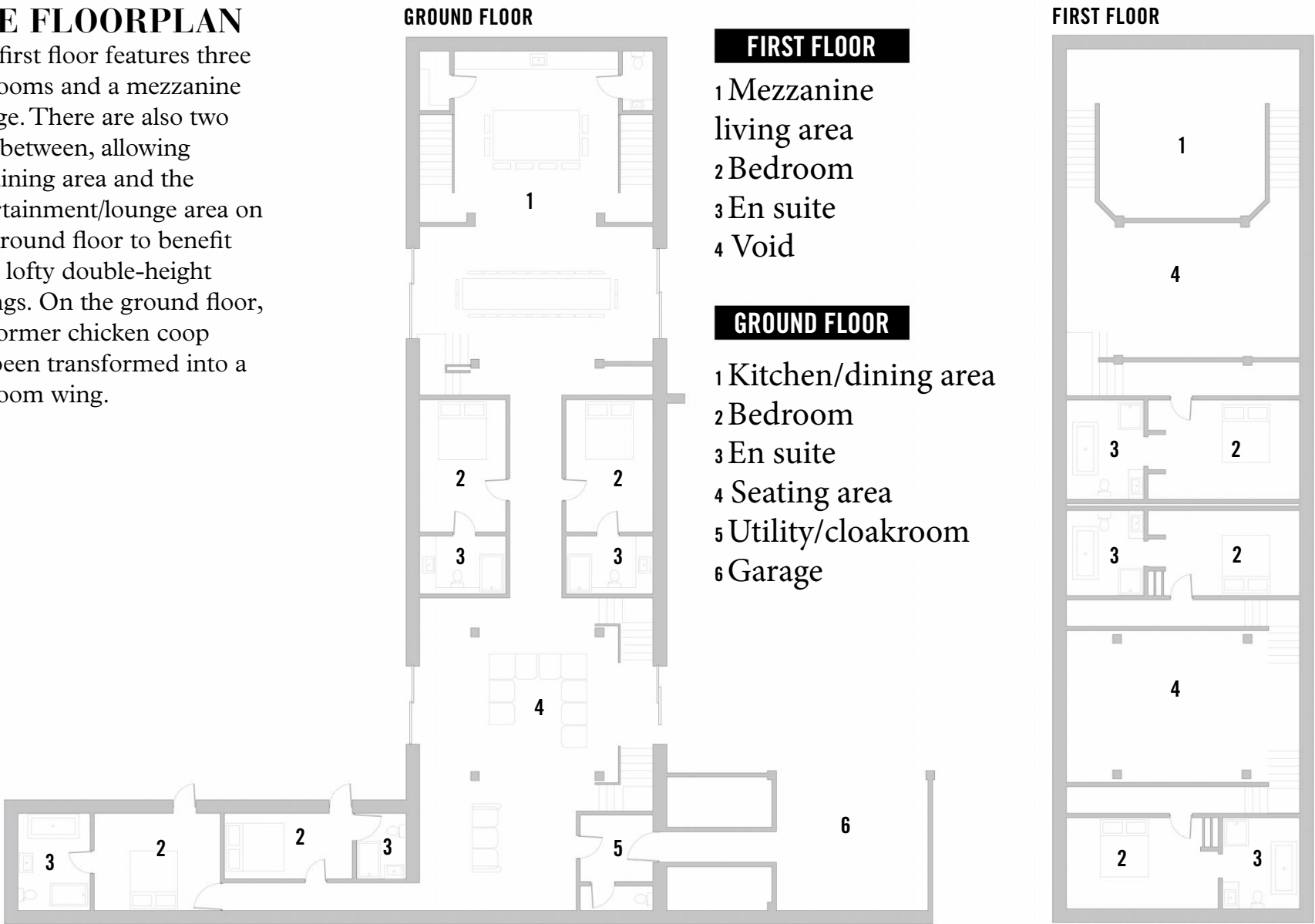
FITTING THE KITCHEN



DECORATING SPACES

THE FLOORPLAN

The first floor features three bedrooms and a mezzanine lounge. There are also two void between, allowing the dining area and the entertainment/lounge area on the ground floor to benefit from lofty double-height ceilings. On the ground floor, the former chicken coop has been transformed into a bedroom wing.





build every room, every space, every corner...

...exactly the way you dreamt it

Design your dream home and build a beautiful life with WeberHaus, German house builders since 1960. From start to finish creating your home is a truly personal and enjoyable experience. Our bespoke, luxury homes are custom designed, lovingly crafted, perfectly engineered and beautifully built.

To get in touch with one of our advisors, or for more information, please visit weberhaus.co.uk

WeberHaus
build a beautiful life




MERCERS
TIMBER FRAME CONSULTANCY

-  **Design & Engineering**
-  **Supply and install**

There's little we love more than joining clients as they embark on their self-build adventure. Often a once in a lifetime experience, this immensely rewarding journey can be as nerve-wracking as it is thrilling, and you'll benefit hugely from having a team alongside you who are fully invested in achieving an incredible result, whilst remaining cost competitive.

Mercers Timber Frame Consultancy, 2 Albert Villas, Station Road, Mayfield, East Sussex TN20 6BN
01435 874815 www.mercerstimberframes.co.uk



Advertising feature



MATERIAL CHOICES

When considering materials for windows and doors, Kloeber can offer expert advice

Choosing a frame material can be confusing as there is a huge variety of options available. Market leader Kloeber offers a wide range of doors and windows in timber, aluminium and alu-clad, and their technical sales team can advise you on what might be best for your project.

Timber has great insulation properties and works well with both contemporary and period-style homes. Kloeber offers pine, meranti and oak timber options. Each of these has to achieve a minimum density and specific moisture content to guarantee the correct strength and longevity of the material.

Kloeber only uses engineered timber, which is where smaller strips of solid timber are laminated and glued together to form larger sections, ready to be cut to size. Engineered timber is stronger, more stable and higher quality, offering improved performance with the same look and feel of solid timber.

All of Kloeber's timber products are FSC® certified (FSC® C101873), a scheme which helps take care of the world's forests, so if you are looking for a sustainable option this could be the perfect choice for you. What's more, not only does timber offer a warm, soft aesthetic, it also achieves excellent U values — keeping the heat in and the cold out. It's a great energy-efficient option for all properties, especially eco extensions and new builds.

Kloeber uses a multi-coat, microporous paint



system to ensure a flawless, low-maintenance finish. You can choose from over 200 RAL colours or a selection of wood stains. They also offer a dual colour option, which allows you to match the colour of your door or window frames with the interior and exterior of your home.

A visit to one of Kloeber's four showrooms in Cambridgeshire, West London, Buckinghamshire or West Sussex is highly recommended. For more information or some impartial advice contact them on 01487 740044 or at www.kloeber.co.uk. 



Timber frame homes completely crafted

A bespoke self-build experience.
Completely crafted from design to installation.

t: 01767 699699

w: bartramselfbuild.co.uk

Bartram 

The Build

All the expert advice you need to help ensure your project is delivered on time and on budget



HIGHLIGHTS INCLUDE:

pg.109 >
25 essential tips every renovator should know

pg.121 >
Reasons to choose timber for a green self-build

pg.126 >
How to remodel your home: a beginner's guide

pg.133 >
Save time and money on your extension with these materials

pg.141 >
How to repair external timber windows and doors

pg.144 >
The ultimate guide to building in blockwork

pg.155 >
The building clinic: Your questions answered

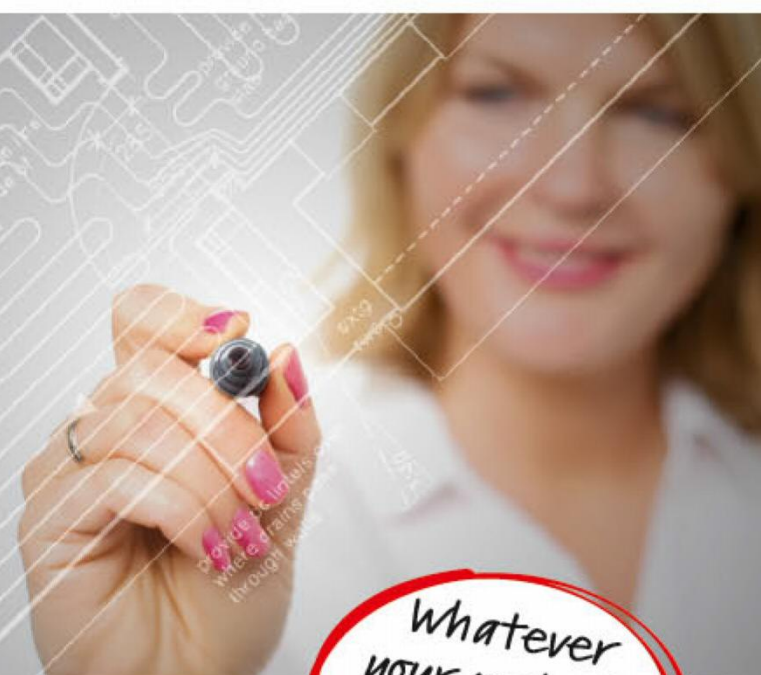


the **underfloor heating** store

Considering underfloor heating for your home?

- ✓ Free design service
- ✓ Lifetime warranty

- ✓ Dedicated support
- ✓ Assured quality



Whatever your project, we've got it covered!

Underfloor heating systems to suit **any room & every budget**



Kitchen: 12m² electric foil system

only **£357.29**
inc vat



Bathroom: 6m² electric mat system

only **£191.69**
inc vat



5 bed home: 120m² water system

only **£1439.99**
inc vat



Conservatory: 30m² water system

only **£507.59**
inc vat

1000's of positive reviews



We're rated Excellent!

10% OFF
EVERYTHING!

WHEN YOU BUY ONLINE

discount code: **HBRDISCOUNT**

www.theunderfloorheatingstore.com

The smarter way to heat your home!

0844 800 3396

LIFETIME WARRANTY

FREE DELIVERY



We are Gas Safe registered: 640068

25 things all renovators should know

Looking to transform a property in 2020? From the initial stages of purchasing and planning, to tackling the pitfalls when you're deep in the project, consider these industry tips and advice from the experts



GET THOROUGH SURVEYS

1 “Before you make an offer on a property, get a robust set of surveys from professional structural, asbestos and building surveyors who can highlight signs for you and suggest a remedial course. This will limit your construction risk going forward and put you in a better position to both negotiate with the vendor and plan your design,” says Ben Lee, architect at Vita Architecture. Such surveys inevitably come with a not-so-insignificant upfront cost before you’ve exchanged contracts on the property (and you may not end up buying it!), but the results will be invaluable — arming you with an understanding of any potential remedial work, and costs, from the outset.

Do bear in mind that there might be problems once you start exposing the fabric of the building and thus there is always an element of risk. “You simply can’t see everything that’s been boarded up and hidden,” says Ben Lee. Make sure you budget in a contingency fund accordingly.

DON'T IGNORE THE GARDEN

2 When renovating it is easy to focus on the interior and forget about the exterior and surrounding features. Thinking about the garden as an additional living space is important however, as architect Simon Graham of Yard Architects advises. “If the two are pictured together a more cohesive design can be achieved, which aids the flow of space from inside to outside,” he says. “This is key when incorporating large windows or doors in a refurbishment, as the garden will often become the focal point.” There are many renovating tricks to make the outside space feel like part of the interior, such as using the same flooring materials inside and out. Combined with a near-flush threshold, it can make a garden seem much larger than it is. Remember too to set aside some of your budget for the landscaping and hardscaping.

DON'T FORGET DRAINAGE

3 “Think about what lies beneath your home as well as in and around it,” says Simon Graham of Yard Architects. “Having a CCTV survey of the drainage system will highlight any defects with below ground drainage that are not obvious above ground. It will also inform you of any public sewers that might impact a planned extension, as sometimes they run behind the property. If your drains only serve your house, then you can adjust them as needed. But if those drains also serve a neighbour’s property, then you will need to seek permission from your local water authority board in the form of a Build Over Agreement before you start any works. You should expect to budget £300 or more for this.”

evolution®



FRENCH DOORS REDEFINED

Change the way you think with
timber alternative doors.

T: 0800 773 4045
www.evolutionwindows.com



CREATE A SCHEDULE OF WORKS EARLY ON

4 Even if you intend on hiring a main contractor/builder or perhaps a dedicated project manager, sit down and draw up a schedule of works and plan your budget before you start. You may not stick to it rigidly, but it will give you a good idea of what exactly needs to be done, in what order, how much budget you have to play with and the timeframe you have in which to manage your expectations. Your builder or designer should be able to help you come up with a schedule, which should cover everything from gaining the relevant planning permissions, carrying out building works to decorating and finishing touches.

IS IT WORTH HIRING AN ARCHITECT?

5 Not all projects will need an architect and this will depend on the scale of your works, but it doesn't hurt to get the advice of a professional to help you consider your options before you start any works. The Royal Institute of British Architects (RIBA) recommends homeowners talk to a chartered architect before they start to plan their renovation.

"Architects can help you balance the upfront cost with the longer-term value of your future home, and work to ensure the process is fulfilling, not daunting," says RIBA president, Professor Alan M Jones. (You can use the RIBA 'Find an Architect' tool to source the best person for the job at www.architecture.com/find-an-architect.)

PICK AND CHOOSE WHICH PARTS TO PROJECT MANAGE

6 *Trying to manage every part of your home renovation yourself can be a daunting task, particularly if you have limited experience and have work and family commitments to juggle. If you're keen to stay close to the action, but would like some expert guidance, it is possible to outsource some of the workload. "In the short-term, the consultant fees might feel high, but once you begin working with an architect or project manager you quickly realise that these are professionals who can see a red flag early on, mitigate errors, manage risks, and know strategically how best to procure a project," says architect Helena Rivera from A Small Studio.*

DO YOU ALWAYS NEED PLANNING PERMISSION?

7 If you're making substantial changes such as adding a large extension to an existing building you will most likely need to apply for planning permission from your local authority. However, there are many projects, including some small extensions, that will fall under Permitted Development (PD) rights, meaning you don't have to submit a planning application. There may be conditions — if you're in a conservation area, for example, or if PD rights have been restricted or removed. If you're in doubt, contact your local planning authority to find out whether the changes you want to make can be undertaken under PD and visit the Planning Portal at www.planningportal.co.uk.

For small extensions that do fall within PD Rights, it's worth applying for a Lawful Development Certificate. This is evidence that shows your build was lawful and didn't need planning permission, which can prove useful if you come to sell on the property.

GET BUILDING REGULATIONS APPROVAL

8 Not all renovation works will need planning permission, but if you're carrying out structural work, such as removing a load-bearing wall, you will need Building Regulations approval.

There are two ways to make an application — either with a Building Notice or Full Plans submission. With the former you can carry out the work without submitting plans for approval first; work will be inspected at key stages but will need to comply with Building Regs or remedial work will be required. This route tends to be suited to smaller works only. If the latter, building control will check your plans before you start work to ensure they meet Building Regs, and will inspect progress of work at critical stages.

You can find a local authority inspector via www.labc.co.uk, or choose a government-approved private building inspection company. All inspectors should be registered with the Construction Industry Council every five years to maintain best practice.

FRAMELESS GLASS STRUCTURES



Lorkins Contracts Ltd Bespoke Structural Glazing

www.lorkinscontractsltd.co.uk - 01268 759411
Email: info@lorkinscontractsltd.co.uk



CALL US TODAY ON:
07547163939

HEAT RECOVERY VENTILATION SYSTEM

INVESTMENT IN YOUR AIR QUALITY

- Zero leakage - 75mm radial ducting system ensures performance
- Reduces heating bills
- **FULL** package available, supply installation & commissioning
- Healthier living environment
- Automatic summer bypass
- Anti-static coating prevents dust build up reducing dust traps
- Extremely quiet - no noise transfer between rooms

Send your plans for a
FREE ventilation design and
competitive quotation.

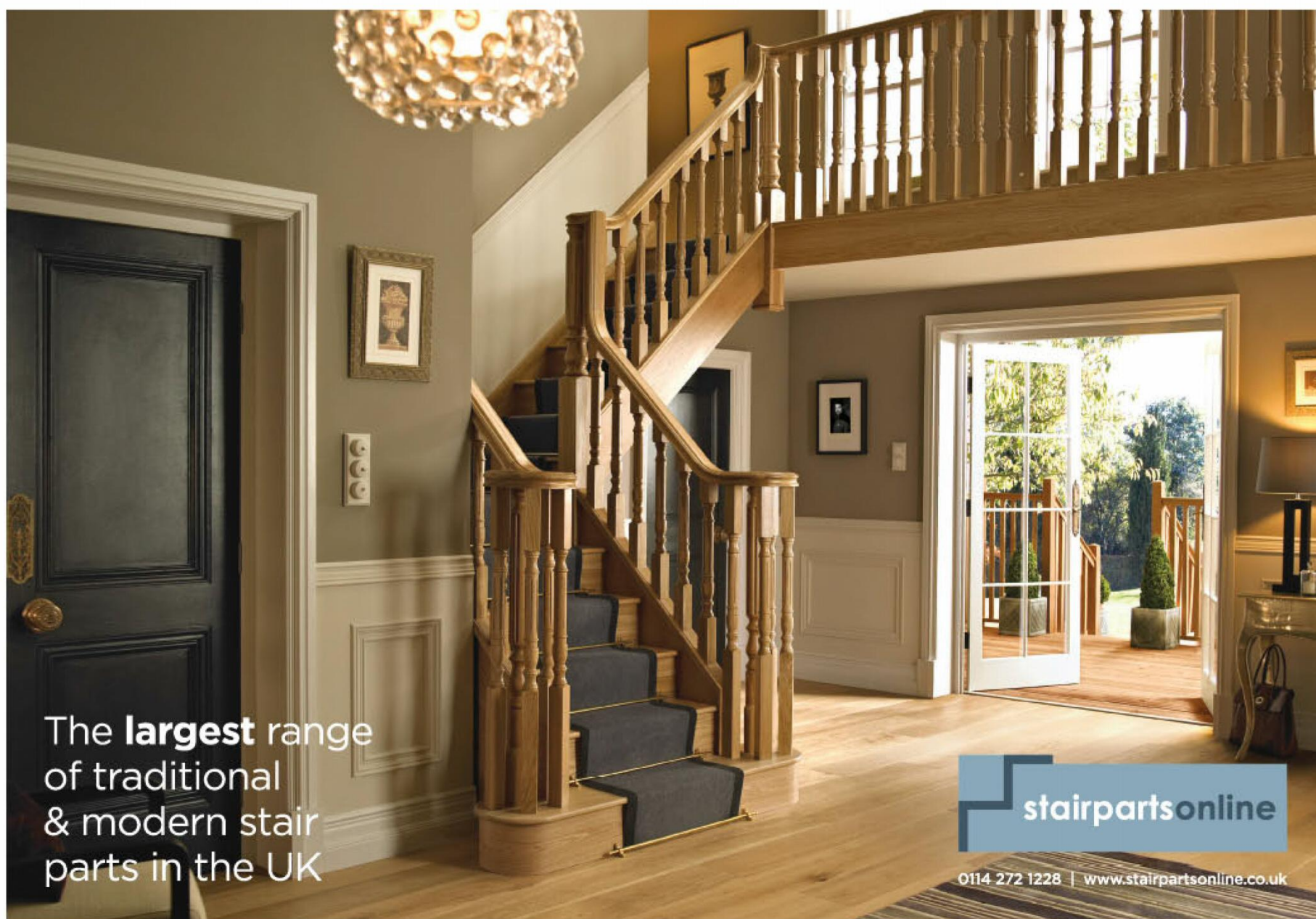


Mark Heat Recovery Systems
"Investment in your air quality"

EMAIL: info@markheatrecoverysystems.co.uk

WEBSITE: www.markheatrecoverysystems.co.uk

ADDRESS: Mark Heat Recovery Systems, 39 Home Farm Crescent, Whitnash,
Leamington Spa, Warwickshire CV31 2QZ



The **largest** range
of traditional
& modern stair
parts in the UK

stairpartsonline

0114 272 1228 | www.stairpartsonline.co.uk



Build cost calculator

If you want to gauge how much your new home might cost to build, then use our free cost calculator
www.homebuilding.co.uk/calculator



EMBRACE ECO-VATION

9 Renovating provides the perfect opportunity to improve the energy efficiency of your home and make it more cost-effective to run. Insulating your loft, swapping to LED bulbs, and draught-proofing by repairing windows and doors and adding draught seals are good places to start.

STICK TO YOUR BUDGET

10 While it's not always possible to remain within budget, good intentions will help. Start with a clear idea of how much you want to spend and assign a fixed portion of your budget to each stage of the renovation. It's important to think about every aspect of the project and also budget for any mishaps or surprises along the way. "Focusing on one or two rooms at a time will not only help keep costs down but allow you to better plan exactly what you want for that room," says Sean Evennett, managing director of Bespoke Interiors. While a room by room renovation approach is a way to focus budget and time, do take a holistic view of costs, too — would it be more cost-effective to get all the rooms that need plastering downstairs done at the same time, while the plasterer(s) are on site, for instance.

PAUSE BEFORE STARTING

12 It can be tempting, once you've bought a property to renovate, to start work straightaway, particularly if you intend to live in the house during the work — let's face it, no one wants to live on a building site longer than necessary. However, it can pay to pause before starting work. This will not only allow you time to thoroughly prepare, but also provide an opportunity to get to know the house. Study which rooms receive natural light throughout the day, which spaces you naturally gravitate towards and how you can address those that you don't. Plus, unless you've been lining up a builder or trades, it's unlikely they'll be able to start for some months. Finally, before ripping up old carpets, removing outdated kitchen units, stripping wallpaper and the like as soon as you move in, remember it could be some months before you start major work — so consider what you can live with in the short-term (suspended timber floors with no flooring can prove chilly in winter, for instance!).

DESIGN TIP: RETHINK TRADITION

11 *If you plan to remodel as part of your renovation, think outside the box. "Whether adding an extension or changing the layout of an existing room, consider the practicalities and don't design it based on how things have typically always been done," says Hayley Robson, creative director at Day True. "For example, why put the sink in front of the window when people spend less time washing up now that most kitchens have dishwashers? Don't let the sink take up the best view in the kitchen when you spend the least amount of time using it."*

FOCUS ON LAYOUT

13 Many architects will agree that it's a good idea to prioritise spending your money on achieving the best layout, as opposed to adding expensive fittings. "I'd suggest that you don't scrimp on making big structural changes that will vastly improve the layout or quality of a property in order to afford a more expensive kitchen or bathroom," says Simon Graham of Yard Architects. "Fittings go in and out of fashion and you might change a kitchen in 10 years, but making big changes to the structure of the house you will only want to do once."

A style to suit your plans
...and your budget



YEOMAN
RAINGUARD
RAINWATER SYSTEMS

making business a pleasure for over 50 years

Traditional and modern gutters, pipes and hoppers come in a comprehensive range of aesthetic styles materials and colours to suit all buildings and budgets.

For more information please call **0113 279 5854**
or email **sallyann@rainguard.co.uk**

www.rainguard.co.uk

Aluminium



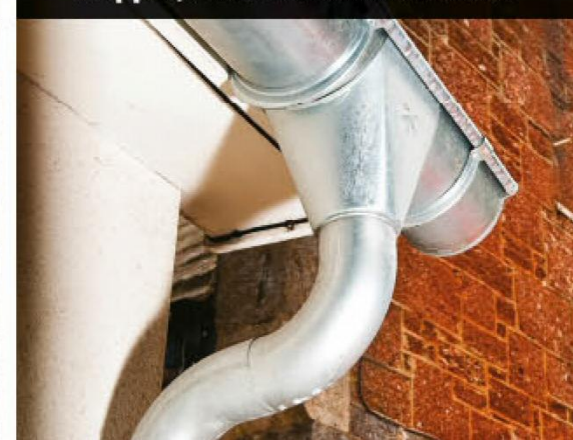
GRP



Cast Iron

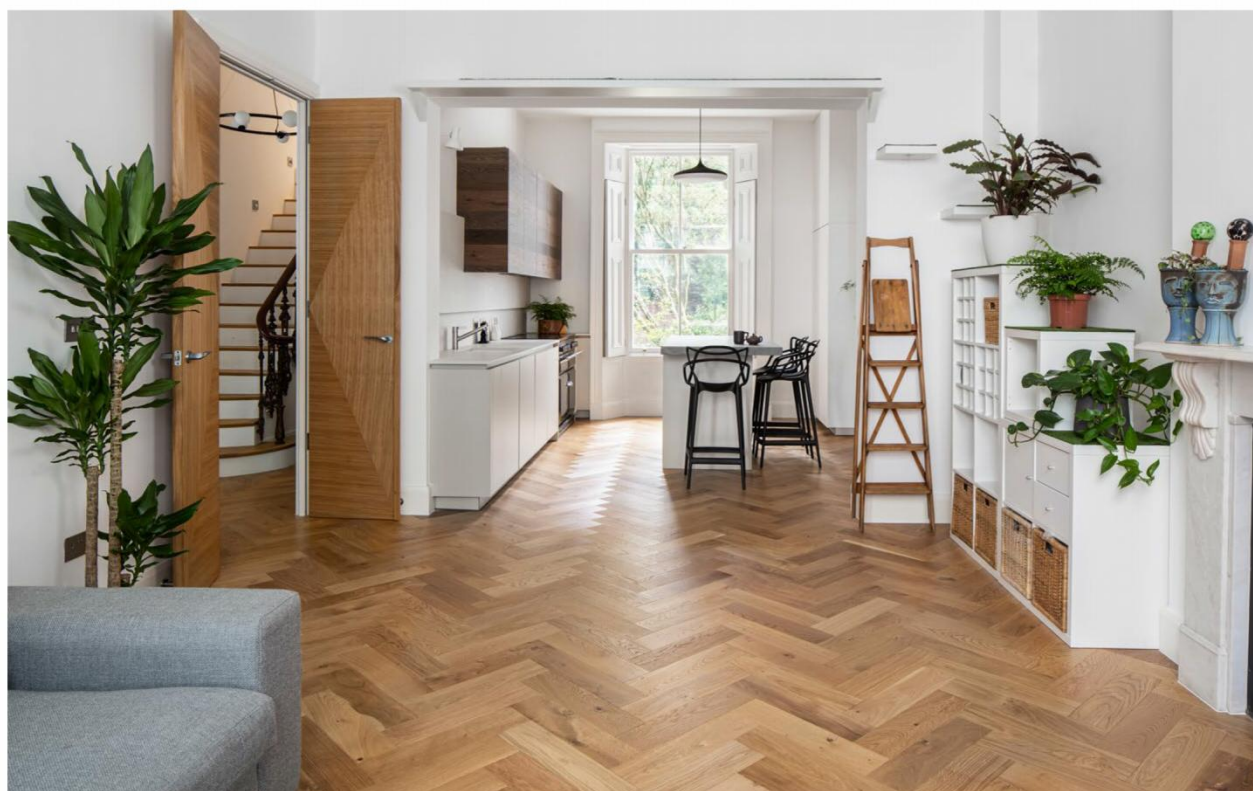


Copper, Zinc & Stainless Steel



GET ADVICE

On your renovation by visiting one of the eight Homebuilding & Renovating Shows held across the UK (www.homebuildingshow.co.uk) — book a free 15-minute consultation with an architect at The Advice Centre



SALVAGE, RESTORE AND REPAIR

14 In a period property, look for traditional features and find a way that these can be sympathetically restored to their natural beauty. Even if you want to create a contemporary setup, you'll be surprised at how much character you can create by exposing brickwork or unmasking original parquet flooring, period fireplaces or ornate cornices and restoring them to their former glory. These features will no doubt add an interesting contrast to the most contemporary setups or create a talking point in more classic schemes.

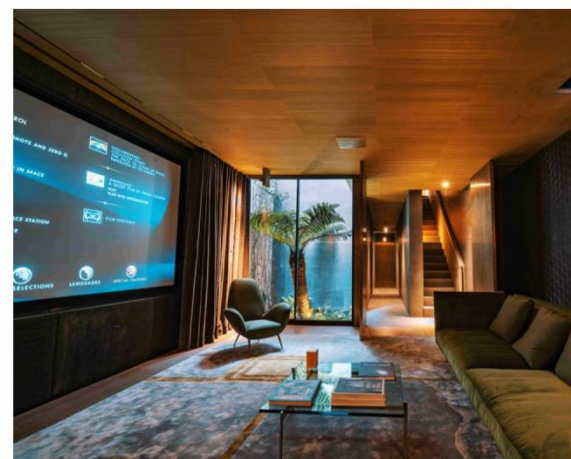
DESIGN TIP: THE POCKETDOOR

15 Where space is at a premium, consider every angle to maximise footfall. "One of my favourite design tricks, particularly for en suite bathrooms, is to build in a pocket door," says renovation and refurbishment expert Julian Prieto from Edge² Properties. "These are perfect for delivering a seamless, spacious feeling. Before you cringe at the thought of a rattling, flimsy plywood horror straight out of the 70s, they have come a long way and are now built to be far more robust, with attractive hanging devices. Another simple but effective trick is the clever positioning of mirrors throughout the property. I like using them in subtle ways — for example, in a small bedroom I would place two vertical mirrors behind the bedside tables to increase the sense of space without becoming an over-dominant feature."

FUTUREPROOF YOUR HOME

16 Taking on a renovation project may provide an opportunity to create a smarter home. Smart technology can broadly be divided into DIY products, which can be brought 'off-the-shelf' and tend to rely on wireless control, and technology that requires professional installation. If you aim to integrate multiple elements of tech, such as lighting and security, with unified control, then the latter is the best route to take. The good news is undertaking major work, such as reconfiguring internal walls or rewiring the electrics, can provide a good opportunity to add a wired infrastructure, which will support this technology. "A common phrase heard amongst the home technology industry is 'the most expensive cable you have to install is the one that did not get installed in the first place'," says Matt Nimmons, managing director at CEDIA EMEA. You can find an approved professional technology integrator over on the CEDIA website (www.cedia.net) to design, plan and carry out relevant works.

If you're not taking on major works or disturbing walls, then wireless solutions might be your best option.



ROBBENS SYSTEMS®

is a part of FRÄNKISCHE



Underfloor heating from Robbens Systems®



- Factory assembled manifolds
- Heat-loss design with £1m guarantee
- Fränkische German manufactured pipe
- Heat pump or boiler compatible systems
- 25 years experience

Get a free quote by emailing your plans to: quotes@robbens.co.uk

UNDERFLOOR
HEATING

VENTILATION HEAT
RECOVERY

PRESS FIT
PLUMBING

www.underfloorheating.co.uk

DON'T FORGET SNAGGING

17 Snagging is the process of identifying minor faults, defects and errors in the fit and finish of completed work that require remedial action. Examples can include shrinkage between skirting or architraves and new walls, hairline cracks in plaster, patchy grouting to tiles, loose taps, and decorative damage to walls in high traffic areas such as the hallway. It's a good idea to check for these and fix these problems as they arise, where possible.

Ask trades back to correct work; although do expect to pay for this if the defect was not their fault. If you used a main contractor/builder, it can be a good idea to hold back a small retention fee from the final payment until snagging is addressed, and to plan this into the contract. This sum can then be released once they have returned and resolved any defects which fall within their remit.

STUCK ON STYLE INSPIRATION? CONSIDER YOUR LOCATION

18 If you're stuck on a starting point for your interiors scheme, location is worth keeping at the forefront of your mind. "Often you will have chosen the area for its character or features and so would expect these to be reflected throughout the property," says interior designer Nicole Grey from Pavilion Broadway. "You'd expect to find painted wooden panelling and nautical décor within properties near the coast for example, mighty oak beams and black and white walls throughout a country farmhouse, or warm coloured walls and rich finishes in a high-brow city apartment. Choosing structural features, furniture and décor that reflect the beauty or key features of the local area is a great place to start when styling your home."

CONSIDER SITE ACCESS

19 Before any renovation works begin, plan how you will get any building equipment, machinery and materials needed for the job in and out of the house — particularly if you are carrying out a rear extension.

"If you have restricted access you may need to speak to your neighbours and gain permission to use their land to enter your property with large equipment or make use of their outdoor space to store tools while your building work is taking place," says Craig Hutchinson of Hutch Design. "Removing obstructions such as your neighbour's garden panel may just make it easier to enter your property with the tools you need for your works," he suggests.

DEALING WITH CRACKS

20 *Cracks are often nothing to worry about, typically being the result of thermal movement and minor historic settlement. That said, it's important to consult a building surveyor early on when purchasing. They will typically use the BRE Digest 251 Assessment of damage in low-rise buildings (see www.brebookshop.com for more info) to assess cracks and flag areas which may warrant investigation (from a structural engineer, for instance) in their report.*

RENOVATING THE EXTERIOR

21 Revamping the exterior of your home is a great way to give it a new lease of life. Before you embark on costly large-scale improvements, identify things you can repair and reuse rather than replace entirely: a new roof can benefit from salvaged tiles; lead flashing around chimneys, hips and dormers can be repaired; timberwork can be stained and brickwork painted. And while you've got scaffolding is up, remember to check chimney stacks and pots are stable. It's worth noting that in some instances you may need Building Regs approval — if you are repairing or replacing more than 25% of a roof area, for example. In this instance you will also need to update the roof's thermal insulation.

THE BAMBOO  EST. 2004
FLOORING COMPANY

"Bamboo is a grass and can naturally keep growing without the need of replanting vast areas of a plantation, making it an environmentally ethical product to use in your home"



Order your **FREE** brochure & samples

0116 2741050

www.bambooflooringcompany.com
mail@bambooflooringcompany.com



D & H

OAK FRAMING



Traditional oak framed buildings

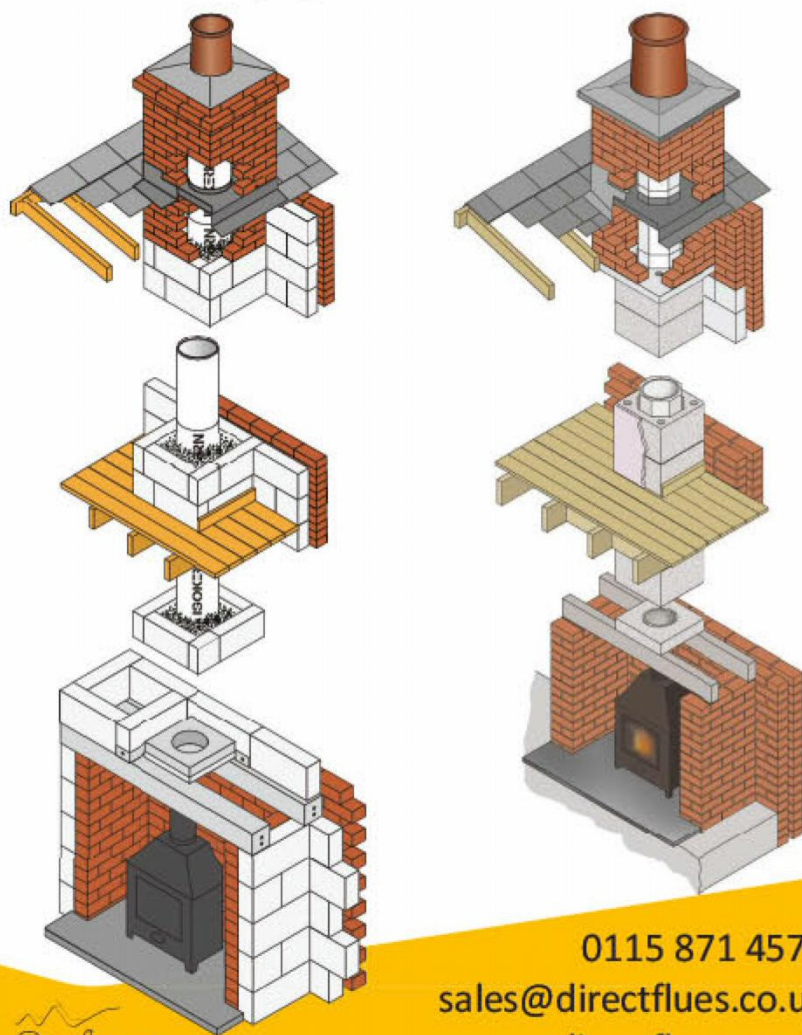
TEL: 01403 823323 / 07917110506

E-MAIL: info@oakframing.com

WEB: www.oakframing.com

ISOKERN
Pumice Chimney systems

Direct flues
directflues.co.uk



SCHIEDEL
CHIMNEY SYSTEMS

0115 871 4576
sales@directflues.co.uk
directflues.co.uk

SAVE 30%

Elecosoft®

3D Home Design Software

For self-builders & home improvers



Use Coupon Code **HBR30**
& Save 30% on Home Design
Software. Order online at:
www.3darchitect.co.uk

Haslemere Business Centre, 1a Causeway,
High Street, Haslemere, Surrey GU27 2JZ

READ MORE ON PAGE 126

Natasha Brinsmead's article on how to remodel a home includes advice on removing internal walls to create open or broken-plan spaces and how to move kitchens, bathrooms and staircases for the perfect layout

CREATE FLEXIBLE LIVING SPACES

22 *When planning your new layout, creating open-plan spaces might be a priority, but it's worth considering how you can shut off certain areas when desired, often referred to as creating a 'broken plan' layout. Pocket doors are one way to do it (see tip 15) but do bear in mind how much light you'll block out if you close off rooms with solid doors. To keep light flowing through even when doors are closed to divide the space, introduce Crittall doors for a heritage look or glass panelled doors — both of which will do well to keep spaces bright and airy.*



HEATING OPTIONS

23 Some period properties have very old radiators, while others are entirely devoid of central heating systems. This presents the perfect opportunity for you to weigh up your options for modern heating solutions — including underfloor heating. “Ripping up an old carpet or hard floor provides the ideal chance to install underfloor heating,” says Emma Perkin of Emil Eve Architects Ltd. “There is a common misconception that underfloor heating is very expensive, but it can be comparable to traditional systems, and avoids the need for radiators, which take up wall space and restrict how you can arrange furniture and use spaces.”

REWIRING COSTS

24 The older the property, the more attention you will need to give the electrics — if it's more than 30 years old it is likely to need at least a partial rewire, and quite possibly a total one. This can cost anything from £3,000 for a complete, whole-house rewiring job. Do ensure you plan for this job early on — undertaking first fix electrical work while you're having building work done will avoid the upheaval and cost of doing it retrospectively further down the line.

If you do find yourself having to totally rewire your property it presents a fresh opportunity to update sockets, rethink lighting schemes and futureproof your home for any smart tech you would like to install (see tip 16). When it comes to lighting, it pays to think beyond simply replacing a single pendant light (so common in older homes) with like for like in every room. Matthew Currington, technical director at The Lighting Superstore suggests layering up on lighting to help draw the eye to focal points in a room or divide the space into 'zones' for different activities. “There are three key types of fixtures you should cover: ‘ambient’ for the general atmosphere; ‘accent’ to highlight chosen areas of the space and ‘task’, which will assist you in fulfilling the room’s purpose,” he says. “Combining all three will help to maximise illumination and the versatility of the room.” Layering light is a particularly good idea in rooms where you'll be spending most of your time, like the kitchen.

As with most elements of a renovation, it's important to budget sensibly and balance your ambitions with how long you intend to live in the house and the ceiling value of your street to avoid overspending. Remember, what may seem like a straightforward job could spiral out of control and end up costing a whole lot more than you intended.



GET COVERED

25 Purchasing building insurance is often a condition when taking out a mortgage. However, home improvement projects may require an extra layer of cover: not all standard policies and insurance companies will cover for building works, particularly if renovations include structural changes, so make sure you get covered appropriately. Try Self-Build Zone (www.selfbuildzone.co.uk) for a quote, who can cover you for a wide range of renovation-related perils. **H**

OAKWRIGHTS®

Beautiful by Nature

Introducing the Cottage Range

6 cottage style **oak framed homes** with features that sit comfortably within any country setting.
Designed for a cost effective build.

Contemporary and traditional designs
Sizes from **100m² to 200m²** | minimum **3 bedrooms**

01432 353 353 | enquiries@oakwrights.co.uk



oakwrights.co.uk/cottagerange



TIM PULLEN
is an expert in sustainable building methods and energy efficiency in residential homes. Contact him at Tim@weatherworks.co.uk



How to create a sustainable home:

THE CASE FOR TIMBER

When designing for sustainability, construction methods and materials are among the most important decisions you'll make. Here, Tim Pullen argues that timber should be your go-to choice

As we've discussed in previous instalments of this series, 'sustainable' can mean a lot of things. When it comes to materials, it can relate to the amount of carbon that is created in producing and transporting them to your home (embodied carbon), the renewability of the resources that go into making them, and the impact they will have on your home's energy efficiency once it's built. No matter how you look at it, the case for using sustainably produced materials in a self-build project is a good one.

Most people make a choice between brick-and-block (or blockwork) and timber-based construction methods. According to figures from the Building Research Establishment (BRE), the average UK brick-and-block house uses around 200 tonnes of materials in its construction. Of that, 164 tonnes is virgin material (never before used), 12 tonnes is material from industrial waste and 24 tonnes is recycled. Out of the virgin material, an average of 13% doesn't end up being used in the property. This is accidental waste – broken and lost elements, off-cuts, rubble from last-minute alterations – and typically goes straight to landfill. That is 21.3 tonnes of brand new materials lost, or around three or four skips full of stone, sand and aggregates. These are the biggest single source of embodied CO₂ in the buildings that use them, accounting for 28% of the total, so the fact that so much of them is simply wasted should give us pause.

This series...

Aims to help self-builders make good decisions about how sustainable they want to go — and how to get there. We'll be covering the following topics in our beginner's guide: choosing the right plot; design; materials and construction; insulation and airtightness; glazing and orientation; renewable energy; and the great outdoors.

TOP TIP

It's vital to do your research and know what you want to achieve. Building sustainable homes is still quite a niche activity. You need to know what the key decisions are, or someone else will make them for you



The case for timber

The part of a brick-and-block house above the damp-proof course is generally around three times heavier than a timber frame house of the same size; the exact weight depends on the external cladding used. The timber frame, being lighter, also needs less material in its foundations, so its brick-and-block counterpart could end up being as much as five times heavier when everything is taken into account.

All this means less work, less cost, and less carbon produced when working with timber. In addition, a proportion of a timber frame house will typically be made in a factory, which also reduces waste.

Taking all of this into consideration, it's not surprising that for many people, stepping away from the conventional brick-and-block construction method might be the first, and perhaps simplest, decision they make after they commit themselves to a more sustainable build.

"Timber frame is today seen by many as the most sustainable method of delivering new housing," says Mark Waghorn of Mark Waghorn Design. "Depending on its source, timber has the potential to give

Case study: Oak framed idyll

This property by Oakwrights, a post-and-beam oak frame build in the New Forest, demonstrates many of the principles discussed in this article. The oak frame is encapsulated in wall and roofing panels constructed off-site using insulation made from recycled newspaper. The result is a property that achieves impressive levels of airtightness and energy efficiency, and without embodying a large amount of carbon in its initial construction.



a much lower embodied energy than masonry or concrete and, if correctly managed, it is a renewable resource.”

There are arguments that go the other way. In recent years there has been a good deal of development work put into making bricks, blocks and concrete more sustainable. Products like prefabricated brick panels, lightweight blocks and insulated concrete formwork (ICF) construction all offer improved insulation and a sense of solidity that many builders still crave. And masonry homes can benefit from thermal mass (see page 144 for more), which helps to regulate their internal temperature and therefore contributes to their energy efficiency once they have been built. It is also important to consider overheating at the design stage when building in timber frame (or in fact any airtight, energy-efficient home).

But it is, perhaps, timber that is having the biggest impact in my opinion. “Building with timber offers much more than just sustainable construction,” says Mark Stevenson of Potton Homes. “Systems have evolved and now offer extensive choices to meet most self-

builders’ needs. Engineering extends beyond how to simply make buildings stand up and now drives performance to exceed regulatory requirements, lower energy bills and meet the budgets of the most discerning self-builders.”

The next question is then: which timber system? The panel to the right provides a handy summary of the terminology used to describe the different options.

Once you’ve decided on timber construction, does it really matter which of these systems is used? Post and beam is as much an aesthetic choice as a sustainable one, while closed panel construction commits you to one particular building method, and probably a particular construction company too. Beyond that, it is your design goals and the site that will determine which system is most suitable. There is little difference between the systems in terms of the technical performance they offer.

Choosing the right materials

There are hundreds of components to a house, and thousands of options for materials. There are simple choices, like whether to use sustainable insulation or plastic-based insulation, and less simple choices, like whether to use reclaimed timber flooring or new flooring from a sustainable source. Timber from sustainable sources, certified by the Forest Stewardship Council (FSC) is commonplace, but there is no equivalent standard for PVCu.

Windows and doors can be wood, PVCu or aluminium, and it doesn’t take a lot of research to work out that powder-coated aluminium and PVCu are can be recycled but are perhaps less recyclable than wood and have a higher embodied CO₂. Equally, brick external cladding, although it may look good, is ultimately less sustainable than timber.

When we need a light switch, though, are we motivated enough to compare the environmental impact of a plastic one to that of a brass or steel one? How

TIMBER BUILD GLOSSARY

- **Stick build** – A timber frame constructed on site from loose timber.
- **Open panel** – A timber frame that is prefabricated off-site before being erected and ‘closed’ on site. (Often with insulation added in the process.)
- **Closed panel** – A timber frame constructed off-site, complete with insulation and sheet material fixed to the frame.
- **Structural insulated panels (SIPs)** – These loadbearing panels consist of an insulating core bonded on each side to two skins of oriented strand board (OSB) or a similar material.
- **Post and beam** – This is perhaps the oldest timber construction method, and is still used on green oak frame houses.
- **Cross-laminated timber (CLT)** – Large, dimensionally stable panels typically formed from kiln-dried spruce or pine boards, which are laid on top of each other at 90° angles (three, five, seven or nine layers depending on structural requirements).



QUALITY BRITISH BUILT AIR SOURCE HEAT PUMPS

From Global Energy Systems

- ✓ Reduce your heating bills by up to 65%
- ✓ Eligible for RHI grants
- ✓ Built in remote monitoring system
- ✓ Free site survey



Global Energy
Systems

Contact us today for a no obligation discussion
Call 03333 444414 or visit www.globalenergysystems.co.uk

Standard call charges apply

all you need
is the air that you breathe...



heat pump
ventilation



0345 260 0123

totalhome.co.uk

- REDEFINING LEVELS OF COMFORT
- PRECISE HEATING WITH UNPARALLELED RESPONSIVENESS
- COOLING, HOT WATER & HEAT RECOVERY VENTILATION
- ALL IN ONE, HIGHLY ENERGY EFFICIENT SYSTEM



FINANCIAL MATTERS

The headline prices of conventional construction methods are likely to be lower than the alternatives. The accepted wisdom is that a sustainable build will cost 12–20% more than a conventional one, with the variation largely accounted for by project location. Conventional construction is what most builders know, and it is easy for them to price those projects. Sustainable materials and construction methods can sometimes move them out of their comfort zone. That said, there are a number of timber frame specialists who can build the superstructure for you, and price accordingly.

Despite this, the choice of whether to build in masonry or timber frame should not have a hugely significant impact on your budget. It's the other materials and the level of specification that can cause prices to rise: floor coverings, internal and external finishings, roof coverings, the kitchen and joinery. The best way to control these extra costs is to decide early on what has to be sustainable and what can be compromised. That decision will be informed by your own local research and discussion with your architectural designer and quantity surveyor about what must be had, what can be afforded and what must regrettably be sacrificed.

far we go down this road is a matter of how committed we are to the ideal of sustainability — and how far our budget can accommodate our ideals.

Recycled materials often tick the sustainability box, but it's still worth thinking about their impact, as doubts have been expressed over the CO₂ impact of transporting reclaimed materials. Happily, this can easily be factored in. The BRE suggests that reclaimed timber, for instance, can travel over 1,000 miles before its environmental impact matches that of new timber products produced within 50 miles. By a similar token, reclaimed brick can travel 250 miles and reclaimed aluminium 7,500 miles.

Your choice of materials should also be guided by what they will be used for. Reclaimed timber that doesn't have the credentials to be used as a structural element can still make good flooring, skirting or architraves, adding character even as it lowers your CO₂ burden.

That said, if sustainability is about minimising our use of new materials and reducing embodied CO₂, then renovating an existing building is the ultimate in sustainability perhaps. It effectively recycles all the material contained in the building. There are thousands of houses in cities across the country that are being pulled down because they are perceived as having no potential to be adapted to meet modern needs. That raises a question: how many modern housing estates will go the same way?

Set your own targets

It is better to have a building with some sustainable credentials than a building with none. It may be impractical to source and install a 'reclaimed' kitchen, but there are manufacturers of worktops that use reclaimed material. You may not be able to source recycled timber, but even virgin timber is more sustainable than manufactured timbers like MDF.

For the self-builder or renovator, education is key. Researching locally

available sustainable and recycled materials can influence a building's design, but unless the architect or builder is very enthusiastic, the use of those materials will be limited to what the client finds. Research can also provide the information needed to decide on what is right, attractive and affordable for a project.

Greener still?

There are still those among us who maintain that the truly sustainable options are straw, hemp, lime, adobe, cob and so on. This may be true; those materials certainly rank very highly for sustainability, but many of them also require specialist skills and a high degree of commitment. Some are expensive and labour-intensive, and they are only good for walls and, occasionally, the ground floor, which leaves an open question about all the other components that will go into the house they are used in.

In the days before running water and electricity, when straw was readily available from the field next door, there was a strong argument for construction methods employing it. That situation no longer exists, and timber-frame construction has become a standard for good reasons: it uses a renewable and recyclable material, minimises production and transport energy, keeps down CO₂, and has good structural stability and thermal performance. It is a mass-market product and skilled people are readily available to deal with it.

And finally...

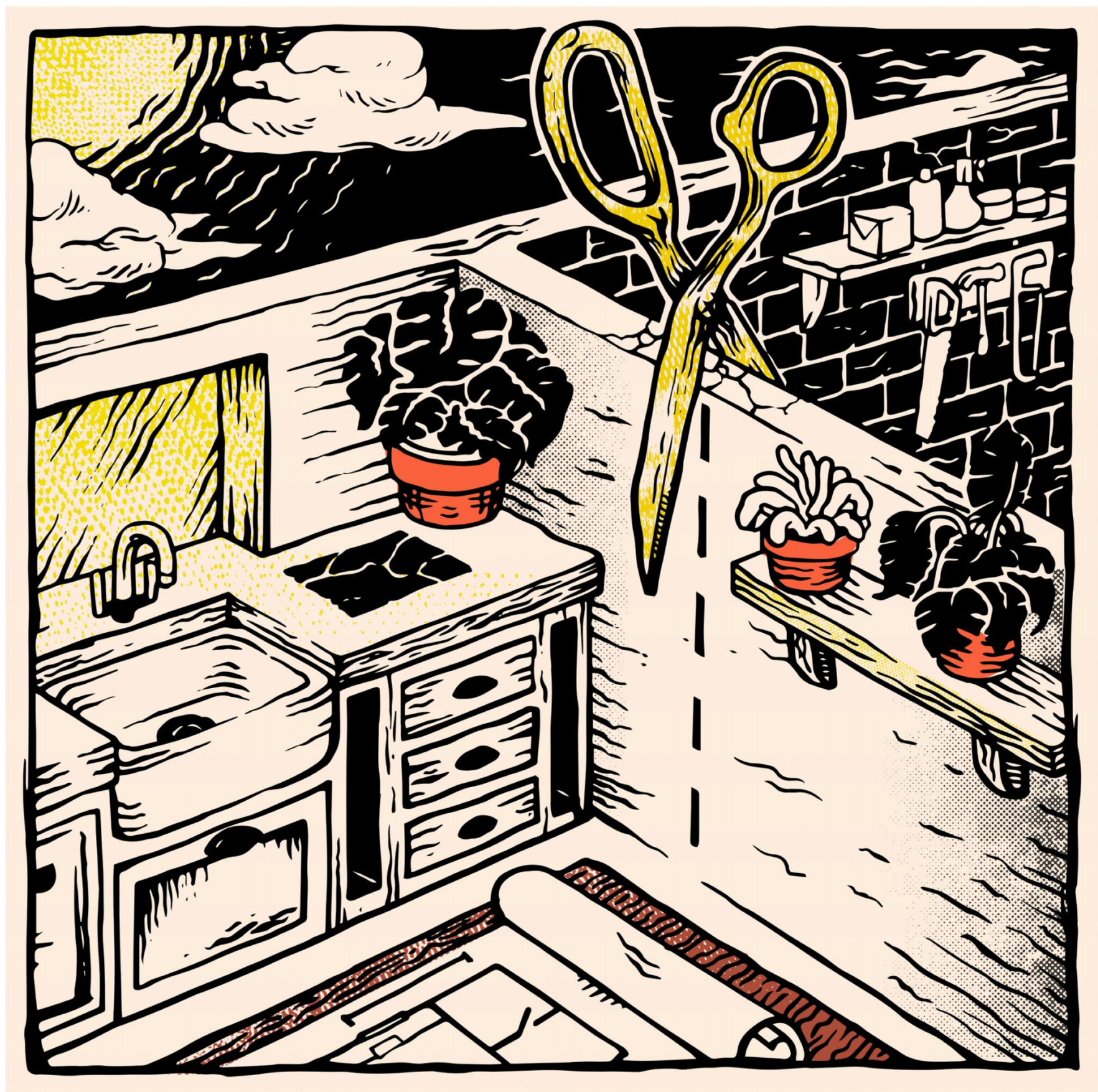
A 'sustainable home' is often seen as being one that exclusively uses green energy, but it's worth bearing in mind that a conventionally built house with zero CO₂ emissions can take up to 15 years to recover the emissions that went into making it. By contrast, paying attention to the impact of your materials is a decision that will pay off right away. **H**

NEXT MONTH: Energy efficiency

BEGINNER'S GUIDE TO RENOVATION

Part 7: Remodelling the layout

A practical guide to the most common remodelling jobs faced by renovators wanting to bring a dated layout into the 21st century





**NATASHA
BRINSMEAD**
is *Homebuilding
& Renovating's*
Associate
Editor. She's
just renovated
an Edwardian
cottage

Our modern lifestyles tend to require very different room layouts to that of our ancestors and it is not at all unusual for renovators of old properties to find themselves faced with a maze of small, dark rooms, long corridors and downstairs bathrooms, added on as an afterthought some time in the 1950s. Small kitchens are another common issue to be tackled, with this room now being high up on the list of priority projects.

For this reason, it is common for renovators to want to move walls, doorways and windows around, relocate key spaces and add new areas. Here we cover several of the most common jobs undertaken as part of a remodelling project.

Removing internal walls

Knocking down internal walls is one of the top jobs undertaken by those tackling a renovation, allowing for the existing layout to be opened up, and for light to reach into areas of the house it previously couldn't. Removing walls will also be necessary when incorporating an extension into an existing house.

But before you take to any wall wielding a sledgehammer, you need to be sure that the walls you plan on removing are not holding anything else up — these are structural walls, the removal of which needs to be undertaken with care.

Any wall being removed needs to be assessed to see whether it is load-bearing (structural) or just there to divide space. Simply tapping on the wall to see whether it sounds 'solid' is not enough — some stud walls are load-bearing while some solid masonry walls are not, and vice versa.

You should ask a structural engineer or builder to check which walls are structural. If a wall does happen to be load-bearing, a structural engineer will need to prepare structural calculations for a lintel or steel beam to support any new opening.

There are several areas that walls traditionally give support to:

● **The roof:** In many houses built prior to the 1960s, certain walls may well be

supporting the roof structure. In this case a structural engineer should be brought in to advise. In houses built after the 1960s, it is less likely that the roof will be getting support from the walls below, as the W-shaped prefabricated trusses typically used were designed to span the entire width of the house without requiring internal support from the walls.

● **The floor:** It is unusual for standard floor joists to span more than four meters without support from either an internal wall or a beam. Check which direction the joists are running (commonly at right angles to the floorboards) in order to work out which walls may be playing a supporting role.

● **Other walls:** This is one of the most common concerns facing those removing internal walls. Ground floor walls often continue on up to the storey above, in which case removing them without providing alternative support for the wall above could prove disastrous.

Finally, it is also important to note that older homes often rely on internal walls for lateral support — these walls were designed to secure the external walls of the house together.

If a wall is found to be load-bearing, the masonry above it must be temporarily supported while a slot is cut for a beam or lintel to be inserted. This slot should extend either side of the opening being made by at least 150mm. Additional support will also be needed either at end of the lintel. Once a lintel or beam is in place, the wall can be removed.

Although this is often a simple enough job, it is vital that you get advice from a professional on the type of lintel or beam you will need — in fact this is a requirement from building control.

"A popular trend is to try and make the space as 'open plan' as possible, with many people wanting to remove any trace of the previous structure," says Connor McCarron, senior designer at Resi (www.resi.co.uk). "This can be achieved with clever engineering, hiding beams and



Before you take to any wall wielding a sledge-hammer, you need to be sure that the walls you plan on removing are not holding anything else up

Grow your home

With Resi.co.uk, the UK's leading architecture practice.

With their first child on the way, this couple had no time to waste in expanding their home.

Living in a townhouse, already split into two separate flats, our team had to get creative as we helped expecting parents, Baz and Rebecca, convert their loft. Not only did we create a new living space with a bathroom next door, we also added in some much sought after outdoor space. This helped open up the downstairs area for a new bedroom - perfect for their new arrival.

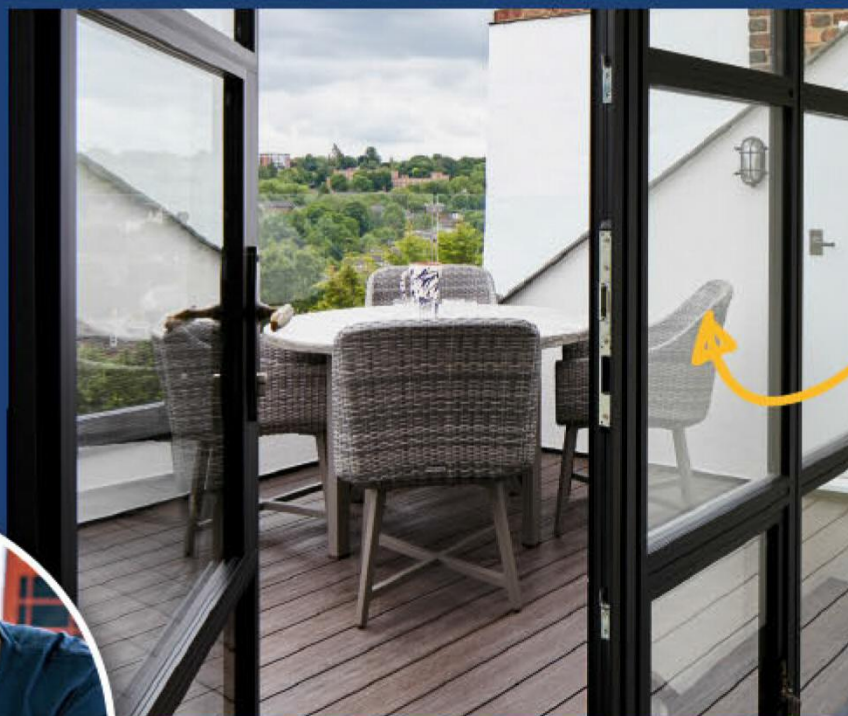
Having never taken on a home project before, we helped these two navigate the tricky world of development. From managing their planning application to getting the go-ahead from building control, our all-inclusive service meant they could sit back and manage their project whenever, wherever. We even helped introduce them to vetted contractors in their area.

Visit **Resi.co.uk** to see how our team can help grow your home.

"From the very first concept drawing, Resi nailed what we were after"

Baz
Resi Customer

REAL HOMES Show
Official Sponsor



Excluding Juliet designs, all balconies require a full planning application. At Resi.co.uk, our in-house planning agents ensure you have the best chance for first-time approval.



Project designed by **Resi.co.uk**

Photos by chrissnookphotography.co.uk

★ Trustpilot



RESI

columns seamlessly within the walls or ceiling voids, etc. However, this can be expensive as it will typically require more complex structural details, plus it can be very disruptive to the existing building.

“A more practical and cost-effective solution is to work with the existing building. This might mean retaining a piece of the load-bearing wall, called a pier, to rest a beam on. This piece of wall could help define a zone, or encase storage, or form an endpoint to a seating area for example. Another solution is to simply punch through the load-bearing wall rather than remove it completely. This can help create an open plan feel between two spaces, like a kitchen and dining area, while maintaining wall space for units below.”

Bear in mind that, once a wall has been removed, differences in floor levels between the two rooms it was separating will suddenly become all too apparent. If the difference is more than a few centimetres, floor levelling work (perhaps involving a self-levelling screed) might be required to put things right. This won't mean too much extra work if you are already planning to lay new flooring throughout the space, as this job can be incorporated into that.

Building new internal walls

Just as the removal of walls may well enhance a home's sense of flow, so too can their construction.

The easiest type of wall to construct is a stud partition wall — made up of a simple timber frame covered by plasterboard that is screwed into the timber. These are lightweight, cheap to construct and can be filled with insulation. Plus, new wiring can be run within and they are ideal for wall-hung sanitaryware.

While most carpenters will happily construct new stud walls, this is also a job that is often undertaken on a DIY basis. The first task will be to install a floor plate (from timber), and this will



I feel there is something humbling about being able to understand a building's skeleton. I find it far more architecturally interesting to see how a beam meets a column, and how that load is transferred to the ground, as opposed to an open white box

Connor McCarron, senior designer at Resi

be secured to the floor using screws and rawl plugs or a nailgun, at 900mm intervals. The head plate (a piece of timber fixed to the ceiling) is then screwed into place, before wall studs are fixed to the adjacent walls.

Intermediate studs are then fixed at 400mm centres in the case of walls that will be covered in 9.5mm plasterboard, or 600mm for 12.5mm thick plasterboard. Finally, noggins can be fixed between the timbers. These act to strengthen the whole wall, and they are useful for screwing the plasterboard to.

Wiring or pipework can now be run through holes within the intermediate studs or noggins.

Plasterboard is then screwed into place at 150mm centres (plasterboard the ceiling before you start on the wall). When one side of the wall has been boarded you can fit soundproofing if required, before fitting the other side of the plasterboard.

Use scrim tape over the joins, before applying a joining compound or getting a plasterer in to apply a skim coat of plaster to the new wall.

Moving a bathroom upstairs

A lot of homes that were built prior to the 20th century were originally built without a bathroom. During the 1950s and 1960s, when homeowners became more likely to want their own bathing facilities at home and decided that outside toilets were not for them, it was common for bathrooms to be created on the ground floor, frequently by tacking them on to the kitchen.

Today's homeowners rarely relish the idea of a ground floor bathroom, even if an additional WC is provided on the first floor. It is inconvenient, and also likely to put off future buyers.

There are several ways to make space for a first floor bathroom. Obviously adding a two-storey extension is the ideal way to create floor space that could accommodate one. If you are adding an extension at ground floor level then it may well be worth reviewing the possibility of extending upwards, too — in terms of costs it is actually fairly efficient, as much of the cost of an extension lies in the foundations, groundworks and roof structure, all of which will need to be put in place anyway.

If a two-storey extension is not on the cards, there are other ways to make space for an upstairs bathroom. In some cases the only way is to sacrifice the smallest bedroom, perhaps making up for the loss by converting the loft. If you do plan on turning one of your bedrooms into a bathroom, using a bedroom at the back of the house is often simplest in terms of fitting new plumbing, as the rear of the house tends to be where existing soil pipes will run into the drains.

Look at the existing space you have — is there perhaps the potential to use a small portion of two adjacent bedrooms to create a new bathroom? Aim for a bathroom no smaller than 4.5m².

You will need to think about getting water in and out of the new space, providing a heat source and ventilation.

Remarkable RAIS



RAIS 600-1



RAIS 600-2



RAIS 600-3

RAIS[®]
ART OF FIRE

RAIS 600-1 has a unique expression that sets it apart from others and exudes its own unique character. Enjoy the fire through large glass panes that create an illusion of an open fireplace. The fireplace insert also comes with glass on two or three sides, steel or glass doors and right or left-facing models. They are ideal when built into a corner or an existing fireplace. Connects to AirSystem through the bottom or back wall. The RAIS 600-2 features two large glass panes creating a wonderful sense of an open fire and you can also select from either right or left-facing models. With RAIS 600-3 the cube shaped design forms an elegant frame around the fire, which can be viewed through three large glass panes. Come and see these remarkable fireplaces at our showrooms in Belper or for further information, contact our friendly team on the number below.

Robeys
A PASSION FOR QUALITY

Robeys Ltd, Riverside, Goods Road, Belper, Derbyshire, DE56 1UU.

Tel: 01773 820940. info@robeys.co.uk www.robeys.co.uk

Relocating the kitchen

While one of the most common remodelling jobs tends to be opening up an existing dining room and kitchen to one another by removing a dividing wall and creating a large, open kitchen diner, it shouldn't be assumed that this is the only way to increase or improve your kitchen space.

Relocating the kitchen to a new spot in a house can often make sense — those who plan on spending a lot of time in the kitchen might want to take advantage of a particularly lovely view of the garden, for example, or maybe there is a large room, currently rarely used, that would make more sense as a kitchen. Integral garages are often used as nothing more than dumping grounds and could well provide a perfect spot for a new kitchen.

Relocating the kitchen, as opposed to simply expanding on what is already there or sprucing up an existing layout, will usually mean bringing the required utilities – water, waste and possibly gas – into a room that they were not needed in before.

Flexible plastic plumbing can be run under floorboards and taken around corners easily, meaning that getting water to new spots around the house is usually straightforward; however dealing with waste can be a little trickier.

Dishwashers, sinks and washing machines are all fixtures of the kitchen that require waste water drainage. If your existing drains are located at the opposite end of your plot to the position you are planning for your new kitchen, you are going to need to consider how the relatively large pipe required is going to be run with the least disruption to those areas of the house you are hoping to keep as they are.

A new gas supply can usually be run within the voids beneath floorboards, or within channels cut into concrete floors.

When relocating a kitchen, as opposed to ripping out and replacing

one, you can keep your appliances in place in the old space until your new kitchen is ready to use, meaning you won't be without a kitchen.

Moving a staircase

The idea of moving a staircase can be daunting because of their sheer bulk. However, when all is said and done, it's just another piece of joinery. Often, moving or reconfiguring the stairs can have a massive impact on the circulation and layout possibilities of a house, with less cost and disruption than you might have thought.

Common issues with staircases include them blocking light, restricting hallway space or being an imposing presence in otherwise open areas.

There are lots of ways that changing a staircase's design or position can benefit a house. A few of the major options are outlined here.

PLAY WITH CONFIGURATIONS: To suit your individual space requirements, it is useful to speak to a staircase designer or skilled joiner about what type of configuration will work best — combining winders (the triangular-shaped treads that allow stairs to turn corners) with straight treads is often a great way to get your staircase up to the first floor in a more space-efficient way than a straight flight could achieve.

CHANGE THEIR DIRECTION: Whether your stairs run front-to-back or side-to-side, if they impact on space or circulation then it is well worth considering changing the direction they run in. Sometimes it makes sense to flip their direction completely and incorporate a direction change within their configuration, using a couple of winders to bring them into a room at a 90° angle to the rest of the flight, for example.

DOUBLE THEM BACK: A staircase need not run in a straight line through the

New doorways

Introducing new doorways is often a requirement of remodelling projects. Check whether the wall you are cutting into is loadbearing before you begin. A single doorway is only likely to require a simple concrete or steel lintel, while a wider opening may require a larger steel beam, in which case consult a structural engineer.

You can find a step-by-step guide to this job at: www.homebuilding.co.uk/how-to-build-a-new-doorway

house. Doubling a staircase back on itself midway can effectively halve the amount of space it takes up in a room.

GO CIRCULAR: Replacing a standard staircase with a spiral is a great way to reclaim space in tight spots. Spirals take up little in the way of floor space but are sometimes less practical than a main staircase, as they can be difficult to navigate and hard to get bulky items up and down. Broader helical staircases, on the other hand, can work well.

LET IN THE LIGHT: Swapping solid treads for open ones, replacing balustrades with glass panels or more delicate spindles, or inserting a rooflight above the flight are all great ways to lighten the overall look of a staircase.

While staircases rarely offer structural support, there are cases where the wall it runs along or a spine wall that forms part of its design, will. Check what kind of role the staircase is playing in the overall construction of your home before tampering with it.

You must also ensure your new staircase complies with the Building Regs — Approved Document K. **H**



MiTek®

PosiTM-Joist PosiTM-Rafter

THE METAL WEB JOIST AND RAFTER SYSTEM

- ✓ **FREEDOM**
Open web design provides total ease of access for services and MVHR systems
- ✓ **QUALITY**
Offsite manufactured in factory controlled conditions
- ✓ **EFFICIENCY**
Lightweight and made to measure for speedy installation
- ✓ **PERFORMANCE**
Span further for greater design flexibility



To find a manufacturer visit
www.posi-joist.co.uk

+44(0)1384 451400
info@mittek.co.uk

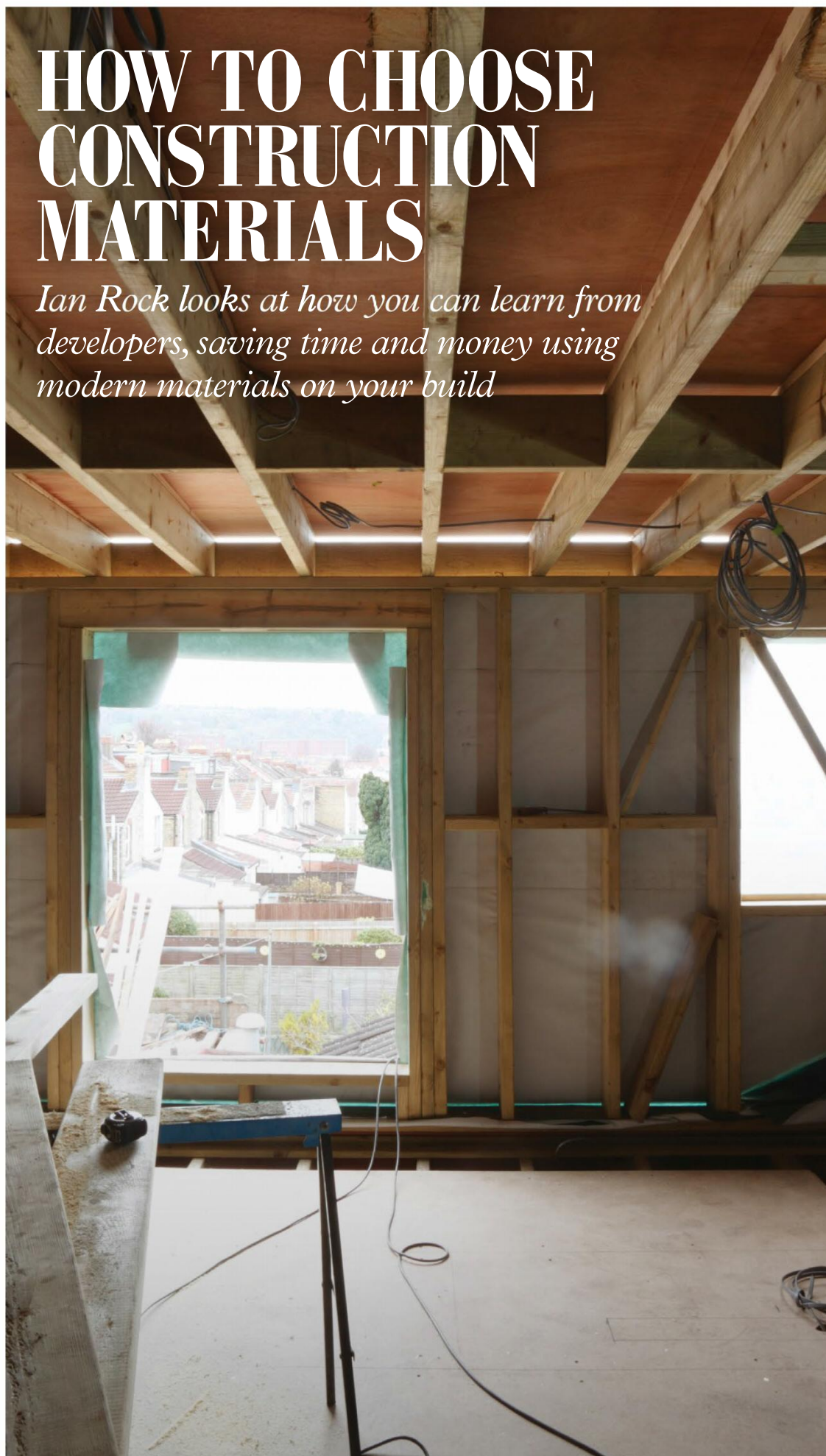




IAN ROCK
is a chartered
surveyor,
founder of [www.
rightsurvey.co.uk](http://www.rightsurvey.co.uk)
and the author of
the Haynes Home
Extension Manual

HOW TO CHOOSE CONSTRUCTION MATERIALS

*Ian Rock looks at how you can learn from
developers, saving time and money using
modern materials on your build*



When it comes to embracing new construction technologies, self-builders have long enjoyed a reputation as early adopters, keen to pioneer the latest products and materials. At the other end of the spectrum, builders of home extensions are sometimes reluctant to venture too far beyond the old school ways of doing things. Of course there are often perfectly valid reasons for sticking to the tried and tested. Call me old-fashioned, but I'd rather pole vault over a nest of vipers than shout, "Hey Siri, switch the lights on," every time I set foot in our extension. But where modern methods and materials are now routinely employed on site by budget-conscious corporate housing developers you can be certain it's because there are tangible benefits in terms of cost, quality or both. So to find out whether home extenders are missing out, I've assessed five key stages in a typical extension project where pre-fabrication and technology can potentially make the job quicker and easier as well as achieving better results.

● TRUSSED RAFTER ROOFS

Prefabricated timber trusses (often with characteristic W-shaped webbing) have long been the standard method of roof construction in new housing, having replaced traditional 'cut timber' roofs hand-built on site as far back as the 1970s. The main advantage is their ability to span from one side of the building to the other without any need for support from internal walls. Although manufactured trusses are dearer than the lengths of timber needed to construct rafters, collars, purlins and so on from scratch, they're also a lot quicker to install as they incorporate rafters and ceiling joists in one neat package, meaning significant potential savings in labour costs.

You can also order ready-made, 'lean-to' mono-pitched trusses, or 'room-in-roof' attic trusses to swiftly create rooms in your loft space. There are even 'scissor trusses' with shallow, sloping ceiling joists to provide additional headroom, although



OakPorches^{UK}

Tel: 01435 812386

email: info@oakporchesuk.co.uk

www.oakporchesuk.co.uk



BESPOKE DESIGN OAK PORCHES

Services we offer:
Design and drawings
Manufacture
Site assembly

With 50 years of experience and an excellent team, we are confident that we can turn your vision into reality!

www.oakporchesuk.co.uk

Tel: 01435 812386
info@oakporchesuk.co.uk

Starting a Self Build or Renovation?

Our videos are here to help!

Providing you with an online library built from 20 years experience and our own self build

- ◆ What to do before you start
- ◆ How to get the most out of your architect and consultants
- ◆ Helping you source the best builder and trades for your project
- ◆ Guiding you through the design, construction and completion process

Lifetime access for only £179

Money back guarantee if you're not satisfied

Join at MLHlondon.com/selfbuild

MLH London

Commercial consultants to the construction industry

www.mumfordwood.com

BRITAIN'S
FINEST
TIMBER
WINDOWS
& DOORS



Elegant, award-winning timber windows and doors designed for outstanding homes and a beautiful way of living. Made entirely in England from engineered Siberian larch, we achieve benchmark standards for your ultimate security and comfort.



Telephone 01621 818155

www.mumfordwood.com

sales@mumfordwood.com



MUMFORD
& WOOD

EST. 1954



If you've got a question about your own extension project, email it in to The Building Clinic, homebuilding@futurenet.com

if you want big open ceilings that follow the line of the rafters then these will need to be custom built. In all cases an engineer's calculations will be required to accompany your Building Regs application, something manufacturers of prefabricated trusses can normally include in their price.

The verdict...

Extensions, by their nature, are one-off designs that need to be married up to existing roofs or walls. This often creates the need for complex detailing at, for example, junctions. As such, the need for customisation tends to favour the traditional cut timber route. Larger, heavier trusses need craning into place so unless the contractor has suitable plant already on site (for lifting things like steel beams) this will add to the cost. Nonetheless, for large rectangular extensions, prefabricated trusses can still offer labour-saving advantages, and they may also be worth considering where you want loft rooms.

● BEAM AND BLOCK GROUND FLOORS

Ground floors in smaller extensions are still often built the traditional way with solid concrete slabs. In contrast, new housing developments pretty much exclusively use modern 'beam and block' construction. Also known as 'suspended concrete', these builds comprise a series of pre-stressed, reinforced concrete joists infilled with concrete blocks spanning above a ventilated subfloor void. The floor is then completed with a layer of insulation and a screed finish. Beam and block floors have the advantage of being much less prone to structural problems caused by ground movement. Prior to the adoption of this method, defective solid floors were one of the most common causes of complaint in new homes, often due to poor compaction.

Traditional solid concrete ground floors are made by excavating topsoil



I-beams are designed to accommodate first fix pipes and cables without drama (holes can be drilled in the middle of the web); some even have small perforated knockouts that can be punched out without the use of a drill

and firmly compacting a thick base layer of rubble hardcore. This is then levelled with sand and a polythene damp-proof membrane put in place before rigid insulation boards are laid on top. Finally a thick layer of concrete is poured over the insulation to form the slab, which can either be float finished or finished with a screed.

Most small builders are familiar with both types of floor construction, but concrete slabs are cheaper to build. Although manufactured beams are dearer to buy, they are quicker to install on site, with consequent savings in labour (assuming that the specifications provided when ordering were accurate). Suppliers of beam and block floors will normally provide the necessary floor structure calculations and drawings for the Building Regs. You do need to factor in a lead-in time of roughly two or three weeks, though.

The verdict...

For smaller extensions, the cheaper cost of traditional solid floor slabs probably swings the decision in their favour. They can also provide a solution where the existing ground floors in older houses being extended are very low, as it's easier to match the levels using unscreeded solid floor slabs. But for larger extensions, where ground conditions are poor, or where the main house has a suspended timber floor that needs continuity of ventilation, beam and block is likely to be the better option.

● MANUFACTURED I-JOISTS

Take a mooch around any large housing development site and you will normally see upper floors and flat roofs made

with prefabricated timber 'I-beams'.

These resemble wooden versions of classic steel beams, typically with a top and bottom flange of engineered wood connected by a thin, vertical central web of OSB or plywood. You might also see 'open web joists', a similar product with distinctive curly metal webbing. These need to be specified and ordered with accurate dimensions as they can't later be cut on site.

Manufactured joists started replacing traditional 8 x 2 inch softwood floor joists in mainstream housing in the late 1990s. But when it comes to sites where home extensions are under construction you're more likely to find chippies sawing and nailing lengths of C16 or C24 stress-graded timber, which then need to be bolstered with struts and noggins, to create first floors.

Manufactured joists are much lighter and stronger than softwood and have the advantage of not being vulnerable to significant shrinkage, resulting in a more robust structure that isn't prone to developing annoying squeaks. They also have the important virtue of being perfectly straight. This is in contrast to much of the timber that's delivered to site, which can suffer from bowing over long spans (and may even arrive damp) and therefore require remedial work to achieve an even floor, making the chippies' job a great deal harder.

I-beams are designed to accommodate first fix pipes and cables without drama (holes can be drilled in the middle of the web); some even have small perforated knockouts that can be punched out without the use of a drill. However, their top and bottom flanges must not be cut. Open web joists can even accept bulky WC waste pipes or mechanical



CERAMIC TILE
WAREHOUSE

PORCELANOSA

EDIMAX

MARLBOROUGH
MADE IN THE UK FINE ENGLISH TILES
ESTABLISHED 1888



STONE
GALLERY

Marshall's
Creating Better Spaces

CA' Pietra

ORIGINALSTYLE

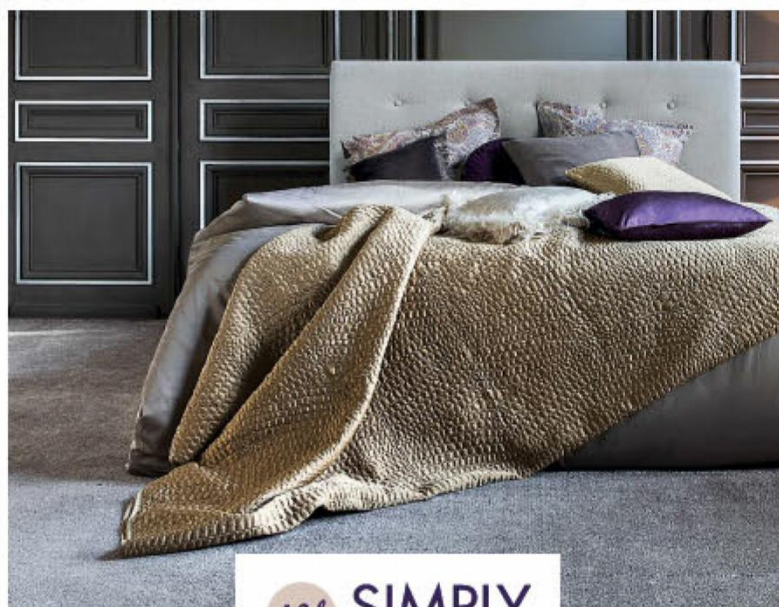


PARK STREET
INTERIORS

Villeroy & Boch
1748

Miele

Hansgrohe



scf SIMPLY
CARPETS & FLOORING

Creative Floorcoverings & Rugs by
CRUCIAL TRADING

amtico

alternative
flooring

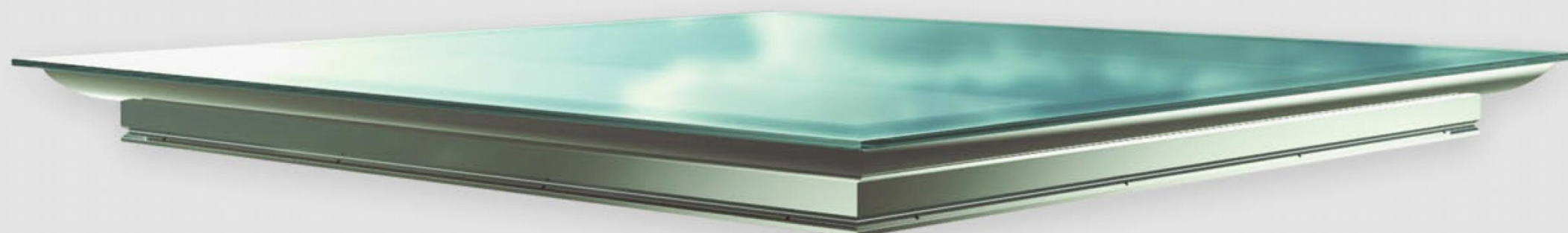
INSPIRATIONAL IDEAS... FOR YOUR HOME

The finest selection of ceramic and porcelain tiles from all over the world can be found at the 'Ceramic Tile Warehouse'. For a magnificent showroom dedicated to the timeless elegance of natural stone visit the 'Stone Gallery'. 'Park Street Interiors' design studios offer expert planning, design and installation of bespoke bathrooms, kitchens, bedrooms and studies. Whilst 'Simply Carpets & Flooring' offers quality carpets, stylish laminate, premium vinyl and beautiful natural wood products. This is 'The Art of Living'. Being all together, is altogether better.

www.theartofliving.co.uk

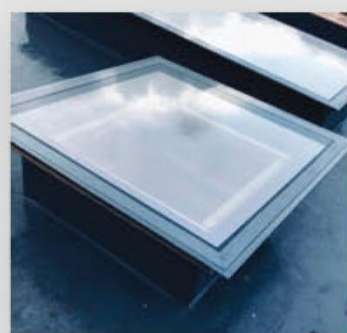
At the end of Bridge Road, Camberley, GU15 2QR

The Art of Living



floating frameless rooflights **with infinity glazing**

design & cost yours online with our rooflight builder



offset^o
minimalist rooflights



0845 206 8343



info@offset.co.uk



mon-fri: 9am - 7pm

Offset Ltd., BCS House, Pinfold Road
Bourne, Lincs, PE10 9HT

FOLLOW US:



offset.co.uk

TIME-SAVING MATERIALS...



BEAM & BLOCK FLOOR

Also known as 'suspended concrete', this floor has the advantage of being much less prone to structural problems caused by ground movement. Beam & block floors are more suited to large extensions where the existing house has a suspended timber floor that needs continuity of ventilation.

LIQUID SCREED

Liquid screeds are much quicker to install by a specialist than conventional sand and cement screeds, but aren't cost-effective for a small extension. If you're adding UFH, then liquid screeds pair well. Cemfloor Therm (right) encapsulates the underfloor pipework and eliminates air voids for optimal heat transfer.



I-JOISTS

The cross-section gives them their name, but also means they can carry far heavier loads than a conventional timber joist of equivalent weight. These structurally engineered timber joists (left) from Crendon Timber Engineering are made from a web sandwiched between top and bottom flanges, which is glued, pressed and heat-cured.

MONOCOUCHE RENDER

Monocouche render can be sprayed or pumped onto exterior walls, which reduces the need for scaffolding and site costs. It's low maintenance, durable and available in a variety of earthy colours. This Saint-Gobain Weber weberpral M through-coloured monocouche render (right) is being pump applied.



PREFABRICATED ROOF TRUSSES

Where extensions need to marry with existing roofs and walls, the need for customisation favours the traditional 'cut timber' route (cutting timber to size on site). However, if you're building a large rectangular extension then prefabricated roof trusses (manufactured off site) can offer labour-saving advantages on site.

ventilation with heat recovery (MVHR) pipes without the need for notching or drilling. As with most prefabricated products, the suppliers will normally be able to supply floor plan drawings for Building Regs.

The verdict...

Convenience inevitably comes at a price, and manufactured I-joists are roughly 40% dearer than plain timber, although being quicker and easier to install should produce savings in labour costs. They also need to be ordered a couple of weeks in advance to allow for delivery and lead-in times. However, manufactured I-beams overcome a common problem: the patchy quality of much softwood delivered to site which makes it hard to achieve perfectly level upper floors over large spans. So, for only a small cost premium overall, these are well worth specifying for extensions. However, because open web metal joists are significantly more expensive they can be harder to justify except where wide bore pipework or ducting needs to be channelled through the floor structure.

● MONOCOUCHE RENDERS

Anyone living in a property with rendered walls will know that this can be something of a love-hate relationship. Render is a highly versatile material that can be made to look traditional, quaint and homely, or alternatively ultra modern, sleek and stylish. Render can also provide an elegant aesthetic contrast with natural materials like stone, timber and clay tiles. The trouble is, modern cement renders are notoriously rigid and prone to developing small cracks over time that allow rain to penetrate, opening the door to frost blowing hollow voids under the surface, loosening the bond.

However, for most homeowners, the main headache is having to shimmy up ladders or scaffolding every few years to

A photograph of a modern, multi-story house with a white garage door. A dark-colored SUV is parked in the driveway. The house has a contemporary design with large windows and a flat roof. The sky is blue with some clouds.

**CALL
01935 443706
TO DISCUSS
YOUR PROJECT**

Modern Garage Doors For Modern Homes

Visit www.garador.co.uk to view the full range of garage doors. Call 01935 443706 to discuss your project requirements and request a brochure.

GARADOR
The Garage Door People



Search our Homebuilding & Renovating YouTube channel for Master builder Andy Stevens' video series 'How to build an extension'

redecorate, as the paintwork inevitably starts to flake, stain and blister. This makes the advent of through-coloured 'monocouche' renders something of a godsend. These have the texture and flexibility of traditional lime renders, helping to eliminate cracking, combined with a hard-wearing, low-maintenance finish that's weather resistant and visually appealing. These properties are probably why mainstream housing developers now use through-coloured renders, usually with a traditional white or sandy lime-coloured finish. The range of available colours is surprisingly wide (with more shades than E L James could shake a stick at) and you can order samples to get an idea of the precise colour and texture before ordering.

The main disincentive for use on extensions is probably cost. Conventional sand and cement renders are made with cheap materials mixed on site before being applied in two or three coats, an established process that's very familiar to small builders. Pre-mixed monocouche renders are dearer and, although they are quicker to apply (needing only a single coat applied by hand or machine), it can be hard to find trades who are familiar with them. The cost is mitigated by the savings from not having to paint the stuff, and over time there will be additional savings from not having to redecorate. This is particularly significant with extensions with two or more storeys, where access is difficult and expensive. So the overall cost should not be massively dearer.

The verdict...

For extensions with a rendered finish it makes a lot of sense to specify a modern through-coloured product, even if you need to apportion more funding in the short term. The main proviso is where you're extending an existing rendered wall surface and you want to obtain a seamless match between the new and the old in colour and texture. Even



Technology has made giant leaps forward with the development of self-levelling poured liquid screeds. These were designed to overcome the drawbacks of sand and cement screeds, such as cracking and unevenness

if you do succeed in matching the different materials it's unlikely they will weather harmoniously over time.

● LIQUID SCREEDS

This is the odd one out in our list because although modern liquid screeds are starting to make major inroads in new construction they have yet to be widely adopted by the large corporate housebuilders.

The main purpose of a floor screed is to create a stable, level surface for the floor coverings. It's not an essential ingredient, and is sometimes omitted — for instance, where there is a solid concrete floor slab that is already sufficiently level, or where the plan is to lay timber floorboards directly on top of the insulation. However, screed does impart a desirable sense of solidity, as well as adding thermal mass, and is universally applied by mainstream housing developers (albeit of the traditional sand and cement type).

Conventional screeds are also a standard part of the construction process for small builders, so unless you specify something different this is what you will normally end up getting in your extension.

In recent years, however, technology has made giant leaps forward with the development of self-levelling poured liquid screeds. These were designed to overcome the drawbacks of sand and cement screeds, such as cracking and unevenness due to poor preparation, uneven mixing, and problems with curing. They are also perfectly suited to extensions with underfloor heating (UFH) pipes in the ground floors. This is because being applied as a liquid means they form into a much denser

material than sand and cement which can often be lumpy, harbouring air voids which inhibit heat transmission. Liquid screeds are applied by specialist contractors, and are much quicker to install compared to conventional thick sand and cement screeds, which require laborious mixing and trowelling. However, the overall cost per square metre can be significantly dearer, roughly twice as much as the cheapest sand and cement floors.

The verdict...

Liquid screeds are not generally considered cost-effective for extensions with a footprint of less than around 30m². Instead, ordering ready-mixed sand and cement screeds can be a good compromise. These cost a bit more, but are more consistent than those mixed by hand on site. The real game changer justifying liquid screeds in extensions is where you've got UFH.

Conclusion

For most home extensions there are good reasons for adopting at least some of the modern construction techniques and materials we have discussed here. However, the final decision on how best to construct a building very often gets left up to the contractor or builder. The choice they make will likely boil down to which approach gives the better profit margin, which in turn depends on their relationships with suppliers, whether their workforce has the necessary skills and experience, and likely lead-in times for delivery of manufactured components. So if you want to reap the benefits of modern materials, it's essential to clearly specify them at the design stage. **H**

Ventrolla

SASH WINDOW SPECIALISTS

BREATHE NEW
LIFE INTO YOUR
*draughty,
rotten, old*
SASH WINDOWS

- SASH WINDOWS
- CASEMENT WINDOWS
- TIMBER WINDOW RENOVATION
- DRAUGHT PROOFING
- DOUBLE GLAZING
- SECONDARY GLAZING
- NEW WINDOWS



5% off
PLUS FREE
Hardware!
Quote 'BUILD19'



WHERE *classic* WINDOWS
MEET A *modern* FUTURE



OVER *18,600* WINDOW
RENOVATIONS A YEAR



local TEAMS WHO KNOW
YOUR *local* AREA

CLICK OR CALL TODAY FOR YOUR *free*
NO-OBLIGATION WINDOW SURVEY

0808 301 9646
SEARCH 'VENTROLLA' ONLINE



NATASHA BRINSMEAD is *Homebuilding & Renovating's* Associate Editor. She's just renovated an Edwardian cottage



HOW TO: Repair timber windows and doors

External doors and windows need to withstand all sorts, from hot sun to lashing rain — no wonder then that many renovators find themselves faced with external joinery in desperate need of repair...

While original timber windows and doors are undoubtedly beautiful features of many period houses, they do require proper and regular maintenance in order to hold on to their beauty.

Left to their own devices (as many windows and doors will have been in the case of renovation projects), they are prone to showing signs of decay, such as flaking paint, rotten cills and water damage or ingress.

Saving the originals

If the original doors and windows remain then do all you can to save them — these are elements of a house that are often key to its overall appeal. However, if they are missing or beyond repair, look to other houses of similar styles in the area or see if you can unearth some old photographs of the house in order to get replicas made.

Even in cases where the originals have been replaced with new PVCu designs, the frames and cills may well still be intact and require remedial attention. Common problems associated with timber doors and windows include:

ROT: It tends to be the lower sections of timber fittings that suffer from decay — namely cills, bottom edges of windows and the bottoms of door frames.

To check for rot, look for patches of soft, cracked or swollen timber. Small areas of



Does your woodwork need repairing?

There are certain tell-tale signs to look out for when assessing your external doors, including:

- Peeling paintwork
- Stains caused by leaking rainwater goods
- Sticking in their frames
- Rainwater ingress
- Draughts seals
- Rot, obvious where timber has flaked away or feels 'spongy'

WINDOW REPAIRS

Take care when repairing original timber windows — glass and glazing bars tend to be delicate and this may well be a job best left to the specialists, such as Ventrolla seen carrying out repairs above.

wet rot can usually be cut away cleanly and the surrounding area made good using a wood filler.

Epoxy wood fillers are mixed with a catalyst to become chemically active and can be shaped to fit using a putty knife. They usually take a day to cure, after which they can be sanded and painted.

Where large sections of rotten wood are found, this should be cut away and replaced, splicing in pieces of well-seasoned timber that match the original.

Once you have cut away the damaged sections, it makes sense to protect the exposed areas before fixing the new ones in place. A wood preservative can be injected or a wood hardener or primer applied. If you are concerned about a dry rot problem, it may be worth getting advice on a specific treatment for this.

Whether you screw, nail or glue the replacement timber in place will very much

depend on the shape, size and location of the timber you are working with, but in all cases be sure to give the finished repair job a couple of coats of wood primer as soon as you can. This will provide a good waterproof seal and prevent problems with swelling in the future.

Windows tend to be far trickier to repair than doors due to the delicate nature of glazing. This means that it is often necessary to call in specialists. A good joiner or a company specialising in period window repairs should be able to help.

WARPING: Doors and windows that stick in their frames or fit poorly with gaps have usually been badly maintained over the years, leading to them taking in moisture, expanding in the winter and contracting in the heat. In cases of warping, it is usually possible to adjust or repair the distorted areas — certainly most good carpenters will be able to carry out this work.

If external doors are sticking, there are several steps to take. Firstly you will need to identify the areas of the door that are causing it to stick. The door will need to be removed from its frame and the offending areas marked out and reduced with a plane or sander. The door can then be rehung and checked (this often takes a few attempts). When it is opening and closing properly, take a final 3mm off the area that has been planed to allow for coats of primer, undercoat and topcoat.

GAPS AROUND THE FRAME: If you find gaps between the frames and the door or windows you should take steps to put it right — rainwater ingress and chilly draughts are but a couple of the problems that will occur if this is ignored.

Doors will ideally be fitted with a hardwood cill to the underside — this should project around 125mm and have an overhang of around 80mm in order to allow water to run off. Cills should incorporate a narrow steel strip called a 'water bar' that projects slightly under the door. If these elements are missing, water is likely to get in, so it's important to reinstate them if they are not present.

TOP TIP
If you live in a listed building or in a conservation area, check with the local authority whether or not you require planning permission or listed building consent to alter or change the doors, windows or roof details

The door will need to be removed from its frame for this job and, if a new water bar is being fitted, a rebate cut in along the bottom edge or a new seal fitted.

This is also a good time to fit new draughtproofing into the frame, using seals that are tacked and glued in.

Meanwhile, any gaps in the masonry around the frame should be filled with silicone mastic or mortar.

SPLIT PANELS IN DOORS: Panels can usually be taken out and replaced individually once the mouldings holding them in place have been prised away.

LOOSE JOINTS: Any loose joints in windows and doors should be fixed by dismantling the joints before gluing and clamping them back into place.

Window repairs

Although the repair of rotten timber in windows is often carried out along similar lines to that in doors, there are a few additional considerations:

- Cracked or loose putty holding glazing in place should be removed and replaced.
- Window cills are often prone to decay where they haven't been properly maintained. Rotten areas can be cut back to the sound wood and a new section of seasoned wood glued and screwed in.
- A clear drip groove on the underside of the outer cill will be required to disperse water — sometimes drip grooves become clogged with paint over the years leading to water soaking through the wall beneath.
- Loose joints in the corner of windows can be reinforced with angle brackets. These are made from stainless steel or non-corroding brass and should be secured once rot is dealt with and gaps filled.

Repainting doors and windows

Original doors and windows are likely to need repainting — even if the paintwork is in good condition your choice of colours may differ from the previous owner's.

This is definitely a job best undertaken in the warmer months, but is a relatively straightforward task for most DIYers.

Before you begin, deal with areas of rot or damage as outlined previously, filling small voids with wood filler and sanding them. Work can then begin as follows:

1. Wash down all the woodwork you plan to paint, including the frames and cills, using a sugar soap solution and hot water (wear gloves to do this). Rinse well and leave to dry.
2. Scrape away loose, peeling paint either using a scraper or, if the paint is thick and cracked, a chemical stripper. If you do use a chemical paint remover be sure to neutralise it before you apply new paint.
3. While not all paint has to be removed from the door in order to repaint, glossy paints need to be rubbed over with abrasive paper in order to provide a good key for the new paint to adhere to. Wear a mask to sand as there is a chance the old paint could contain lead.
4. Remove all hardware and fittings.
5. Once you are happy with the sanding, wipe the door clean once again and prime any unpainted sections of the woodwork with an oil sealer.
6. Use high quality masking tape or similar to mask off glazed panes.
7. Prime all surfaces to be painted with wood primer.
8. Apply the first coat of paint once the primer is dry. How long this takes will depend on the brand you are using, so check the instructions.
9. A second coat of paint can usually be applied between four to six hours later, although it is worth checking the manufacturer's advice on this. A third coat can be applied if necessary.

Make sure the paint you choose for your external woodwork is up to the job — a quick read of the tin can tell you a lot. Both oil-based and water-based paints can be used for exterior woodwork, and provide varying degrees of sheen. Eggshell paints come in both oil- and water-based versions and are a popular choice at present, giving a lower sheen finish than gloss while being easier to clean than matt emulsions. **H**

What causes wood to rot?

Moisture is one of the main causes of rot in external timber — damaged wood, leaking gutters and peeling paintwork can all allow excess moisture to be absorbed into the wood, which will, if left unchecked, cause rot. This will usually be wet rot as opposed to dry rot, which tends to occur on more hidden areas of woodwork. Dry rot is the more damaging type, as it can spread, unlike wet rot which tends to be contained in one area.

The ultimate guide to BLOCKWORK

If you're about to embark on a self-build or extension project and you're keen to use blockwork, here's all you need to know





IAN ROCK
is a chartered
surveyor,
founder of [www.
rightsurvey.co.uk](http://www.rightsurvey.co.uk)
and the author of
the *Haynes Home
Extension Manual*

There's a lot of jargon associated with the humble block, and understanding this construction method can be daunting for the uninitiated. Whether you will be taking a 'hands off' approach or project managing your build – perhaps even specifying blocks yourself – this guide is designed to help you get to grips with the basics of blockwork and (quite literally) build confidence.

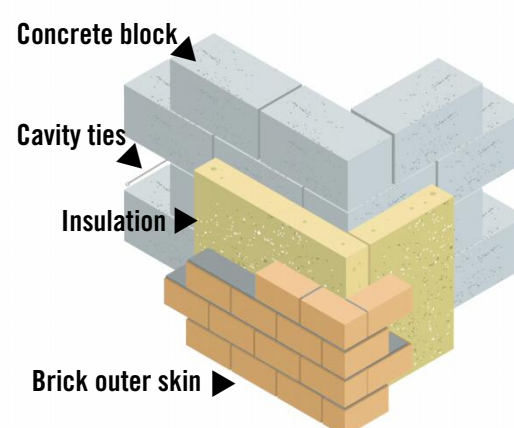
Where do I start?

Whether you're building a new house or extending an existing property, one of the key decisions at the design stage is how the walls are going to be constructed. Many self-builders opt for more modern construction methods and there are good arguments for selecting high performance prefabricated materials such as panel timber frames or SIPs (structural insulated panels), which are a lot quicker to erect on site. But if cost and flexibility (i.e. freedom to make last-minute design changes) are important factors then you may be safer sticking to good old brick and block or some variation on that theme. This type of wall construction has reigned supreme in British housebuilding for almost a century but as with any construction system there are pros and cons.

'Cavity masonry' walls typically comprise a load-bearing inner leaf made from 'breeze blocks' secured with steel wall ties to an outer facing wall made of brick, stone or rendered concrete blockwork. But even in projects where modern panel timber frame construction is favoured, the visible outer leaf may also be made from blockwork with a weatherscreen finish of render or cladding. So if you had to pick an indispensable building material, the concrete block would be right up there.

Concrete blocks have the additional advantages of being comparatively inexpensive, readily available (usually) and universally understood by local builders. Their comparative size also makes them quicker to lay than bricks, with consequent savings in labour (10 blocks = 1 square metre of wall). It's worth also bearing

BRICK & BLOCK EXPLAINED



in mind that traditionally conservative mortgage lenders class cavity masonry as 'conventional construction', safe from the risk of funding problems that can afflict more 'exotic' methods of construction.

The choice of material for the outer 'facing' leaf is usually down to aesthetics — good brickwork can look beautiful and needs little or no maintenance, but isn't as thermally efficient as two skins of blockwork and costs more in labour and materials. However, unless you specify dearer 'architectural blocks', an outer skin of blockwork will need to be rendered or clad externally (e.g. with timber, tile or slate) increasing the overall cost beyond the price of standard brickwork.

What am I looking for?

The main walls perform three main functions — holding the building up, keeping the weather out, and preventing warmth from leaking away too rapidly (or in hot climates, keeping interiors pleasantly cool). To help designers meet these requirements, blocks are specified in terms of their density, loadbearing strength and thermal efficiency. The standard size of blocks is 440mm (long) x 215mm (high) x 100mm (wide) and it seems you can have any colour you want as long as it's grey ('fairfaced' blocks in other colours are available — see 'architectural blocks').

The starting point when deciding what type of blocks to order will depend on



Concrete blocks have the advantage of being comparatively inexpensive, readily available (usually) and universally understood by local builders

WHAT'S IN THE NAME?

Ever wondered how concrete blocks came to be known as 'breeze blocks'? It's a name that used to have a more specific meaning. 'Breeze' is derived from the French word 'braise', meaning hot coals or cinders, and it probably caught on because other valid terms like 'slag', 'clinker', or 'bottom ash' wouldn't have sounded quite so appealing.

Invented in the early 20th century, breeze blocks' genius lay in their use of recycled waste materials from gasworks and coke ovens in an aggregate mixed with Portland cement and sand. However, some early types of blocks were problematic because ingredients such as mining slag mix and salty beach sand subsequently reacted chemically causing structural defects to develop in buildings. Today, a byproduct of coal-fired power generation known as pulverised fuel ash (PFA) is still a prime component in many blocks. However technology has transformed the humble block. In particular the development of lightweight but remarkably strong 'aircrete' blocks with excellent thermal insulation levels has been key to their continued chart-topping sales success.

Biomass – the natural choice

windhager
SINCE 1921
HEAT WITH VISION

- Wood pellet boilers
- Log gasification boilers
- Weather compensating control
- Output range from 1 – 240kW
- 7 year warranty
- Design & specification service
- Windhager UK Training Centre
- WIN – Windhager Installer Network



mycomfort
heating control app



Windhager UK, Marshfield, SN14 8SR Telephone: 01225 892211 Email: info@windhager.co.uk
www.windhager.co.uk



Whole House Ventilation with Heat Recovery...

Manufactured in the UK

- Virtually silent operation
- Low energy DC electric motors
- Range of control options
- Acoustically insulated ducting
- Filter reduces effects of respiratory allergies
- Reduces heating bills
- Can promote conditions for improved health
- Easy to install for DIYer or professional alike
- Conforms to Building regulations
- Full installation service available



Send your plans for a
FREE ventilation design
and a competitive
quotation

**...for a fresher,
healthier, home**

Rega's unique WhisperFlow® technology ensures that even when operating at full 'Boost' mode (usually during the morning bathroom rush hour!) the system remains whisper quiet - unobtrusively and effectively venting stale, damp air, replacing it with air that's been gently warmed and filtered.

Low energy DC fans, insulated ducting and a high efficiency heat exchanger also

ensure that power usage and energy losses are kept to an absolute minimum.

RegaVent systems are designed and built here in the UK, to our own stringent quality assured standards, you can be sure that your RegaVent system will give you the optimum balance of a technical specification that's exactly right for the UK climate, coupled with low energy consumption - for lower heating bills!

Rega Ventilation Limited
21/22 Eldon Way, Biggleswade,
Beds SG18 8NH fax: 01767 600487 email: sales@rega-uk.com

TOP TIP

Look at your builder or bricklayer's previous work. When it comes to blockwork, it's important that all the joints, especially the vertical ones, are properly filled. Years ago it was not unusual to find small air gaps between blocks, but these days, with such focus on thermal insulation and airtightness, that should be avoided

where you intend to use them. This might be for one or both of the cavity wall leaves, for the foundations or walls below DPC (damp-proof course) level, interior walls (which may or may not be load-bearing), party walls, beam and block floor infill, or even to construct retaining walls in gardens.

At the design stage, the Building Regulations drawings will need to clearly explain which type of blocks are to be used in different parts of the building, along with key performance details to demonstrate compliance. A structural engineer's design calculations will also determine the required levels of performance in terms of strength, thermal and acoustic insulation, and fire resistance, etc. This will later form the basis of the 'shopping list' specification which contractors will use to help price the job and quantity surveyors will use to base their cost calculations upon. When it comes to ordering materials for delivery, in most cases this will be left up to the main contractor. If, however, you're managing your own build, then the task of ordering blockwork may fall under your remit. Either way, it's essential to clearly specify what's required as it's not unknown for any old blocks kicking about on site to get used up, particularly in times of supply shortages.

Interior walls are normally built from either concrete blocks or timber studwork. If at a later date you want to knock through to make an open-plan layout both types are fairly straightforward to demolish, as long as they are not load-bearing. Otherwise you will need Building Regs consent for structural alterations.

Typical types of blockwork

The three main types of concrete block are known as 'dense', 'lightweight' and 'aerated'. Costs range from as little as £10/m² for cheap dense blocks to around £30/m² for high performance aircrete blocks. Leading UK manufacturers include Celcon, Durox/Tarmac, Cemex,

BLOCKWORK – THE PROS AND CONS

PROS

- Blockwork has become the default method of wall construction, and as such it's one that builders are most familiar with.
- Builders' merchants normally have large stocks available locally at competitive prices. (Although there have been shortages of aerated blocks in recent years.)
- Blocks are a relatively inexpensive material...
- ...and they're easy to combine with other cladding materials such as brickwork, render and timber cladding.
- Blockwork is versatile for use in external and internal walls and an ideal companion to suspended concrete floors.
- It's a flexible and forgiving system, which is especially useful where foundations are not perfectly true.
- Dense blocks have high levels of thermal mass — see the tip over the page.
- Blockwork conveys a reassuring sense of solidity with good soundproofing qualities.

CONS

- Construction of cavity masonry walls is slower than modern prefabricated alternatives, which in turn means a greater risk of weather disruption on site.
- Cavity insulation is sometimes skimmed on site. As it's an on-site construction method there's often room for human error (compared with prefabricated construction systems, such as timber frame) so you need to keep an eye on build progress. Ask to see the cavities and check that they're clean, with no 'snots' that could cause coldbridging (see Jargon Buster, page 151); that the wall ties are evenly spaced; and that sufficient insulation is being fitted.
- Cavities perform better if not fully filled with insulation (to pre-empt any risk of water bridging across) so thicker walls may be needed to meet future U-value targets. To achieve the required thermal performance, masonry walls generally need to be thicker than timber frame or SIPs construction.
- Airtightness standards are harder to achieve (again, compared to timber frame).

Thermalite/Heidleberg, Forterra, Plasmor and Armstrong.

DENSE CONCRETE BLOCKS

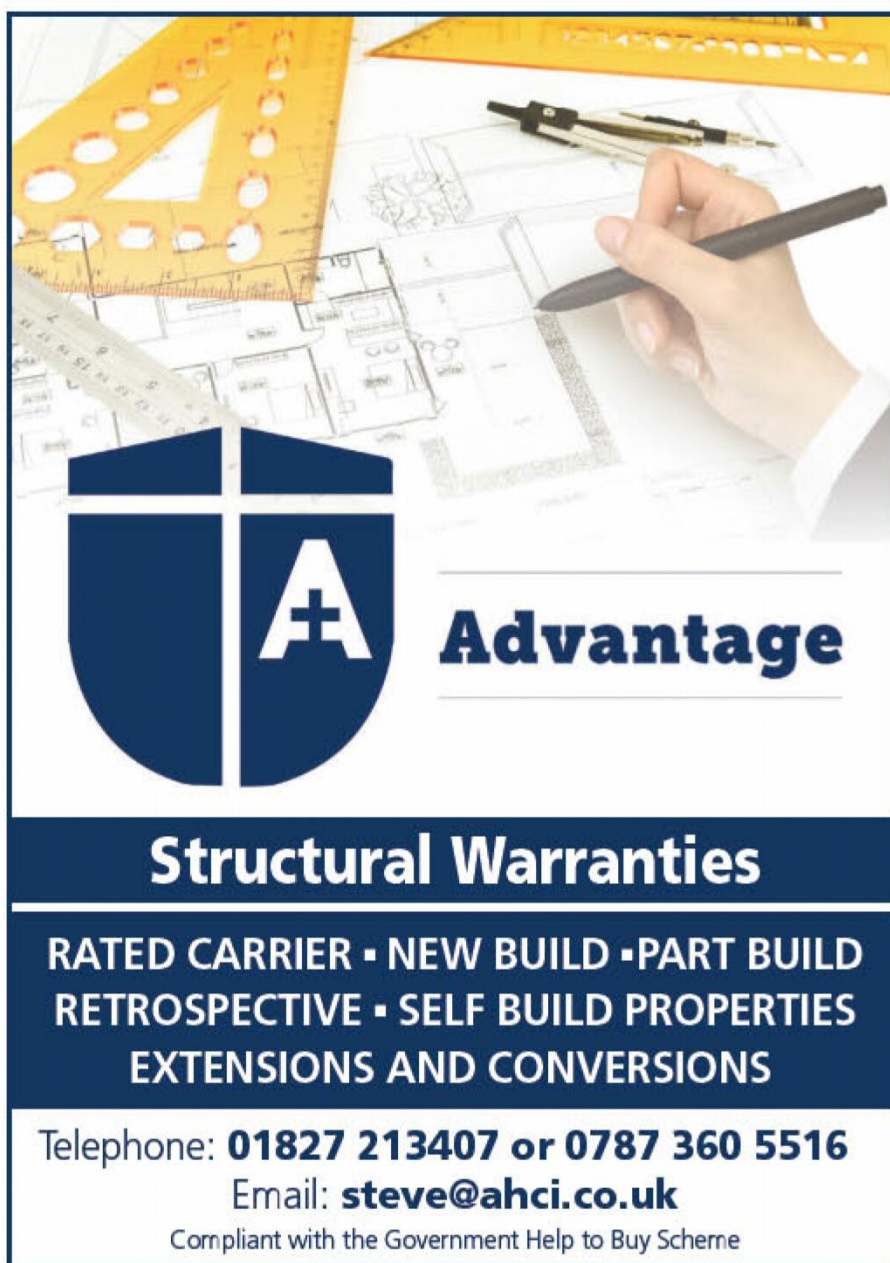
Standard dense concrete blocks are the cheapest type of walling material (if you don't count mud and straw). They're also incredibly heavy to cart around, so brickies and labourers aren't always enamoured. Their weight has some potential advantages, because of the associated quality of high 'thermal mass', and so can be a useful addition in eco-friendly house designs. Dense blocks provide a strong base for securing fixings, and unlike their lightweight cousins they aren't prone to problems with shrinkage, cracking or splintering when you drill into them.

Suppliers sometimes categorise them as 'dense' and 'medium density', and there are special varieties designed for use in

ANDY'S STEP-BY-STEP



Visit our YouTube Channel and search for 'How to start building walls' to watch master builder Andy Stevens explain the process.



Advantage

Structural Warranties

**RATED CARRIER • NEW BUILD • PART BUILD
RETROSPECTIVE • SELF BUILD PROPERTIES
EXTENSIONS AND CONVERSIONS**

Telephone: **01827 213407 or 0787 360 5516**
Email: **steve@ahci.co.uk**
Compliant with the Government Help to Buy Scheme



WARWICK BUILDINGS

Garden Rooms & Offices
Prices from £6,000
Fully insulated for year round use

ADDRESS:
Warwick Buildings
Nightingale Lane, Southam Road
Long Itchington, Southam
Warwickshire
CV47 9QL
If visiting by Sat Nav please use CV47 9QZ

OPENING HOURS:
MONDAY - FRIDAY 9am - 5pm
SATURDAY 10am - 4pm
Our show site is accessible on foot outside of our office hours

01926 815757
sales@warwickbuildings.co.uk
www.warwickbuildings.co.uk



LOWFIELD
TIMBER FRAMES

www.lowfieldtimberframes.co.uk
Call us on 01743 891922
Email: enquiries@lftf.uk.com
@LTFLtd @LowfieldTimberFrames

STRUCTURAL TIMBER ASSOCIATION ASSUREGOLD
SITE SAFE ACCREDITED USER
TRADA member
PEFC
Kingspan TEK Delivery Partner
C.A.T.G. REGISTERED
UKAS 5140

JARGON BUSTER: THERMAL MASS

The ability of a material to absorb and retain warmth. Concrete blocks have high thermal mass, absorbing excess heat in summer to help keep rooms cool, then slowly releasing it after the surroundings have cooled down — like natural storage heaters

foundations, or to infill beam and block floors. But dense blocks are more labour-intensive to work with than lightweight ones and their poor thermal insulation qualities mean they're now rarely used in exterior walls because much thicker insulation would be needed to meet heat-loss targets.

LIGHTWEIGHT AGGREGATE BLOCKS

Lighter than dense blocks but not as strong, these can be used in both internal and external walls depending on loadings, as well as in beam and block flooring. Where you want the facing walls rendered, blockwork in the outer leaf should have a rough surface texture to provide a key. Their main advantages over dense aggregate blocks are their vastly superior insulating properties and much lighter weight, and hence easier handling. They are manufactured from cement mixed with expanded aggregates, such as pulverised fuel ash (PFA). A more recent innovation uses super-lightweight aggregates such as expanded clay or pumice to achieve higher thermal performance (typical thermal conductivity: 0.25 to 0.60 W/m²K).

AERATED CONCRETE BLOCKS

These super-light blocks are manufactured in an advanced process that 'pressure cooks' air into concrete mixed from cement, PFA, sand, lime and aluminium sulphate. The end result is a block infused with air bubbles, so if you pop one into your kitchen sink it will float in water. Despite containing around 50% air by volume, blocks with a standard compressive strength of 3.6N/mm² should be sufficient for load-bearing walls in most new homes up to two storeys. Although conventional 'aircrete' blocks are not as strong as the dense concrete types, higher strengths up to 10.4N/mm² are also manufactured. Being so light means they're quicker to work with, and simple to cut and chase out (to add services). The integral air bubbles help provide a high level of thermal insulation, making it



CASE STUDY:

“Why we chose masonry”

Richard and Tavia Vint replaced a 1950s bungalow in Surrey with a contemporary family home. A main contractor was employed to demolish the bungalow, take on the groundworks and drainage, and build the weathertight shell. Richard then took over, project managing the interior fit-out and doing some of the tasks on a DIY basis.

The new home has been constructed in blockwork, with a beam and block ground floor and Posi-joists supporting the first floor. This construction system lent itself to the brick cladding. “Using a more traditional construction method gave us the most options when it came to looking for a main contractor,” explains Richard. This system also lent itself to the brickwork cladding, used on the ground floor. The build cost £1,500/m², which is an incredible feat given the level of design detail.

PLANNING ON BUILDING YOUR **DREAM HOME?**

Sips Eco is Scotland's Premier Award Winning
Structural Insulated Panel Manufacturer.



**TYPICAL HOUSE ERECTED IN 5-7 DAYS, INCLUDING THE ROOF.
7 X STRONGER THAN TIMBER FRAME.
3 X STRONGER THAN BRICK & BLOCK.
ENERGY EFFICIENT STRONG PRE-INSULATED STRUCTURE**

EXCELLENT U-VALUES AS LOW AS 0.13 | INCREASED USABLE ROOF SPACE | HIGH
LEVELS OF AIR TIGHTNESS | REDUCED COLD BRIDGING | COST EFFECTIVE, HUGE
SAVINGS ON LABOUR | NATURALLY GREENER THAN OTHER BUILD TYPES



**CONTACT US TODAY FOR
A FREE NO OBLIGATION QUOTE**

TEL: 01592 631636 EMAIL: ADMIN@SIPSECO PANELS.CO.UK WWW.SIPSECO PANELS.CO.UK



JARGON BUSTER: MORTAR 'SNOTS'

Lumps of mortar dropped down cavities during construction, covering wall ties or filling the bottom of the cavity where the floor meets the wall; this can allow cold or damp to bridge across the wall



CONCRETE BLOCK PERFORMANCE

A straight-talking guide to the terminology

COMPRESSIVE STRENGTH

The most widely available strengths are 3.6N/mm² and 7.30N/mm², but 8.7N/mm² and 10.4N/mm² strength blocks are also available. Most standard two-storey buildings can be constructed using 3.6N/mm² strength blocks, subject to structural engineer's calculations.

THERMAL CONDUCTIVITY

Expressed as 'K' values (also known as 'lambda'), this tells you the insulation qualities of a block. For example, a typical lightweight aircrete block might achieve around 0.15 W/m²K (the lower the figure the better). However, this needs to be factored into the thermal performance of the whole masonry wall (typically around 320mm thick) to meet target U values.

DENSITY

Expressed in kilograms per cubic metre (kg/m³) or just in terms of weight per individual block (typically ranging from around 20kg for a dense block to just 6kg or so for lightweight ones).

FIRE RESISTANCE

Concrete blocks are classed as non-combustible with fire resistance up to six hours. 'Class A1' is a common performance standard for reaction to fire.

SOUND INSULATION

Sound reduction 'RW' values (in decibels dB) are available from manufacturers. Building Regs Approved Document E provides a run-down of the standards you need to reach.

possible to meet demanding Building Regs U value heat loss targets in a standard 300mm thick cavity wall (plus interior drylining). Thermal conductivity can be as low as 0.10W/m²K.

The main downsides are that they're relatively expensive and in recent years supplies have been bedevilled by periodic shortages. They're also very prone to developing shrinkage cracking (particularly where the mortar mix is too strong). This needn't be a problem where walls are drylined internally — whereby plasterboard is used rather than a wet plaster finish. But where walls are rendered externally the cracks are likely to show through (although movement joints in render can provide a solution) so in outer leafs lightweight aggregate blocks are a better option.

Variety and innovation

The variety of blocks is quite astonishing with a wide range of sizes available from smaller brick-sized 'coursing blocks', used to save cutting on site, to super-sized hollow blocks.

FOUNDATION BLOCKS

Extra large 'trench blocks', typically 300mm wide, are designed to span the full width of the wall for use underground in foundations. They provide a stable platform for the main walls without the need to backfill cavities. They are highly frost resistant and can help reduce heat loss from ground floors.

THIN JOINT

These are specially designed lightweight blocks, which instead of being laid conventionally with 10mm-thick mortar joints use a special 2mm-thick glue, similar to tile adhesive. Because this sets very rapidly it facilitates the use of larger-sized blocks so the walls can be constructed much faster with consequent savings in labour. But the materials are more expensive and not all brickies are familiar with thin joint systems.

HOLLOW BLOCKS

Hollow concrete blocks are lightweight and can be reinforced with steel bars inserted through their hollow cores for extra strength, or have pipes or cables running through them. Hollow core clay blocks are commonly used in many EU countries and have begun to make inroads in the UK. Porotherm and Ziegel offer 'clay wall systems', which use special mortar and are quicker to build as a result; these systems have very good thermal insulation and airtightness properties.

INSULATED CONCRETE FORMWORK (ICF)

Not technically blockwork, but worth a mention in this article. ICF typically consists of hollow blocks that are stacked to form a wall before concrete is poured into them. Polystyrene blocks are often used for basements and are reinforced with steel rods before being filled. Other types, such as Durisol, are made from woodcrete (recycled wood fibre and cement) with good moisture and fire-resistance.

MARMOX THERMOBLOCK

These special load-bearing thermal insulation blocks are designed to be used at the base of walls to stop heat leaking out at the junctions between walls and floors.

ARCHITECTURAL BLOCKS

Standard blocks look pretty ugly even when painted, but special 'fairfaced' varieties are designed for use as architectural facing masonry and come in a range of colours and finishes. Reconstituted stone blocks are widely used for outer leafs in housing developments. Well-known brand names include Lignacite, Bradstone and Masterdenz.

LIME AND HEMP

Recent shortages in block supplies have spawned a revival of interest in blocks made from traditional limecrete or natural hemp. These are compatible with period and traditional timber frame buildings where structures need to 'breathe'. **H**

Advertising feature



INNOVATIVE SOLUTION
An Idealcombi Futura+ sliding door and windows were used alongside the original steel windows in this renovation project by Design Storey. The Arts & Crafts house features a diamond-shaped dormer with a 45° rotated Idealcombi Futura+ window (shown above). The Idealcore profile of the Idealcombi Futura+, with its thermal break, is shown right.





CRAFTED PERFORMANCE

Architect Lydia Robinson from Design Storey explains why she chose window supplier Idealcombi for this Arts & Crafts house

WHEN DID YOU FIRST COME ACROSS IDEALCOMBI?

We've used Idealcombi on previous projects stretching back 10 years. Originally, we were looking for a window system that provided a clean contemporary look on the exterior while having the material qualities of wood windows on the interior. After discovering Idealcombi, we felt that their windows were the perfect balance.

WHAT WERE THE DECIDING FACTORS IN SELECTING IDEALCOMBI AS YOUR GLAZING SUPPLIER?

First and foremost, we have always been impressed with the quality and performance of the windows. The other major factor that drew us to Idealcombi is the clean look that can be achieved when combining different window and door types.

Traditional casement windows and sliding doors have sub frames and visual tracks that cause the frames to differ in size or sit out of plane with one another. With Futura+, all windows look visually the same whether they are fixed, top, side hung or sliding.

This gives you lots of flexibility in configuration as well as a clean look. This was particularly important when designing the triangular dormers at the Arts & Crafts house, as we wanted the diamond operable sections to be very clean.

HOW WAS THE SERVICE FROM IDEALCOMBI?

We wanted to introduce some Arts & Crafts-inspired triangular dormers to the house but were

not prepared to go down the traditional approach of using fixed panes, as we felt it was important to maintain ventilation. We contacted Idealcombi and although they said they had never done them before, they were keen to help us find a solution and, after bouncing ideas back and forth with both Idealcombi UK and the headquarters in Denmark, we worked out an innovative diamond solution.

I think it is a good example of a company prepared to go the extra mile on service for their customers.

WERE YOU HAPPY WITH THE END PRODUCT?

The quality is very good and the windows, particularly the triangular ones, are much admired.

WOULD YOU RECOMMEND IDEALCOMBI TO SELF-BUILDERS?

As self-builders you want to work with companies that take the time to explain their products and provide a high level of service.

WOULD YOU USE IDEALCOMBI ON FUTURE PROJECTS?

Yes. Having shown several clients the windows at the Arts & Crafts house, we have another three projects that are in various stages of design in our office where we are specifying Idealcombi windows. **H**

For more information about Idealcombi, and to get a free quotation, visit www.idealcombi.com.



WITH NIBE S SERIES, IT'S EASY TO BE SMART

Life should be easy. That is why our new heat pumps give you greener and cheaper energy with full control wherever you are. With smart accessories, you can further optimise your energy consumption. The S Series is a natural part of the connected home and makes it easy to be smart – visit [NIBE.CO.UK](https://www.nibe.co.uk) and modernise your home today.



THE BUILDING CLINIC

Ask the experts your questions

This month, our panel of experts cover contracts and legal issues, installing a flush shower tray, caring for timber worktops and building materials to match an extension



IAN ROCK
is a chartered surveyor, founder of www.rightsurvey.co.uk and author of the Haynes Home Extensions Manual



NATASHA BRINSMEAD
is *Homebuilding & Renovating's* Associate Editor. She's just renovated an Edwardian cottage



MICHAEL HARMON-TATTON,
is an experienced underwriting team member at Self-Build Zone



LYDIA LUXFORD
is an in-house plumber and customer services manager at Easy Bathrooms

Got a burning question about your self-build, extension or renovation project that you need answering?

Drop us a line by emailing homebuilding@futurenet.com and your question could be answered by one of our magazine experts and featured in The Building Clinic.



LEGAL COVER: Working with friends

Q Our friend is a builder and he's agreed to be our main contractor for our extension project. We know him well and have agreed the works and a price. Should we get separate legal cover to safeguard any discrepancies or is this sort of thing covered in a general insurance policy?

RUTH, CROWBOROUGH

Understandably, people look to save costs when undertaking a project and this often comes in the form of getting help from friends or family. However, even though you may have a friend helping on site they may still cause an issue that, if unresolved, will burden you with additional costs (not to mention stress) that you will find difficult to ignore.

There are a number of issues – particularly legal issues – that can arise and without the correct cover in place it can turn your dream extension into a costly nightmare. Some example issues include:

- The builder has taken payment for the works and not fulfilled their obligations in terms of the work and is now uncontactable.
- The builder asks for more money before they've done the work and 'holds you to ransom'.
- Incorrect works are being carried out or workmanship is poor, and the builder is not accepting liability (Note: Site insurance itself is not designed to cover poor workmanship.)

When investigating site insurance quotes, look into whether legal expenses are covered — this provides legal advice and cover for claims arising out of contractual disputes. Some providers will charge additionally for this cover or not include it at all.

It's important to be aware that in terms of the legal expenses cover, it is essential contracts are in place as this provides proof of what has been agreed prior to any potential wrongdoing. Also, as with site insurance, taking out a legal expenses policy is not a legal requirement but I would suggest covering yourself appropriately.

Regardless of whether you choose to proceed with taking out a site insurance policy with legal cover, I would certainly advise you have contracts in place as without these it can be very time-consuming and costly proving negligence should something go wrong. Contracts also lay out the terms agreed as well as providing certainty, be that in terms of payment stipulations, scope of the work, dispute resolution etc.

MICHAEL HARMON-TATTON, UNDERWRITER, SELF-BUILD ZONE



DID YOU KNOW?

Self-Build Zone's site insurance package includes an integrated 'Legal Expenses' add-on as standard. Their partner Contract Store (www.selfbuildzone.com/contractstore-shop) provides contract templates you can buy that are suitable for your project.

MEET THE EXPERTS...

Many of our experts will be on hand to answer your questions on a one-to-one basis at the Homebuilding & Renovating Shows happening up and down the country. Visit www.homebuildingshow.co.uk for more information.



The Surbiton grey Shaker kitchen/dining room by Brayer Design features an island unit with a solid oak worktop.

HOW TO LOOK AFTER TIMBER WORKTOPS

Q We're currently renovating our kitchen and have picked beautiful timber worktops. How do we keep them looking as good as new? JAMES, NORWICH

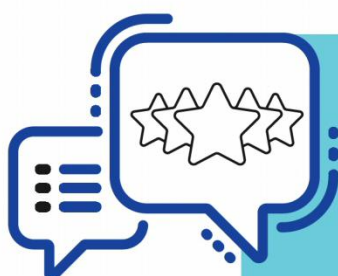
Many people forget to factor in the aftercare that timber worktops require, so you are right to ask how to look after them. Unlike some worktop materials, timber does need care and maintenance when used as a worktop if it is going to continue to look good and perform well.

Firstly, if your worktops are supplied untreated, you should apply three coats of Danish oil before they are used — not forgetting to work the oil in the faces, edges and end grain sections. For the first couple of weeks, reapplying oil once a week is often recommended. Gradually transition to once a month, then every three months. Once the worktop has been installed for a good while, surfaces will still benefit from being oiled every six months.

Timber worktops should be wiped down with a sparing amount of water — not liberal sloshes of soapy water — and water should never be left to stand on wooden surfaces, so mop up spills as soon as they occur. Use trivets to place hot pots and pans on, avoid materials that could stain the surface, such as some metals and abrasive cleaning products, and always use chopping boards. On the plus side, unlike other materials, damage to timber can usually be easily repaired. Use a 100 grit abrasive paper, working up to a 150 grit if required, then re-oil.

Ensuring your worktops are fitted by a competent professional in the first place is also key to them maintaining their good looks. Joints should be capable of coping with any movement that might occur due to temperature changes or high levels of humidity.

NATASHA BRINSMEAD, ASSOCIATE EDITOR



TOP TIP

Signs that your timber worktops needs oiling include a diminished sheen and water being absorbed readily into the surface rather than forming droplets.



WHAT'S ON THE WEB

Looking for bathroom design ideas? Then visit our website www.homebuilding.co.uk and search 'bathroom design' for a whole host of advice on everything from family bathroom design guides to ways to renovate your bathroom.

BATHROOMS: Flush-to-the-floor shower trays

Q I'm renovating my en suite shower and want to replace the current shower tray with a sunken model.

What work would be involved?

ALEX, WORCESTERSHIRE

Depending on your flooring and waste connections, adding a sunken (flush-to-the-floor) shower tray can add anything between £1,000 to £2,000 to your budget so it is worth investigating the pipework and floor covering first. Get a qualified installer/plumber to take a look at the waste connections and floor substrates prior to starting any work to avoid costly surprises further down the line.

Ideally you want your waste pipe to be coming into the room under the floor substrate to reduce costs. If the waste pipe is entering the room above floor level, this will need moving and reconnecting into your soil stack (the large waste pipe connected to your toilet) or to an external drain, which can add £200 to £400 to the work.

Concrete subfloors are difficult to sink a tray into; it's a time-consuming task that can often add between £1,500 to £3,000 to the costs, depending on how much concrete you need to move and how/where the waste pipe would run.

Timber subfloors are perfect for sinking a tray flush with the floor — the only difficulty can be if the waste hits a joist, but there are many trays you can purchase which can be cut down to fit so that the waste can be positioned to suit.

The floor covering will need to be removed in order for the tray to be sunk and additional bracing added under the tray to ensure it is well supported.

LYDIA LUXFORD, IN-HOUSE PLUMBER AT EASY BATHROOMS

AQUALISA

QUARTZ™ COLLECTION

Visit us in
Birmingham
at Stand No.
J186

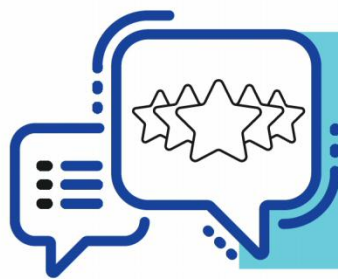
SHOWER AND BATHFILL APPLICATION • WATER USAGE MANAGEMENT • INTERNET ENABLED • PERSONAL PROGRAMMING • TOTAL CONTROL

NOW
WE'RE
TALKING
APP CONNECTED



The most sophisticated yet accessible
and user-friendly range of connected
showers on the market.

To find your nearest showroom visit
aqualisa.co.uk/smartshower

**TOP TIP**

For the ultimate guide to blockwork, read Ian's expert advice on page 144.

BUILDING MATERIALS: MATCHING AN EXTENSION

Q We want to build an extension that matches our home's rendered main walls. What type of blocks should we use?

SARAH, PIRBRIGHT

The main factors to consider when choosing concrete blocks are their compressive strength and how good they are at insulating (their 'K' values). To comply with Building Regs your structural engineer will need to calculate the required strength but in most cases extensions can be built using standard 3.6N blocks. 'Aircrete' blocks are widely used to build the load-bearing inner leaf of masonry cavity walls; usually pale grey in colour with a smooth texture, these have excellent insulation qualities but generally need drylining internally as they can be prone to shrinkage cracking. Where the outer leaf is to be rendered, lightweight blocks are often used (usually darker grey in colour); these combine a rough 'grippy' texture that's ideal for rendering with reasonable thermal efficiency. But it's important to check local availability as some types of blocks can be prone to periodic shortages.

IAN ROCK, CHARTERED SURVEYOR

LAKELAND

TIMBER FRAME



Lakeland Timber Frame offer a flexible, personal service for professionals and individuals for self-build projects.



We combine high quality craftsmanship and attention to detail with the latest developments in technology to provide timber framed homes and buildings for the 21st century.



Contact us to find out how we can offer you practical, value for money timber frame construction solutions to suit your project and your budget.



Tel: 01524 782596

www.lakelandtimberframe.co.uk

email: info@lakelandtimberframe.co.uk



Garden Rooms & Offices

Prices from £6,000

Fully insulated for year round use



ADDRESS:

Warwick Buildings
Nightingale Lane, Southam Road
Long Itchington, Southam
Warwickshire
CV47 9QL

If visiting by Sat Nav please use CV47 9QZ

01926 815757

sales@warwickbuildings.co.uk

www.warwickbuildings.co.uk

OPENING HOURS:

MONDAY - FRIDAY 9am - 5pm

SATURDAY 10am - 4pm

Our show site is accessible on foot outside of our office hours

Options to suit all budgets

See us at
Homebuilding & Renovating Show
Glasgow
Stand **B109**

feelgood windows + doors

Enjoy the comfort and energy efficiency of triple glazed timber and alu-clad windows and doors

Friendly personal service and technical support from the low energy and Passivhaus experts



www.greenbuildingstore.co.uk | t: 01484 461705



KATIE THOMASSON has renovated four period properties, taking on much of the work on a DIY basis

We're approaching the end of our renovation

This month, Katie and her husband Andy organise the construction of their oak frame garage and finish the landscaping



As with the internal renovations on the house, we have tried to be as hands-on as possible when it comes to the landscaping. This has involved quite a few different jobs, from erecting fences to building garden paths and planting 55m of new hedging in the back garden, on a DIY basis. However, when it came to building the garage, we opted to buy through a company based in Sussex who specialise in cutting and manufacturing small oak frame buildings in their warehouse. They were able to erect the structure on our driveway in just one day.

Building the oak framed garage

With their lead time being just three to four weeks, we swiftly organised for the garage foundations to be built. To save money and time, Andy laboured with a builder to construct the foundations over one weekend.

Unfortunately, we couldn't use the bricks we'd salvaged during the renovation of the house for the plinth and foundation work, as we had originally planned. The only way to ensure the garage sat level on the plot (which slopes steeply) was to build the plinth and most of the footings a few feet into the ground, using engineering bricks which could cope with the damp earth.

Once the garage had been built on site, we opted to finish the roof with cedar shingles to give it a characteristically rustic appeal. A roofer had quoted to supply and fit these for around £3,500. However, when Andy worked out that the materials, including nails, would cost around £1,500 to buy, he made the decision to save £2,000 and try his hand at fitting them himself.

It turns out you can buy different grades of cedar shingles, which result in them ageing and colouring differently; the grading also relates to their



quality, durability, whether they have any knots or imperfections within them, and so on. As we wanted the most attractive result for our garage, we chose to pay a bit more for A-grade shingles but saved a little by buying them online from North America.

One last DIY push

While we waited for the shingles to arrive, we got on with building the front garden wall using all of the stone that we'd salvaged from the beginning of our renovation (when we'd removed both gable ends from the cottages to allow for the extension).

We worked together to get this done quickly; I sorted the huge piles of stone into size order and wheel-barrowed them down to Andy as he built each course up in a different size, starting with the larger stones for the bottom courses.

With one last push to finish the project that we'd started over two years ago, all that was left is one final visit from building control, who will hopefully sign off the project and help us to conclude the build next month. **H**

PD RIGHTS

Fortunately, with the garage falling under the bracket of permitted development (the manufacturers design their structures to fit into these perimeters), planning permission was not required for the new oak frame garage.



IMAGE

The Daily Telegraph
Homebuilding
& Renovating

AWARDS 2019

BEST TRADITIONAL
STYLE SELF-BUILD
WINNER

SPONSORED BY

rational

Oak-framed FUSION

*First-time self-builders Susan and Ian Neilson
have transported the English tradition of oak frame
building to Scotland — with dramatic results*

Ideas for a self-build can come from many different sources, as first-time self-builders Susan and Ian Neilson discovered. Inspired by Susan's brother, who was building his own home in the outer Hebrides, the couple began to look for suitable plots for a self-build in Scotland.

"We'd been in the south of England for 32 years," begins Susan. "I had retired as a teacher, while my husband was still working in IT, mainly in New York. We knew we wanted to live in Scotland. Ian is Scottish and I have family in the Highlands. We also needed to be no more than one hour from the nearest airport, for Ian's work."

Finding the site

"I'd always been interested in doing a self-build, and I found a plot on Rightmove in Elie [a coastal location on the east coast, not far from Edinburgh] that had planning permission for seven houses," adds Susan. "Three had already been built on the plot and we were advised the other four had outline planning permission in perpetuity."

However, the greenfield plot was smothered in rhododendrons and was long and thin with no obvious views — not the easiest of spaces to work with. On the plus side, the site was rural without being isolated, as it sits in the grounds of Elie House, a grand country house.

Construction choice

Confident they'd found the plot for their project, the couple turned to their next big decision — the construction method. Having spent many happy years living in a converted sixteenth-century barn in Berkshire, they were keen on the look and feel of an oak-framed home. But neither Ian nor Susan fancied DIY self-building or project managing, so making contact with Scottish builder Iain Hendry, who works alongside oak frame provider Oakwrights, at a Homebuilding & Renovating Show in Edinburgh, was a lucky break. Even better, they also made the



PROJECT NOTES

HOMEOWNERS Susan and Ian Neilson

LOCATION Fife, Scotland

PROJECT Oak frame self-build

SIZE 380m²

BUILD ROUTE Main contractor project managed

CONSTRUCTION Oak frame on concrete strip foundation

BUILD TIME Jan 2017 – Apr 2018

PLOT COST £200,000 (Mar 2015)

BUILD COST £850,000

ESTIMATED VALUE £1.4million

“

A turret is a very Scottish feature. It's defensive in some ways, like a castle





SCANDI-FEEL
Neutral grey limestone is used throughout the ground floor and a white, grey and blue colour scheme is matched by the Neptune kitchen.

KEY SUPPLIERS

ARCHITECT Thomson Hunter Architects:
www.thomsonhunter.co.uk

OAK FRAME, WALL, FLOOR AND ROOF SYSTEMS

Oakwrights: www.oakwrights.co.uk

ENGINEER Jim Adams Prime

Structural Solutions:

www.primestructuralsolutions.co.uk

QUANTITY SURVEYOR LM Surveyors:

www.lmsurveyerservices.com

MAIN SITE CONTRACTOR

Hendry Developments:

www.oakwrights.co.uk/scotland

STONE SUPPLIER Tradstocks:

www.tradstocks.co.uk

WINDOWS AND DOORS Veka: www.vekauk.com

AIR SOURCE HEAT PUMP EcoDan Mitsubishi:

www.sehps.co.uk

KITCHEN Neptune: www.neptune.com

BATHROOMS

Park Street Interiors: 01276 62777

FLOORING Strathearn Stone and Timber:

www.stoneandtimber.co.uk; White Hall

Flagstones: www.white-hall.co.uk

SLATES Cupa Pizarras:

www.cupapizarras.com/uk





HOME WARMING
There are three fireplaces in the house. The woodburning stove forms a key part of the gable end of the living room, while the open fireplace provides grandeur to the dining hallway (below).



acquaintance of Craig Thompson, an architect at Oakwrights Scotland, who was well used to working with oak frame.

Now, inspired by magazines and the Show, Susan could begin drawing up her brief. “I took lots of photos for six months of the houses in Elie so I knew what all the houses looked like — it’s one of the reasons our home looks like it’s always been here,” she says. After spending 18 months in Denmark helping her daughter look after triplets, Susan had also absorbed some Scandi design ideas along the way.

“I wanted an open-plan design, and asked for a dining hall — our old dining room was only used at Christmas. I also wanted separate quiet space for when my husband watches football and I want to watch my own programmes on TV. And with 10 grandchildren, we weren’t looking to downsize. We needed a house that could accommodate them all.”

With few external views to work with, Craig concentrated on creating dramatic internal views, as well as privacy for the house and garden. He designed an L-shaped house to create a private courtyard at its centre, with the main living spaces facing the sun, and service spaces such as the utility in the home’s less light-filled areas.

He also positioned all the main rooms so that they have a garden view, adding a turret at one end; it is designed to offer drama for anyone approaching but, with deliberately small windows, privacy for its occupants. “A turret is a very Scottish feature,” says Craig. “It’s defensive in some ways, like a castle.”

The build begins

With the detailed designs in place, the build could begin. The groundworks team installed a concrete strip foundation and poured concrete slab to support the oak frame and insulated panel walls, which were designed and manufactured in Oakwrights’ factory in Herefordshire.

“All the elements were numbered, along with a full set of laminated drawings,” says Iain Hendry. “We lifted the full oak frame into position, ground floor panels and floor system, followed by the roof.” It’s a process that Oakwrights are very familiar with; less so the locals, who had never seen an oak frame house in the making (one fascinated local even set up their own blog to record its progress).

For the roof, a good quality Spanish slate was specified to match local Scottish slate. “For the stonework, we went for a traditional mix of red-pink sandstone and grey granite,” says Iain. “We wanted natural stone from the area that would colour match to the local houses so we used a local quarry, TradStocks in Stirling.”

Other external materials used on the project include White K Rend render, red-pink quoins around the window and a random granite mix; there’s even some oak cladding around the back of the house. The result is a home that manages to feel truly Scottish while also maintaining a distinctive character all of its own.

Susan’s attention to detail continued into planning the interiors. “I had hundreds of screenshots and

Simply Inspired

Paving isn't just paving. It's possibilities. At Brett, we help you to create outside spaces that inspire, enhance, and shake things up a little – or a lot. Enabling greater vision, satisfying your design aspirations and achieving the unachievable. Whether you just need some support, or simply require the finest quality products, Brett helps you look at things differently. Brett. Everything's easy. Anything's possible.

Discover the possibilities at brettlandscaping.co.uk



brettlandscaping.co.uk

 **BRETT**
built on relationships

STRIKING SPACES
The large amounts of exposed oak mean the spaces have plenty of personality. The dramatic curved staircase was made by Ian Houston Joinery.

rather than the usual Pinterest sites, I checked ‘houses for sale’ on Rightmove and that gave me a huge source of inspiration for every room,” she explains. “If you go for the multi-million-pound houses, you can get a feel for the high-end look and then copy it at reasonable prices. When asked at each stage what I wanted, I just forwarded the relevant screenshots. Never assume the builder knows what you mean!”

Home from day one

From starting on site to moving in, the build took just 16 months. “We’ve loved living here from day one,” says Susan. “We moved in a week before the Beast from the East but stayed warm and cosy, thanks to the large amount of insulation, the air source heat pump and a woodburner, which we only need on the coldest of winter nights when the temperature goes a long way below freezing.

“It is not just the house, but the area and the people around that make your new house a joy to live in. We could not be happier with the whole package.” 



BUILD COST BREAKDOWN

Oakwrights’ green oak frame including rear porch, wall, floor, roof, eaves and verges, and encapsulation system	£257,773	Renderworks	£10,817	Décor	£9,188
Prelims	£46,240	Partitions, plasterboard, internal insulations, plaster/screed	£45,538	Wall tiles	£10,532
Site clearance, excavation, foundations and underbuilding	£40,992	Joinery fit out	£41,386	Communications	£3,500
Stone/block superstructure	£71,364	Floor coverings	£28,936	Externals	£26,816
Roof covering	£46,045	Electrics	£14,838	Rainwater goods	£3,000
Windows and doors	£55,347	Heating system and heat source	£26,839	Staircase	£25,000
		Fireplaces/flues	£7,000	Kitchen	£25,000
		Plumbing	£15,363	Bathrooms	£9,000
		Drainage	£26,836	Security	£2,650
				TOTAL	£850,000

THE ROSE COLLECTION

TIMBER-ALTERNATIVE SASH WINDOWS



The Rose Collection – British-made
uPVC sash windows, carefully crafted
for a truly stunning and authentic look.



Maintenance
Free



A Rated
Energy
Efficiency



Part Q
Available



Wide Range
of Colours



Authentic
Woodgrains



Mechanical
Joint Option



Authentic
Sash Horns



35mm
Midrail
Option

Rose
collection

Call today on 01234 712 657

www.sashwindowsuk.com





BUILD TIMELINE

2015 Plot purchased
 JUNE 2016 Planning application submitted
 AUG 2016 Planning permission approved
 JAN 2017 Start on site
 FEB 2017 Foundations completed
 MAY 2017 Watertight shell
 JULY 2017 First fix
 OCT - NOV 2017 Second fix
 MAR 2017 - JAN 2018 Final decoration
 APRIL 2018 Date occupied

THE MASTER SUITE
 Soft tones from the engineered Dejon Blanc oak flooring, modern hexagonal grey bathroom tiles and extensive glazing create a light, relaxed atmosphere in the master suite (above).



THE CAST IRON BATH COMPANY



YORK SHOWROOM

9 Colliergate, York,
YO1 8BP

T 01904 891444



LONDON SHOWROOM

165 Upper Street,
London N1 1US

T 02034 112207



HEAD OFFICE

Aurora House,
Scarborough, YO11 3YS

T 01723 585896

www.castironbath.co.uk

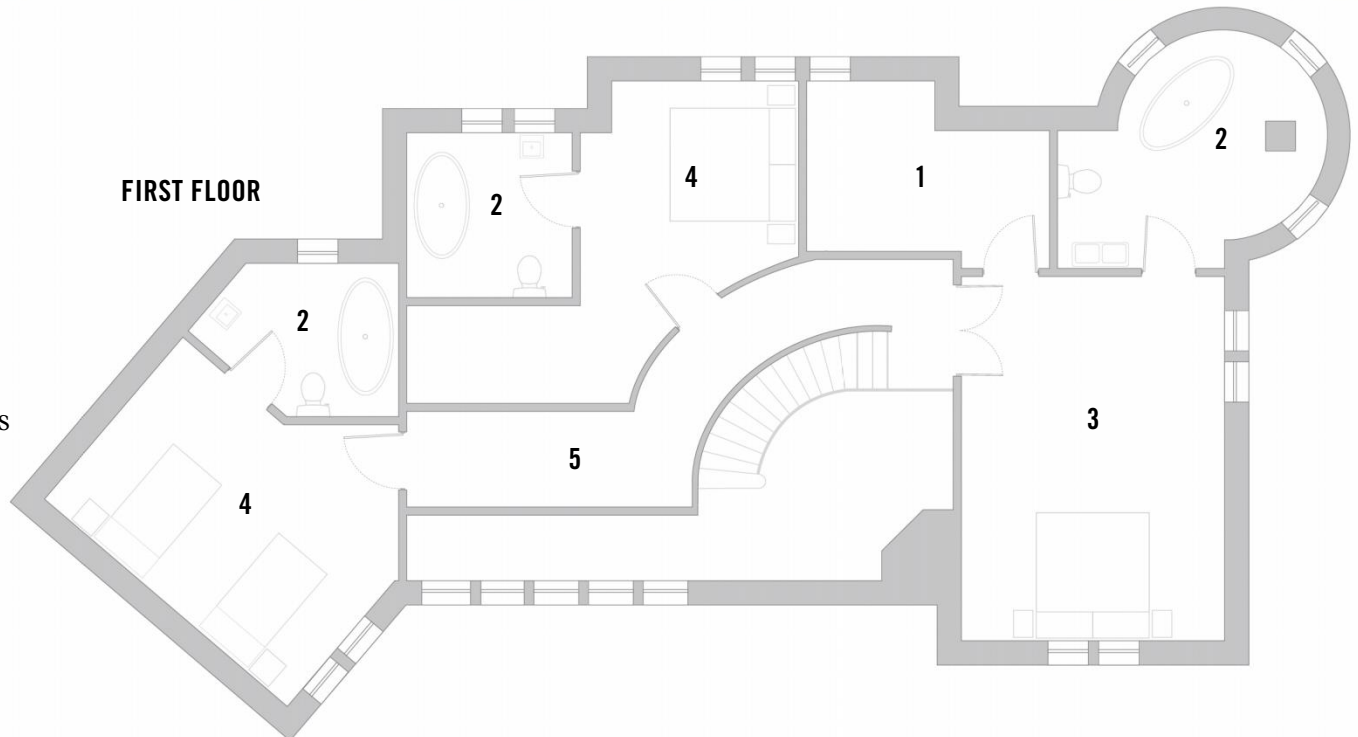
sales@castironbath.co.uk



THE FLOORPLAN

The plot, while in a beautiful rural setting, lacked any significant views. So the architect focused on creating impressive internal views and privacy for the house and garden. The L-shaped house forms a private courtyard at its centre, with the main double-height living space oriented towards the sun, and service spaces such as the utility positioned in darker areas. A turret at one end, for the master en suite above and cosy snug below, provides extra character both internally and externally.

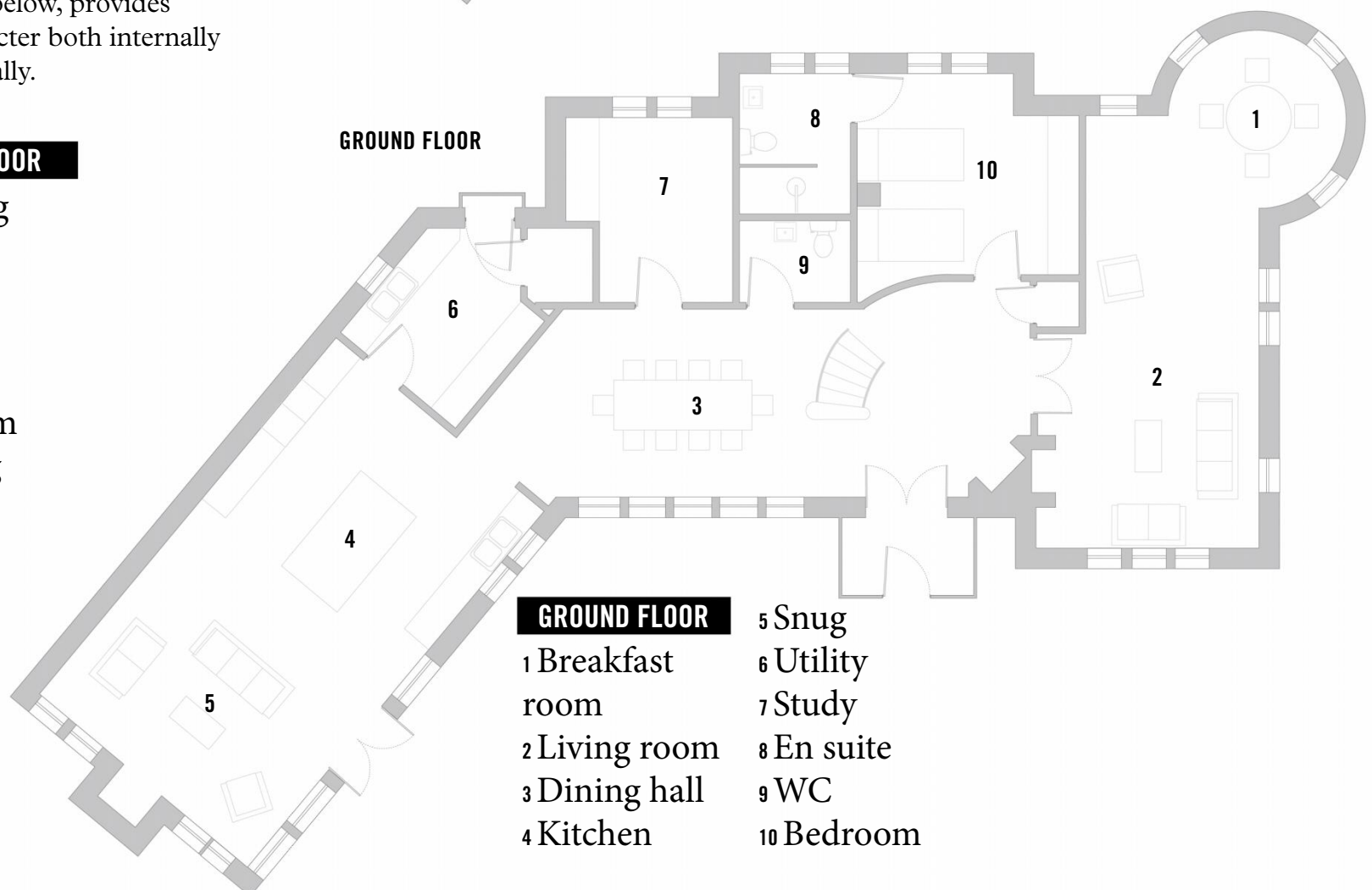
FIRST FLOOR



FIRST FLOOR

- 1 Dressing room
- 2 En suite
- 3 Master bedroom
- 4 Bedroom
- 5 Landing

GROUND FLOOR



GROUND FLOOR

- 1 Breakfast room
- 2 Living room
- 3 Dining hall
- 4 Kitchen
- 5 Snug
- 6 Utility
- 7 Study
- 8 En suite
- 9 WC
- 10 Bedroom

CLEMENT
creating light...beautifully



Steel Windows and Doors by Clement

Crafted by experts in steel fenestration and building conservation. Clement make high quality bespoke replicas of original steel windows. Manufactured by our skilled craftsmen to your specific requirements, Clement's steel frames meet modern performance criteria by complying with current Building Regulations and will enhance the beauty and value of your home for years to come!

superb steel windows, doors and conservation rooflights

Clement House, Haslemere, Surrey GU27 1HR
Telephone: 01428 643393 clementwindows.co.uk info@clementwg.co.uk



Chewton
~ BESPOKE HOMES ~

DESIGN & BUILD



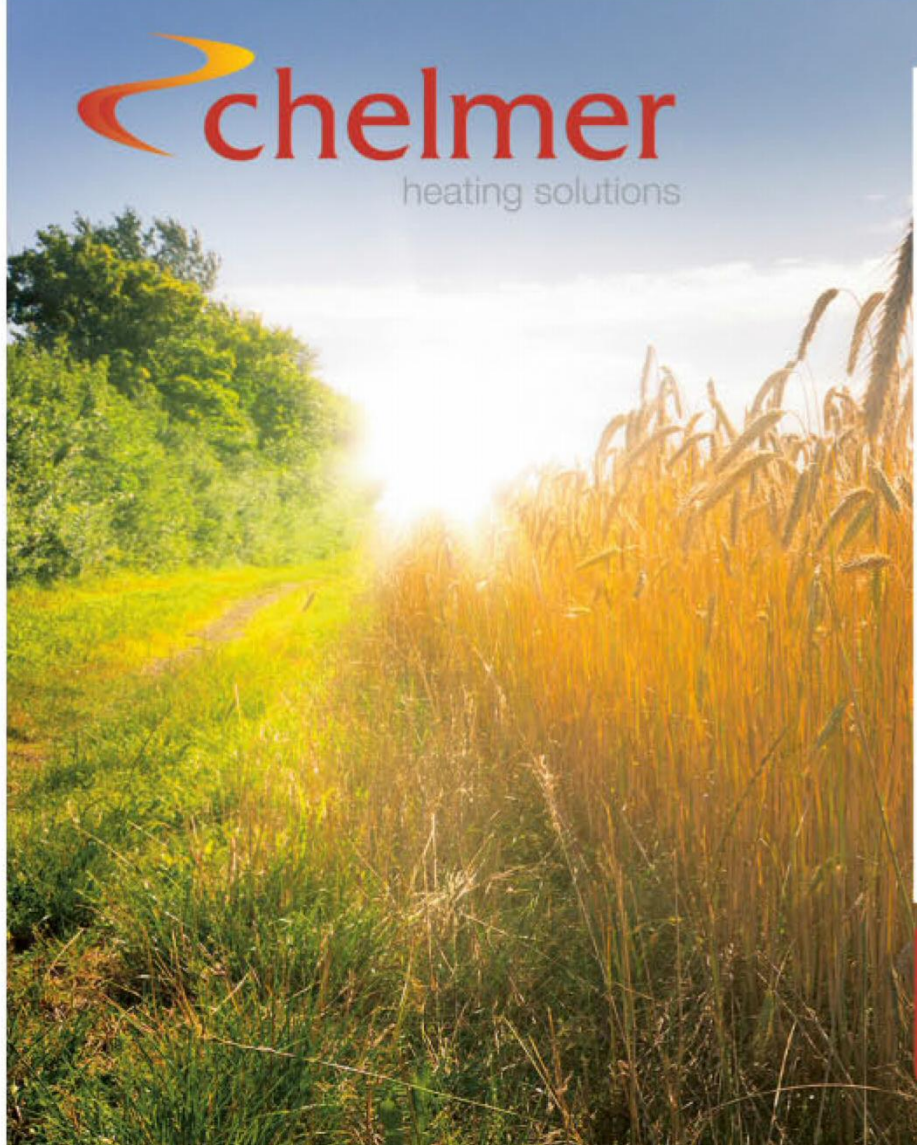
Build It AWARDS 2018
WINNER
Best Self Build Architect or Designer

NACSBA
National Custom & Self Build Association

Master Builder Awards
Southern Counties Winner 2019

www.chewtonbespokehomes.co.uk
tel 01425 600015
WE DESIGN & WE BUILD

chelmer
heating solutions



WANT TO HARVEST FREE RENEWABLE ENERGY TO HEAT YOUR HOME?

REDUCE YOUR ENERGY BILLS WITH AN INTEGRATED HEATING SYSTEM FROM CHELMER

Chelmer specialise in designing and supplying quality heating and hot water solutions tailored to suit you and your family. From traditional boiler and radiator systems, to heat pumps, biomass, wood burning stoves and underfloor heating, we have a solution for your project.

 Free System Advice and Quotations	 Wide Range of Control Options
 Comprehensive System Packages	 Unrivalled Free Technical Support
 System Design Guarantee	 Government Grant Funding Available

Choose Chelmer today and see how much you could save
Call 01245 471111 or email enquiries@chelmerheating.co.uk
www.chelmerheating.co.uk

Advertising feature



CHOOSING WINDOWS AND DOORS

How to turn your dream home into a reality with Rationel

Windows and doors make a huge difference to the internal and external appearance of a property and the size, positioning, style and quality of materials used play a crucial part in the overall look and feel of a home.

In fact, windows and doors are often symbolically recognised as an opening to a new beginning, or a gateway to information. It was once said by Thomas Phaer that “the eyes are the windows of the soul” and “if opportunity doesn’t knock, build a door” by Milton Berle.

Designing for modern living

At Rationel we believe windows and doors should reflect a householders signature style, and act as an inviting entrance to their sanctuary.

Gone are the days of ‘one-size-fits-all’ PVCu windows and doors. Today they can be made-to-measure and designed into a range of different shapes and sizes to suit property features and manufactured in a variety of colours to complement a property’s surroundings and location.

They can offer performance benefits such as reduced heat loss and noise pollution, enhanced safety, and modern products can offer householders a greater return on investment as timber and aluminum-clad variations last up to 80 years.

How Rationel can help you

Rationel was founded in 1954 in Denmark to focus on strong workmanship and innovation for modern window production. Since its conception, Rationel has paved the way for made-to-measure window and door products, putting customers first and producing special, unique design features. Our products are known for their quality and solid



craftsmanship — that’s what we’ve always been about. For over 60 years we’ve been at the forefront of modern window and door design, bringing energy efficiency and sustainability together in beautiful Scandinavian products that are just undeniably made well.

We’ve always had a vision. Since the beginning, we’ve been as passionate about creating a feeling as we are about our products themselves.

We dreamed of inspiring warmth and togetherness, of bringing a sense of tranquility and safety to an indoor environment and for people to step back and enjoy that.

Our vision today? It’s the same as it ever was. We want our windows and doors to truly change the way people live, and help everyone achieve their own space of calm right there in their own home.

For more information visit www.rationel.co.uk. **H**



STAIRPLAN

- Designers & Manufacturers of Bespoke Staircases -

☎ 01952 608853

✉ sales@stairplan.com
www.stairplan.com

We offer a full range of staircases
Nationwide delivery

Visit Our Showroom - Stairplan Ltd, Hortonwood 1, Telford, TF1 7GN

Beginner's guide to self-build



RURAL HARMONY
Richard and Helen Anderson designed their family home to blend in with the local vernacular, taking their cue from nearby barns. The brickwork has been painted white to match other buildings in the surrounding village.

There are many benefits to building your own home. Arguably, one of the biggest attractions is the opportunity it provides to create an individual home tailored around your lifestyle. Self-build can also be a route to creating a home that will adapt with relative ease as your needs change and, for many, offers scope to build a low-maintenance and energy efficient property to boot.

What's more, self-builders often achieve a larger home and garden compared to

buying a new home on the open market — the average self-build project is 247m²*, more than double the size of the average new-build developer home. And, as an added bonus, self-builders typically enjoy a profit of 25% on their investment*.

Once you've decided to build your own home, there are some key questions you need to begin answering: what do you hope to build, who will build it and how will it be built, for instance. Here's how to start this incredible journey...



Finding a self-build plot

It's the starting point to any self-build dream. Here's what to consider when plot hunting

You may be fortunate enough to have a plot already at your disposal — a large side garden, for instance, that could accommodate a new home. However, for many would-be self-builders, the process begins with finding a suitable building plot.

It's important to approach plotfinding with an open mind. Rarely does a flat plot of land, adjacent to open countryside in a picture-postcard village, present itself (without a high price tag to suit, of course). Self-build plots come in all shapes and sizes. Typical plot 'types' include:

- **Garden plots.** As the name suggests, this may be a large side or front garden where the owner has sought planning permission to build a new house.
- **Greenfield plots** are previously undeveloped land. A greenfield site is often a parcel of land in an urban area or village that occupies a 'gap' in the streetscape.
- **Brownfield land.** This term applies to land that has had a previous planning use that may have ceased. It could be a redundant warehouse or an old garage, for instance. Challenges could include contamination, which can be costly, and those costs should be reflected in the price.
- **Serviced plots.** Increasingly, local authorities and private companies are bringing plots to the market with services such as roads and sewers already in. These are serviced plots and in many cases,

service supplies will be connected into the plots. The developer of the land may then offer the plots for custom build homes with varying levels of design involvement from the prospective homeowner. This can be a great way to get a bespoke home, particularly if you hope to be relatively hands-off, but the rub is that there is generally a more restricted design process.

● **Replacement builds.** When looking for a plot on which to build your dream home, don't limit your search to looking for land. In high-value areas in particular, such as the South East – where this approach can perhaps make more financial sense – widen your search to include dated houses and bungalows, which could be prime candidates for replacement. The key is to treat every home as just a temporary occupant of a building plot — once you get into this mindset, opportunities begin to present themselves.

What makes land a building plot?

A piece of land is not a building plot until planning permission is granted. Access is another key requirement for unlocking the land's potential (more on which later).

If you do identify land with the hallmarks of a potential building plot (for instance, it doesn't fall outside the settlement boundary or contravene other national and local planning policies), there is nothing to stop you applying for



TOP TIP: GET INSURANCE LINED UP

Self-build projects require specialist insurance to ensure that you are protected in the event of public liability issues (should anyone trespass on your building site, for instance), as well as issues such as fire and storm damage. It's a good idea to buy insurance as soon as you exchange contracts on your plot

THE GARDEN PLOT

Not wanting to move, but faced with an expanding family, the owners of this property chose to build a new home in their garden. The floating form, designed by Zac Munro Architects, allows the house to blend with the surrounding houses while still providing a garden for its occupants.

planning permission, even if you do not own the land. If you do opt for this route, ensure you have a contract in place with the owner to ensure you can purchase the plot for an agreed sum if you do successfully obtain planning permission.

More commonly, you will have purchased a plot with outline or full planning permission already in place. The good news is, you can re-apply for planning permission for a design which more closely resembles your dream home. That said, the existing design and planning history of the plot should give you a good clue about the likely success of, say, increasing the approval from a bungalow to a two-storey home.

What to pay

The price of your plot will reflect the local housing market. Ideally, the real value of a plot should equal the end value of house minus the total build cost (visit www.homebuilding.co.uk/calculator). You should also try to factor in any 'additional' costs (see page 187) and put aside 10-30% of your build cost to cover any unexpected expenses. Typically, self-builders pay between £100,000 and £275,000 for a plot. However, this varies across the country, with many affordable plots on offer in Scotland, while the South East and counties such as Cheshire are home to some of the UK's most expensive building plots.

What to look out for when assessing plots

- **Ensure planning permission has not expired and is not about to expire** when you purchase your plot. There is no guarantee that reapplications will succeed.
- **Check access:** When searching for a plot, keep an eye out for access. "Access arrangements to building plots should be clear and the land required to gain access should extend directly up to the adopted highway. If this isn't possible, the land concerned should at least have a legal right to cross third party land to access the plot in perpetuity," explains self-build expert Mark Stevenson. "The lack of a legal right of access could prevent its development or prove costly in agreeing a settlement to cross what's known as a 'ransom strip'." This should be reflected in the plot's cost, or negotiated prior to purchase.
- **Check for covenants:** These may be restrictions, which limit the use of the land or the ways that it might be developed, or overages — obligations that ensure a previous owner benefits from future development. The latter may involve payment to the previous owner.
- **Are services on site already?** In most cases it will only take a quick look to ensure services are in place, but if services are not available, then it pays to do some research into your options and the costs. In the pre-purchase and assessment stage, if there are no service connections, it's a good idea to begin establishing the likely costs of bringing services to site. If there's no time to get quotations, you can assess where and whether utilities are close by looking for manholes, overhead lines or access and inspection chambers. Off-mains options for heating and hot water, and drainage, are readily available.
- **Ensure the title deeds are 'absolute' rather than 'possessory',** or negotiate on the plot price accordingly.
- **Finally, read our in-depth guide** to assessing plots online: www.homebuilding.co.uk/building-plot-how-to-assess-its-potential.

Five ways to find a plot

- **Study the local area**
Think like a developer and search out opportunities others overlook. Get out and about in your chosen area or use Google Maps to look for homes on large plots that have either a large side garden, or infill land.
- **Sign up to Plotfinder.net**
Register with specialist plot services like Plotfinder.net, which collects information from those selling land (including estate agents and individuals not selling elsewhere) and makes it available via subscription.
- **Contact experts**
Some package companies, such as Potton and Border Oak, hold lists of available plots online.
- **Visit local auctions**
Many opportunities are sold via auction, so establish who the key agents are in your area and get on their lists for catalogues. If you haven't been to an auction previously, go and experience one first hand in order to familiarise yourself with the process.
- **Check your local authority's website**
Check recent planning applications on your local authority's website. In most cases, the details of the owner or agent are included on the application. There is nothing to stop you contacting them directly. They may want to build themselves. If they don't, buying directly can save them estate agent fees.



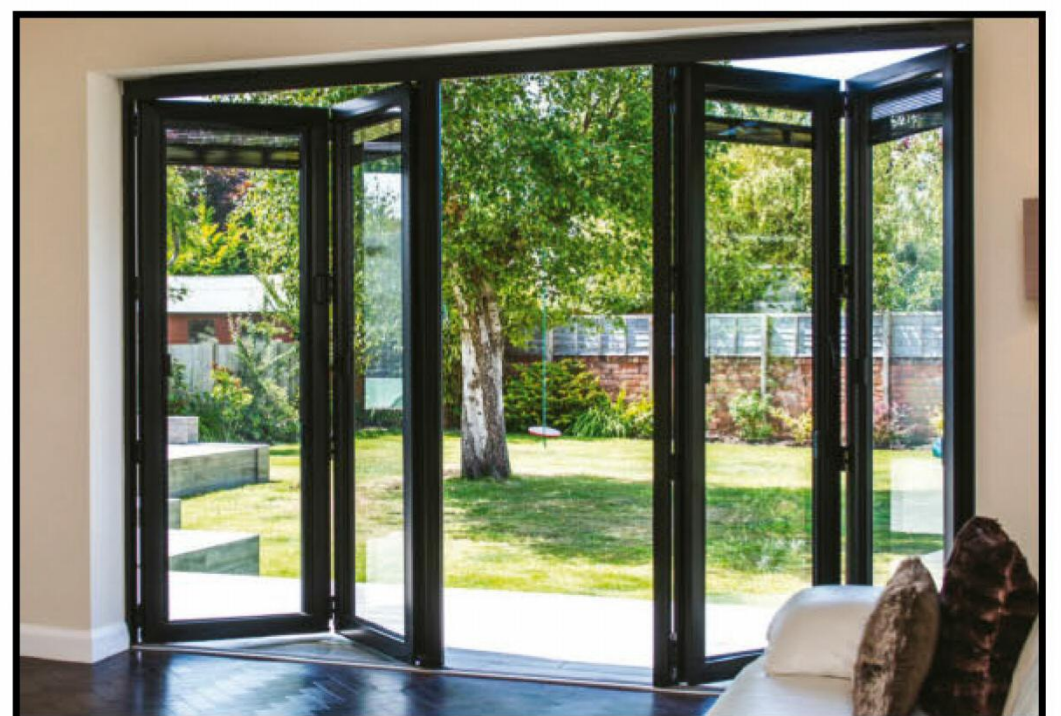
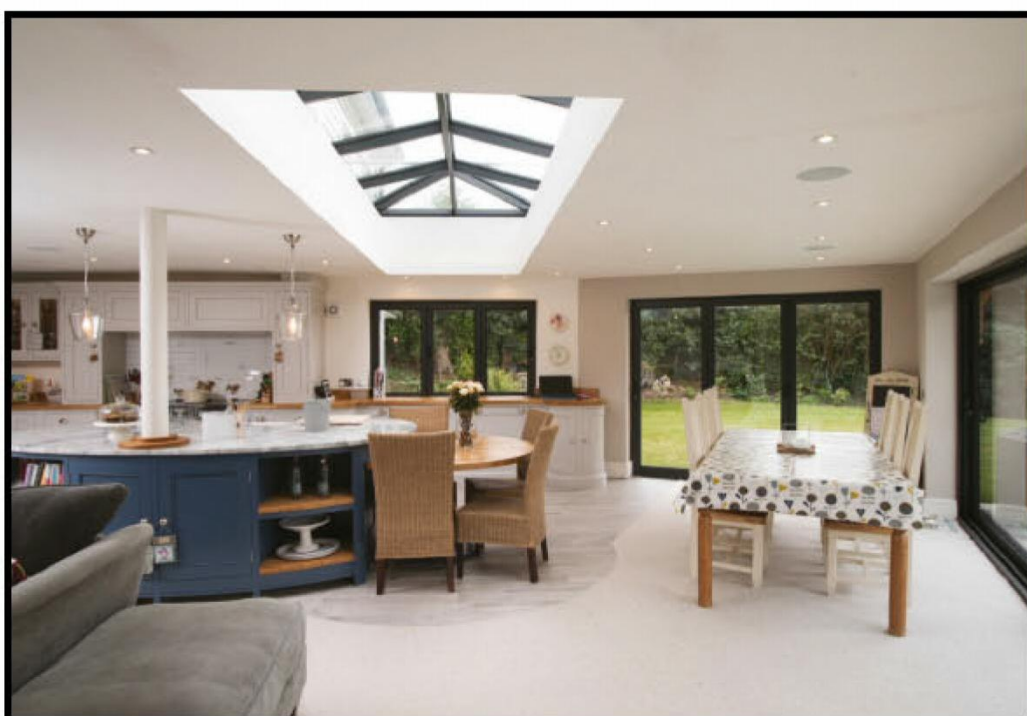
FD2U

FOLDING DOORS 2 U

ULTRA SLIM SLIDING PATIO DOORS, BIFOLDING DOORS AND CONTEMPORARY ROOF LANTERNS

Allow natural light to flood into your home with our range of slim-line contemporary roof lanterns, aluminium sliding patio doors and bifold doors complete with solar control double glazing.

High specification products designed to add the WOW factor to any home at affordable prices.



sales@foldingdoors2u.co.uk

01621 834123

www.foldingdoors2u.co.uk

Financing your build

Funding your project may require a specialist self-build mortgage...

There are two significant costs when building your own home: the building plot and the build itself. There are also a few additional costs that you'll need to factor in — see the box below.

Funding your build

You'll need access to money to buy a building plot, to pay for professional services such as architectural designers' fees and any site surveys required, and to fund the build itself. How you find this money will, of course, depend on your financial situation. It may come from your savings, equity in your existing home, a self-build mortgage or, most likely, a combination of all three.

Surprisingly few high street banks provide formal facilities for self-build finance, so you'll probably need to approach a specialist self-build mortgage provider. A self-build mortgage is tailored towards the way you pay for a self-build project — with money released in several stages, rather than all at once (as it would be if you were buying a house). Finance will be released at key stages as the build progresses, for example when the foundations are laid or when the building is made weathertight.

There are two main types of stage release mortgage. The first is an arrears stage payment mortgage, which sees funds released as work is completed. The second is an advance stage payment mortgage, which pays out before each stage of the build begins. The latter has obvious advantages in terms of assisting cash flow and is generally better suited to those who do not have large pots of savings with which to fund their build as it progresses.

Some self-build lenders are willing to lend on plot purchases too, but not all of them offer this service. Rates of interest for self-build mortgages are typically higher than those that are currently available for a standard house purchase or remortgage, and the arrangement fees vary significantly from lender to lender, so be sure to shop around. Once the property is habitable,

some lenders allow the borrower to switch to a lower rate of interest.

The amount you can borrow will depend on similar factors to those that would govern your limit on a standard house mortgage; in most cases these will include an affordability assessment, income multipliers and LTV (loan to value ratio — a measure of lending risk). Lending policies change regularly, but lenders may, for example, offer to provide funding for up to 85% of the value of the building project. In order to progress your application you'll likely need to provide plans and a breakdown of the potential build cost.

Remember to factor in the following costs...

In addition to the plot and total build cost, there are other costs associated with building a home that need to be accounted for, including those associated with purchasing the plot (legal fees and stamp duty), a topographical survey, any surveys you need for planning purposes (such as ecological surveys), design fees, planning fees and the cost to create plans for Building Regulations purposes. You'll also need to purchase self-build insurance as soon as you buy your plot, and it's a good idea to purchase a warranty, too. Another common 'hidden' cost is the price of bringing services like electricity, water and mains gas to site. These extras can add up fast, so stay on top of them.

A self-build mortgage is tailored towards the way you pay for a self-build project

Pre-build essentials

Here are some of the key things you need to consider before 'going on-site' with your build

Once you have purchased your plot there are a good number of steps you need to take before you can begin building your dream home...

Designing your new home

While some self-builders do design their own projects, you'll more than likely need a designer on board to help you formulate plans for your dream home. This might be an architect, an architectural technologist, an architectural designer or an in-house designer at a package company.

Finding a suitable designer and completing the design process is likely to take at least a couple of months, and may well take considerably longer. You'll then need to apply for planning permission...

Applying for planning permission

The cost of submitting a planning application varies across the UK, but is currently £462 in England. However, the real cost of obtaining planning permission arguably comes from preparing the plans and documents (the design fees) in readiness for submission and any accompanying surveys (such as ecological surveys) that may be required.

You should find out whether your local planning authority has approved your scheme after eight weeks — although more complex schemes can take longer.

News of approval doesn't necessarily mean you can start work. Make sure you look at the planning conditions attached to your planning consent — for instance, you may need to seek approval for your chosen roofing or cladding materials.

"Planning conditions are the small print that allows a consent to be issued while leaving the finer detail to be resolved later. Some may even require resolution before any work can commence. It's vitally important to make sure the planning conditions are capable of being satisfied, as failure to do so will prevent the build from starting, and may even invalidate the consent and render the plot worthless," says self-build expert Mark Stevenson.

Building Regulations

All new homes need to adhere to the Building Regulations, and for this reason a building control inspector will visit at key stages of the build to inspect the work and ensure it complies. These stages include: excavation for the foundations, pouring concrete for the foundations, building the oversite, building the damp proof-course, drainage, a visit prior to completion and a final visit on completion. A completion certificate will then be issued following the final inspection.

Before beginning work on site, there are a couple of key decisions you'll need to make. The first relates to the route you take: whether to opt for a full plans application (which is certainly advisable when building your own home) or submit a building notice. The second relates to the question of who will carry out your inspections: your local authority building control department or an Approved Inspector from a private company.

Lining up your project team

You can establish contact with and line up a builder, main contractor, package company and/or subcontractors during the design and planning processes, but you won't get an accurate quote for the work until your Building Regulations drawings have been finalised.

One of the best ways of finding a good builder and subcontractors is through word of mouth — ask your designer, friends, family, neighbours who've undertaken projects, and anyone else you know locally who's built their own home, for recommendations. Much like finding a designer, choosing a builder requires plenty of research. It's best to meet with them to discuss your project and to ask them to quote (your designer can help you prepare tender documents for this purpose). It's also a good idea to visit a project they've completed and to talk to previous clients.

The best builders and subcontractors will be booked up months in advance and therefore you may have to wait until

CIL EXEMPTION

Read more about the exemption process and download the forms you need at: www.planningportal.co.uk/info/200136/policy_and_legislation/70/community_infrastructure_levy/5

they're available to start your project — so starting your search as early as possible can help here. Again, if you're dealing with a package company then your start date will depend on how busy their order book is (you'll likely wait three months or so).

Bringing services to site

Getting services to your site (if necessary) can cost as little as £500 or more than £10,000, depending on the site's location, what services you need, and whether the connection needs to be made across private land (in which case you'll need to secure a wayleave to grant access) or public highways (which may involve road digs by approved contractors).

If the cost of bringing in mains gas and drainage is prohibitive, it may be time to investigate the off-mains alternatives, such as oil, LPG or a renewable heating and hot water system, and a sewerage treatment plant for drainage.

It's important to note that, while electricity is not essential during the build, a water supply is often needed early on.

Where will you live?

This is one of the biggest decisions you'll need to make prior to your build (or perhaps even while buying your plot). Some self-builders are in a position to remain in their existing homes while building. However, many need to consider an alternative, such as:

- Staying with family or friends; the average self-build project takes around a year on site, so if you plan to rely on someone's hospitality, be sure to be realistic about the timescale of the project.
- Renting temporary accommodation; this is an option, but an expensive one.
- Living on site in a caravan, a static or perhaps in an outbuilding built first.

CIL exemption

The Community Infrastructure Levy (CIL) imposes a fee on the creation of new homes, which is determined by the local authority and is based on the size of



the house. The good news is that, subject to certain criteria (the home must be your principal residence for three years or more, for instance), self-builders are now exempt from paying CIL.

However, the four-stage exemption process must be followed to the letter. "Claiming CIL exemption is perhaps one of the best bits of bureaucracy you will ever encounter as a self-builder, but all the paperwork must be completed, and your claim agreed before you start work on site, otherwise you lose your right to exemption," says self-build expert Mark Stevenson.

Reclaiming VAT

One of the major benefits of building your own home is that you can reclaim VAT on most building materials. VAT-registered builders and subbies should also zero-rate their invoices, while, of course, if they're not VAT-registered, they shouldn't be adding it to bills in the first place!

In general, you can reclaim for all materials that are fixed into the house, but the interpretation of this can be complex. For instance, you can reclaim VAT on timber flooring, but not carpet. You cannot reclaim VAT for design fees or services. You can only make one claim (using the VAT 431NB form available to download at: www.gov.uk/vat-building-new-home/how-to-claim). Don't underestimate the time you'll save by keeping your VAT receipts safely in one place as you go along.

There are a small number of self-build VAT experts who can aid with this process and can help you maximise your reclaim.

BUILDING A REPLACEMENT HOME

After buying an idyllic plot in the Worcestershire countryside, Rachel and Darren Luke spent 17 years living with their family in the 1980s house that sat there. Before building their replacement oak-framed home, the family first constructed a matching garage with a two-bedroom flat above to act as their temporary home on-site during the two year build.



Choosing a build route

Self-build is a broad church — you needn't lay a single brick if you don't want to!

Self-build is a broad church and there are many routes to getting an individual home built. Most self-builders choose one of the following routes:

- Project managing the build themselves, including hiring and coordinating subcontractors – such as plumbers and electricians – to complete the build, as well as buying most of the building materials.
- Choosing a main contractor or builder to manage and coordinate the build on their behalf. In this case, the builder or main contractor will often buy all or the majority of the building materials.
- Choosing a professional project manager to coordinate their build.
- Building their own home by hand — the ultimate DIY route.
- Outsourcing the project to a package company, who may coordinate everything from design concept through to completion. Some package companies also offer the self-builder the opportunity to decide on the level of service they require.

Only 16% of self-build projects are undertaken on a DIY basis, with the majority (57%) of self-builders choosing to instead project manage subcontractors to build their house for them*. The reality is that most self-builders use a combination of the approaches outlined. For instance, one popular route to building a home involves commissioning a package company to build the weathertight shell or 'superstructure', with the self-builder managing the groundworks before and

interior fit-out after (first and second fix work, decoration and the like).

Choosing the right self-build route for your project is a decision only you can reach, but there are undoubtedly factors that will influence this choice: your finances, how much time you can devote to the project and how capable you are at carrying out jobs yourself, for starters.

Those looking for significant cost savings need to understand that the more work and time they put in, the more they will save. The *Homebuilding & Renovating Self & Custom Build Market Report 2017* found that those building their own home through DIY saved 25% on their build costs against those managing their own projects, while self-builders taking on the role of project manager saved 17%, compared to those who used main contractors.

That said, some of the biggest hurdles encountered on a self-build project are the result of choosing a build route which does not fit with your circumstances — for instance, by underestimating how time-consuming managing a building site can be. This is a decision that needs careful consideration.

Choosing a construction system

There are a number of different build systems to choose from when building your own home (see right) — no longer is the choice simply between timber frame and masonry. In most instances, your chosen construction system will have little impact

on how the exterior of your home will look, as most cladding materials, be they timber, render, brick or stone, can be used with all the main construction systems.

Construction systems can be broadly divided into on-site methods, such as masonry and ICF, where the majority of the structure is built on your building site, and off-site methods, where the main structure is constructed elsewhere and delivered to site to be erected. The latter tends to result in a faster build on site.

There are essentially three things to consider when deciding: price, quality and speed. If you are not too concerned with how your house looks ‘under the bonnet’ or feel unable to make this decision, then it might be best to hire a professional to do this for you. Your chosen architect, structural engineer or builder may have preferred methods of working and in such cases you would be well advised to work with your appointed specialist on the systems they know and like. Alternatively, they may offer advice on the most cost-effective or suitable construction system for the home you hope to build.

Conversely, if you have your heart set on a particular construction method – maybe oak frame for its character, or timber frame because you hope to project manage once the superstructure is built – then it’s a good idea to approach a designer or package company well versed in that construction system from the outset. Each construction system has its own set of parameters and design challenges, and designing a home with said construction system in mind is a cost-effective route.

Using the build system of structural insulated panels (SIPs) as an example, architect and self-build expert Allan Corfield explains: “Most construction products come in standardised sizes, so it makes sense to set out your design based around these. As the most common SIPs panels come as 1.2m x 2.7m sheets, it also makes sense to utilise a 1.2m floorplan grid. That way you can lay out your walls along a grid, which will minimise the amount of cut panels and consequently minimise cost. A SIPs designer will be able to design to the capabilities of the product, making sure you get the most for your money.” 

SPOTLIGHT ON...

BUILDING WITH STRAW BALE

With a dream of building an affordable home under Exmoor National Park’s housing policy, Justin and Linda Tyres designed a two-bedroom home (shown opposite) constructed using a post and beam timber frame, with straw bales for the walls. The couple saved a significant amount of money by building with straw (the 310 bales required cost just £1,000) and the entire project came in at just £67,000.

The main choices include...

● **Masonry** Modern masonry homes consist of an inner loadbearing skin, a cavity, which is fully or partially filled with insulation, and an outer skin, which often protects the structure from the elements. Materials are readily available and most builders are used to working with blockwork.

● **Timber frame** Timber frame walls consist of timber studwork panels, usually fixed in place with oriented strand board (OSB) or plywood. These can be built on site by a carpenter (‘stick build’) or prefabricated, in which case they can either come as a closed panel system with factory fitted insulation and joinery, or as open panels that need insulation and joinery installed on site.

● **SIPs** Structural insulated panels are manufactured off site, and once delivered can be erected and made watertight in a matter of days or weeks. The loadbearing panels typically consist of a rigid insulating core sandwiched between two pieces of OSB. SIPs can be ideal for those wanting to build an airtight, highly insulated home.

● **ICF** Insulating concrete formwork offers an on-site approach. Ready-mix concrete is poured into formwork, typically made of expanded or extruded polystyrene. The formwork acts as both the ‘mould’ for the concrete and is left in-situ to provide a continuous layer of insulation. Another benefit is that ICF can be suitable for building basements.

● **Oak frame** Ideal for those who want a characterful home with vaulted ceilings, tastefully exposed beams and double-height spaces, the oak frame structure is typically manufactured off site and erected on site. The frame is ordinarily encapsulated within a SIPs or timber panel system to create an energy-efficient and airtight build.

● **Steel frame**

Most new homes and many extension and renovation projects feature steel in some form — usually steel beams to provide support above openings. This construction system can be well suited to homes where large spans and large areas of glass are used. But again, it’s a hybrid method of sorts as it will need to be encapsulated.



Firing imaginations for over 37 years



WOODBURNING | GAS  MULTI-FUEL | ELECTRIC

STOVAX  GAZCO

Find your local retailer at stovax.com

SOURCING SUPPLIERS FOR YOUR DREAM HOME?



**MAKE SURE YOU
LOOK OUT FOR THESE
NACSBA STAMPS**

The National Custom & Self Build Association campaigns to remove the barriers to more people in the UK building their own home. Look out for the NaCSBA stamp and be assured that you'll be working with a company you can trust.

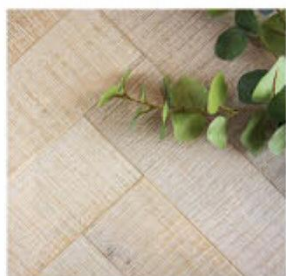
- All members are committed to working with self-builders in a fair and transparent manner
- All members are funding the growth of the sector so more people can have an individual home
- All members are covered by NaCSBA's consumer Code of Practice – to protect you if things go wrong



A FULL LIST OF MEMBERS CAN BE FOUND AT:
www.selfbuildportal.org.uk/members

The Stone Floor

by Willow Tree Interiors



- Natural Stone
- Statement Collection
- Oak Flooring
- Outdoor Paving
- Free Samples
- Hallways
- Kitchens
- Bathrooms
- Living Areas

www.thestonefloor.com

For Bespoke Kitchens: www.willowtreeinteriors.com

info@thestonefloor.com

[@the_stone_floor](https://www.instagram.com/the_stone_floor)

mvhr

heat recovery ventilation



Our specification..

- ✓ 7-Year warranty
- ✓ Silent operation
- ✓ Smartphone controlled
- ✓ Traffic pollution & pollen filtering
- ✓ Optional warming & cooling
- ✓ Over 90% heat recovery
- ✓ Passive House certified
- ✓ SAP appendix Q listed
- ✓ Approved design & install



For a 5-star service call..

01625 423020

Send plans to sales@solarcrest.co.uk



AIRFLOW
PREFERRED PARTNER



Scandinavian
Homes

Simplify your self-build with Scandinavian Homes.
Log and timber frame homes.
Full turnkey build service available.



homes@scandinavianhomes.com
0845 299 6337 | www.scandinavianhomes.com



SELFBUILD
& CONTRACT FLOORS LTD



Underfloor Heating & Flowing Screed

On-time Right-first-time

We specialise in a wide range of projects including:

- Self Builds
- New Builds
- Renovation Projects
- Barn Conversions
- Extensions
- Basement Conversions

Visit: www.selfbuildfloors.co.uk
Email: info@selfbuildfloors.co.uk
Phone: 0114 231 5937



Simply the **Best Way** to Fit a Stove

THE
STOVE
BOX

Use a Stove Box to get the best from your stove

- Gets hotter quicker
- Stays hotter longer
- Uses less fuel

The Stove Box can be connected to flue liners and is ideal for twinwall in a no chimney situation.

An HETAS listed product approved by building control.



Chop into an existing chimney breast



Build around with our False Chimney Breast system



Use our Eco-Space Saver

KIWA evaluation
energy test gives
The Stove Box
a Glowing Report

For more information please see our website www.thestovebox.co.uk
or visit our store at 13 Island Carr Road, Brigg, Lincolnshire DN20 8PD

NEW BUILDS, CONVERSIONS, RENOVATIONS & EXTENSIONS INSURANCE

- Specialist brokers for over 15 years
- Experienced and qualified staff
- Deal with 1 advisor from start to finish
- The same price as direct, but with free independent advice

Call us on **01837 658955**

Email info@versatileinsurance.co.uk
Or visit www.versatileinsurance.co.uk

*New customers only. Amazon Vouchers will be provided 3 weeks after you buy a policy.
Versatile Insurance Professionals Limited is authorised and regulated by the Financial Conduct Authority.

 **VERSATILE
INSURANCE**

**Quote HBR for
a £20 Amazon
Voucher!***

PINELAND FURNITURE LTD



- 100% solid wood kitchens – no MDF, chipboard or ply
- Dovetail jointed drawers – mortise and tenon joints for carcasses
- Free design service, individual hand drawn plans
- Non-standard sizes, at no extra cost, to suit your kitchen's dimensions
- Fully assembled units; no annoying flat-pack assembly
- Straightforward, easy to understand costing – prices include VAT & delivery
- Primed, or primed and painted units can now be provided

PINELAND is a privately owned, family company that has been established for over 20 years. We believe in listening to our clients, and our hand drawn plans reflect our customers' desires and opinions. The final design combines well planned functionality, with elegance and beauty, and our clients are often surprised how all this can be achieved at such a reasonable cost.

Visit our website; www.pineland.co.uk Email: enquiries@pineland.co.uk or call our offices:

CLEOBURY MORTIMER, SHROPSHIRE **01299 271143**
NORTHWICH, CHESHIRE **01606 41292**

PREMIER
LOFT LADDERS



The
difference
is in the
detail

Learn about what makes our products different...
www.premierloftladders.co.uk/difference
 0345 9000 195 | sales@premierloftladders.co.uk

Site Insurance & Structural Warranty

Arranging suitable site insurance and structural warranty cover on your project is absolutely essential. Whether it's a party wall issue or a difficult site, we can help.

Protek provide insurance for new build, conversion, extension and renovation projects anywhere in the UK.

- Experienced underwriting team
- Deal direct with the provider
- Structural Warranty - Lender Approved
- Fast & responsive claims service
- Competitive



Protek



New Build

• Conversion

• Renovation

• Extension



UK FINANCE
2019 ASSOCIATE MEMBER



Quotes & cover available online at:
proteksselfbuild.co.uk or 0333 456 8030

Protek Group Limited is an Appointed Representative of Arthur J Gallagher (UK) Limited who is Authorised and Regulated by the Financial Conduct Authority (Firm Reference Number 312919)

Homebuilding & RENOVATING THE SOURCEBOOK

The ultimate directory to help you locate suppliers for all your self-build and renovation needs.

FEATURED ADVERTISER



Heritage Cob & Lime

Specialists in Building Restoration

Suppliers of

Lime Mortars | Bespoke Pointing Mix | Cob Blocks
Earthborn Paint | Keim Paint

www.heritagecobandlime.com

Arridge Garage Doors Since 1989

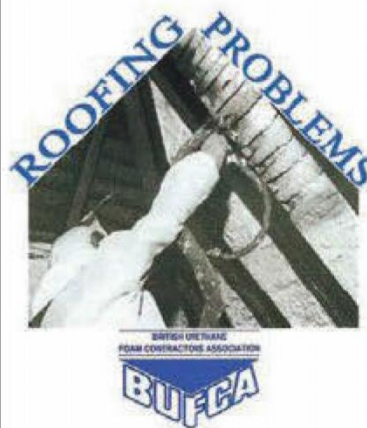


- Top Brands
- Discounted Supply only to trade and retail
- Quality installation service available

★ **REVIEWS**
4.82 Rating

sales@arridgegaragedoors.co.uk
arridgegaragedoors.co.uk • 01691 670 394

Websters Insulation Sprayed P.U. Insulation and P.U. Cavity Injection



Polyurethane sprayed foam for insulation, roof stabilisation and the prevention of condensation. Websters Insulation Ltd recommends the Webtherm™ system, suitable for new build, renovations and barn conversions. For use on roofs and walls, the Webtherm™ system provides an exceptional alternative to dry lining non-cavity walls and 'hard to treat' cavities.

Tel: 01405 812682
www.webstersinsulation.com

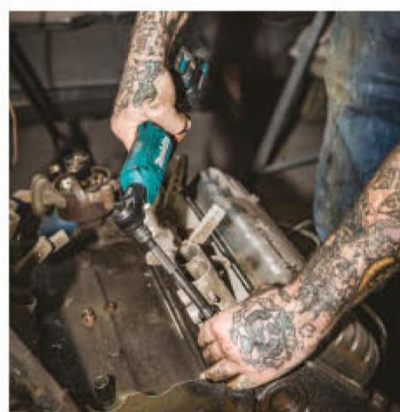
Kaldewei Superplan shower surface



The Superplan shower surface has a depth of just 2.5cm making it ideal for floor level installation. Made from 100% recyclable Kaldewei steel enamel, it comes in many different colours and sizes for maximum flexibility and is supplied with a 30-year guarantee.

Tel: 01480 498053
www.kaldewei.co.uk

MAKITA EXPANDS CXT RANGE WITH NEW RATCHET WRENCH



Makita's new cordless ratchet wrench is a versatile, compact and lightweight tool suitable for use across a wide range of applications and ideal for accessing tight spaces. With a number of innovative features included, the WR100DZ has been designed to ensure optimum efficiency and operator productivity.

To find out more about Makita and its range of tools please visit: www.makitauk.com

A journey through specifying fires

Fire types and styles, relative efficiencies and flueing options

DRU FIRES INTRODUCES NEW ONLINE CPD COURSE

DRU Fires has announced a new, updated CPD course for architects and builders called: 'A Journey through specifying fires.'

It deals with the different combustion systems for gas and wood fires and stoves, relative efficiencies, installation options and legislation governing all types of appliances. For further information, visit www.drufire.com

SOLID OAK DOORS

07940 067952

www.bespokehardware.co.uk



Over 200 Used Static Caravans - Ideal for Temporary Accommodation.

Looking for temporary accommodation whilst undertaking a building project? Worcestershire Caravan Sales has over 30 years experience in the caravan industry. With over 200 caravans to view, there is something for every budget. Guaranteed 'buy back' available. Open 7 days a week!

Sandy Lane Ind Est
Stourport on Severn
Worcestershire
DY13 9QB



01299 878872
07834 555489
07834 757866



www.worcestershirecaravansales.com

OAK BEAMS

Ancient Oak Beams, Bricks, Roof Tiles, Floorboards, etc.
Immense Stock

01483 200477

www.antiquebuildings.com
Antique Buildings Ltd, Dunsfold, Surrey

VAT REFUNDS ACCA

Specialising in VAT REFUNDS for new builds and conversions. Professional and helpful service offered by self-builder and converter. Final fee payable once funds received from HMRC.

J.M. Daniel Business Services Ltd
Contact Jayne Daniel ACCA or:

0161 763 5304 jayne@vatrepayments.co.uk
www.vatrepayments.co.uk

Fibre optics for your new-build or refurbishment made easy.

Star ceilings are our speciality

www.starscape.co.uk

THE SELF BUILD LOAN FUND

HERE TO HELP THOSE STRUGGLING TO SECURE
SELF BUILD FINANCE

ABOUT THE SELF BUILD LOAN FUND



The Self Build Loan Fund (SBLF) was established by the Scottish Government to support and encourage the self build market at a time where securing mainstream finance can be difficult. The Highlands Small Communities Housing Trust administer the fund.

Now available across Scotland, self builders can borrow up to £175,000 to help them during their construction period.

@SelfBuildFund

KEY FACTS

- Borrow up to £175,000
- Must be able to demonstrate that you have been unable to secure mainstream self build finance
- Used to financially support the construction of your home and demonstrate that you will be able to repay the loan on completion
- Fees and interest apply
- Must own a house plot, with planning consent in place

For more information visit our website:
www.hscht.co.uk/scotland-self-build-loan-fund
Or get in touch:

selfbuild@hscht.co.uk 01463 572030



Scottish Government
Riaghaltas na h-Alba
gov.scot



We have also recently launched a new website dedicated to providing self and custom build news and information. You can view it here: www.selfandcustombuild.co.uk.

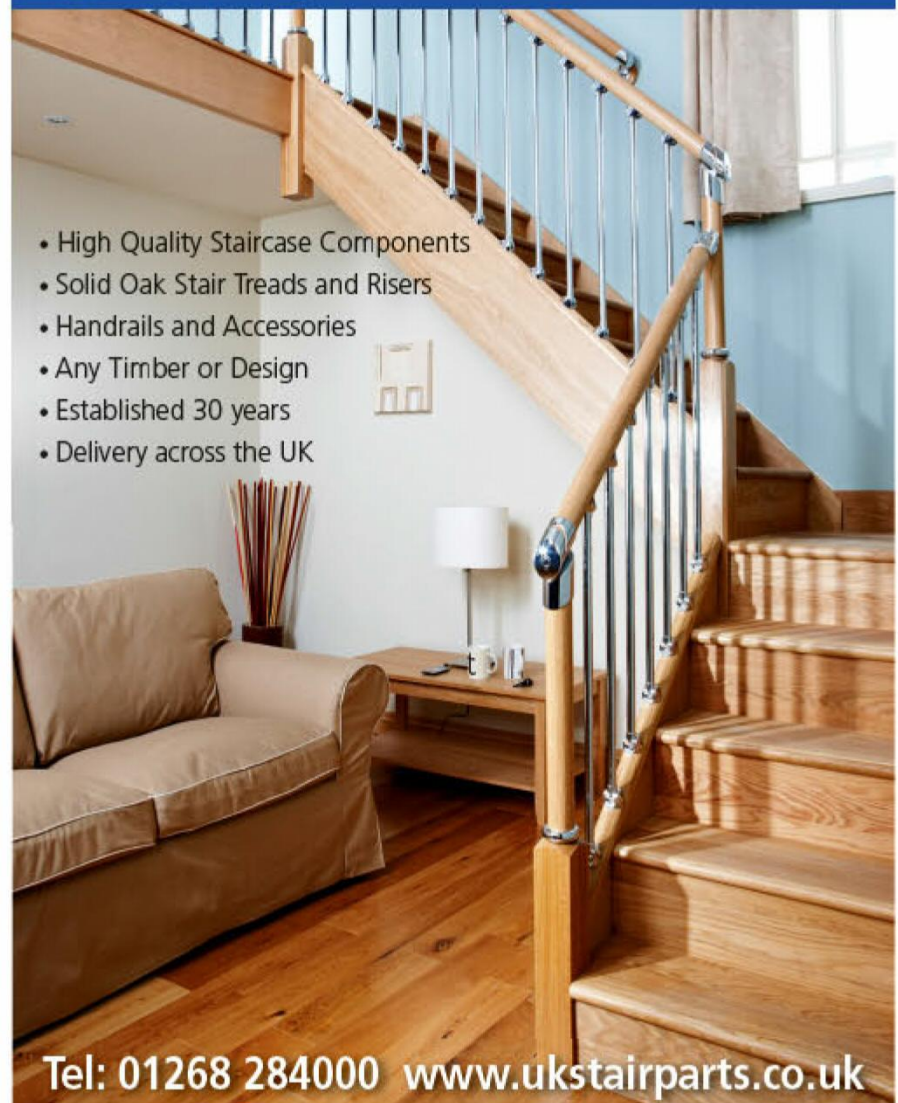


Scotland's
Self & Custom
Build Portal

The Highlands Small Communities Housing Trust is a Company Limited by Guarantee (SC152892) and a Scottish Charity (SC002754).



UK STAIR PARTS
Quality Stair Parts & Flooring



- High Quality Staircase Components
- Solid Oak Stair Treads and Risers
- Handrails and Accessories
- Any Timber or Design
- Established 30 years
- Delivery across the UK

Tel: 01268 284000 www.ukstairparts.co.uk



**Oak frame buildings ideal for
self-assembly or by our expert team**

Please visit our website oak-designs.co.uk to see further examples of our product range and special offers. You can also now design your own garage using our 'Quote my Design' tool online.

THE BEACON
£5,200+ VAT*

*T&Cs available upon request.
Offer ends 30/06.



Outdoor Living | Garages | Dual purpose buildings |
Garages + first floor | Home offices | Gazebos | Porches

01273 400411

sales@oak-designs.co.uk
www.oak-designs.co.uk



FLOORS of STONE

01509 234000- www.floorsofstone.com
enquiries@floorsofstone.com



TYE

ARCHITECTS

As award winning architects and designers we aspire to create extraordinary buildings and spaces for our clients, sometimes from the most difficult of design briefs. Central to our philosophy is that good design should reflect the needs of our clients and respond to the surrounding environment.

Pushing the boundaries of design we are able to achieve timeless, highly innovative and sustainable projects. We offer a complete design service from initial advice through to the completion of your project.

We complete works all over the UK and internationally with construction budgets from £250,000.

Please email us or call with your new project enquiry for a free consultation.

tye architects
t: 01525 406677
e: info@tyearchitects.com
w: www.tyearchitects.com



C A B E R H O U S E

www.caberhouse.co.uk

Architect Designed Kit Houses
to the Passivhaus & Zero Carbon Standards

Turnkey build options available



contact@caberhouse.co.uk

01369 701 988



BRITISH IRONMONGERY

High Quality Door and Window Furniture

Handcrafted Period Ironmongery - Because Quality Matters...

www.BritishIronmongery.co.uk

0845 257 1147 sales@britishironmongery.co.uk



Heat Recovery Ventilation

- Leading designer, supplier & installer of Whole House Ventilation systems
- High efficiency Passivhaus certified MVHR units available from stock
- Nationwide installers
- Free design and planning service
- Technical support & back up



Unit 11,
Bushell Business Estate, Lester Way,
Wallingford, OX10 9DD

Tel: 01491 836 666
Email: info@cvcdirect.co.uk
Website: www.cvcdirect.co.uk

INDIVIDUALLY DESIGNED • ENERGY SAVING

ECO KIT HOMES



Expertly manufactured in the north of Scotland to specifications which exceed current Building Standards

Bower Workshops, Bower, Wick.
T: 01955 641303
20 Carsegate Road, Inverness.
T: 01463 224040
W: norscot.co.uk E: sales@norscot.co.uk CE



COLLECTION FROM LD8 2UF



COLLECTION FROM LD8 2UF

SECONDS & CO Insulation

WWW.SECOND SAND CO.CO.UK

All **Kingspan**, **Xtratherm** & **EcoTherm** available

SUBJECT TO AVAILABILITY

Seconds are DIRECT from manufacturers

COLLECTION ONLY PRICES

FOIL FACED BOARDS—1.2 x 2.4M—ALL PRICES +VAT

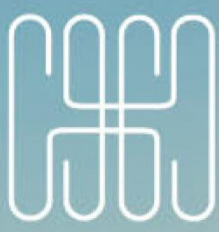
25/30mm—£8.25	50/55mm—£13
60/65mm—£13	70/80mm—£17
90/100mm—£25.72	105/110mm—£22
115/120mm—£24	130/140mm—£27
150/155mm—£30	

01544 260 501

SEND SOMEONE TO COLLECT FOR YOU

Open Monday to Friday 8:30am to 4pm

SEND SOMEONE TO COLLECT FOR YOU



hebhomes.com

Architect Designed Kit Homes




osmo

FREE SAMPLE QUOTE: TOPOIL2020
01296 481220

osmo TopOil High Solid

For wooden kitchen work tops and general interior joinery

Micro-porous, water-repellent and indelible

Does not crack, flake, peel or blister

OSMO TOPOIL HIGH SOLID

FOOD SAFE SURFACE

WHICH WON'T LEAVE A BAD TASTE IN YOUR MOUTH

LEARN MORE: OSMOUK.COM CALL US: 01296 481220





Rooflights & Skylights



**BUY ONLINE,
BEST TRADE PRICES,
DELIVER FOR FREE!**

- Polycarbonate & Glass
- Price Match Promise
- Product Guarantee
- Free UK Nationwide Delivery
- UK Product Support

SCAN ME
FIND ME
BUY ME!



www.rooflights-skylights.co.uk

Need advice? Call: 01276 450619



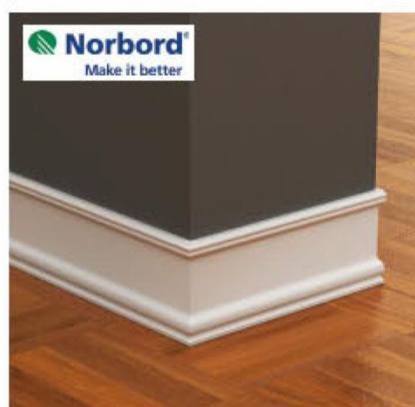
TeleBeam the unique loft conversion & flooring system **LABC** registered

Forget steel beams and cranes – TeleBeam is the new way of converting lofts in modern properties with roof trusses. It is the first pre-fabricated lightweight and adaptable system which deals with a wide range of roof spans and pitches. TeleBeams have LABC Registered Systems Approval giving you peace of mind.

www.telebeam.co.uk

01380 739000

CaberWood MDF – The Legend Continues



Norbord's CaberWood range of Medium Density Fibreboard (MDF), the longest standing portfolio on the market, is one of the most versatile. The resulting board is tough, easily worked and ideal for a mind-boggling range of building applications – from skirting boards, architraves and mouldings to furniture and fittings.

**For further information on Norbord, please call
01786 812 921 or visit www.norbord.co.uk.**

thermohaus
FUTURE-PROOF KIT HOMES



**EXCEPTIONAL QUALITY
REMARKABLE VALUE
MADE IN THE SCOTTISH HIGHLANDS**

thermohaus.co.uk



**DJP CARPENTRY
CONTRACTORS**

Domestic & Commercial Carpentry Contractor

New Build, Extensions, Loft Conversions
Refurbishment, Roofing,
All Aspects Of Carpentry.
Professional & Competitive rates,
Fully Insured Work To NHBC standard.

Please contact us for a no obligation quote.

Office Number 01902 546690

Office hours 930-5pm Mon-Friday

Mobile 07737 991049

By email

www.djpcarpentry.co.uk

Dave@djpcarpentry.co.uk

Sam@djpcarpentry.co.uk

By post or visit us on the first floor

Room 5 Central Buildings
High Street, Wombourne,
Wolverhampton.WV5 9DN

Bryan Williamson & Daughters
RESTORATION ♦ PRESERVATION

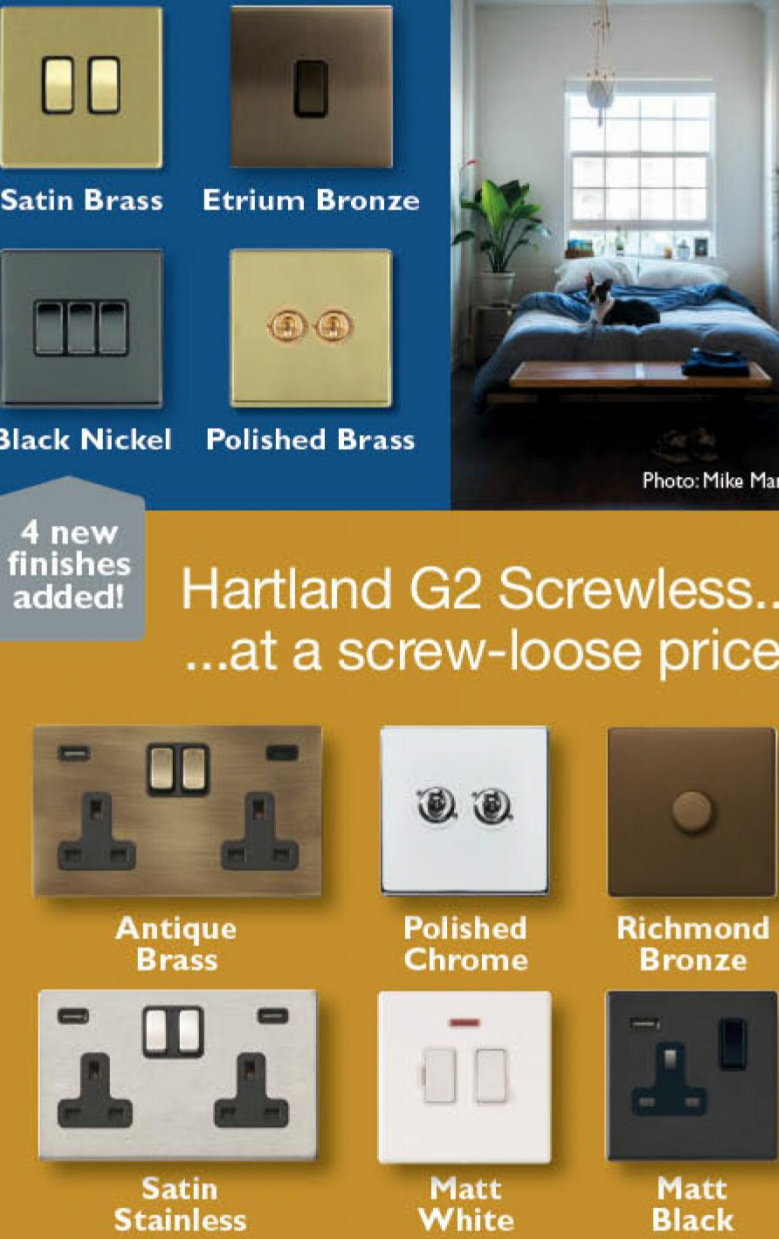


4 Generations of Restoration Builders

COPSE COTTAGE, FORD MANOR ROAD, DORMANSLAND, SURREY RH7 6NZ | TEL / FAX OFFICE 01342 834829
MOBILE 07710 854497 | EMAIL b.williamson57@hotmail.com
www.bwilliamsonanddaughters.co.uk

SWITCH PLATES & SOCKETS

HARTLAND G2 COLLECTION



4 new finishes added!

**Hartland G2 Screwless...
...at a screw-loose price!**

Thinking Box-Fix but wish you could afford screwless?

Now you can with Hartland G2: same Hartland quality, new *push-to-fit* face plate, available in ten on-trend finishes, **all at an unbelievable price.**

- Screwless alternative to Box-Fix
- Grid & EuroFix options available
- Dual 2.4A USB (4.8A total) as standard
- Inserts: White, Black and NEW Quartz Grey
- Fit & Forget: **25 year guarantee**

25 YEAR GUARANTEE!

Find your nearest stockist online.
See us **Clerkenwell Design Week 19 – 21 May**,
Elements Stand: E7.

Dorset Reclamation Ltd
High Quality Reclaimed Traditional Building Materials and Architectural Antiques

Old Flagstones,
Aga Cookers,
Terracotta Floors,
Pine, Oak and
Elm Floorboards,
Oak Beams and
Pine Doors,
Period Bathrooms,
Butler's Sinks,
Fireplaces and
Architectural and
Garden Antiques.



Cow Drove, Bere Regis, Dorset BH20 7JZ
Tel: 01929 472200 Fax: 01929 472292
e-mail: info@dorsetreclamation.co.uk www.dorsetreclamation.co.uk
DELIVERY ARRANGED

The Aga Exchange



Reconditioned
Aga Cookers and
Re-enamelling Service
Electric Conversions
OIL – 13AMP
ELECTRIC
Tel: 01929 472200
www.agaexchange.co.uk

Hamilton®

making connections beautifully

Wiring Accessories • Smart Lighting Control & Audio Solutions

www.hamilton-litestat.com
+44 (0)1747 860088 | [f](https://www.facebook.com/hamiltonlites) [t](https://twitter.com/hamiltonlites) [p](https://www.pinterest.com/hamiltonlites) [in](https://www.linkedin.com/company/hamiltonlites) [yt](https://www.youtube.com/channel/UC...)
info@hamilton-litestat.com  BRITISH MANUFACTURER

Marsh Industries

Innovative off-mains drainage products



QUALITY
INTEGRITY
RELIABILITY
GUARANTEED

Here at Marsh Industries we manufacture high quality off-mains drainage and rainwater harvesting products backed by extensive knowledge, experience and end-to-end customer support.

Feedback informs us that we are innovative, cost-effective and reliable. This, when combined with our design, value-engineering and manufacturing processes, means our products and services are guaranteed to save you time and money.

Sewage treatment plants
WellWater™ Pump stations
Septic tanks and cesspools
Uni:Gem™ septic conversion
Marsh GMS★ grease traps
Degrilleur™ trash/debris barrier
Agri-silage tanks
Stormwater attenuation
Rainwater harvesting systems
Hydroil™ oil separators



BRITISH WATER



Future Water
Association
Informing, Innovating, Influencing

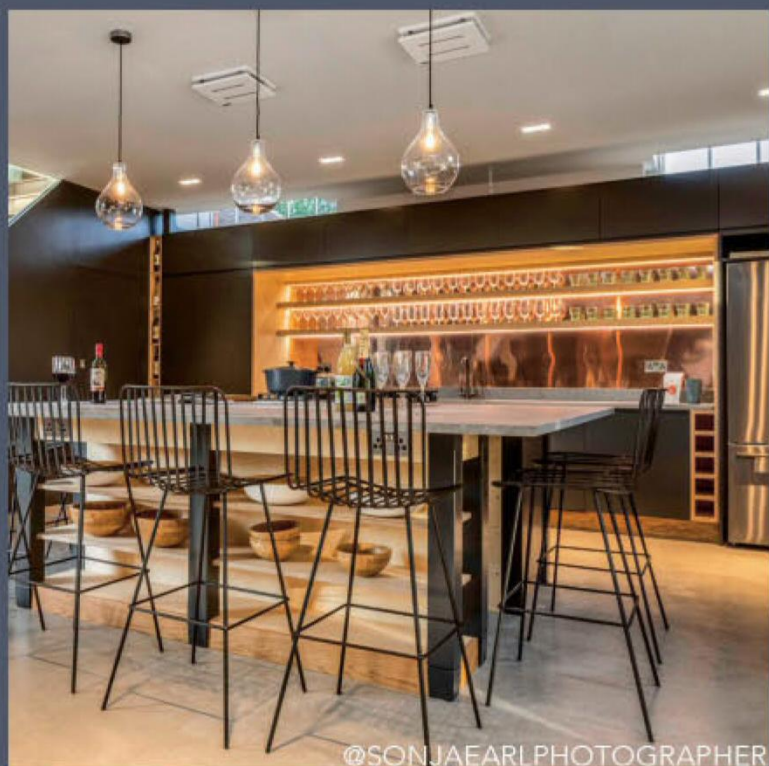


MADE IN
BRITAIN

+44 (0)1933 654582 | sales@marshindustries.co.uk | www.marshindustries.co.uk



BESPOKE CABINETS | KITCHENS | FURNITURE



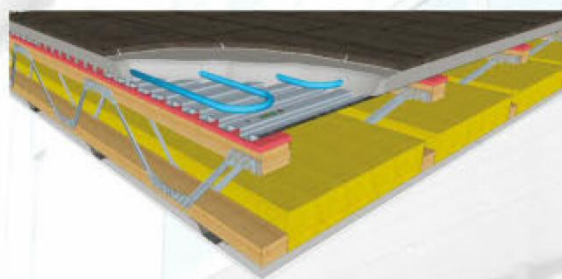
@SONJAEARLPHOTOGRAPHER

JMM JOINERY | LONDON & SOUTH EAST

Instagram @JMMJOINERY Phone 07796908413

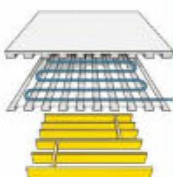
Email JACKMORRIS@JMMJOINERY.CO.UK

LEWIS[®]
Deck



- No squeaky floors
- Underfloor heating
- Soundproof floor
- Wet-room floor option
- Up to 2hrs fire protection
- Thin concrete or screed over joists
- Simple and fast to install
- Safe working deck
- Internal and external applications

CDI www.cdi-icm.co.uk
Innovative Construction Materials Ltd



CORSTON
ARCHITECTURAL DETAIL



corston.com

Hardware	Switches & Sockets	Lighting
Bronze	Brass	Antique Brass
		Nickel

ALUCO™

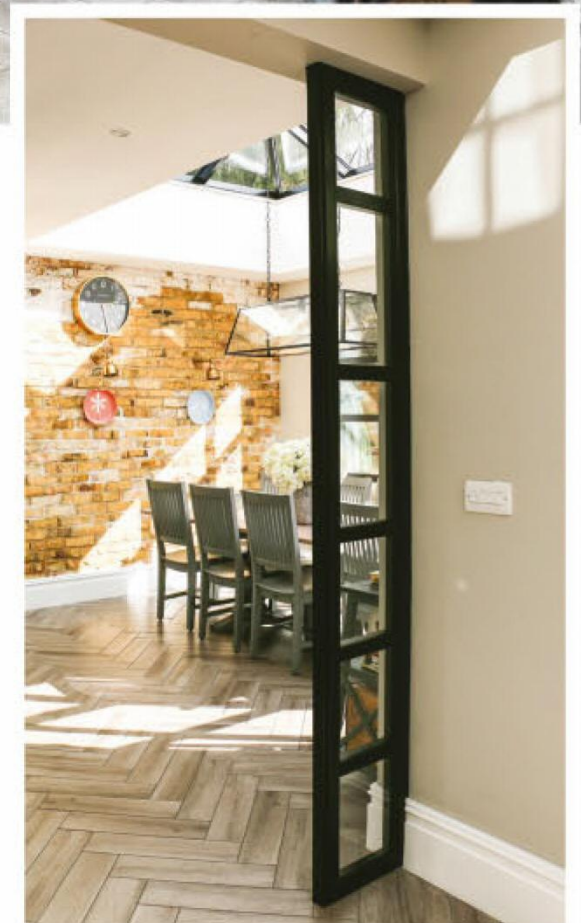
Steel Look Collection

Interior • Exterior • Doors • Screens • Partitions



TIMELESS DESIGN & EXCEPTIONAL QUALITY

We specialise in the design and manufacture of iconic steel effect doors, screens and partitions covering both interior and exterior applications, for truly luxe living.



(t) 01480 436 578 (e) info@alucoaluminium.com
@alucoaluminium www.alucoaluminium.com

**DON'T MISS
AN ISSUE**
Subscribe to
*Homebuilding &
Renovating* magazine
and receive a free
gift — turn to page
56 for more.

NEXT MONTH:
Renovator's guide to replacing windows
Experts solve your building dilemmas
How to find the right building plot
Practical tips for extenders

PLUS:
**Amazing self-build,
extension, conversion
and renovation projects**



Final Word

Signing off...

What we've seen, recommend and love this month



SMART WARDROBE

As a self-confessed technophobe, I initially welcomed Samsung's germ-killing smart wardrobe with apathy. But then I remembered I am a parent who often leaves the house doused in germs, and warmed immediately to the idea of wearing clothes fresh from a wardrobe that makes garments fresh and germ-free. The AirDresser features integrated technology to make you feel like a king (read more on page 27), and I for one can't wait for it to get a UK release date.

Jack Woodfield, News Editor

DESIGNING WITH THE SIMPLE THINGS IN MIND

It's funny the things that stick with you when interviewing self-builders and renovators who appear in this magazine. In my most recent interview, the homeowner commented "I just had to have a bath with a view", and on that dreary February afternoon I could most definitely see why — looking out across the cold countryside while neck deep in suds I'm sure is the definition of the Scandinavian concept of Hygge. Although seemingly small, setting these achievable goals when designing a room or space really affects how it will be enjoyed for years to come and can frequently become a favourite place in a house. A tub with a view is definitely getting added to my 'most-wanted' list. (The model above is the Farringdon from Hudson Reed.) **Amy Reeves, Editorial Assistant**

PROJECT INSPIRATION

The story of the Bowdens' renovation and extension was so inspiring — the plot wasn't what they originally wanted, their plans to demolish were turned down and they faced several hurdles along the way — and yet the end result is a beautiful home that makes the most of the site and its surroundings. I love the way different materials (including the stone they found while digging the foundations) have been combined and now sit so well together.

Natasha Brinsmead, Associate Editor

INSIDER KNOWLEDGE

If you work on a magazine like HB&R, it becomes second nature to 'talk shop' about building materials like brick and blockwork, and be enthused by it all! It's also our job to commission industry experts to write articles on such things, too. Ian Rock's piece on blockwork (page 144) is one such example. It really is the ultimate guide to masonry. So if you're about to extend or self-build and are keen to use blocks, read it and you'll be a blockwork geek in no time! **Michelle Guy, Assistant Editor**

prowarmTM
UNDERFLOOR HEATING



It's what's underneath that counts



ACCIDENTAL SPLASHES
NOT A PROBLEM

EnCore is 100% waterproof; the ideal alternative to natural wood and laminate floors.

 PICTURE IT INSTANTLY in your own home with our VISUALISER at polyflor.com/visualiser

EXPONA®

EnCORE
RIGID LOC
ACOUSTIC LUXURY VINYL FLOORING