

Direct to the self-builder

Your Build

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Fuelling the fires

We take a look at the very latest
woodburning developments



**Also
inside!**

What can
bespoke
furniture
offer your
project?



Food for thought

Top tips for installing the perfect kitchen

4 Phases to Your Build

Footings & foundations
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Interior & exterior finishing
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WIN
1 of 2 Shaws
**Waterside
sinks**

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As Harvey Fremlin, managing director of the National Self Build & Renovation Centre points out in his article on page 28, choice is one of the key drivers for undertaking a self-build project. It's often the freedom to build something unique and break away from the constraints of simply purchasing a "conventional" home that prompts self-builders to take that leap and pursue their dream home. But with the multitude of manufacturers offering products and solutions to assist you on your project, balancing the budget with the right choices can often make or break projects. As Harvey explains: "Whilst this level of choice and the freedom it brings is one of the real joys of self-building, it can also be quite daunting." But as we have mentioned many times in this magazine, planning is key to the success of any self-build or renovation project, and for those embarking on their first project in particular, it's important to make use of the many avenues for advice that exist. As Dennis Scarth explains in this issue of Your Build: "Every build is unique and will pose its own set of issues. The important thing to remember is that it is a well-trodden path, and both professionals and self-builders alike are more than happy to share their advice and experience with you." Dennis outlines his top tips for starting a self-build project on page 40.

And speaking of unique projects, make sure you take a look at Michael Montgomery's ambitious project in Saintfield, Northern Ireland, which he describes as a modern take on traditional agricultural buildings. Michael opted to use Cembrit's B5 corrugated Sheeting for the walls and roof of his project to ensure the new home would not look out of place in the rural surroundings. You can see the results on page 48.

So read on for all this and much more including interior design tips for the bedroom (p.32); a round-up of new products (p.34); renewable heating advice (p.50); and a guide to commissioning bespoke furniture (p.70).

Don't forget to enter our competition on page 07 to win one of two fabulous Shaws Waterside sinks!

Matt Downs, Editor



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WIN

One of two fantastic *Shaws Waterside* sinks

We are offering two lucky readers the opportunity to win an attractive single bowl, ceramic sink with a classic, curved bow front

The Waterside sink will look stunning in any style of kitchen, modern town, country chic or city slick, and the prize is completed with a 3½" chrome basket strainer waste. The 800mm Waterside sink is so popular it won a Gold Award as 'Best Product in Show' at an industry show in New Orleans, showing that British manufacturing is still the 'best in the world'.

Shaws ceramic fireclay sinks have been manufactured in England since 1897 and we still use time honoured traditional methods and materials. The factory is based in the beautiful rolling Lancashire hills and having refined fireclay production for all these years to an 'art form', every handcrafted sink made today is an individual product, bearing testament to the craftsmen who produce them. Each sink is proudly stamped with the signature of its maker, who takes enormous pride in his work. The sink also bears its own distinctive badge which equals a traditional quality built sink to 'world-class' manufacturing standards.

The classic styling of Shaws sinks is not and never has been based on the whim of the fashion of the day. Its hallmark is timeless, the highest quality combined with form and function. The original Belfast sink is still significantly popular and Shaws remains the premier manufacturer of this product.

With designs that have stood the test of time, Shaws kitchen sinks sell in many of the smartest kitchen showrooms and design studios worldwide. Throughout their long-standing history, the range and extensions of styles have stayed in vogue regardless of fashion trends. To add extra interest, a number of the sinks have 'local' names of the villages close to Darwen, such as Pendle, Edgworth, Ribblesdale,



Competition closes October 31st

Longridge, Pennine and of course, Waterside.

The two prizes on offer, in conjunction with Your Build magazine, are the beautiful Waterside, which is a heavyweight fireclay sink, a deep and weighty 45kg, with dimensions of 760x530x255mm. Due to the handcrafted nature of Shaws sinks and their weight, it is recommended that they are installed by specialist kitchen fitters to ensure they are properly supported.

The elegant Waterside sink is an all-time favourite and remains one of our best sellers. It is available in either white or biscuit finish – and the choice of colour is yours. All Shaws of Darwen fireclay sinks feel cool and silky to the touch, but with a robust non-porous glaze which gives an extremely hardwearing surface.

Each prize is worth over £650 which includes the 800mm Waterside sink, a basket strainer waste and delivery, but does not include installation.

www.shawsofdarwen.com

HOW TO ENTER

To win one of two Shaws Waterside sinks just answer this question:

Q: What year did Shaws start manufacturing ceramic clay sinks in England?

(Hint, the answer can be found on this page!)

Just email your answer, along with your name, address and contact details to: mdowns@unity-media.com.

Competition Terms & Conditions

Prize does not include installation. There is no cash alternative. The winning entries will be picked at random. The competition winner must use this prize for a domestic project in the UK

Making the money go round

By Rachel Pyne, group sales director, BuildStore

While there may be no such thing as a 'typical' self-build project – each coming with its own unique set of challenges and opportunities – every

project does have identifiable stages of development, from the initial digging of the foundations to the final fix. And at each stage as the value of the build increases, your lender will release a percentage of your overall funds, so it's critical that you understand exactly what your project is going to cost you at each stage, so that you have enough money to meet your expenses.

Make sure that you've worked out precisely how much money you'll need to pay out for materials, tradesmen and specialist services at each stage so that your available funds match your project. For example, a timber construction is more expensive in the early stages than a brick and block build as you have to pay for the whole system up front. It's also essential to have agreed payment terms with builders and other tradespeople in advance of work starting. If you don't have a good handle on your cashflow – meaning if you haven't matched your finances to your projected expenses at each stage – then you might find that you're unable to meet your builders' invoices or pay for the materials you need. Either situation can hinder progress and, in the worst case scenario, your builders may leave your project and move onto another job if they haven't been paid or don't have materials to work with.

At BuildStore, we're acutely aware of the importance of matching cashflow to project stage, so we look at each customer's individual situation and work out a tailored package with the lender (subject to valuation) which ensures that adequate funding is available at each stage. What's more, if you don't have a large amount of cash sitting in the bank at the start of your project, you'll find that BuildStore's Traditional and Accelerator Mortgage schemes with their higher lending percentages (up to 90 per cent on land and build costs compared to

75 per cent for most other lenders) will give you greater funds which will help to ease your cashflow. Likewise, if you are contemplating funding your project by borrowing against your existing property, the specialist BuildStore advisors will be able to impart their knowledge and expertise in cashflow management.

For many people, the whole point of self-building is to make the money they have available for a home go further – so it follows that accurately planning and managing a budget should be a primary concern. This process should start well before you even buy your plot of land, and shouldn't finish

until you've paid the final contractor and ensured that VAT is reclaimed on your building materials.

When you first begin to work out your budget it makes sense to plan out and weigh up the costs of all the different aspects of your project – even if that means working in round numbers. Whether you are borrowing money or self funding your project, you should have a total figure in mind that you want to work to, in addition to a dedicated contingency fund of 8-10 per cent of your initial estimate. There are a plethora of online build calculators – such as BuildStore's BuildCost Ready Reckoner – that can help to give an indication of costs involved and may serve to re-evaluate materials and methods.

For the self-builder or renovator, it's



“Cashflow is the lifeblood of your self-build or renovation project, so if it slows down or dries up, it can throw the whole project off schedule”



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absolutely critical to getting your budget right. Once you've got the basic figures in place, you'll then need to spend significant amounts of time planning everything down to the smallest detail – because today it can be difficult to negotiate extra lending if you overspend in the early stages of the build. To find out how much you can borrow, speak to an expert advisor and remember, our lending partners look at income and expenditure on an individual basis, and their offer will be tailored to suit your circumstances ■



Rachel Pyne

Founded in 1998, BuildStore is the UK's leading provider of homebuilding finance and works with a panel of exclusive lenders to provide the most appropriate, individual self-build financial solution.

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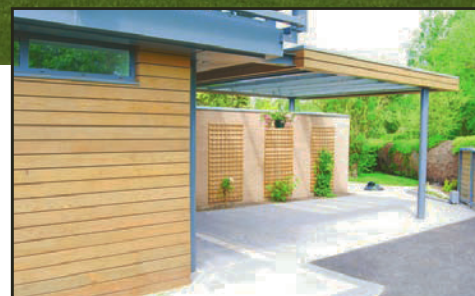
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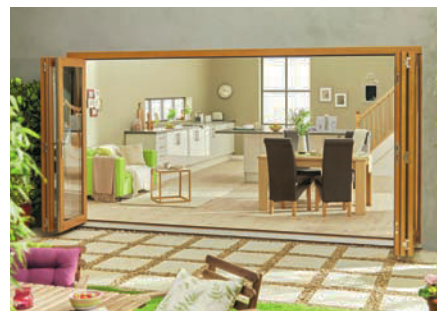
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Self-build **INSURANCE:** Getting it right!

By Paul Kempton, managing director of Self-Build Zone

For many, a self-build will be the biggest investment of their lives, and because of this it is important to make sure you take the right steps to protect your investment. Suffering a claim during your project can be devastating. In order to minimise your exposure to loss, it is important that you consider the following tips to ensure you get the insurance side of your project right first time.

When should I take out Site Insurance?

You become responsible for insuring your plot at exchange of contracts. Site Insurance should be taken out at this point to cover your liabilities until the construction works begin, at which point the main body of the policy will come into force.

If works are not going to start for a while, you should take out Land Owners' Liability to cover your Public Liability exposure until works start, at which point Site Insurance should be arranged.

If there is an existing structure, Site Insurance should be put in place for when contracts have been exchanged. If works are not starting for a while you should arrange Unoccupied Buildings Insurance until the works start, at which time Site Insurance should be purchased.

I'm doing work to my own home – does my existing Home Insurance cover me?

Many home insurers specifically exclude cover on properties undergoing renovation, alteration, extension or conversion. It is really worrying that over half of the people that we talk to do not realise this and leave themselves and their largest asset exposed.

You must inform your home insurer prior to any works starting to determine their stance. A Home insurance policy will not necessarily cover any of the new works and materials if, for example, they are stolen or destroyed by fire. Home insurance may exclude any loss, damage or liability arising out of the activities of contractors working at or on the premises.

Home insurance does not provide you with both Public and Employers' liability cover where you are doing building work to your home and your builder's Public Liability policy isn't necessarily adequate as it will only cover them for their negligence, which can be costly and time-consuming to prove.

A Site Insurance policy will act as an interim policy, covering – amongst other things – the existing structure and new works during the course of the project. Once the work is completed you should reinstate your buildings insurance cover. If you are keeping your household contents in the property during the course of work, you should arrange separate contents cover as Site Insurance will not cover them.

A Site Insurance policy can provide Consequential Damage Cover for existing structures on site. This means that you are covered if the existing structure is damaged by new works. Your home insurance may not cover this.

“Effectively you are
acting as
the Main Contractor”

Is Site Insurance a legal requirement?

It is not a legal requirement to have Site Insurance but you must, by law, have a minimum of \$5million Employers' Liability cover if you are directly employing people to work on your site. This is included within a Site Insurance policy as standard, usually at a minimum of \$10million.

My sub-contractors / contractors have their own insurance – Do I still need Site Insurance?

You should always check with any contractor and obtain proof that they have their own insurance to check what it covers them for. It is likely that most will only have Public Liability – this will not cover your materials or new works if they are stolen or damaged.

Where you are not using a Main Contractor and are individually contracting tradespeople to do the work, you are responsible for insuring the new works and materials and Site Insurance is essential.

Do I still need Site Insurance if I'm using a Main Contractor?

If you are contracting one builder to carry out all the works then the contract should state that they are responsible for insuring the whole project from the moment they start excavation right up to project completion. Bear in mind that if a serious loss did occur, your builder might not be in any ►



*Contracts do not
solve all
the problems*

financially better state than you are to deal with it. Your builder isn't an insurance expert. They may say they are 'fully insured', but the chances are they only have Public Liability which only covers them in the event they cause damage or injury to a third party following a negligent act. Public Liability doesn't cover issues like storm damage, fire, theft of materials and plant, arson, etc. – essentially all the things you need covered!

Ideally your Main Contractor should have a Contractors All Risks insurance policy including Public and Employers' Liability. Contractors All Risks will cover the new works against loss or damage during the construction period. Check that it's in force. If the renewal date falls during the project make sure it's renewed on time and you get a copy of the documents. It's important to check the limit on the policy is sufficient to cover the full reinstatement cost of the contract too! If you have any doubts, then organise some Site Insurance yourself.

If the Main Contractor goes bust or their contract ceases before the end of the build, the responsibility to insure the project reverts back to you – you will need to arrange Site Insurance if this happens.

What if I'm managing the Tradespeople myself?

If you are managing the build as well as contracting different trades, you still need to

establish formal contracts with every Professional, Trade and Main Supplier. The contract should state that the trades must carry insurance and in this instance it will only be Public Liability because you still want to be able to pursue them if they have been negligent. Effectively you are acting as the main contractor, taking on a management element, organising materials, hiring plant and assuming responsibility. Site Insurance in this case is essential and covers the works, temporary works, materials, Public Liability, Employer's Liability, plant, tools and equipment and a caravan you may be living in.

Why do I need Contracts?

Construction projects can be complex affairs, with a variety of different trades working on the site, and a variety of risks which can range from unforeseen ground conditions to bad weather and non-availability of materials or equipment.

Contracts do not solve all the problems; they provide a framework for dealings between the participants and they help to identify how risks

are allocated and what to do if things go wrong.

Contracts are important:

To record the commercial terms agreed by the parties;

To provide certainty;

To provide a framework for dealing with issues that might arise during the life of the contracts (changes, unforeseen problems etc.);

To provide a method of resolving disputes.

A contract will deal with a whole range of issues: scope of work, price and payment terms, variations, insurance, contract duration and completion date, post-completion liability, termination and dispute resolution ■



Paul Kempton

Paul Kempton is the managing director of Sennocke International Insurance Services Ltd which includes the trading styles Self-Build Zone and Build-Zone. Paul has over 40 years of experience in insurance including Lloyd's

markets, leading to the decision to start his own insurance brokerage. Sennocke has been operating for 24 years with strong market reputations in the Commercial, Building and Personal lines Insurance markets.



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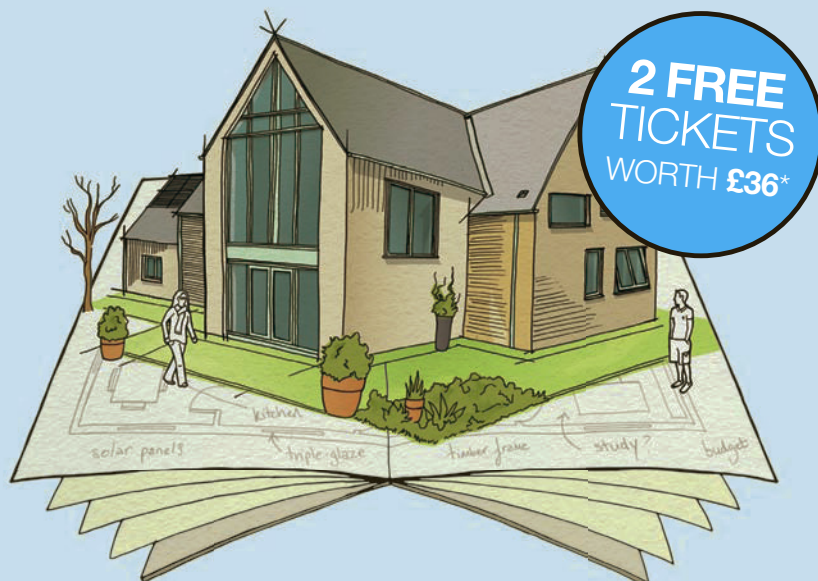
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VISIT PAGE 30
For more information

Creating inspirational homes is easy with Cedral Click



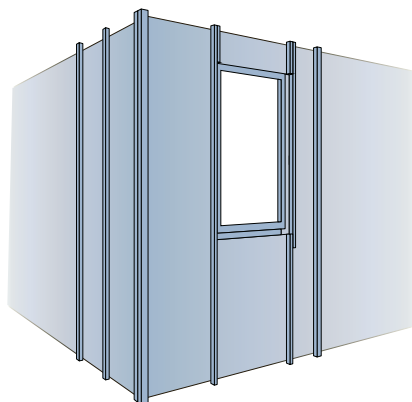
In the last issue of 'Your Build' Magazine, we introduced Marley Eternit's new and innovative Cedral Click – the UK's first and only fibre cement tongue and groove external cladding material. Cedral Click has been specified by some of the UK's leading architects and housebuilders for creating inspirational and visually striking developments, and is now growing in popularity amongst self builders looking to create real stand out architecture and individuality for their properties.

In addition to its visual appearance, Cedral Click is being specified by self builders and homeowners more due to the performance of the material. Fibre cement material is extremely low maintenance, there's no need for continual re-painting and it can stand up to the harshest of weather conditions. It's resistance to rot and A2-s1, d0 to EN13501-1 fire classification makes it an ideal alternative to traditional timber weatherboarding. Furthermore, Cedral Click can help self builders achieve an A+ rating in the BRE's Green Guide to Specification*.

Another key benefit of this solution is its ease of installation. To help 'Your Build' readers, Marley Eternit has put together this simple five step installation guide:

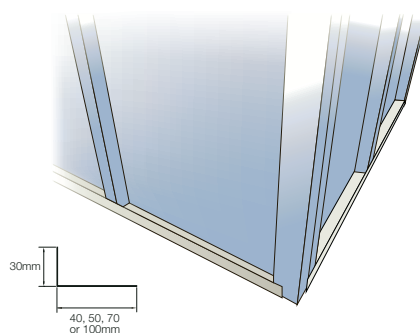
Step 1: Fix battens to walls

Position and fix the vertical battens (available in standard fixing 75mm x 38mm and joints/corners in 100mm x 38mm) spaced a maximum of 600mm apart.



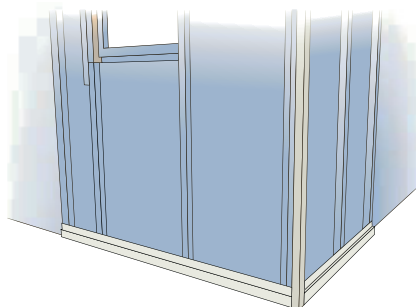
Step 2: Attach perforated closures to top and bottom of battens

Perforated closures should be screwed or nailed to both the top and bottom of battens. These are designed to protect against birds, rodents and some insects, whilst still allowing for air to flow through the system. Closures are available in depths of 40mm, 50mm, 70mm and 100mm to allow for coverage of external insulation.

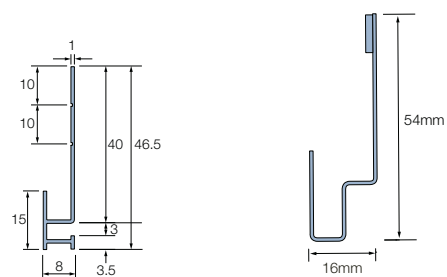


Step 3: Fix vertical profiles and horizontal (starter) profiles

Vertical profiles are available to finish Cedral when used as a single piece on a window reveal or soffit, as well as for internal corners to form a seal between the trim and the corner. A vertical profile is also available for external corners and window reveals.

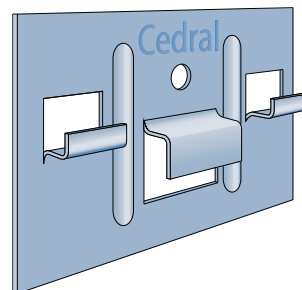


For the horizontal start profile, use at the base of the external wall and install completely level to ensure the installation of the Cedral Click panels remain perfectly parallel. There's also a window lintel profile to finish off above the window and support the next course.



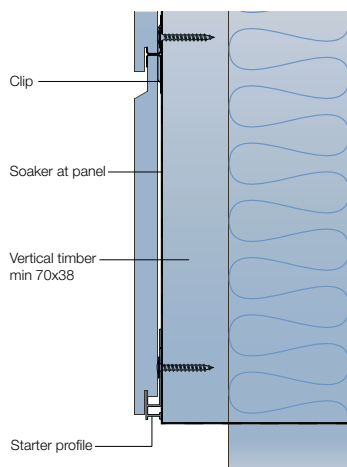
Step 4: Cut and fix Cedral Click planks

All fixing of panels is achieved with click clips (60mm x 40mm), fixed with Marley Eternit stainless steel mushroom head screws (3.9mm x 30mm) onto timber or with rivets on metal frames.

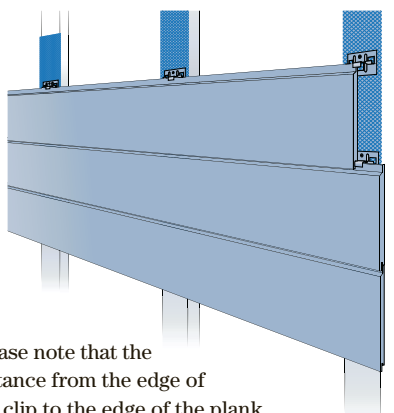


At the base of the wall, a minimum 30mm clear cavity must be provided behind the Cedral Click planks with a 10mm opening at the base, head and at the window, door or cills. Assembly must start at the bottom of the outside wall and with the purpose designed Cedral Click plank start profile (attached level). Using appropriate countersunk head screws, so it doesn't block the placement of the first plank, fit this plank onto the start profile and fix with clips on every support. The next plank is then fitted above, using click clips on every batten.



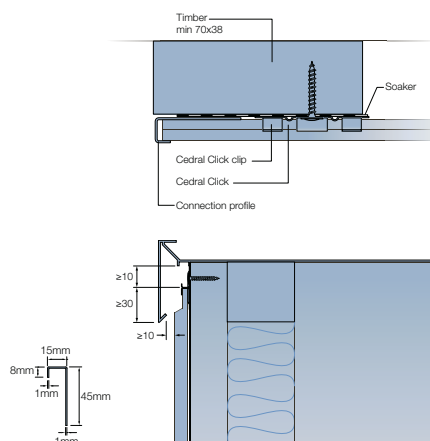


The Cedral Click planks are placed with the ends against each other and always on top of an underlying supporting batten. The joint should be protected with a joint sealing strip with sufficient stiffness (suggest a black polyethylene PE 0.5mm thick jointing stick for joints not exposed to light or a UV-resistant material if they are).



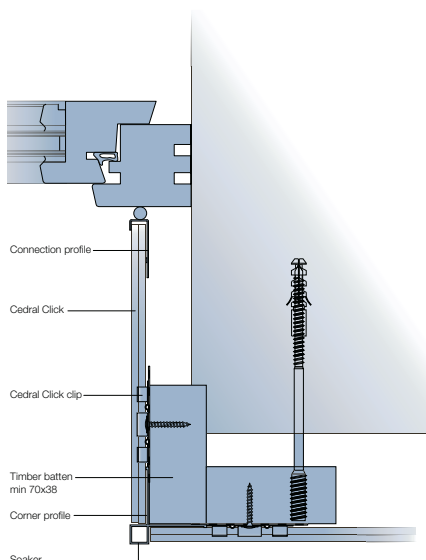
Please note that the distance from the edge of the clip to the edge of the plank should not exceed 60mm.

For the final plank at the top of the facade, there are two options. If the facade finishes with a whole plank, simply fix with clips. Alternatively, if the facade requires a trimmed plank, fix with Marley Eternit coloured mushroom head screws, which must be inserted perpendicular to the panel surface using an electric drill and high quality bit.

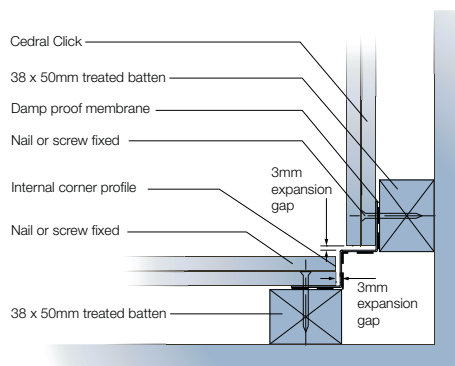


Step 5: Other detailing

Finally, the vertical reveal sides of a window can be finished with the Cedral Click external corner profile, or if it's the window head, the lintel profile can be used. The lintel profile can be used with whole planks or with cut planks.



The internal corner can be used to finish a corner where the planks meet to form a seal between the trim and the corner.



Installation tips and advice

Cutting – the method of cutting largely depends on the amount there is to be done and needs to be done in a dry environment. Cedral can be cut using a handsaw, guillotine, electric jigsaw or a hand-held circular saw. Marley Eternit recommend the circular saw for the best results and where large amounts of cutting is needed.

Ventilation

Cedral is installed to the ventilated rainscreen principle, meaning air can flow in at the base of the system, behind the cladding then out over the top of the system, removing moisture. A minimum 30mm ventilation gap must be left behind the boards for this, with a minimum 10mm continuous gap left at the top and bottom of the system for full circulation. The use of 38mm deep battens will provide the necessary cavity for this to be achieved.

Surface mounted features

Where other building features like signs and gutters are to be fixed, additional batten work is required with clearance holes provided. Cedral planks should not receive additional structural loads.



For more information on Marley Eternit's Cedral range visit: www.marleyeternit.co.uk/Cedral.

CEDRAL

* Cedral Click achieves an A+ rating in the BRE (Building Research Establishment) Green Guide to Specification based on generic rating: Cedral Click – autoclaved fibre cement (calcium silicate) cladding – (Element Ref: 806220701, 806220675, 806220676)





CELEBRATES ITS TENTH BIRTHDAY



Grand Designs Live, sponsored by Anglian Home Improvements, is set to return to Birmingham from 8-11 October 2015. The exhibition event, celebrating its 10th anniversary, offers visitors a chance to view the latest trends and unseen products in self-build, from kitchens to gardens and everything in-between.

The show will be returning to the NEC in Birmingham, with over 500 exhibitors across six different sectors including: Grand Build, Grand Kitchens, Grand Bathrooms, Grand Technology, Grand Gardens and Grand Interiors. With each section boasting a specialised feature, this year's Grand Designs Live is set to be better than ever.

Kevin McCloud, design guru and presenter of the Channel 4 TV series Grand Designs, will be hosting the four-day run of the design exhibition while architect and TV personality George Clarke, will also be making an appearance. Designer and TV presenter Charlie Luxton and interior stylist and designers Sophie Robinson and Daniel Hopwood will also be on hand to give expert tips and tricks.

Lee Newton, CEO of organisers Media 10, said: "Our grand show always delivers the most up-to-date trends in home design. With hundreds of exhibitors there's a range of inspiration for our visitors to take in and implement in their own home designs. We are excited to be in Birmingham to celebrate our 10th birthday."

Alongside these amazing features, the show offers an array of other great attractions, including:

- **Ask an Expert**, sponsored by Express Bi-folding Doors: visitors can bring their property plans to the show to book and attend a free 30 minute session with an expert in any one particular field. With 30 experts present each day in areas such as architectural technology and structural engineering, budding designers can take advantage of a range of information available all under one roof.
- **The Green House**: dedicated to showcasing the latest in technological eco-innovations, this new feature housed within Grand Technology gives visitors the opportunity to

learn more about eco tech and how it helps our environment.

- **Miele Live Kitchen Experience**: visitors can watch top chefs cook a variety of dishes at timed sessions throughout the show.
- **Miele Kitchen Design Stage**: New to 2015, visitors can listen to short seminars throughout the day from kitchen design experts, specifically about kitchen design.
- **Kevin's Green Heroes**: eco-friendly products are created and exhibited at the show, chosen by Kevin McCloud, and showcased in the Grand Theatre.
- **Self-Build on a Shoestring**: a competition in association with NaCSBA (National Custom and Self-Build Association) in which consumers are welcome to create unique, ultra-flexible self-build homes that can be expanded. The winner is awarded \$5,000 during the show.
- **Grand Theatre**, sponsored by Airflow: Located in the Grand Village, the theatre hosts a large number of interactive sessions throughout the show, while both Kevin and George will also be hosting book signings throughout.

Advance Prices:

Adult	£15.00
VIP	\$39.00
Multiple Day, Adult (any two days)	\$26.00
Children Under 16	Free

Door Prices:

Adult	£19.00
VIP	\$39.00
Multiple Day, Adult (any two days)	\$26.00
Children Under 16	Free



Grand Designs Live takes place from 8-11 October 2015 at Birmingham's NEC.
Save \$4 when you book in advance. Order your tickets online:
www.granddesignslive.com or call the booking hotline on 0844 854 1348.
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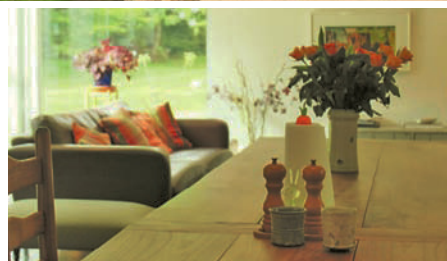
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ELIMINATING ELECTRICAL ISSUES IN THE HOME

Nigel Best, director of training specialist, Electrical Courses 4 U – www.electrificantcourses4u.co.uk – explores everything you need to know when hiring an electrician for your home



Nigel Best, Electrical Courses 4 U

There are certain aspects you should be aware of before booking an electrician to complete domestic work, including the recent regulation changes and certifications an electrician should hold. This will provide you with the peace of mind that the all-important electrical work carried out on your home is completed safely and will be completed to the highest possible standard.

Alarming, 54 per cent of the public don't know how to find out if their electrician is registered. Recent research carried out by the charity, Electrical Safety First, found that over 18 million people are too embarrassed to ask if an electrician is registered to carry out electrical work. With more than 20,000 unregistered electrician firms currently operating in the UK, it is important that homeowners are wise to the crucial indicators of a registered electrician.

The reality is that checking is very straightforward. The Electrical Competent Persons Register (www.electricalcompetentperson.co.uk) is an online portal listing all electricians registered to work in domestic settings in England and Wales. To search the portal, simply enter the full postcode and the company name online, and you are quickly provided with the information you need; whether they have been authorised by a Government-approved scheme to self-certify that their work is compliant with Building Regulations.

Since 2005, all electrical work must comply with Part P of the Building Regulations, which state that anyone carrying out an electrical installation in a home must make sure that the work complies with current Regulations.

However, only 14 per cent of the public are aware of Part P, with many unaware that the homeowner (or landlord) must be able to prove that all electrical installation work has met said regulations. Without this, the safety of the work cannot be guaranteed and it can lead to home insurance becoming void.

All electrical work completed within the home can be divided into two categories – notifiable and minor work.

Notifiable work requires either the electrician, if they are not registered, to inform a local building control body, or hire a registered electrician who will be able to self-certify that the work meets current Building Regulations. This work can be categorised as: the wiring of a circuit, a full house rewire, new full electrical installation on a new-build property, replacing a consumer unit, and any changes to existing circuits in a special location including spaces surrounding a bath, shower or a swimming pool.

Minor electrical work requires no such notification and follows these examples: work not in a special location and consisting of adding lighting points or socket outlets to an existing circuit, replacing cable for a single circuit only, installing outside lights or sockets from a previous circuit and replacing accessories such as socket-outlets and control switches.

Failing to comply with the Building Regulations can have severe consequences. For example, it can compromise your home insurance or the sale of your property and even result in a penalty fine for any work that does not meet the requirements. Part P of the Building Regulations plays a vital role in reducing the number of injuries associated with electrical work for both the contractor and the homeowner.

In addition to Building Regulations there are electrical standards, known as the 17th edition wiring regulations. 17th edition wiring regulations set the standards for all electrical work in the UK. In the third amendment, which was issued in January 2015, the safety of the electrician and the end-user was brought to the forefront. One of the core changes made to the regulations states that the materials used in consumer units must be changed from plastic to a metal as of January 2016. Research from the London Fire Brigade found an alarming increase in house fires related to consumer units caused by the overheating of connections.



EC4U has produced a new Electrician Awareness Guide for Homeowners to provide the essential information they require and to ensure that the work carried out in their home is completed correctly and to a safe standard. The Electrician Awareness Guide for Homeowners is now live on the EC4U website which is available to view and download, here: <https://www.electrificantcourses4u.co.uk/electrificant-awareness-guide-homeowners/>

It is expected that by moving away from plastic to metal, the safety levels will improve. Therefore all respected electricians will be installing metal consumer units, complying with the 3rd amendment and increasing the safety on the consumer unit within the home.

Another tip to ensuring you are hiring the right person for the job is to acquire more than one quote. The lowest cost may always seem the most appealing initially; however ignoring registered electricians could prove to be a fatal mistake on your behalf ■

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Question Time

Technology

for the

modern home

Matt Nimmons, operations director for CEDIA, answers Your Build's questions on home automation

YB: When should self-builders start thinking about their home technology project?

When working on a self-build project, it is important to consider home technology right at the beginning of the project. To do so, in my view it is important for a self-builder to build a relationship with a CEDIA member. The project will be more successful if you have an experienced home technology professional advising and aiding the planning and installation stages.

The reason for starting to consider home technology so soon, is that the systems require a level of cabling, and if done at the build stage, the infrastructure can be hidden under floors and behind walls, therefore enabling a wire free look on completion. CEDIA has released its Smart Home Recommended Wiring Guidelines document and Guide to Smart Home Wiring video. Both help to make self-builders aware of the cabling infrastructure necessary to support the technology typically required for the modern home. You can view the video and download the free document from the www.cedia.org website.

YB: How has the home technology market developed in the last ten years and what have been some of the key moments?

The industry has developed with the introduction of more affordable systems. A few years ago only the rich and famous could afford to have home technology installed in their property. These days, thanks to the affordable options and the fact that consumers are more in tune with technology, there is more of a demand for home automation systems.

The introduction of the iPad and iPhone was a significant moment for the industry, as it opened up the industry further and provided more flexibility with existing products. Thanks to these platforms, consumers can control their home remotely.

YB: Homeowners are always striving for a wireless set up. Is there such a thing when it comes to home automation?

To achieve a wireless set up, a certain level of wiring is still required. The wireless look can be achieved, but it requires the system design to be in place at the planning stage so that the correct cabling can be put in place at the build stage.

A system design needs to be planned out and include all positions of the technology. It is important at this stage to have a clear idea of how rooms will work once furnished, so TVs and speakers can be positioned in the optimum positions and all power points and cables can be terminated, so as not to be seen when the equipment is finally installed.

This is why it is so essential to work with a home technology professional, as they understand the requirements.

YB: To what extent on a self-build, renovation or upgrading project can the work be done by the individual? Is it always best to use a specialist, and if so why?

With the introduction of mass market / DIY systems, individuals can do a certain level of the work themselves. However, the end result will be a limited system that could offer the same features that a professionally installed system will.

Our recommendation would always be to get a specialist involved. They can help with the planning stage, the installation and aftercare service. Homeowners who aren't plumbers or electricians wouldn't undertake the work of these professionals, so it should be the same for the home technology aspect.

YB: When choosing a specialist, what should the homeowner look out for?

The specialist should be someone who is a professional, fully informed, trained and accredited / recognised as an expert by the industry's association. We would always recommend working with a CEDIA Home Technology Professional, as we demand this level



of expertise from our members.

CEDIA offers a Finder Service on its website which allows you to locate their nearest home technology professional. Users can search CEDIA member companies by postcode, services and certification. This provides the user with enough information to decide who they should contact. Visit www.cedia.org/find-a-edia-professional.

YB: When you hear the words home automation, you are perhaps inclined to think of grand, high end projects and properties. Does it lend itself to all kinds of properties and budgets?

Home automation lends itself to all types of projects, however what can be achieved depends on the budget and requirements. While some might want a fully integrated home that ticks every box, others might want a simple level of technology that allows them to control the entertainment in one room, or provide a basic level of automated lighting, for example.

The technology can start small and be expanded in future, as long as the correct infrastructure is put in place.

YB: Can you give us some sort of indication of what can be achieved on different budgets?

It is very difficult to provide a guide to the exact costs, as it will depend on a wide range of factors such as the size and layout of the property, and the quality and quantity of the equipment installed. This is a very rough guide to the costs involved:

£15,000 – a distributed or multi-room audio system, a flat screen, and a basic wired and wireless data network. At this level, you may decide to invest the money instead on high quality sound and vision for just one room to create, for example, a media room or home cinema.

£50,000 – distributed audio and video, flat screens, automatically controlled mood lighting in some rooms, a comprehensive wired and wireless data network. The number of rooms and the number of screens will make a difference, as



Matt Nimmons is Operations Director for CEDIA EMEA. Having worked in the industry for over ten years, Matt understands the market extremely well, and helps bridge the gap between home technology professionals and self-builders

will the quality of the equipment. It could include security, CCTV, integrated door entry and control of heating and ventilation.

£90,000 – at this level you can expect higher quality equipment and better control systems throughout the house. Touch panels in each room allow you to have control over your lighting, entertainment and heating.

£150,000 – as above, with more touch panels, a better home cinema and more comprehensive systems.

YB: How do you go about future-proofing your home automation to ensure you can add to and develop it over the years?

To ensure your home is future-proofed, the right infrastructure needs to be put in place. As long as this is in place, more systems can be added to the property, as the requirements of the homeowner changes. Again, this is why it is so important to get a home technology professional involved in the project from the get-go, as they can install this level of cabling.

YB: How do off-the-shelf systems compare to professionally designed and installed home automation systems?

Off-the-shelf systems can provide a certain level of automation, and are a more affordable option, but they don't provide the same level of integration and intelligence of a professionally installed home automation system.

A lot of off-the-shelf systems rely on internet connection, so if the connection drops out, the homeowner can find themselves unable to turn

the lights on, open the blinds, etc. This can be avoided by having a home automation system installed instead.

YB: Some of us perhaps think of home automation as entertainment, lighting etc. but what else can be controlled?

Home automation is often installed to improve a homeowner's lifestyle, so many do just think about the entertainment aspect. In reality, home technology systems can provide so much more, including security, heating, cooling, blind control, lighting, energy management and assisted living.

YB: Is it possible to control these all through one device?

It is possible to control all aspects through one device – either a touch panel, touch screen, iPad, iPhone or other Android devices. Many homeowners will opt to have a touch panel in each room, so that you don't have to walk around the house trying to find the one device that controls everything.

Apps are a great addition to the touch panel, as it allows homeowners to control the home when away from the property.

YB: What does the future hold for connected homes and home automation?

The amount that can be controlled and integrated in a home will only continue to expand. No one is sure what will be next, but CEDIA members are the first to find out thanks to the information they have access to through CEDIA ■



CEDIA (the Custom Electronic Design & Installation Association) is an international trade organisation with a global membership of over 3,500 companies. CEDIA members are specialists in the integration of technology into home environments. They partner directly with self-builders to maximise the lifestyle, function, aesthetic and entertainment benefits of the integrated home.

CEDIA members are the best informed and trained in the latest technologies, design, project management and installation techniques. CEDIA's education programme runs throughout the year, with courses covering a comprehensive range of system design and installation, business and project management topics. Working with a CEDIA member is the best insurance you have that the final system will meet your expectations.



Chartered architect Piers Taylor will provide the Big Green Home Show's headline presentation



The BIG Green Home Show:

Your key to creating a greener home!

Where: The National Self build & Renovation Centre, Swindon

When: Friday 23rd to Sunday 25th October 2015.

For anyone who hasn't yet visited The National Self Build & Renovation Centre (NSBRC), it is a unique and inspiring resource and the heart of the UK's homebuilding community. Open all year round the 67,000ft² Visitor Centre welcomes people from all over the UK who are designing & building their own family homes or renovating / improving existing properties.

We all want to create more efficient and sustainable homes, but knowing where to start and how to make the right decisions for your project can often be confusing. Whether you're looking to improve your current home through improved insulation or by installing renewable energy sources, or you're contemplating using sustainable products in your project, there are so many options. But don't panic, the experts, seminars and live demonstrations at The Big Green Home Show will help you decide what's best for you and your home.

The Show returns for its seventh year from 23rd - 25th October 2015 and features a packed programme of expert speakers, live demonstrations, guided tours, real-life experiences and individual, impartial consultations.

Free expert advice

Renowned for the quality of its expert presentations and relaxed, open approach, the NSBRC has brought together an unrivalled line-up of experts that include Eco consultants, Architects, Project Managers, Designers and Planners – all of whom are on-hand to provide guidance and advice. If you're planning a major project or simply after a second opinion before making a key purchase, bring your plans and sketches along to the show and take advantage of the free one-to-one sessions.

The NSBRC's own expert team are available to take you on guided tours of the fantastic Life Size Renovation House and Self Build Journeys – answering your questions along the way.

Three seminar theatres

Three theatres will feature a wide range of seminars each day exploring everything from Budgeting, Plot finding, the latest Building Regulations and Planning news.

The 'Build It Theatre' features keynote speakers discussing current 'green' developments, from Government incentives to current Building Regulations, and will include talks from the finance specialists Buildstore and Property expert Kate Faulkner.

The 'Plotsearch Theatre' offers presentations from exhibitors showing the very latest technologies and building systems, whilst the team will also share their tips for sourcing tradespeople and buying materials. The latest products and technologies will also be put through their paces in the 'Live Demonstration Arena.'

Headline presentation

Piers Taylor is a chartered architect, a former Studio master at the Architectural Association,

Design Fellow at the University of Cambridge, a founding director at Mitchell Taylor Workshop. He is co-presenter of hit BBC2 series The House that £100K Built.

Piers will be at the Show on Saturday 24th to meet visitors and offer advice along with delivering the headline presentation at 1pm.

Kate Faulkner & The Property Clinic

Kate Faulkner is one of the UK's leading property experts. Kate provides independent up to date and individual advice on how to buy, sell, rent, invest, renovate, maintain or build a property. She does this via a free service called Propertychecklists.co.uk and a paid for advice service, which includes a comprehensive 'how to' guide.

Kate regularly appears on BBC Breakfast News, Your Money, GMTV, ITV, Radio 4 You and Yours, The Big Questions and 5Live among others.

Kate will be at the Show with her 'Property Clinic' featuring a plethora of industry experts and associations offering free advice to help you with your project.

Other show highlights:

As the UK's leading provider of homebuilding finance, BuildStore can find the right finance for you. They offer a range of funding solutions from all of the leading lenders, as well as exclusive products not available elsewhere. Their specialist advisers can look at your individual circumstances and recommend the most cost effective solution for your self-build, development or renovation project

Expert Alley – Those wishing to learn more about issues such as planning, Building Regulations, dispute resolution and insurance can drop in for free consultations with a host of respected industry associations and experts ■

The Big Green Home Show

The BIG Green Home Show runs from Friday 23rd to Sunday 25th October with tickets £12 per adult. Your Build readers can claim FREE tickets by booking through www.nsbrc.co.uk and selecting booking code: Magazine

The BIG Green Home Show is easy to get to with the NSBRC located right on Junction 16 of the M4 and parking is plentiful and FREE!

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The paradox of choice

By Harvey Fremlin,
managing director, NSBRC



For me, the whole reason for undertaking a self-build or renovation project can be summed up in one word – choice. Once you discover there is another option to providing a family home rather than buying a house ‘off the shelf’, you are presented with a plethora of choices. From where you live; the building system used; the design features and level of finish, all these factors can make your new home bespoke and unique to you.

A scan through the pages of Your Build magazine or a visit to the National Self Build & Renovation Centre (NSBRC) will quickly tell you that there is no shortage of wonderful companies, products and solutions to help you achieve your ‘dream’ home. Indeed the hardest thing for a self-builder can be remembering the huge caveat that often sits alongside that word ‘dream’, which is of course ‘budget’!

Whilst this level of choice and the freedom it brings is one of the real joys of self-building, it can also be quite daunting. Barry Schwartz, an American psychologist, wrote a book in 2004 called ‘The Paradox of Choice - Why More Is Less’. Schwartz suggests that eliminating consumer choices can greatly reduce anxiety for shoppers! I’ve spoken to

plenty of NSBRC visitors – particularly those at the early stages of a project – who have joked that after a busy day in the Centre they’ve left with more questions than when they arrived, and it’s not surprising. Self-builders are typically not ‘in the trade’ and why would a Dental Practitioner, for example, have the faintest idea about window U-Values, or an IT Manager be able to recognise an ICF from a SIPs wall construction? However, once you immerse yourself in the world of self-build you can soon become an expert in researching the options and realise there are plenty of people and resources available to help you make the right decisions.

Without doubt one of the biggest areas for potential confusion is when choosing a heating system. When the NSBRC opened in 2007 our exhibition area featured many examples of boilers and radiators – what most people would recognise as a conventional heating system. Whilst these still remain popular there has also been a huge growth in renewable (and associated) technologies; solar, heat pumps, biomass, underfloor heating, mechanical ventilation with heat recovery to name a few. This growth has in part been driven by the desire of individuals to build sustainable and energy efficient homes. I am interested in what motivates

people to want to ‘go green’ and what additional choices – and challenges – this presents.

Complex landscape

In researching this short article I contacted a number of NSBRC Visitors who were attending a recent Eco Workshop we ran on Heat & Energy systems. I asked about their motivations for choosing ‘eco friendly’ products and what difficulties they were facing when assessing the options. If truth be told, I was anticipating a handful of responses that might, with a bit of luck, have contained a couple of points that I could refer to. I actually received over 40 emails with paragraph after paragraph from people very kindly sharing their views and opinions. The passion for their self-build projects was clear to see and the responses a joy to read. What also stood out was the sheer number of acronyms and abbreviations that people have to contend with – FTT, RHI, KWh, LPG, ASHP, MVHR, PV, EPC, SAP – and the list goes on (I appreciate the irony of highlighting this writing from the NSBRC!) Despite this complex landscape most were fully conversant in this technical language and I’ll confess to having to Google more than one new concept to me, as I reviewed the responses.

On the whole, the main drivers to install green



“There has also been a huge growth in renewable (and associated) technologies; solar, heat pumps, biomass, underfloor heating, mechanical ventilation with heat recovery to name a few”



kit are: To reduce energy bills and future-proof against rising energy prices, a genuine concern over the environment and a moral conscience regarding the impact our continued reliance on fossil fuels has on the environment.

Quite a number of the emails I received back had a similar starting point – an old, existing boiler and how to replace it. The options here are far and wide – from simply replacing like for like, ripping out and installing an Air Source Heat Pump feeding underfloor heating, log burner with water heater to name a few. However, it's not just selecting a system to consider; having the initial capital outlay, the availability of Government incentives to assist with the installation, the potential payback period and selecting a reputable tradesperson to do the work – and one who is competent in the new technology – are all factors to consider before making your choice.

Importance of insulation

If the house is poorly insulated and leaking heat through the windows, doors, walls or roof it may well be almost entirely pointless to install your shiny new kit without addressing the fabric of the building first. A pound spent on insulation is always better than a pound spent on heating. Other concerns for people were the difficulty in contrasting and comparing quotes for different (and similar) systems, the reliability of 'new' methods and local planning restrictions reducing freedom of choice.

The concept of achieving a 'payback' was a particularly hot topic. This means the time it takes for the savings a system achieves (compared to the previous system's energy consumption, and usually allowing for inflation and rising energy prices) to cover the original installation cost. I believe everyone has their own

view on what payback period is acceptable to them. For one respondent, seven years was a realistic period. I was rather taken by another's view on the matter: "We don't expect any green technologies to save us money in the short or medium term, possibly the opposite... it's a bit like planting a tree that you know you won't live to see grow to full height". With that commendable attitude it was no surprise to read that she had literally done that too. For the sake of balance, another visitor responded (I imagine with tongue firmly in cheek) "Why should we save anything for future generations? What have they ever done for us?"!

So many options

It seems to me that we are fortunate to have so many options available to us. Just a generation ago this level of choice would be almost unimaginable. In a generation's time it will probably feel limited. The fact that you are reading this is indicative that you are likely to be an early adopter of these still relatively new technologies. That means that you will most likely pay more than they will for the same products in five or ten years time, just as that huge Plasma TV that cost a thousand pounds not too long ago is now just a few hundred pounds. However you will be at the cutting edge and will certainly be allowed a smile each time the news reports yet another hike in energy prices. The larger developers will certainly not drive these technologies forward, building as they tend to do in the quickest, cheapest way possible.

So perhaps all this choice can make us anxious? But, with the right advice, we have the option to achieve our dream homes, and save money (and possibly the planet) in the process ■

Visit the NSBRC's Big Green Home Show...

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The Homebuilding & Renovating Show, sponsored by Anglian Home Improvements, returns to ExCeL London, 25th – 27th September 2015

Whether you are renovating, adding an extension or building a new home from scratch, a visit to the London Homebuilding & Renovating Show at ExCeL this September is a must. With over 350 exhibitors, a comprehensive range of free seminars and masterclasses as well as our renowned free 15-minute expert consultations, you'll find everything you need to get your self-build or home improvement project off on the right track.

Ideas and advice in free seminars

Whatever your area of interest, we've got a seminar for you. Spend 30 minutes absorbing

information and ideas delivered by Britain's leading homes experts and enjoy debates and analysis on the issues that matter to you. With topics covering areas such as heating, Permitted Development, dealing successfully with builders and managing costs, make sure you get along early as seats fill up fast.

Over 350 key suppliers

If you're choosing products for your project or looking for ideas, we've gathered the UK's leading companies supplying everything from underfloor heating and windows to architectural services and staircases. Make crucial contacts all in one day!

Ask the Architect

Fancy some free professional advice on your plans? Need design inspiration to improve your home? Bring your plans along to our Ask the Architect stand and enjoy a free 15-minute consultation with a RIBA architect.

Free advice from independent experts

Bring along your questions and plans to our free 15-minute consultations – get solutions from independent experts from Homebuilding & Renovating magazine and celebrity experts such as Charlie Luxton from More 4's Building the Dream, and Gabrielle Blackman from BBC's DIY SOS.

Planning Clinic

Problem with planning approval? Get free planning advice from an expert at Foxley Tagg Planning at our Planning Clinic. 15-minute slots are available on a first-come, first-served basis.

The London Homebuilding & Renovating Show is at ExCeL, London from 25th – 27th September 2015. Get your two free tickets worth £36 today.

Visit: homebuildingshow.co.uk/yourbuild ■

www.homebuildingshow.co.uk

*Ticket prices based on £18 door price. Offer expires 3pm on 24th September 2015. Children go free.

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FROM BLANK BEDROOM TO BESPOKE BOUDOIR

Sara Corker, Interior Designer and member of the BIID (British Institute of Interior Design www.biid.org.uk), founder of Sara Corker Designs (www.saracorkerdesigns.com) and Author of 'How to start a successful and profitable interior design business,' explores how to turn a simple, empty bedroom into a tailored sanctuary by simply considering three simple questions...



The bedroom should offer an escape from reality, a sanctuary for rejuvenation and relaxation. On average, a person will reportedly spend 26 years of their life in the bedroom making it the most used area of any property. Perfecting the look and feel of the bedroom whilst balancing practicalities against decorating details makes designing and getting the bedroom "right" a challenging task.

So what must be considered in the initial stages of design? Firstly, careful thought should be given to the basics; furniture layout, heating, ventilation, finishes and colour schemes.

These basic features and functions will be determined by considering three things:

1. How many people will this bedroom accommodate?
2. What, of the original scheme and furniture, can be retained and what should be discarded?

3. What are the main requirements of the occupants for this particular bedroom? Consider hobbies, occupations, families, the time spent in the bedroom.

Once the answers to these questions have been established, the next step is to prepare a basic plan of the room. Creating several drawings of the room with different furniture positions will guarantee the most space-effective result. A good tip, particularly when looking to incorporate existing furniture into new designs, is to create scale cut-outs of these pieces. This will work as a huge advantage when playing with the remaining space of the room. Remember to add features such as existing doors, power points, light positions and radiators. This may seem obvious but it is surprising how often bedsides are left without a nearby plug socket or radiators are covered.

Lighting

Next, when considering lighting, and to get it right first time, contemplate the following





questions: will task lighting for reading, sewing or putting on make-up be necessary? Will bedside lamps or reading spotlights be more appropriate? What about general lighting? Are there any pictures to be illuminated? Are the wardrobes internally lit? Considering all potential lighting uses in the room – now or in the future – will future-proof the need to re-wire the room at a later stage.

Storage

This is probably the most widespread problem amongst self-builders and homeowners redesigning bedrooms. For me, the most efficient and obvious way of conquering this issue and creating more space is installing fitted wardrobes. Whether they are used solely for storing clothes, to double up as a shoe, accessories and beauty storage space, or to hide televisions or books, fitted wardrobes are an integral part to any storage solution. Available in self-assembly units, or designed and commissioned for a build, they are easily



integrated within the room with matching furniture easily made or bought to accompany these pieces. If opting for free-standing furniture, this is the time to refer back to the original drawings to make sure there is sufficient room.

Themes & deco

Now the practical design of the room has been established, seek inspiration for themes and deco ideas by creating an inspiration board. Whether your main point of inspiration derives from a piece of art, your favourite film or an inanimate object, you can then create a mood board, Pinterest board or draw ideas from magazines based around this artefact to keep on-scheme.

For final touches, give the space a personal touch by considering the style of the window treatments. Should it be curtains, blinds or maybe even shutters, make sure to choose a relevant treatment to compliment the style of the room whilst adding small, personal touches ■

TOP STORAGE TIPS:

- The bedroom is often the room with the most need for maximum storage, but the least amount of space for putting stuff away. Use beds with storage underneath for maximum effect.
- Storage chests with lids are also a good option for storage at the end of the bed or, if there is enough space, for use as a window seat.
- Add more storage space in the bedroom by building a headboard storage unit. This can hold books, lamps or a radio on top of the unit and store extra linens and blankets on the inside.
- Use flat roll-out bins for under-the-bed storage. They can hold bed linen, sewing supplies, and other infrequently used items.
- For a double-duty ottoman, build a plywood box with a hinged cover. Paint the outside, or cover it with fabric. Add a thick cushion for comfortable sitting, and to store magazines in style.
- If there is enough space at the foot of the bed, a low chest can be used for storage.

www.saracorkerdesigns.com



All four bespoke staircases

A detached house dating back to the 18th century, situated on the edge of the historic village of Hurley-on-Thames, has become one of the latest properties in the UK to benefit from the bespoke staircases of British Spirals & Castings.

The homeowners first came across the company at Grand Designs Live,

where they met managing director Richard Harding, who told them he could help develop their ideas for a truly bespoke finish.

Mr. Harding of British Spirals & Castings said: "They were lovely people to work with who had some fantastic ideas about what they wanted, and with our experience and ability to create something truly unique, we created four different staircases for them. These included the main stairs (straight with a kited bottom section with enlarged dias bottom step); a squarial (spiral but with treads running into the corner of the walls) leading to the master bedroom; a second spiral leading to the home office; and finally a straight stairs down to the basement.

Mr. Harding added: "We worked very closely with the owners to get a design which complied with the building regulations yet visually gave them the wow factor they were looking for in their dream home."

All four of the staircases were made from Solid Oak, some featuring glass balustrades supplied by VISTA GLASS, and incorporated a variety of designs including straight, kited and spirals to suit each installation area.



W: www.britishsc.co.uk

DRU offers new design options

DRU has added to its Global range of modern gas fires with the 100 and 120 CF glass-fronted models.

These 'letterbox' style fires are 1 metre and 1.2 metres wide respectively, with a height of 42cm for an enhanced view of the fire bed. In addition to the popular 'front' versions, they are now available in two-sided Corner and three-sided



Triple versions, offering greater versatility in terms of location and visual appeal. They can also be installed in room dividing walls, special room features and many other unusual places.

Customers can choose from an authentic log fire display, white stones or anthracite glass, with interiors available in standard black or mirrored Ceraglass. All three versions feature high, realistic flames that are regulated by the electronic remote control, which also includes a room thermostat and timer. They are not just decorative either, providing a maximum heat output of 7.5 kW, enough for a larger-than-average living space.

DRU Global 100 and 120 Front, Corner and Triple are balanced flue appliances. They can be installed in homes with or without a chimney, including the construction of a heat-resistant false chimney breast if required. All three fires have a maximum energy efficiency rating of 88 per cent. and are compatible with the exclusive DRU PowerVent system, an extended, motorised flue assembly that enables the fires to be installed in previously inaccessible locations.

W: www.drufire.co.uk

Shaws of Darwen unveils the Egerton

The Egerton is a popular 'British' made sink from Shaws. The huge, heavyweight 997x470x255mm hand-crafted double bowl, ceramic fireclay sink has been manufactured with a unique and distinctive patterned front. The sink features an offset dividing wall and is branded with the well-known Shaws logo to complete the finished 'look'.

Due to its weight, Shaws recommend that this sink is installed professionally with bespoke cabinetry.

Egerton is from the Shaws Original Collection and comes without overflows but includes 3.5-inch waste outlets for basket strainers or waste disposer. Shaws sinks are manufactured with a durable glaze in both white and biscuit finishes, designed for years of usage and will keep their good looks if cleaned regularly using a soft sponge or cloth and a non-abrasive cleaning product.

Basket strainer wastes are available in chrome, brushed nickel, gold and antique bronze complete with porcelain indices with the Shaws insignia. The company's exclusive collection of designer taps are the perfect choice to complement its range of ceramic sinks.



The Egerton sink from Shaws of Darwen

W: www.shawsofdarwen.com

Protect against rain damage with Thompson's

Specialising in high performance weatherproofing products, Thompson's says it knows a thing or two about battling the harsh UK elements and banishing water from seeping through brickwork.

With more than 80 years of knowledge and experience, the company boasts a range of protective products that can be relied on.

Thompson's Water Seal and One Coat Water Seal can be used on brick, stone, concrete and wood to reduce the appearance of weathered brickwork, eliminate efflorescence and dampness. Invisible and deeply penetrating, these solutions are easy to apply and can be added directly on to damp surfaces, allowing the product to create a long lasting barrier against expensive water damage.

Mick Bowler, research and development manager for Thompson's said: "This effective product meets every DIY'er's demands when it comes to dealing with rain damage. Not only does it protect against rain damage, but it also reduces the effect of freezing and thawing. This is something that every DIY'er should have stored away for a rainy day." Thompson's Water Seal and One Coat Water seal is available in sizes 5 Litre, 2.5 and 1 Litre.



W: www.thompsonswaterseal.com

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MY HOUSE

JELD-WEN offers the right Selection

JELD-WEN says homeowners can add light and style to their projects with its new glazed real wood veneer interior doors.

The timber manufacturer has recently extended its 'Selection' range of veneer doors to include five new glazed options that help light transference between rooms as well as creating a statement look.

The simple, elegant range of flush doors is

made of real wood veneer, giving a natural finish without the need for decoration. Available in white oak fusion, walnut fusion and white oak inlay designs and complete with toughened clear glass as standard, the doors can be supplied with various glazing options, giving a sleek, minimalistic look to any home. The 'Selection' real wood veneer range also comes with a heavyweight core for improved sound and thermal insulation, and up to 6mm trim allowances to ensure the perfect fit. Flush in design, glazed veneers offer a high-end, contemporary finish to new builds and renovation projects.

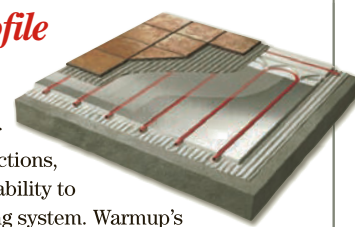


This White Oak Inlay real wood veneer internal door with four light clear glazed sections is available from JELD-WEN's 'Selection' range

W: www.jeld-wen.co.uk

Warmup keeps a low profile

According to Warmup, installers specifying hydronic underfloor heating solutions are often faced with a number of challenges such as floor height restrictions, cumbersome heating panels, and the inability to immediately tile directly over the heating system. Warmup's aim is to offer products that provide a solution to these challenges, making installation easier and faster.



The Total-16 Low Profile System from Warmup is a thin, durable, no screed required, adaptable hydronic system. Working with screed leads to a messy and time-consuming installation but with Total-16, this unpleasant stage is eliminated, reducing time and cost from the floor creation process. As the system does not need to heat the screed, Total-16 is able to heat up a room in minutes not hours.

Total-16 comprises of three modular boards – straight, return, and multi-feed. The straight boards come complete with pre-installed aluminium heat diffusion plates. At only 16mm thick with a 12mm PEX-A pipe, the system has minimal impact on floor levels, making Total-16 ideal for retrofitting and installations to off plan specifications. With the three boards weighing a total of only 1.7kg, the system is lightweight and easy to handle, allowing for rapid installation. The high density moulded EPS supports up to 40 tonnes per m², making light work of heavy loads.

Total-16 comes complete with a Lifetime Warranty and SafetyNet Installation Guarantee. This guarantee means if you accidentally damage the system during installation, Warmup will replace it free of charge.

W: www.warmup.co.uk

A first for timber bifold doors from Kloeber

Kloeber's bespoke timber folding sliding doors are available in beautifully engineered softwood, hardwood or Oak in bespoke or set sizes.

The doors come with a choice of opening configurations and inward or outward opening options, various cill designs and are fully factory finished from a choice of stains or any RAL colour. Glazing options include double or triple glazing and an opaque glass option.

Kloeber says it became the first company in the UK to be awarded Secured by Design accreditation for its timber bifold doors and also now holds this accreditation for the FunkyFront

contemporary timber entrance doors.

Although it is recognised as a specialist in timber and aluminium bifold doors, Kloeber also has a full range of complimentary glazing solutions in timber, aluminium and composite. The full range includes sliding, French and single doors as well as a wide range of windows, fixed glazing and rooflights, giving the self-builder and home improver a complete solution to their glazing requirements.



Kloeber Kustomfold Timber bifold doors

W: www.kloeber.co.uk

Eurostove offers "the perfect refuge"

The Hergom Stilkamin wood burner is an inset stove that offers a flexible heating solution thanks to its sliding glass door, which moves smoothly upwards for an unobstructed view of the flickering flames within.

Exclusive to Eurostove in the UK, the contemporary design is available as a four-sided model for a sleek wall-mounted look or a three-sided frame that sits neatly on a granite or slate base.

Eurostove says Stilkamin is the perfect refuge on a cold winter's day, adding warmth and distinction to any home.

Available in four sizes, the sliding door stove is built from steel with a refractory brick chamber and cast iron base. The benefit of refractory concrete bricks is that as the chamber of combustion gets hot, the bricks become clean. This results in a bright glow every time the fire is used. An optional convection blower with remote control is also available. This enables the heat to be ducted through to any other room, which could be up to six metres away. A removable ash pan also makes cleaning easier. Hergom stoves have a double combustion system and an interior that provides maximum heat output and fuel performance, making the system highly efficient.



W: www.eurostove.co.uk

The Classic Shaker

The Shaws of Darwen Classic Collection 'made in England' range of ceramic sinks have a durable glaze, and are available in white and biscuit finishes to suit the more contemporary styles of kitchen designs.

There are three sizes of heavyweight Shaker sinks including the 800mm deep single bowl with traditional style square sides (pictured), which is perfect for refurbishment or new build.

This Shaker is handcrafted by master craftsmen and comes complete with a round overflow, a 3.5 inch waste outlet and is manufactured with a durable glaze that is resistant to chips and designed for years of usage.

Other Shaker sinks available are the 900mm and 1000mm double bowl sinks, which are ideal for both modern and traditional décor and add a touch of class to any luxurious kitchen. The double bowl sinks feature a dropped central dividing wall and both sinks have round overflows and standard 3.5 inch wastes to accommodate either basket strainer or waste disposer. Every Shaws sink is individually handcrafted.



W: www.shawsofdarwen.com

Saving space without compromising quality

British Spirals & Castings has delivered a compact staircase to a home conversion, proving that limited space does not need to compromise quality or design.

Gary and Joanne Moore were looking for a staircase that was not only practical and complied with Building Regulations but also modern with a quirky twist. The homeowners found British Spirals &

Castings online and after a visit from managing director Richard Harding, visited the company's showroom and workshop. It was there that they saw a staircase under fabrication that was almost perfect, and following assistance from the team, the Moore's got their dream staircase.

Richard Harding, managing director of British Spirals & Castings said: "As with all our customers we worked closely with the Moores to ensure they ended up with the perfect staircase for their home. In this case it was a combination Scandinavian staircase featuring wooden treads on top of steel strings, with knotted balusters."

Sleek Scandinavian staircases from British Spirals & Castings are very versatile, available in any diameter to suit a project's dimensions. The wooden stair treads can be finest birch-faced timber or any solid timber with a choice of either a steel or timber riser bar. With a wide range of cast aluminium, plain, collared, turned and wrought iron balusters, British Spirals & Castings says it is sure to find a design to compliment any home.



W: www.britishsc.co.uk

Buildbase Lintels makes specification easy

Buildbase Lintels has launched a website to make specifying and buying lintels quicker, easier and more convenient for house-builders.

Developed following feedback from house-builders and specifiers, Buildbaselintels.co.uk features 50,000 products in stock, as well as

CAD and BIM models from several manufacturers. By having product, pricing and technical information all in one place, house-builders won't have to contact several different manufacturers, reducing the time taken to specify and buy lintels.

Materials can be delivered for free the next day or picked up on the same day at one of the 19 Buildbase Lintels branches based across the UK. Martin Somers, managing director at Buildbase Lintels, said: "We launched this website to help demystify the buying process for lintels, which can be overly complex and time-consuming, particularly for small house-builders. They will now be able to jump online, download drawings from several manufacturers, so they can not only see what the end result will look like, but also calculate the cost of materials as well as technical specifications.

"We have the biggest range of lintels in stock, so once builders know what they want they can order online and be confident that they can get it the same or next day, making them much more flexible and reactive from their customer's point of view."



W: www.buildbaselintels.co.uk

Flush with natural light

A fixed Flushglaze rooflight from Glazing Vision has been used as part of a spacious residential extension to provide high levels of natural light.

The homeowners wanted to extend the living space within the Edwardian terraced house with a large kitchen extension at the rear of the property.

The ground floor plan, which was originally segregated into three rooms – a small breakfast room, a smaller kitchen and a living room – were replaced with a large kitchen diner that extends outwards into the garden. In order to provide sufficient lighting as well as space, a large skylight was incorporated into the design plan.

Glazing Vision's Flushglaze rooflight was chosen to provide the natural light required for the project. A large, single pane of toughened, triple-laminated glass was installed above the dining area to enable daylight to enter the heart of the extension, which would have otherwise been relatively dark.

Glazing Vision says the rooflight not only enables great views of the sky during the day, but is also an admirable feature at night, with an open snug room positioned to the side of the skylight around a wood-burning stove. The minimal framework of the Flushglaze rooflight, alongside its large area of sheer glass, complements the white-washed décor of the extension.



W: www.glazingvision.co.uk

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MY HOUSE

'Quietest fan on the market'

Airflow Developments has launched iCONstant to meet demand in the housing sector for Decentralised Mechanical Extract Ventilation (dMEV) fans. The Airflow iCONstant is a continuously running axial fan using an electronic flow sensor to ensure that installed performance is maintained and that adjustable air flow rates remain constant. There are two models available; on the Timer version, the boost speed is set to run for between 15, 30 or 45 minutes. With the Humidity Timer version, an intelligent humidity sensor will activate the boost speed when a set point is reached – and this can be adjusted between 60 and 90 per cent. When the set point is reached after the boost speed kicks in, the fan will revert to the trickle speed once again. The fan can be both wall and ceiling mounted in a bathroom, kitchen or wet room, whether it is a new build or retrofit, and achieves "sound levels below what you can hear" according to Steve Bergh, category product manager for Airflow. It also has a 'Self Proving' diagnostic sequence, which automatically checks the functioning of the fan. The fan is also economical to run, providing annual running costs of a little over £1 per year when used on its lowest speed. iCONstant is fully compliant with Approved Document F, System 3 of the Building Regulations due to its everyday running rate which can be adjusted up from the minimum high trickle ventilation flow rates to the maximum speed of the fan, dependent upon the total flow rate of the dwelling.

W: www.airflow.com



Centor celebrates international recognition

Centor has received worldwide recognition of its integrated doors after winning a Red Dot Award for design. According to Centor, the German Red Dot award stands for groundbreaking design. A jury of 38 international experts assessed 4,928 product entries from 56 countries, awarding the Red Dot seal of approval only to those designs that demonstrate superior 'quality and innovative power'. Nigel Spork, managing director of Centor, said: "I'm hugely proud that we can delight people at home by combining beautiful design and phenomenal thermal performance with some mechanical magic." Launched in 2013, Centor Integrated Doors enable homeowners to enjoy the benefits of inside / outside living using built-in screens and shades to control sunlight, insects and privacy, providing versatility all year round. The sleek aesthetics of the Integrated Doors result from cutting-edge design, offering clean, contemporary styling with all locks and handles hidden from view. Thanks to its patent-pending hardware, Centor says the doors provide an elegant user experience every time with effortlessly smooth and reliable fingertip operation. David Chappell, Centor's group manager of product & engineering, said: "Turning vision into reality is not easy. But winning such a prestigious design award validates all the hard work we have all put in to create a truly best-in-class product, and gives us confidence to keep striving for ultimate perfection."

W: www.centor.com



Cembrit offers its slating expertise to all

Cembrit has developed a Fibre Cement Slates guide providing relevant information for the successful design and installation of pitched roofing with fibre cement slates.

The 80-page document, entitled 'A Guide to Double Lap Slating with Fibre Cement Slates' provides a full explanation on technical specification, design considerations, colour availability and installation advice. The company says its new book demonstrates how all forms of slating and fibre cement technology offer users peace of mind that is not available from other suppliers, and highlights the wide range of slates and accessories it offers.

Ged Ferris, marketing manager for Cembrit, said: "Cembrit has been manufacturing fibre cement products for over 80 years. The content of the brochure draws on that depth of experience to offer detailed advice to anyone wanting to specify and install fibre cement slates. Fibre cement man-made slates continue to grow in popularity due not only to the cost and installation benefits, but also aesthetic advantages over concrete tiles. Our aim is to support this move by providing a useful document that covers the key aspects of fibre cement specification."

W: www.cembrit.co.uk



Slimming down

The Kingspan OPTIM-R Balcony & Terrace System and Kingspan Thermarof TR27 LPC/FM have been installed as part of a roof terrace retrofit on a house near Cheltenham, helping to minimise heat loss whilst maintaining the existing floor level. As part of the retrofit, the leaking terrace was stripped back to the existing plywood deck and BPN Architects used the opportunity to raise the thermal performance of the roof above the Building Regulation requirements.

Robert Smith, associate at BPN Architects, said: "It was essential that the new build-up could meet the design U-Value of 0.17 W/m²K, while working to the existing door thresholds. Kingspan's technical team carried out a site visit and provided the specification and layout for the Kingspan OPTIM-R and Thermarof products to allow us to achieve this." With an aged thermal conductivity of 0.007 W/m K, Kingspan OPTIM-R panels can provide an ultra-thin solution for hard to insulate areas. The Vacuum Insulation Panels feature a microporous core which is evacuated, encased and sealed in a thin, gas-tight envelope. The Kingspan OPTIM-R Balcony & Terrace System also incorporates Kingspan OPTIM-R Flex infill panels, which can be cut to fit around penetrations and used to fill any small gaps in the insulation layer.

W: www.kingspaninsulation.co.uk/optim-r



The Kingspan OPTIM-R Balcony & Terrace System and Kingspan Thermarof TR27 LPC/FM have helped minimise heat loss whilst maintaining the existing floor level

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42 *Hep20*

Gareth Samuel looks at the considerations you should make when installing plastic pipework

Phase 1 First steps to a SURE- FOOTED SELF-BUILD



Your Build spoke to Dennis Scarth, self build director at builders' merchants Jewson to discuss some of the most common concerns of budding self-builders embarking on their projects

A self-build project is no easy task, and it's definitely not for the faint-hearted. But for those who are up for the challenge, it can deliver the bespoke results that most homeowners can only dream of.

Self-build projects account for around 10,000 of the homes built in the UK every year, and over a million people say they'd like to build their own home in the next five years – and why wouldn't they?

Not only can a self-build project be more affordable than buying a new build or period property, it also gives people the opportunity to choose exactly what they want for their home. Whether it's locally sourced materials, sustainable products or innovative design, self-build is a great idea for those looking for a unique place to live.

But for the first-timer in particular, kicking off a self-build project can be a daunting process. The Self Build Consultation Team at Jewson speaks to thousands of people each year who are doing just that, and often people want some guidance before breaking ground.

Here are a few of our top tips for starting a self-build project.

How involved is too involved?

As a first step, it's worth considering how involved you want to be in the project. Some self-builders want to manage and design the construction process and some may even want to have a hand in the actual build. Others prefer to leave the heavy graft to the professionals and assign a contractor. Working out where you sit on the scale is essential; you can then factor in any additional costs for designers, contractors and suppliers.

The money pot

Ensuring your finances are in place is one of the most important things to consider before starting your build. If you decide to borrow money to fund the project, there are a range of self-build mortgages available that you can choose from. Self-build mortgages are different to typical mortgages for house buyers, as the money is spread across the various phases of the build. It might be worth talking to a self-build finance expert to understand all the options and figure out the best one for you.

Whether you're borrowing or financing the build yourself, having contingency funds in the budget is an absolute must. If a phase of the build goes over budget or problems occur, these extra funds will keep the build on track. As a rule of





Jewson provides a free and dedicated Self Build Consultation Service designed to offer detailed and bespoke guidance. To speak to a Jewson self-build advisor or to book a visit on site call our self-build helpline, Tel: 0800 032 8968, or visit www.jewson.co.uk for further information.



thumb, set aside 10 per cent of your budget to cover any unforeseen issues.

Choosing a contractor

A self-build project is not without its risks, so you need to hire a contractor that you can trust. Take advantage of your social network — friends, family or colleagues may be able to recommend reputable contractors based on their previous experiences. While it's tempting to go with the cheapest option, the build process will go a lot smoother if you base the decision on your confidence in the contractor.

Eco-friendly

For an increasing number of self-builders, reducing their carbon footprint is an important factor behind the build. Building your own home means you can control energy costs in a way that's not always possible when buying an existing property. It's not all down to solar panels or wind turbines, either. There is a huge range of products on the market that can make a difference in the long term. Even by simply fine-tuning the insulation, the end result can have a noticeable difference on CO2 emissions and energy costs, and leave you with a more comfortable living environment overall.

A higher standard of living

As much as 90 per cent of our time is spent indoors, so when building a home every self-builder wants to make it a place they can enjoy being in. Many properties are built only to the minimum regulatory standard, but when building your own home, you can set your own standard of finish. Some of the earliest decisions in the build process can have a great impact on the end result.

Choosing products that complement each other and that integrate properly during installation will result in a more comfortable and efficient home: whether it's increased thermal performance, refined acoustics or greater air quality. It's worth speaking to an expert in the early stages of the build as they can advise on design, products and installation methods that will give you a higher standard of living.

These are just a few of the most common concerns self-builders have when embarking on their first construction project. However, every build is unique and will pose its own set of issues. The important thing to remember is that it is a well-trodden path, and both professionals and self-builders alike are more than happy to share their advice and experience with you.

Happy building! ■

Phase 1

The lowdown on installing:

Plastic pipes in floors & walls

When looking to install plastic pipework in floors or walls to harness its wide range of benefits, you also need to ensure you have the knowledge to ensure that those installations will be fit for purpose and meet regulations. Gareth Samuel, product manager at Hep2O offers some installation advice

When installing water supply plumbing into floors or walls of a property, whether it is a domestic or commercial building, there are common challenges which require practical solutions. Using both the right knowhow and products which are designed to accommodate modern plumbing systems, installers can achieve the right result first time, every time.

There are tried and tested methods for installing high quality plastic pipework in floors and walls of all kinds which enable installers and clients to achieve fast and effective installations of systems which offer a host of benefits. However it's worth outlining a few tips which help to answer some of the frequently raised queries.

Floor installations

Pipes can be installed directly into concrete floors, as well as walls, but in order to comply with the Water Regulations, pipes may need to be inspected periodically. Using the flexible Hep2O conduit system from Wavin is one way to enable this accessibility to be achieved, as it both protects the pipe but also enables it to be easily withdrawn from the concrete floor. In addition the system's junction boxes can not only accept conduit pipes using holes cut on site, but also allow maximum accessibility to the fittings for inspection and removal if required.

In order to facilitate removal and replacement of the pipe within, the conduit should be installed without joints and should ideally run in straight lines between junction boxes. Where bends are unavoidable, it is advised that there should be no more than two changes of direction between adjacent junction boxes. Future replacement of bent sections will be likely to require a 'draw cable' to be installed for removal. This is a cable which is attached to the pipe and can be used to pull the pipe out post installation. ►





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In answer to the common question of when should a pipe be fed into a conduit on a concrete sub-floor, the answer is straightforward. This should be done at the same time as the installation, before the floor is screeded. However the installation should be completed just prior to screeding ideally, in order to minimise the danger of damage from traffic on site. It should also be fixed to the sub-floor using straps to prevent movement.

Two key installation tips for installing conduits in floors:

- Cold water pipes should not touch those carrying hot water / central heating pipes, and the gap between hot and cold should be a minimum of 50mm.
- The system should not contain unused water pipes still connected to the system, as redundant pipework presents a health and safety risk from stagnation.

Conduit pipes for cold water systems should not be run in floor screeds which incorporate underfloor heating loops, or within junction boxes also containing central heating pipework. This is in order to prevent the warming of cold water in line with the water safety requirements in the Water Regulations. Junction boxes can be cut in half and installed against a wall in order to separate hot and cold pipework. Boxes need to be fixed to the sub-floor using screws and washers to prevent movement during screeding (or double-sided tape if fixing to insulation) and their lids should be level with the floor finish.

One easy way to achieve a pipe conduit is to use the Hep20 Pipe-in-Pipe system, which consists of Hep20 Barrier pipe pre-sheathed in pipe, ready to be installed within a subfloor. This saves time and effort while complying with all current regulations.



This image shows the Hep20 system from Wavin being installed

Noise

Installers may have experienced noise problems in rigid pipe installations in floors, however Hep20's flexible polyethylene construction absorbs noise, and with careful installation can run almost silently. Noise often results from friction between a pipe and the surface next to it, typically when pipes are installed under timber or chipboard flooring. If holes are drilled through joists sufficiently wide to allow Hep20 pipe to slide freely however, friction noise from the underside of the floor can be prevented, as well

as the ticking, creaking and knocking sounds associated with rigid pipes.

Protecting pipes in walls

Installers often raise questions regarding the best and safest way to accommodate plastic pipes when passing them through brick, stone or concrete walls. In all three cases the answer is to use a protective sleeve. However the gap between the sleeve and the pipe needs to be filled with a resilient material to provide a fire stop, and although the Hep20 system from Wavin is very low noise in itself, a sleeve will prevent transmission of noise from adjacent rooms. Hep20 pipework also needs a sleeve to protect it from any expanding foam insulation used in walls, because despite the pipe's robustness in its wet state, such insulation can cause an adverse chemical reaction as it dries.

If you need to run plastic pipe adjacent to or through metalwork in walls, it is important to ensure that the pipe won't come into contact with any sharp edges during thermal movement, as this could damage the pipe. There are some sensible precautions to follow in order to avoid this risk. Where pipe passes through a small drilled hole in metalwork, fit a grommet; if it's a large hole or adjacent to a sharp edge, fit an extruded flexible profile to the metalwork. Provide adequate pipe clips or cable ties, and lastly, run the pipe in a conduit.

Plastic pipes offer high performance but it is important to remember that like any plumbing system, they come with their own characteristics which you need to keep in mind ■



Plastic pipes offer high resistance to impact

www.wavin.co.uk

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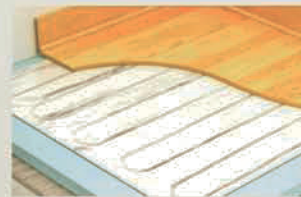


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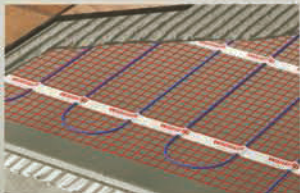
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Phase 2 Framing Your Build



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Phase 2 Building with the local area in mind

Michael Montgomery embarked on an ambitious self-build project in Saintfield, Northern Ireland, which he describes as a “modern take on traditional agricultural buildings.” Your Build hears about the build and in particular the materials used for the walls and roof of his new home

There's no denying that designing and building your own home is a vast undertaking involving much planning, numerous considerations and more than a few challenges along the way.

However, it is one that ultimately comes with the great reward of seeing the vision of your perfect home realised exactly to your specifications – something that Michael Montgomery can personally attest to.

An architect by trade, Michael embarked upon an ambitious design and self-build project in 2012. The vision for the project, a new-build property which is located in Saintfield, Northern Ireland, was to create an energy efficient home with beautiful design aesthetics, in keeping with the local environment.

Ground was first broken on the project and the initial stages completed in summer 2012. These involved the site dig-out (cut and fill) and organising site drainage. The laying of the house's foundations was also completed by the end of that year. Michael then recommenced construction on the project in early 2013, before moving into the property in December 2013.

The idyllic Irish countryside serves as the perfect backdrop for the self-build property's sympathetic design. The house is a modern take on traditional agricultural buildings typically found in rural areas. The design is contemporary but befitting to its location. To ensure that the appropriate aesthetics were achieved for his new home in rural Saintfield, Michael turned to Cembrit's B5 corrugated sheeting.

Although historically not typically used for residential applications, B5 has been making inroads in residential environments as architectural fashions change and is especially suited to modern, rural buildings.

Michael required a perfectly scaled corrugated sheet for the walls and roof of his new home,



which would not look out of place in the rural surroundings of his property, and opted to install 210 sheets of Cembrit's B5 corrugated sheeting in black.

“Fibre cement corrugated sheeting is, in my opinion, the perfect aesthetic for use in the countryside,” explained Michael. “My particular requirements for the sheeting used on this project were for it to not only suit the surroundings of the property, but also accommodate the installation of solar thermal panels.”

When taking his requirements into account, Michael says he felt fibre cement sheeting has a number of clear advantages over other alternatives, such as metal or bitumen corrugated sheeting. For example, it's rust resistant, rot-free and doesn't drum noisily in the rain like metal sheeting. It's also highly durable, particularly when compared to the more lightweight bitumen. Weighing these advantages, Michael saw Cembrit B5 as the clear choice for his self-build project.

He added: “The other great thing about B5 is that it can be fitted by a good joiner.” In fact, B5

offers several features that make for straightforward installation. B5 sheets have a small overlap and sheets are approximately 40 per cent wider than the traditional profiled sheets with 3 inch corrugation. B5 offers much better coverage per sheet. This has the advantage of decreasing the weight of the roof covering, whilst ensuring that there is less side lap and overhang.

Shed more water

A further advantage of B5 derives from the profile of its corrugation, which is deeper and more modern than the traditional 3 inch profile corrugated sheets. Thanks to the wider metric configuration of its wave, B5 is able to shed more water than traditional 3 inch profile corrugated sheets.

“Cembrit B5 ticked all the boxes,” Michael explained. “I looked at other suppliers but the sheets were either too small or too large.” Cembrit B5 is available in 14 different lengths, ranging from 4' to 10' 6, which allowed for



flexibility in the design of the project.

As well as offering practical benefits, the building materials Michael chose for his project have contributed to its sustainability. Using B5 corrugated sheet helped to create a thermally efficient building envelope. The building is ultra energy efficient, with U-Value ratings of 0.12 for its roof, walls and floor.

The house relies on renewable and low carbon energy through the use of a heat recovery unit, wood burning stove, back boiler and solar thermal panels. This means that it does not use any oil or gas. For this reason, Michael is considering applying for respective Passive House accreditation, although the project was not originally designed with this in mind.

The Passive House Institute is an independent research body that holds a leading position with regard to the research and development of construction concepts, building components, planning tools and quality assurance for buildings that achieve outstanding energy efficiency.

The Passive House concept exists as the only

internationally recognised, performance-based energy standard in construction. It is awarded to innovative projects that excel in thermal efficiency and their use of renewable energies.

For a building to be considered a Passive House, it must first meet rigorous criteria. The five principal factors are: Space Heating Energy Demand, Space Cooling Energy Demand, Primary Energy Demand, Airtightness and Thermal Comfort.

If a house is awarded the "Certified Passive House Certificate", the owner can be certain that it will have the highest standard of living comfort and extremely low energy consumption.

House complete, landscaping to do

With a spacious ground floor area of 193m², the house itself is now fully finished. One of the last stages of construction involved finalising the top floor's 100m² of space. With the upstairs now complete, the landscaping of the house's surrounding garden area is the only task that remains left to tick off ■

Step-by-step guide to installing Cembrit B5

Cut the panels to length

Each mitre must be cut straight either by hand or using a power saw. The angle and size of mitre is governed by the end and side lap dimensions.

Select the accessories

It is extremely important that the correct roof purlins / rail system, type of fixing and washers are selected, to eliminate leakage / corrosion and the general deterioration of the construction. It is recommended that a self-drilling Top-Fix screw is adopted.

Pre-drill holes

Using a tungsten carbide tipped drill at 90° angle to the sheet, drill a hole 2mm larger than the selected fixing. The drill point should be no less than 60° to the sheet. Always drill at the 'apex' of the profile. For timber construction, fixings should be at least 90mm long and 6mm diameter, drilled at least 40mm into the purlin.

Lay the panels

Place the panels directly onto purlins that are attached to the roof trusses, beginning on the outside edge. Sheets are laid from eaves to ridge, one column at a time, with the side lap corresponding to the prevailing wind direction. Do not fix sheet in the 'valley' or on a 'slope' of the profile. When used as vertical cladding, sheets should be fixed in the valley of the first corrugation in from the overlap.

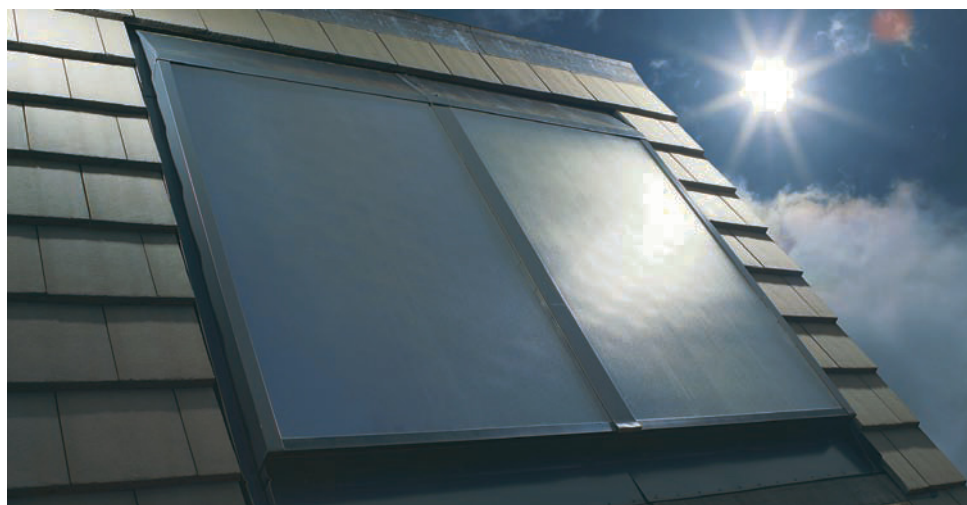
Fix the panels

Every sheet should be twice fixed at each purlin. Using a high-speed screw gun, drive in the fixing. Never hammer the fixing through the sheet – this will damage the sheet and invalidate the guarantee. To achieve watertight and weathertight seal, it is important to confirm that the sealing washer is correctly tightened. Not over tight, not too loose.

More detail can be found in the Cembrit technical brochure, available on request or downloadable from the website:

www.cembrit.co.uk





Phase 2 Renewable heating solutions: what are your options?

Nu-Heat talks us through what's out there...

Nearly any property, new build or a renovation, can benefit from renewable technology, whether seeking an efficient alternative to an old oil boiler by opting for a heat pump, or adding solar thermal to help with hot water generation.

To make installing a system like this worthwhile, it's essential that the overall system maximises efficiency whilst providing effective performance. A good system design is fundamental to the success of any heating system, especially when it involves renewable technologies.

You can also offset the initial cost of installing a heat pump and / or solar thermal by applying for the Government's Domestic RHI scheme.

So, what are your renewable options and how can you integrate the technologies within your property?

Should you consider a heat pump?

Many properties will be suitable for a heat pump, but it is important to know if the system will produce an efficient heating solution that can

save you money. Generally, to see a significant saving, a heat pump is best suited to a plot that does not have any access to mains gas because gas is a relatively cheap fuel compared to electricity, which is used to run the heat pump. A heat pump transfers significantly more energy into a property as heat than it uses to extract it from the ground or air, meaning you can expect to save on fuel bills – especially if you compare the running costs of an electric boiler!

Choosing between air source and ground source

Generally speaking the property dictates which type of heat pump should be installed. A ground source heat pump needs space for the ground loops – the available land needs to be at least two and a half times larger than the entire floor area of the property. There also needs to be space for a plant room to hold the heat pump and cylinder. Because of this, only larger properties or those in a rural location are generally suited to a ground source heat pump.

Air source heat pumps, on the other hand, are

suitable for a wide range of property sizes and require little space. The heat pump unit sits outside and because there's no need to dig trenches for ground loops, it is a lot quicker and easier to install. This is a good option for anyone on a tight build schedule and also a smaller budget.

Heat pumps and underfloor heating

When considering a heat pump, the choice of heating system is an important consideration. For example, by integrating a heat pump with underfloor heating, both technologies play to their strengths and maximum efficiency can be achieved without compromising comfort.

If, however, the heating system will be radiators, then a heat pump will have to work harder to reach the temperatures needed, costing more to run and making it a less attractive option.

What about solar thermal?

Solar thermal uses on-roof or in-roof panels to harness free energy from the sun for domestic hot water production. Installing a solar





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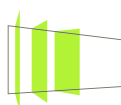
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Phase 1

thermal system requires minimal upheaval and offers immediate savings, making this type of technology a practical and cost-effective option for new-builds and existing properties.

The system works year-round, obviously performing at its best during the summer months and can comfortably produce a large percentage of a household's domestic hot water needs without a hefty price tag. Typical average annual savings can be up to 60 per cent, with average July savings as high as 90 per cent.

Get paid for going 'Green'

The RHI offers a regular tariff payment over a seven-year period, based on estimates of the household's annual heating consumption. Safeguards are in place to ensure the product and installation meet strict criteria; so you can be

confident the system will perform as intended. From September 26 2015, new legislation dictates that Energy related Products (ErP) must show an energy efficiency label. Homeowners will have a clear label to look out for when choosing a new heating system, allowing them to compare a product or complete system's energy efficiency like-for-like, promoting a 'greener' way of thinking. Given the number of potential combinations, successful multi-technology integration is complex. It is worth seeking out a reputable supplier, such as Nu-Heat, that offers ErP-ready fully designed integrated underfloor heating and renewable systems, as well as information on complying with the RHI criteria ■

www.nu-heat.co.uk

Phase 2

RHI PAYMENTS	GROUND SOURCE	AIR SOURCE	SOLAR THERMAL
RHI Tariff payment pence / kWh	19.1	7.42	19.51
Possible RHI payments over 7 years using Nu Heat renewable technologies	£14,154	£4,907	£1,540

Above: An average two-bedroomed house, using 15,000kWh of heating per year with a SPF of 3.4 on GSHP and 2.7 on ASHP. Solar thermal based on average 3-bedroomed, 4-person household using 49,640 litres of hot water p.a. May 2014.



Phase 3

Phase 4

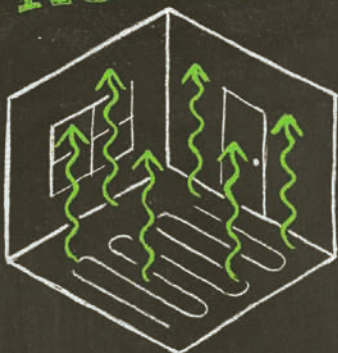


This pic: Ground source heat pump
Above: Ground source heat pump ground loop installation

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Phase 2

“This type of build makes sense on so many levels”

Hanse Haus offered Matt & Jo Warnes the perfect solution for their self-build project in a conservation area in Putney, London. Your Build hears more...



A beautiful contemporary and highly efficient 3-storey house in Putney, London, is home to Matt and Jo Warnes and their six-year old daughter, Lauren. Built in January 2013, but fitting seamlessly with the neighbouring end of terrace property, you might think, on first glance that the house had been there forever. Friends and family of Matt though will remember many a BBQ on the very plot that his house now sits on, which until September 2012, when the groundworkers arrived to start digging the foundations, was Matt's mum's vegetable plot.

“Jo and I were living in Kennington at the time but were keen to move to an area with a better choice of primary schools for our daughter Lauren. We looked at a new build in another area in London, which appealed to both of us, then mum made the suggestion that we build in her garden. She had planning permission years ago but never got round to doing anything about it.

Whilst Jo's dad had built the family home that her parents still live in 30 years later, it wasn't that I'd always dreamed of building our own house but I suppose I knew somewhere that it could have been a possibility. We felt extremely lucky to have the opportunity and decided to go for it.

“With inspiration from lots of magazines including Grand Designs, we started to research different self-build companies, all the while having a strong vision of the modern, Scandinavian, clean living interior we aspired to. Due to the plot being in a conservation area however, we knew the house would have to look like the other Victorian brick houses on the terrace from the outside. After extensive research we narrowed our search down to two possible pre-manufacturers. Both had the ability to build the house we wanted in terms of a bespoke design, but Hanse Haus could fulfil requirements for brick slips on the exterior rather than straightforward render which was a planning requirement. For us, Hanse Haus were the company that married the aesthetics we were after with great functionality, and they offer a quick build time on a very difficult site.

“In August 2011 we resubmitted for planning but there was a lot of objection from neighbours mainly of a typical NIMBY (not-in-my-back-yard) nature worried about the noise and disruption that might be caused. The application went to committee and after four months they came back to us with a thumbs up, along with 13 conditions of planning! We didn't waste any time in signing the contract with Hanse Haus but thereafter it took months of to-ing and fro-ing with the council, supplying samples of brick and roof slates, satisfying the conservation officer, etc, etc, before things really moved forward.

“Due in some small part to the limited plot of

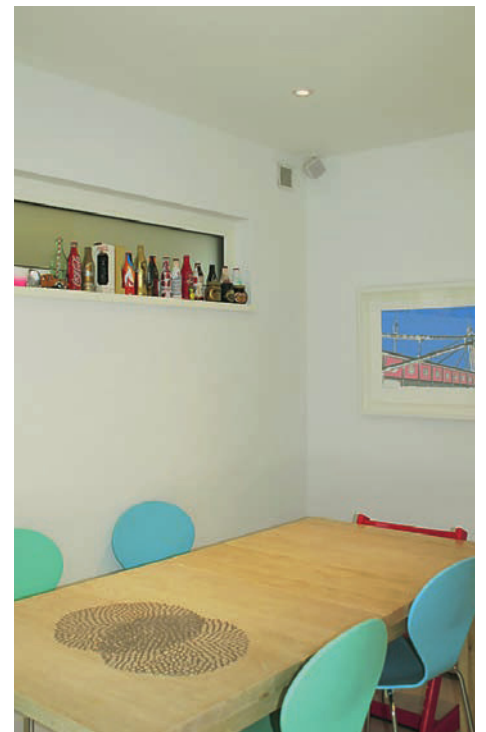
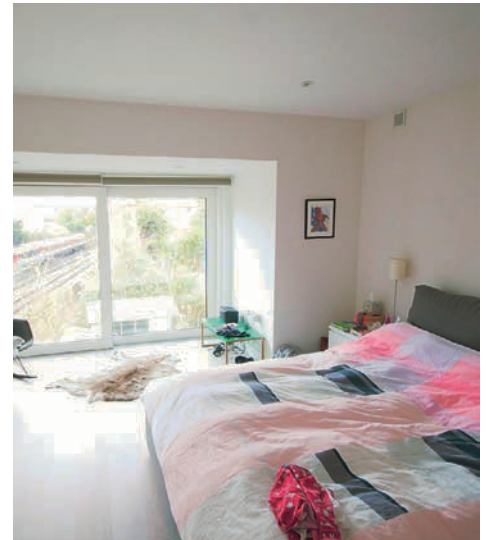
Your Build asks Matt what he learned from the build experience...

"Lots of things! Firstly, if you have a finite budget be aware that the groundworks alone can eat into that. After our soil test, we knew that we'd have to have 16 piles (at £1000 each) to stabilise the foundation slab. Coupled with the cost of the slab itself, that makes a big dent in the budget!

"Also, given our experience with UK contractors (one of whom went bankrupt mid job), who fitted the house out after a long series of delays, we weren't able to move in nearly as quickly as we'd hoped, which caused a knock-on effect of increased expenditure in a rental property. In the future, I'd certainly look to do the full turnkey solution, which means a

company like Hanse Haus finish every element of the build, ready for you to move. They'll also come back and fix anything that might be wrong.

"And, when it comes to design, it's really important to try and visualise how you'll be wanting to use the house. Thanks to a couple of individuals at Hanse Haus, who came up with some great ideas including moving the shower taps in our en-suite bathroom for example, (so that you don't have to get into the shower before turning the water on) and installing a heated towel rail in an area which otherwise was wasted space, the actual day-to-day living experience has been enhanced".
Matt Warnes.



land on a London street and in a far larger part to the mainline railway right next to it, the planning and logistics of the project required a careful and thoughtful approach as well as a creative and skilled architect. On top of this Network Rail almost stopped the project before it was truly off the ground with concerns over scaffolding overhanging the busy commuter line. Hanse Haus health and safety agent Colin Shephard dealt with these aspects and the company ensured that the use of scaffold wouldn't be in place at all on the railway side of the build.

"Working closely with our Hanse Haus architect Bianca Keil, Jo and I were fully involved with the design. We had great fun playing with a 3-D computer programme and I made models of the house out of foam-and-cardboard, both of which really helped conceptualise what we were doing. We had to make some changes along the way including moving the boiler and then turning

a staircase around, which when you're working with a very limited plot size has a considerable domino effect on everything else in the house. All the while we needed to keep a focus on the functionality and aesthetics of the space and how we wanted to live.

"In the end, and in spite of a series of problems with UK contractors (working independently of Hanse Haus) we have just the family home we wanted. In many ways, it's a modest house but it's a high performance house as well, although with a traditional guise. Unlike many new builds we don't have a long list of renewable hardware – no solar panels, no heat recovery, no rainwater harvesting, etc. – but the airtight building envelope along with the insulation and triple-glazed windows has proved incredibly effective meaning we really don't need them. Bearing in mind we get our fair share of cold, wet and windy weather and that we're right next to a busy railway line, the house

feels consistently warm yet with fresh, clean air, without the need for much heating through the winter months. In fact, our total energy bill (gas and electricity) for the first year was £850 and to offer some comparison, mum's traditionally built house right next door, which is marginally bigger in size is costing a hefty £4000 a year to run. With our energy bills likely to increase by around 10 per cent year-on-year, we'll be looking at an £80-£90 hike in costs whilst hers will be more like £400 per year. She has already asked if we want to swap homes!", explained Matt.

So, would he do it all over again? "Absolutely, I'd do it again. In my opinion, the Government should be incentivising more people to go down this route. It's not just those of us who live in this type of house that benefit, but this type of build makes sense on so many levels." ■

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Past, *Phase 2* present and future

the story of Keymer roof tiles

Wienerberger's Richard Bishop looks at the history of the handmade clay roof tile brand and the reasons behind their enduring appeal

Since its conception in 1588 Keymer has supplied quintessentially English, handmade clay roof tiles to specifiers, architects and roofers across the UK. Now in its 427th year, Keymer's heritage and traditional attitude towards roof tiles and ornaments is now under the protection of Wienerberger – the leading supplier of wall, roof and landscape innovation. Whilst Wienerberger continues in its mission to develop new and innovative ways to manufacture construction materials, Keymer's identity and reputation for traditional manufacturing techniques is being robustly maintained.

Time travelling

Keymer, as a brand, may echo back as far as 1588 but in reality its heritage and manufacturing pedigree evolved from the Ditchling Potteries, a collection of various works including Dunstalls Farm owned by John Billinghamurst, John Palmer

and John Pomfrey – a renowned brick maker in Keymer in 1588. Following over 270 years at its original site the company moved from Ditchling Common, to Nye Road – a move that took more than 80 years.

By the end of the 19th Century, Keymer was well known for manufacturing red terracotta ware – winning awards in London in 1862 and as far away as Philadelphia in 1876. Put simply, the reason behind Keymer's enduring success has been the quality of its tiles, and the beauty it has afforded projects across the country and the world.

Evolution and innovation

The key to Keymer's achievement has been its ability to evolve and innovate as times change – as one can imagine, in a lifespan covering six centuries, there has been ample room to adapt and improve. For instance, following the Clean Air Act the tall brick chimneys at the site were demolished meaning the company had to alter its

manufacturing process. This was altered but without compromising on the quality of the finished product.

At its core, the Keymer philosophy has always been to create, by hand, high quality roof tiles that stand the test of time alongside bespoke finials – the final furnishing to heritage roofs. For only the fourth time in its history, Keymer moved once again in 2015 to its new home at Wienerberger's Ewhurst factory – a site that houses two of the original four clay phoenixes that stood guard at the four corners of each of Keymer's previous homes – where its philosophy continues.

If it ain't broke don't fix it

The actual process of creating a handmade tile has hardly changed in the 400 years since Keymer's birth. For example, all the tiles are still made out of Wealdon clay, which is native to the area and is a material employed by generations of roof tile artisans. Once the clay has been



Leeds Castle, Kent



extracted, and allowed to weather naturally for a year, the clay is wire cut and is supplied to the tile makers that still apply sand by hand to give the tiles their distinct colour. Different amounts of Manganese Oxide in the sand give the different tones for Red, Antique and Elizabethan tiles – a process which a maker from 400 years ago would recognise.

Even today the clay is then manually inserted into the mould, the excess is cut away with wire – in the same way cheese is cut – and the punch is finally brought down to insert the nibs, holes and maker's mark. These tiles can be found on a huge range of both new and old properties and buildings and are identifiable by the handprints left on the underneath of the tile from the clay being slapped into the mould. Because the process of manufacture has remained almost unchanged for the past 400 years, Keymer tiles continue to be specified for restoration projects and new builds as they bring class and individuality to any roof.

The products in practice

As mentioned earlier, Keymer tiles have been specified for a whole host of projects of different scales and budgets. Bewley Homes for example, in South Warnborough, specified Keymer's Shire Tiles to ensure it was in keeping with the local, quaint village feel. Although the properties are not as old as some projects using Keymer tiles – the Shire roof tiles link the homes with the local surroundings by adding a sense of heritage and timeless class. That said, Keymer tiles have also been specified for the regeneration of particularly prestigious projects including the Birthplace of Shakespeare in Stratford upon Avon and Leeds Castle in Kent. These incredibly important heritage sites specified Keymer tiles to protect their individual histories without compromising on the aesthetics of the buildings. Such is the beauty of Keymer tiles that the Aston Martin Owners Club selected Traditional Antique tiles to roof its headquarters whilst the Anglo-Catholic Church specified tiles

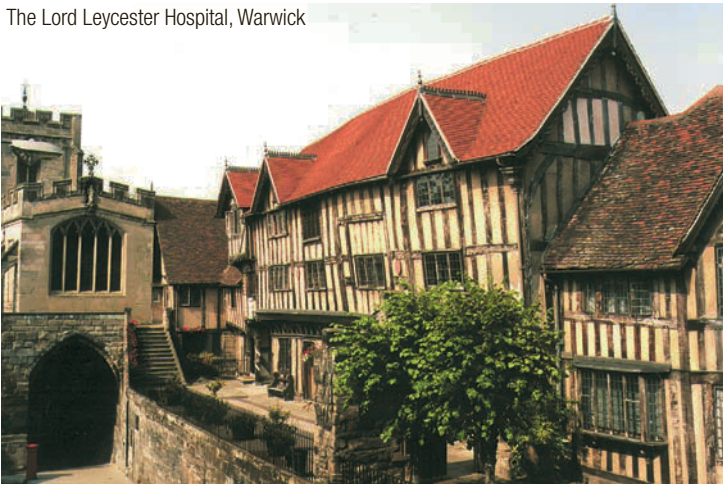
in Antique / Elizabethan mix to roof the awe-inspiring Tewkesbury Abbey, a building that was close to destruction only 48 years before the creation of Keymer during the dissolution of the monasteries.

These case studies prove that the specification of Keymer tiles is in no way limited to properties of a particular age, or architectural school, as they sit upon the roofs of buildings built from before 1588 to 2015. They have been involved in church regenerations, the refurbishment of ancestral homes to the aristocracy and private new build homes.

We are really excited for the future of Keymer. We have recently launched the latest Keymer Specification Guide, which includes a wealth of design and technical information and will, I hope, inspire future generations of architects and home-builders ■

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Phase 2

Researching window and door products: the uPVC options

Liniar's Sue Davenport discusses the advancements in technology of modern uPVC windows, doors and roofs, and offers advice for self-builders doing their own research

UPVC windows are often overlooked when considering the materials for your new home – but they can actually bring huge thermal benefits due to their design and the manufacturing process. Multiple chambers in the frames help prevent heat from escaping from your home, and with built-in gaskets can ensure a perfect weather seal.

The most recent styles of frames available mean your windows no longer have to look like the bulky uPVC frames of the 1980s, with sleek, flush lines and a range of woodgrain and plain foiled coloured finishes, modern uPVC windows can be made to suit the exact style you are aiming for with your project.

Research

The way people choose the products they buy has changed drastically over the last ten years. Consumers have more information available to them than ever before, and have become adept at

carrying out their own research online before making a buying decision... and never more so than when you're building your own home.

Once purely the domain of architects and specifiers, our experience shows publishing the technical details about our windows, doors and lantern roofs has now become critically important. Self-builders are increasingly looking for products that can help their new home be more energy efficient, reduce ongoing heating bills – and look great in the process.

Searching online is the obvious place to start, but it can be confusing; especially if you're not quite sure what to look for. To help, I've put together a list of six areas for you to investigate so you can make a fair comparison of the right system to choose (see above).

The window supply chain

Did you know, uPVC windows travel via two or sometimes three or four different companies before reaching the consumer?

The starting point is the systems house, which designs the overall specification for the window and carries out research, development and testing in order to satisfy all the necessary regulations are met, before creating the tooling and high-tech machinery necessary to extrude the profiles, or frames, to the product's exact specifications.

The uPVC profiles are sent to the fabricator, or

Left: "The most recent styles of frames available mean your windows no longer have to look like the bulky uPVC frames of the 1980s"

What to look for:

Budget – Different materials come with a range of price tags, so get a rough cost comparison before you start, so you can choose windows to suit your budget.

Thermal efficiency – Look for the WER or Windows Energy Ratings that are available. These range from A+ down to F, with A+ being the highest and most energy efficient.

Security – All windows should be accredited to PAS 24:2012, demonstrating British Standards for enhanced security. Also look for Secured by Design status for further reassurance.

Design – Do you need arched windows, sash horns or flush sashes? Look for a system – and a fabricator – that can meet all of your requirements.

Colours – Of course you can choose white uPVC windows... but with a huge choice of colours and finishes available, make sure you get the look you dream of.

Matching products – It's worth considering other products in the same range to ensure a perfect match, both colour-wise and for a single point of guarantee.

window manufacturer, who uses a range of high-tech machinery and hand finishing to create the perfect window – adding glazing, locks and hardware to produce the finished product.

The fabricator may also install windows – but if not, the final stage is to send it to the trade outlet, installer or construction company for fitting into the building. Each type of window is slightly different, so installation guides are invaluable to get the best possible finish.

Online help and support

The Liniar website (www.liniar.co.uk) has been designed to make it easy to find information about the products you need for your self-build project.

Product pages clearly show each element of the window or door, and you can select different colour options with the click of a mouse. A glossary helps to make sense of the sometimes confusing industry terminology, and you can also download brochures for each product in the range.

Videos and installation guides are included, in addition to case studies about different customers and products within the range.

YourBuild readers can also claim a complimentary copy of the 94-page Liniar Specification Guide at www.LiniarSpecGuide.co.uk/yb1 ■

www.liniar.co.uk

The image features a large, stylized cross-section of a folding sliding door system. The door frame is shown in a dark grey or black color, with a bright orange and yellow thermal break visible inside. The door panel is also shown in a similar cross-section, revealing its internal structure and the thermal break. The background is a dark, solid color. The logo 'warmcore' is in a bold, sans-serif font, with 'warm' in orange and 'core' in grey. Below it, 'FOLDING SLIDING DOOR SYSTEM' is written in a smaller, grey, sans-serif font. A large, orange number '4' is positioned to the right of the door cross-sections.

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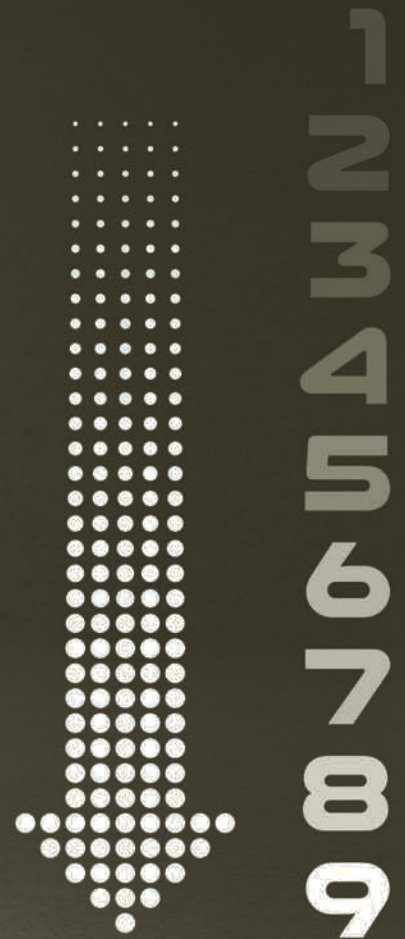
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Phase 2 Riverstone slate reused on

bungalow project

SSQ's slates preserved on roof rebuild

By re-using 12-year-old SSQ Riverstone slates from the original build, a bungalow in Falmouth, Cornwall has undergone a complete rebuild whilst preserving the original look of the roof.

The new owners of the property decided they wanted to replace the loft space with an additional floor, accommodating three bedrooms. Upon discovering how old the walls of the building were, however they decided to rebuild the structure from the ground up, preserving 12-year-old Riverstone slates from the existing roof in order to complete the new build.

Paul Marks of Marnick Roofing said: "The bungalow was built around the 1960s and the walls had deteriorated, so the new owners decided to rebuild rather than just add to the structure.

"They really liked the look of SSQ's Riverstone slate that was already on the roof and after finding it had been on there for 12 years already and still looked great, we decided to reuse the slates since they clearly offered a reliable, long lasting roofing option that would retain the look and feel of the property once rebuilt. The new build also has a steeper roof pitch than before so

it was good to see the slate was able to adapt to the new demands too."

Offering a 100-year guarantee on its Riverstone slate, SSQ is confident that its slate will really stand the test of time, preserving the natural appearance associated with slate. With only a handful of sources known worldwide, SSQ's Riverstone slate is one of very few top quality phyllite slates available. Its unique satin-like lustre makes it a frequent choice for prestigious projects over the world.

Commenting on the Falmouth project, SSQ's Haroun El-Helw, said: "It's great to see the Riverstone slates originally installed on the property 12 years ago being reused. With the original guarantee still valid, that gives the slates a minimum remaining service life of 88 years. It's fair to say that many alternative roofing materials may not have stood the test of time quite so well!" ■

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Phase 3 Interior & Exterior Finishing

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Phase 1

Phase 2

Phase 3

Phase 4

With today's ever-increasing focus on efficient, eco-friendly energy, more and more self-builders and renovators are looking to wood as a smart and renewable fuel. Dave Saunders of Stovax discusses the very latest woodburning advancements to minimise environmental impact...

Phase 3

Living greener

by burning cleaner



Elise 540 Multi-fuel Edge with Victorian Corbel Stone Mantel

The appeal of woodburning stoves and fires has continued to grow over the last ten years as both a fashionable and practical heating solution, and in my view it's easy to see why.

Providing a warm and cosy atmosphere on cold winter days, as well as an eye-catching focal point in the home, they are available in numerous heat outputs and styles from the traditional classic to the ultra-contemporary.

As emphasis continues to shift towards sustainability, with homeowners becoming more and more discerning about their own environmental impact, woodburners offer an eco choice with infinitely more charisma than alternatives such as heat pumps or mechanical heat recovery ventilation.

The wood they burn presents an environmentally friendly fuel – a rarity in today's homes which are usually heated using finite fossil fuels such as gas, oil or electricity typically from gas or coal-fired power stations. When burnt, wood only releases approximately the same amount of carbon dioxide into the atmosphere that is absorbed by the tree during growth. It is also a renewable resource, particularly when derived from plantations and cultivated woodland.

However, simply burning wood neither guarantees efficient or eco friendly heating. In 1993, such was the impact on the environment from inefficient, dirty woodburning, the UK saw the revision of the Clean Air Act. Designed to curb harmful smoke levels, particularly in urban areas, the act confirmed DEFRA Smoke Control Zones, which prohibited the emission of smoke from chimneys – unless burning smokeless fuels or using a DEFRA exempt appliance for the burning of wood logs.

Much has changed in the 20 years since the Clean Air Act and, as technology and capabilities have improved, so has our understanding of the factors that affect a stove or fire's combustion process, as well as the effects of emissions on air quality. To further improve air quality, forthcoming Ecodesign standards for 2022 will focus on the reduction of various woodburning emissions, including carbon monoxide, nitrous oxides, organic gaseous carbon and even lower levels of particulates than those currently allowed in smoke control areas.

Advanced and innovative features

With this in mind, some new woodburning fires from environmentally conscious manufacturers are already featuring a number of advanced and innovative features to ensure the cleanest possible burn, and compliance with Ecodesign standards.

Taking a fresh look at airflow, fires like the Stovax Elise which are manufactured to the highest tolerances, are designed with unique airflow dynamics to facilitate highly efficient combustion systems. By isolating airflow management to the base of the fire and keeping it separate from the combustion chamber, it can inject air with a much higher level of precision to



Elise 680 Woodburning with four sided Profil frame



Elise 850 Expression

key areas of the fire's combustion chamber. This results in minimising dead zones in the firebox and facilitating an ultra-green burn that reduces flue gas emissions to a fraction of that of standard stoves and fires. Smoke control zone approved as standard, Ecodesign fires are redefining what it means to burn cleanly.

But the challenge is not simply to meet the eco needs of environmentally conscious self-builders and homeowners, but also their practical and aesthetic needs in order to create a desirable and useful fire to suit a variety of homes.

The contemporary aesthetic of the Elise works cohesively with the advanced technology within, making it worthy of a next generation fire. The key is to ensure that the styling of the fire works in synergy with its eco combustion system. An example of this is the scalloped firebox detailing that creates a backdrop for the flame visuals whilst serving to further increase the thermal efficiency.

Given the wide range of different homes and rooms in the UK, from spacious open plan layouts to standard size dwellings, it was also important to develop a range of low emission fires as opposed to a single appliance. By developing three different size Elise models with different heat outputs, homeowners can choose

the exact model that fits their build. Expanding versatility, multi-fuel models can run on smokeless fuel as well as wood – great for those who can't always get hold of logs in their area.

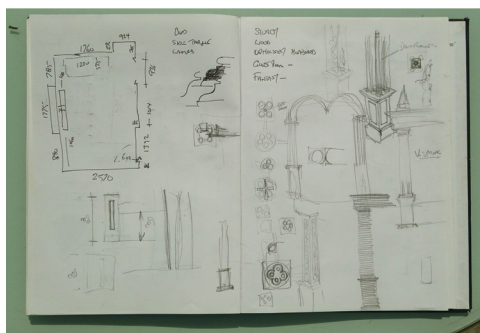
In addition to design and versatility, making the absolute most of the fuel is fundamental to eco fires, so they often allow for optional kits that can enhance their heating potential.

External air supply kits mean that sealed, airtight appliances like the Elise can draw air solely from outside. This is critical for self-builders looking to implement low energy building designs, which without a fully sealed appliance require the home's airtight sealing to be broken by additional ventilation – a mandatory requirement when installing a standard fire or stove which draws combustion air from the home's interior.

Thanks to the innovation of leading manufacturers like Stovax, self-builders have ever more options available to them when choosing a future-proof woodburning fire that not only complements their build design in terms of styling, but also delivers in terms of efficient and environmentally-friendly heating ■

www.stovax.com

Phase 3 Tailor-made: How to commission bespoke furniture for the home



Exclusively for Your Build, Neil Stevenson provides a guide to commissioning unique, bespoke furniture to suit your home

When dressing the home, customising and adjusting furniture can prove an effective way to not only personalise your property, but also to make great use of available space, complimenting each room's shape and size. However, for truly tailored and unique design, commissioning pieces of furniture will not only provide a bespoke, luxury item, but it is also a great investment.

First things first...

Specifying and designing furniture should be a wonderful process, one that allows you to push the boundaries of the norm and own something entirely individual. First, you should identify where, who for and why this piece is required. Which room would benefit from a bespoke piece? – does a standard double bed fit



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is one of the UK's most highly regarded bespoke furniture manufacturers. Neil Stevenson established the company in 1984 and has grown the business to become one of the most respected companies in its field, providing design solutions for fine quality, bespoke furniture and fitted interiors. In 2003 Neil was granted a Royal Warrant as Cabinetmaker to Her Majesty The Queen, for delivering an outstanding service to the Royal Household.

awkwardly into the bedroom? Are low ceilings in the kitchen proving challenging for unit space? Does the homeowner own an expensive collection of books in need of a shelf to stand upon?

Once the functionality of this furniture has been established, there are now a number of fundamental points to consider:

Hire your designer

Take your time in researching, visiting and scoping out a number of designers. Find a designer who has produced previous pieces similar to the style you are interested in, and one that you can trust. Take a look at The Furniture Makers Company (www.furnituremakers.org.uk) of which I am a Liveryman, for its list of members.

Brief

Be clear in your brief. The clearer you are about what you want – or what you don't want – the easier the design process will be for both you and the designer. It is part of the designer's role to interrogate your brief, as quite often what is perceived as essential is not in fact what is really needed. A designer that does not question your specification is doing you a disservice. Make sure that you have prepared a list of what you require; function, ideal size and position in the room. A sketch, however poor, is useful as are images that express a style, colour or feel. It is the designer's job to extract as much information as possible from you during a lengthy discussion.

Design

Separate the cost of manufacture from the design

fees and be prepared to invest properly in the design process. You cannot short-circuit the design procedure if you truly want something that meets your needs and desires. Designs can be presented in many different ways; the main ones are sketches, watercolours, computer renderings and models.

Budget

Bespoke furniture is expensive, particularly if you want something that is truly unique. It is essential that you have a sensible discussion about cost at the earliest stage. Adapting a design at a later stage to minimise or maximise expenditure will cause a number of problems, therefore it is far better to understand all the parameters surrounding costs before starting.

Approval

Do not sign-off a design without truly understanding it. 3D drawings and models will make technical sketches easier to understand. If you are concerned about any element of your design, get the designer to explain and sketch. If you are still unsure it might be necessary to invest in a mock-up.

Workshop visits

Most craftsmen will encourage visits to see the piece taking shape and you will gain a greater understanding of just how much goes into making a one-off piece. You might even be able to help. Certainly the experience of seeing the birth and development of your piece will enhance your enjoyment ■



THINGS YOU SHOULD KNOW WHEN INVESTING IN BESPOKE FURNITURE:

A bespoke piece of furniture is a prototype, it will be the first one of its type and can sometimes present small flaws; this can be avoided by building prototyping into the budget.

It is extremely unlikely that you will be able to purchase any piece of craftsmen built custom furniture for less than £1,000. The costs of running workshops are high and very few craftsmen who are running professional businesses will be operating at less than £40 per hour.

Quite often it is assumed that material is a major cost-affecting factor. Whilst there are significant differences between timbers, it is quite a small percentage of the actual bill and really a false economy to use cheaper materials, culminating in having something less pleasing to the eye for minimal savings.

There are no rich craftsmen; it is a vocation not a career and most undercharge for what they do, working many additional hours without charge.

Once your design has been approved, you will have a very happy craftsman and possibly a new friend, keen to show you what they can do. Be mindful when making changes – they are extremely costly in time and potentially materials.

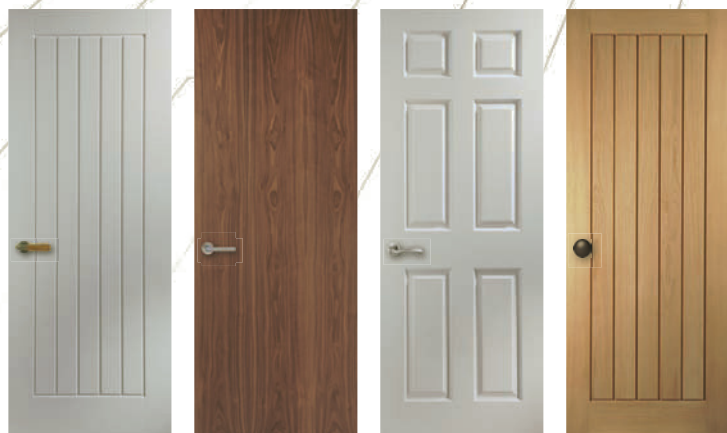
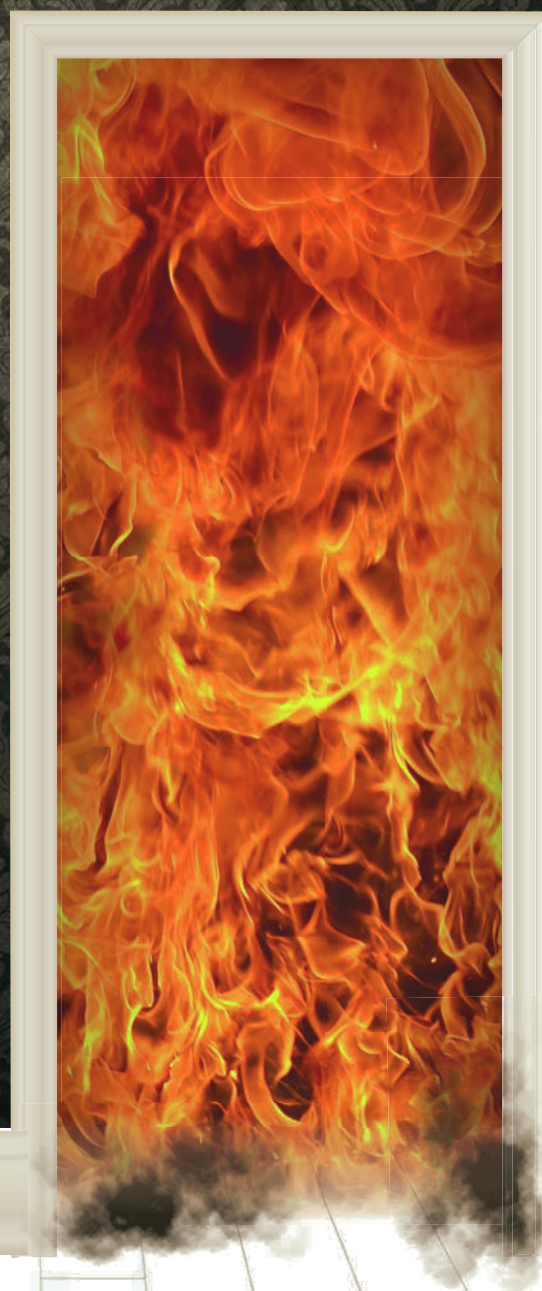
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Phase 3 Top tips for installing your perfect kitchen

By Graeme Smith, senior designer at
Second Nature & 1909 Kitchens

Planning a new kitchen that will perfectly suit your lifestyle both now and in the future is a significant undertaking in terms of time and investment. So it's important not to rush the process and ensure you consider everything from style to storage, finishes to function. Below we take a look at some of the key considerations...

Choosing a designer:

Your designer should be an expert in both form and function with the skill to create a layout that works on a practical level but equally can interpret your preferences in terms of style, colour and material to ensure it looks as good as it performs. Ask for testimonials from clients and professional qualifications to support their credentials, plus it's important to get evidence of previous projects and designs they've worked on. A good designer will have a portfolio to be proud of and will be only too delighted to show it to you.

Classic or contemporary:

Think carefully about the visual appeal of your new kitchen and the look and feel you want to create. You may be thinking of an ultra-contemporary, streamlined design, or it may be that an elegant, timeless Shaker is what you have in mind. A Shaker style may be the ideal choice as it can be dressed up with all the elements of a classic design, or dressed down to have a pared-back simplicity.

Choosing colours & finishes:

Colour is very personal so you should always consider tones that you can live with and will





gatherings. If the room won't accommodate this then consider a split-level island, with the higher level for food prep and the lower area for dining. This is a really sociable alternative.

Storage:

The value and importance of considered storage should never be underestimated. In fact it's so important that it can really make or break how your kitchen will work for you. Don't just think of the obvious places to stash pots, pans, crockery and food, but also more decorative storage to display chosen pieces racks for recipe books and even a lower level unit for toys, games or homework. Add a bespoke feel to your kitchen with open shelving, glazed doors and feature lighting. You might even want to consider a home office area for catching up on paperwork and doubling up as a handy place for the kids to do their homework.

Worktops:

The worktop is one of the defining elements in the kitchen design on both a practical and visual level. Material mix is a growing trend, especially as open-plan living becomes increasingly popular. A great design trick is to differentiate areas and also appeal to the senses – not just visually but also through texture and tactility. Consider what else the worktop can deliver in terms of its functionality, for instance steel hot rods set into the worktop ensure there's always somewhere to place a hot pan or dish. Keen cooks will love having worktop scales inset to the worktop so they are to hand whenever they're needed.

Lighting:

Lighting rarely gets the consideration it deserves, it's not widely appreciated that the lighting scheme can make or break the aesthetics and functionality of a kitchen. Lighting should not be fixed, but flexible enough to create a number of different effects depending on the time of day or night, the tasks taking place and the mood you wish to create. Task lighting under the wall cabinets is perfect for illuminating the preparation space and if your kitchen has an easy-living feel, then consider a dimmable pendant light to add a more homely element to the design, highlighting an island or table centrepiece that can be used to change the mood when dining or entertaining ■

www.metriskitchens.co.uk



make your interior a pleasure to be in. However, care should be taken in terms of how your preferred colours may adapt to the room. For instance, if you favour deep aubergine then take care, especially if your room is small, low or lacks natural light. Consider using contrasting darker tones as accent areas so you get the best of both worlds.

Future-proofing:

When planning your kitchen it's important to have an eye for the future and to consider the design's longevity with regard to the potential for multi-generational users in years to come. On a practical level incorporate smart storage solutions such as pull-out larders that provide better aesthetics and access for the user. It's important to spend time reviewing your colour choices; what you may think is the height of fashion right now could soon look dated. Your new kitchen is a major purchase which won't be changed on a regular basis so future-proofing is a key priority of the planning process.

Dining:

A kitchen is the natural place to share meals with family and friends so a dining area is an important element of the layout. With the luxury of space, the perfect kitchen includes an informal area, such as a breakfast bar, and then a separate table for larger





Open spaces: *Phase 3*

Creating a flawless link

between home & garden

John Shaw, founder and managing director of CLIMADOOR, a leading manufacturer and supplier of affordable, high-spec bi-fold doors, talks us through what to bear in mind when choosing bi-folds for your home

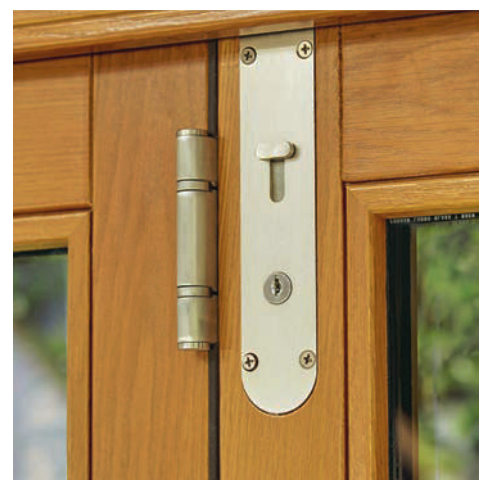
As a cutting-edge alternative to the traditional French doors and window combination, bi-folding doors are taking the self-build world by storm.

While French doors enable only a small area of the home to be opened up, the concertina design that's synonymous with bi-fold doors allow a significant area of glazing to be pulled back, creating a flawless link between the home and garden.

Are bi-folds right for you?

Bi-folds are ideal for you if you're looking to maximise the link between inside and out, with doors that open to the full width of the available space.

If cost is a concern, it's worth noting that "standard" sized bi-folds can be bought off-the-shelf, and will come in at a far lower cost than "bespoke" custom made doors. This is definitely worth bearing in mind for future self-builds and extensions! ▶





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Opening pattern

Most “standard” bi-fold systems will feature a normal access door that allows movement between the home and garden without the need to open the full set of doors. This may not be the case with “bespoke” systems that have been designed to the customer’s specifications, so before committing to any purchase, ensure you are clear on – and happy with – the opening pattern of the doors.

Another key consideration is whether the doors will open to the left, or the right. Most off-the-shelf bi-fold systems will be fully reversible, and you will decide which way you want them to open at installation.

Made to measure sets will (most likely) come with made to measure joinery. This means that once the doors are produced, you will be unable to alter the side on which they open.

This may sound like a small problem, but doors which open on the “wrong” side can impact the enjoyment of your home both aesthetically and practically, so it’s a potential issue that’s definitely worth taking into account.

Lintel strength

In order to attain as smooth an operation as possible, most high-end bi-fold doors (including

the full CLIMADOOR range) are top hung. This means that the weight of the doors is supported by the head of the frame, which in turn is fixed into the structural lintel above. This also prevents the door from tilting and becoming unstable; a potentially dangerous problem that can occur with bottom rolling bi-fold doors.

Consequently, the design and strength of the lintel is imperative. Lintels need at least 150mm bearing at each end, and their length should be at a minimum the sum of the opening width, plus 300mm.

In addition to this, the safe working load for the lintel must not be exceeded by the combined loads imposed by the structure – this includes the brickwork above, and the weight of the door leaves themselves.

Understanding U-Values

All bi-fold doors will be assigned a “U-Value”. This is a measure of heat loss and signifies the thermal performance of the doors, the lower the value, the better the performance.

The CLIMADOOR Classic range boasts a comfortable 1.4 W/m²K U-Value. This is supported by a modified timber core, 54mm thick door leaves, and argon filled glass units.

CLIMADOOR’s premium Elite Oak prefinished

and Select white primed ranges are manufactured using chemically modified superb U-Value of 1.3 W/m²k. Alternatively, CLIMADOOR’s Flagship product, the Supreme Solid Oak range has a U-Value of 1.5w/m²K. A minimum of 1.6 W/m²K U-Value is required in order to comply with Building Regulations, however we would advise choosing doors with a minimum of 1.5.

Security considerations

All exterior and patio doors will come with some security features; however their prevalence and quality can vary considerably from manufacturer to manufacturer. For peace of mind, look for bi-fold doors that have:

- Multipoint locks with security shootbolts.
- Lockable anti bump cylinders to prevent lock snapping.
- Toughened or laminated double glazing.
- Secured by Design approval.
- At least one lockable drop bolt in each pair supplied.

All CLIMADOOR models come with the above security features as standard, however every brand is different so make sure you do your research before committing to anything ■

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“A key consideration is
whether the doors
will open to the left or the right”



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Rainwater systems have a profound ability to tie a building together but are sometimes relegated to an afterthought in the excitement of a self-build or renovation project. Those who overlook the specification of rainwater systems are missing a crucial aesthetic opportunity to bring all the exterior elements together, as the guttering, fascia and soffits are for houses what frames are for paintings. Acting as the key transition between walls and roof, as the edging for the all-important front profile and offering the opportunity to complement or contrast the fenestration, the rainwater system can add the perfect final touch.

Rainwater systems are available in a wide variety of materials and profiles so it's worth considering how these will complement the other design elements within the building's external façade. The first thing to consider is the material to use and the three most common materials are PVC, cast iron and aluminium, each of which come with their own benefits.

Cast iron

Cast iron is traditionally the material of choice for projects seeking a period or heritage feel as it offers a robust and ornate finish. It is worth noting, however, that cast iron is a more costly option for both the initial outlay and installation costs, as it is much heavier than the other two materials. In addition, cast iron systems require significantly more on-going maintenance than PVC and aluminium.

PVC

PVC is often used on newer properties where cost and speed are paramount. While it is cheaper to buy and install than cast iron, it is also much less durable with a lifespan typically no longer than ten years.

Aluminium

In my view, Aluminium offers the best of both worlds. It is much lighter than cast iron making it as easy as PVC to install and it is also extremely durable with marine grade systems offering lifespans of 50 years or more that are almost completely maintenance free. What's more, aluminium systems can be specially finished with a polyester powder coating to give the textured look of cast iron with all the benefits of modern

Reaching the end of a renovation or self-build project and seeing the finished product has to be one of the most rewarding parts of the experience. But in order to achieve a building with a coherent style it is crucial that a consistent theme is present, particularly in the exterior finishes. Here Tony Wereszczynski, of Marley Alutec, explains how to use the rainwater, fascia and soffit systems to add that final touch to a self-build project

performance. At Marley Alutec we recently supplied our products to a stunning renovation and self-build project in Kent that provides a great example of how a self-builder has carefully considered the specification of the rainwater system with striking results.

The project involved the complete renovation of an old Methodist Chapel and an innovative self-build property that sits partly below ground and requires no heating. Whilst being sympathetic to the existing architecture, the owner was keen to bring the chapel into the 21st century and saw the rainwater system as an ideal opportunity to achieve this. Using our Evoke fascia and soffit

system with its Alligator Boxer rainwater system, the owner injected a subtle contemporary edging to the building's façade.

Importantly, the owner also considered very carefully how the two buildings would sit together on the one site. Nick Leggett, the owner of the two properties said: "When designing Chapel View we were after a real mixture of traditional and modern materials; of natural surfaces and clean lines. Another consideration was that Chapel View sits across from our current property and it was essential that the two buildings complimented each other, whilst both having their own distinct style. Using the same rainwater products on both properties allowed us to create just enough continuity between the two properties."

The aesthetics of a rainwater system are extremely important but so is the quality – having taken the time to get the right style it would be a shame to see that finish deteriorate in a relatively short amount of time. Nick went on to say: "In addition to fitting in with the building aesthetically, it was important to me that the chosen solutions will perform well for the foreseeable future. The life expectancy of Marley Alutec's products far exceeds that of plastic or timber systems, while the minimal maintenance needs of the system are very impressive and make it a solid investment for the on-going performance of the building envelope." ■

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Images show Marley Alutec's Evoke fascia & soffit system and Alligator Boxer at Chapel View in Goudhurst, Kent



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When considering the interior design of your new build, installing a new bathroom or kitchen will be high on your list of priorities. However, Paul Martin of Richard Burbidge says there is one feature that can add significant value to your home, a feature that is often overlooked – the staircase...

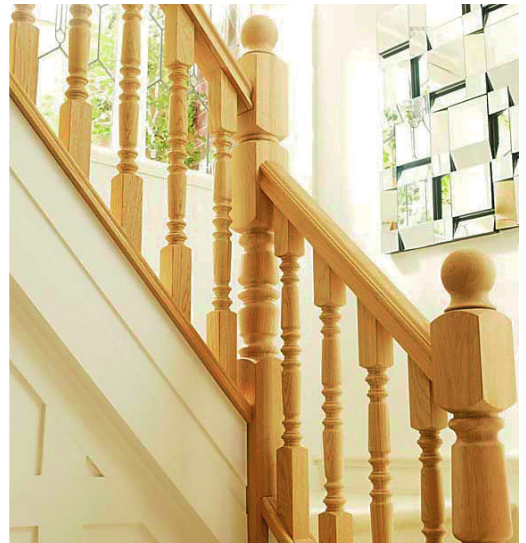


Phase 3
Step up your

new build



L-r: Classic Ash balustrade Volute detail; Classic Ash balustrade with Stained handrail; Heritage Collection 115mm Newels and 55mm Spindles in Oak; Heritage balustrade in Oak, all from Richard Burbidge



The hallway plays an important part in setting the tone for the rest of the house and needs to be planned carefully at the early stages of the interior design process. The staircase is not only the 'backbone' of the build, connecting upper and lower floors, it is also the defining structural element of the hallway.

Instead of opting for standard stairparts, make a conscious effort to select the most appropriate style for your property to add character and value to your home, as well as giving it the 'wow' factor. There is a wide variety of stairpart styles available, and by considering how these will complement the overall aesthetics of the finished property you can make your choice of stairparts work even harder to help create a grand entrance.

To do this you must first consider the defining characteristics of the property, before reviewing the various stairpart styles available and selecting the most appropriate.

Period property

If you are rebuilding a period property, installing a standard, gloss-white balustrade might not complement the interior and will lessen the impact of any efforts that have been taken to restore the original features.

A sympathetically renovated traditional style property ideally needs a staircase that will complement its original fabric. Hardwood with interesting textures and tones, such as ash and oak, can enhance the authenticity of the property, adding warmth and depth.

Traditional stairpart design in hardwood species like these lends itself well to period development. However, if you want to mix old

with new and add a contemporary flourish, incorporating other materials can be a perfect way to create a high-end, unique feel. For instance, using black iron twisted spindles can create drama and turn a functional staircase into a striking centrepiece that lends itself well to both period and contemporary projects.

Modern property

When it comes to developing modern homes it pays to be adventurous, and the use of materials such as chrome or nickel alongside striking glass panels and light coloured wooden handrails offers a cutting-edge and striking solution, resulting in a stylish focal point. Using the hallway to make a strong design statement can not only increase the value of a property, but will also help to add a touch of distinction, creating a real talking point.



Fusion balustrade in Oak with Glass Panels

Small property

In smaller properties, maximising space and light is a key consideration. Large, bulky designs can overshadow the architecture of the home, so simple, slim-line spindles offer a more practical option. Installing glass panel balustrade will reflect light and make the room appear brighter and more spacious, adding instant appeal to the property and creating that all-important first impression. The glass panel design also creates an instant style statement, improving the property's marketability without impacting on available space.

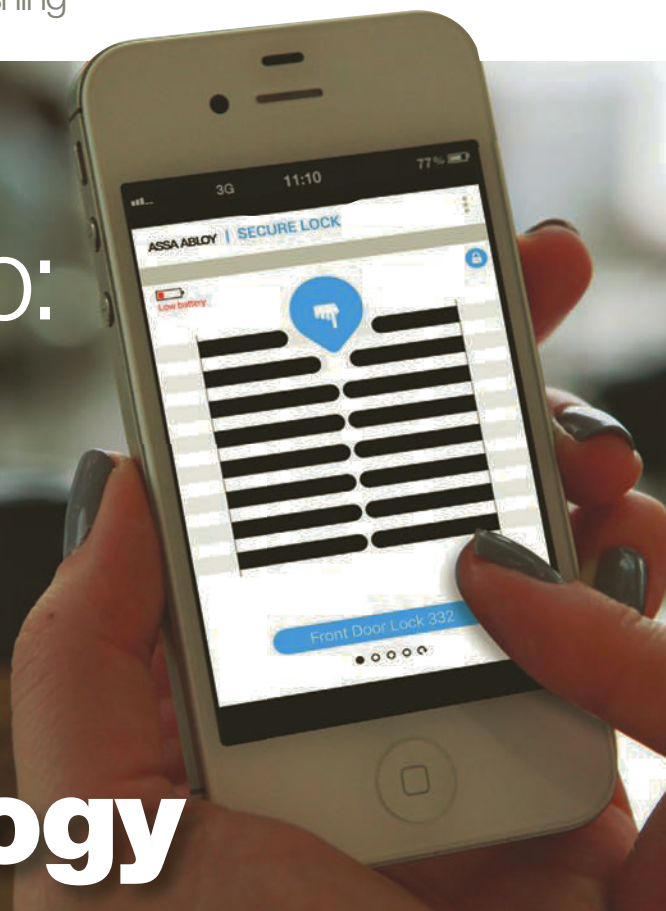
When selecting the type of wood for the staircase, consider the materials that feature elsewhere in the build. For example, white oak is a popular choice for flooring, doors and kitchens, so if this is the case in your property, continue the theme throughout by selecting the same wood for the stairparts. There is a misconception that replacing stairparts can be a sticking point when it comes to the progress of the project. If stairparts need painting or varnishing for example, work on both upstairs and downstairs would have to stop temporarily to wait for the primer to dry.

However, you can purchase ready-primed stairparts that allow the installation of balustrade without any disruption to work on the property, saving time and money. There are also pre-drilled handrail and baserail systems available that come with pre-cut spindles, so in many cases you can upgrade a balustrade in less than a day.

Upgrading stairparts is one of the easiest solutions when it comes to adding value to a property, but more than this, making a grand entrance with a striking staircase can make a house a home ■

www.richardburbidge.com

Phase 3 Opening up: The latest access control technology



The Assa Abloy ENTR allows users to open and close their doors with just the tap of their smartphone

Criminals relying on people accidentally leaving doors open or picking locks to gain entry to homes will be deterred by the influx of new keyless devices being developed. It is the hope that these new, sophisticated security systems will be a more secure and reliable option to the traditional lock and key. With this in mind, IronmongeryDirect's Martin Smith discusses how new technology can be of benefit to homeowners and self-builders looking to increase the security of a property

Homeowners and self-builders looking to ensure a property is as secure as possible will be pleased to learn that the security market is now being flooded with a whole range of new and innovative products that no longer require a key at all. Although the traditional lock and key has been relied upon for centuries to protect homes against intruders, there are many advantages to switching to a new keyless form of access control.

One of the main advantages of a keyless door lock is the fact that you no longer need to carry a key. For individuals who often find themselves misplacing their keys this is great news as keyless doors reduce the likelihood of being locked out of your home. It also means that it is no longer necessary to store a spare key somewhere within a property. An additional key left somewhere within a property can pose a security risk, for example if an intruder finds it and comes back to the property at a later date, so eliminating the need for one can clearly increase the security of your home.

Keyless locks are also more secure as intruders are therefore unable to pick locks to gain entry to a property. The mechanisms on this type of sophisticated technology also ensure that

the door locks automatically when someone leaves the property, helping to reduce break-ins that occur because of people accidentally leaving their front or back doors open.

Biometric locks

One new form of keyless technology that is proving to be a popular choice amongst homeowners and self-builders looking for a secure alternative to the lock and key is biometric locks. These locks can help to deter intruders and increase the security of a property as they require a scan of a user's fingerprints to authorise entry.

The biometric technology can store a large number of fingerprints meaning different users can be easily added and removed from the system. The devices can also record anyone entering the building which can help to increase overall security to a property, as people's movements can be carefully monitored. The Biometric Fingerprint Codelock is an example of one of the biometric locks currently on the market. It offers ultimate security for self-builders looking to properly protect a property as it comes complete with a mortice deadbolt and a unique key that cannot be duplicated. The fingerprint technology also means that the lock's system cannot be overridden except by the nominated key holder.



The Biometric Fingerprint Codelock is an example of one of the biometric locks currently on the market

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*When needed a temporary code
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Code door locks

Other technology such as code door locks that rely on users entering a simple code are also rising in popularity as similarly to biometric locks they are completely pick-proof. The Yale Digital Nightlatch, for example, offers a touch screen keypad that is backlit for night time entry, making it ideal for domestic properties when homeowners might be coming home in the dark. The system is easy to fit; by removing the existing lock, the new one can be quickly installed in its place. It's also simple to programme and the four to 12 digit pin can easily be created and changed. When needed, a temporary code can be created and deleted to help give homeowners peace of mind that their property is safe and secure.

Bluetooth locks

Companies in the US are going even further by developing technology that allows users to open and close their door securely with just a tap of their smartphone. Similar products will soon be launched in the UK such as the Assa Abloy ENTR

lock which will be coming soon to IronmongeryDirect. From September, people will be able to register their interest in this product by visiting www.IronmongeryDirect.com. The lock is easy to install and allows the user to unlock the door from a smartphone, tablet or other Bluetooth enabled device. Users can simply connect their phone via Bluetooth and unlock the door as they walk up to the house or building with the use of an app. The technology promotes secure, convenient control over the access to the home and automatically locks the door once it is closed.

These products are just some examples of the new access control technology now emerging in the security market. These devices have the

potential to improve the overall security of residential properties by dramatically reducing the risk of break-ins and carefully monitoring movements in and out of a property. It is recommended that homeowners and self-builders keep up-to-date with the latest advancements in security technology so that they can protect their properties with the most secure and up-to-date devices on the market ■

www.IronmongeryDirect.co.uk



Code door locks which rely on users entering a simple code are also rising in popularity



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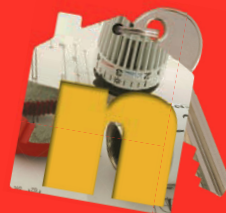
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Phase 3 Creating a bathroom for every occasion

Louisa Bradshaw of Better Bathrooms offers her tips on achieving both a functional and relaxing space



As autumn approaches we start spending more and more time inside, so we often start to look at our homes and make plans for renovations and updates.

As we are driven inside by the elements, it can become clear how much we really ask of our homes. Every morning we demand that our bathroom performs exactly as necessary, so that we can prepare ourselves to go out and face the day with confidence. But after a long day, we still want our bathrooms to perform as a space for relaxation and comfort, to unwind and escape in a calm, inviting atmosphere.

To achieve this dual purpose bathroom, it is important to ensure that we have the appropriate fixtures and fittings that can be versatile as well as functional. The resurgent popularity of bathroom furniture has made it easier to achieve this goal. Bathroom mirrors, for example, are standard additions to the majority of bathrooms, but a mirrored, wall-mounted cabinet above the basin will provide ample storage for all the daily essentials that tend to accumulate around the basin, keeping the area clear and uncluttered, whilst still serving its purpose. An illuminated mirror is another great option. Illuminated by LED bulbs, which are far more efficient and longer lasting than traditional bulbs, these mirrors will not only provide a bright and convenient area in which to prepare in the mornings, but will lend your bathroom a little old-world, dressing room glamour in the evenings.

Fitted furniture is another stylish and useful idea. There are now countless variations of style, dimension and finish available to suit any décor or size of bathroom. Fitted units, such as a basin vanity unit, will contribute to creating a streamlined, serene and organised bathroom, whilst providing space for all of your products and toiletries, keeping them within easy reach.

To cover all your bathing options without having to install a shower for everyday use and a separate bath for those all-important relaxing soaks, a combination bath and shower unit will cover both options. A transparent glass shower surround will also protect your bathroom from splashes and drips, will be easier to keep clean and dry than a shower curtain, and most importantly won't block out any light in the room, making the space feel as large as possible.

Another great dual function fixture is the heated towel rail. Acting as the heat source for the room, it will guarantee that each bathroom user is met with a warm, dry towel, as well as providing a striking focal design point for the room. Heated towel rails are available to fit any dimension of wall, and when finished in bright, modern chrome will lend a real flair and panache to your bathroom.

So these are just a few of my tips for creating a multi-purpose bathroom that is functional day-to-day, and can double as your cosy cubby hole when necessary ■

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Phase 4 Protecting & maintaining Natural Stone Paving

Malcolm Gough, business development director at Natural Paving Products, explains the options for protecting and maintaining natural stone landscaping in perfect condition, and offers advice on establishing a minimal effort care routine

External landscaping is often the finishing touch on a project, after months or even years spent perfecting your dream home. With real aspirational kerb appeal, natural stone paving is a long-term investment, so keeping it looking pristine is clearly a concern.

Although stone is a relatively low-maintenance landscaping choice compared to grass and other planting, a proper care routine is vital. Understanding the process and the potential hazards, such as unsightly efflorescence for example, allows self-builders to ensure their new installation continues to look its best.

For example, there are a number of coatings and sealants on the market and it's important to know the difference between the various types. Some simply provide protection from marks and stains, while others add a subtle sheen that enhances the natural colours of the stone.

Coatings and sealants: the difference

The key thing to understand is that coatings and sealants are in themselves two quite different things. Coatings are designed to sit on the surface of the substrate, while sealants are designed to penetrate deep into the stone itself – offering longer lasting protection. Another key difference is that superficial coatings have a tendency to scuff quite easily, meaning they must be re-applied regularly which can lead to a build up over time that changes the appearance of the stone.

Sealants on the other hand, offer a much longer life expectancy as the protection is held deep

within the substrate. High quality sealants, such as our Pavetuf range, are resistant to UV meaning they will not fade and also allow the stone to 'breathe' so that trapped moisture and salts can escape.

The main benefit of choosing a high quality sealant is the long-term protection it will offer the stone from staining and damage. Although stone is an extremely durable material, sealants offer additional peace of mind for applications that may be prone to spillages or littering, such as gardens surrounded by trees and driveways where parked cars pose potential oil and fuel stains.

When choosing a sealant, it's worth looking for one that is hydrophobic and oleophobic, meaning it provides protection against both water and oil-based contaminants. This type of sealant will repel water and oil, shielding the stone against the effects of atmospheric and industrial pollution, greasy soiling, water seepage, acid rain, airborne dirt, organic materials and even chewing gum. In fact, landscaped areas treated with high quality sealants like this could even be described as self-cleaning, as rainwater will wash away any materials that cannot penetrate into the stone and are left on the surface.

Another critical consideration when deciding which sealant to use – as well as when to apply it – is how it will react to the release of compounds within the stone, which can happen naturally as the installation weathers and settles.

Efflorescence, as mentioned earlier, can be a real nuisance as it can appear without warning after paving has been laid.

Efflorescence (or calcium carbonate to give it



Harvest Flagstones with circle kit



Cragstone Collection, Saffron Sandstone

its proper name) is caused by chemicals within the stone that react to environmental triggers, releasing substances such as carbonate, sulphates and chloride salts. As they escape, these substances can leave an unsightly whitish discolouration, most often resulting in a powdery coating that can be hard to remove and can even cause structural damage to the stone.

Many manufacturers therefore recommend allowing stone to weather for several months before applying any protective sealants, so that any trapped efflorescence is able to dissipate. However, this leaves the paving open to the elements and vulnerable to discolouration from vegetation, birds, pets and spillages in the meantime. It also means further disruption and additional landscaping bills, as the contractor will need to return to apply the sealant further down the line.

For these reasons, it's worth choosing a sealant that can be applied immediately while still allowing the efflorescence release to take place. Our Pavetuf range, for example, is fully breathable and can be applied as soon as the paving has been laid, giving instant protection.

Removing efflorescence

In applications where efflorescence does become a problem, removing it can be a difficult task. Many homeowners turn to power washers to blast the stone clean, but this can cause problems in its own right. The powerful jet of water can damage the paving's surface, as well as unblocking the pores in the stone – which can actually make the efflorescence problem worse by allowing even more of it to escape.



It's better in these instances to choose a specially formulated cleaning agent that can be applied manually using a spray or brush, to gently neutralise the salts so they can be easily washed away. However, it's important to ensure that the chosen cleaner is not overly abrasive, so as to avoid damaging the stone or polluting any surrounding vegetation. Our Pavetuf Salt Eraser, for example, is a water-based and environmentally friendly salt neutralising formula that will not alter the aesthetics of the stone.

Launched in 2014, the Pavetuf range also includes a fully breathable Satin and Invisible finish sealant, as well as a choice of three powerful cleaners for general and more intensive cleaning applications, plus the Green-Off cleaner, designed to remove moss fungi and other types of organic soiling without damaging treated surfaces. New additions for 2015 include a Rust Remover, Jointing Mortar and Sand Crete.

Real stone paving installations are a beautiful addition to any home, so it's understandable that self-builders are keen to protect their investment. With such a variety of maintenance products available on the market, keeping in touch with a trusted manufacturer is the best way to find the right product for each application ■

www.naturalpaving.co.uk





The key to *Phase 4* landscaping projects:

Planning, installation & maintenance

Simon Boulby, product manager at Ridgeons, the leading builders merchant in the East of England, answers our garden landscaping questions

When planning a landscaping project what should I consider first? Firstly, plan your design. Start by asking yourself what you will use your garden for; will it be a place for relaxation, a place for children to play, do you want plants or a low maintenance area?

Secondly, you need to decide who's going to carry out the work and it's highly recommended that you opt for a professional installer. Members of the Marshalls Register of Accredited Landscape Contractors and Driveway Installers operate across the UK and it's easy to find one near you.

Which materials should you choose for my landscaping project? It's worth bearing in mind that your paving is usually a permanent feature, however, the type of materials used is dependent

on your own personal taste and budget, as well the overall look you'd like to achieve for your project.

Natural stone, although one of the most expensive options, remains hugely popular as it is incredibly hardwearing and aesthetically pleasing. It is fairly easy to maintain and keep attractive by blasting with a power washer or regular scrubbing.

If you're working on an area of uneven or sloping ground, you may want to opt for decking as you can create an artificial step that gives a level platform for a table and chairs. You can also create a bespoke design with the many stain options available.

Gravel is ideal for quick laying and drainage if your garden is flat, it's also easy to maintain and a relatively cheap material with lots of colour ►



Top: Marshalls Fairstone Sawn Paving; above: Ridgeons' Cromwell Road branch Centenary Gardens display



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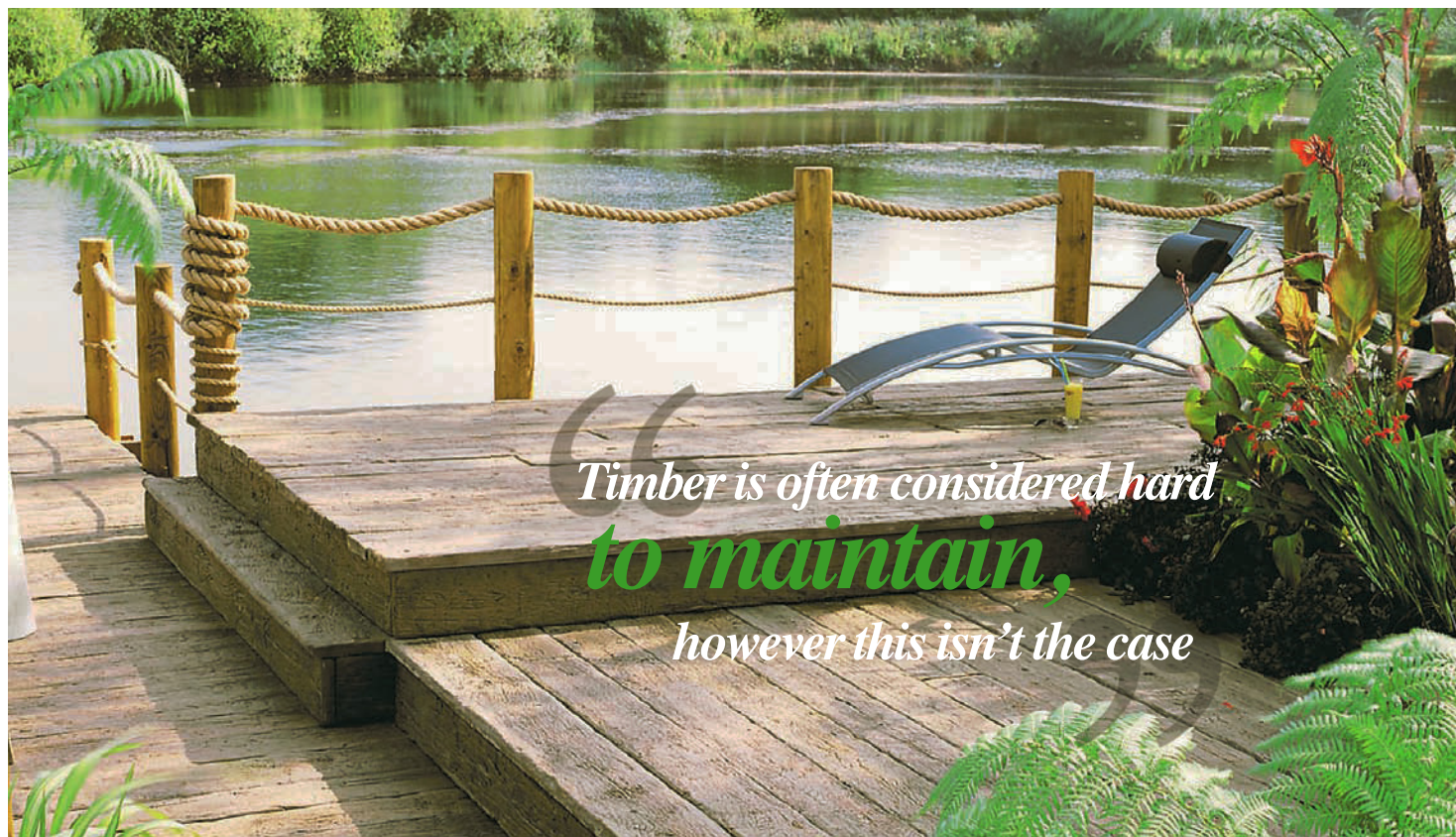
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and size options, from pea gravel to cobble stones. A thick gravel layer applied onto a permeable membrane can also help prevent weeds from growing.

If you're paving a large area or driveway, bricks or decorative concrete edgings can be used to create an attractive design feature and add detail to your patio or driveway.

What are the latest landscaping product innovations? The latest trend in paving available from merchants is Vitrified paving. Marshalls' SYMPHONY paving and Stonemarket Vitrified paving ranges for example, are manufactured using technology that combines exceptional strength and technical consistency. They absorb very little water, which discourages moss and algae growth and requires minimal maintenance. Available in a range of colours from buff tones, through to subtle blues and classic dark greys,

Vitrified paving is slip and stain resistant too.

What products should you choose when working to a tight budget? The cost of the paving products is often only 20 per cent of the overall cost of the paving project, so ensure the whole job is costed including other materials, labour and any plant hire costs. Budget entry level paving includes economy Indian sandstone, wet cast riven products and gravel. Indian sandstone is increasing in popularity as it complements the style of many British homes, however it is important to ensure that you choose sandstone which is covered by the British Standard to avoid problems further down the line.

Utility paving is a practical paving for flat hard-standing areas. As this is a 'budget' product, its colour and face finishes can vary and should not be used for decorative patio areas.

What are your top tips for preserving

external timber? Timber features in many landscaping projects from decking to retaining walls, but is often considered hard to maintain, however this isn't the case.

Firstly consider your usual weather conditions. If faced with changeable weather, Sadolin Quick Dry Woodstain is the ideal product for all exterior joinery, as it is rainproof in 30 minutes and recoatable in just one hour, enabling you to treat and preserve any external timber in one day.

If the coating sheen looks dull this is usually a good indication that your wood needs decorating. Preparation should include sanding, dusting off and degreasing with methylated spirits and with a clean, lint-free cloth. Preparation is 80 per cent of the job – there's no denying it can be laborious but it makes a huge difference to the end result, improving the look and ensuring longevity. Always consult an expert before carrying out preparation work as the type of timber will impact the methods the used.

Remember the undersides of sills, bottoms and tops of exterior doors and all end grains. These are all particularly vulnerable areas for moisture to get in. For exterior joinery we recommend a coat of Sadolin Classic followed by two coats of Sadolin Extra on new joinery.

Don't be frightened to be generous when coating exterior timber, we always recommend two or three coats to build up the film depth as pigment loading protects from harmful UV rays.

Landscaping falls into three stages; planning, installation and maintenance – and all three should be carefully considered for a successful project ■



Top: Millboard decking; above also shows Ridgeons' Cromwell Road branch Centenary Gardens landscaping display

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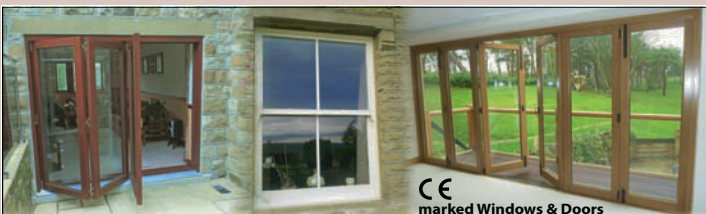


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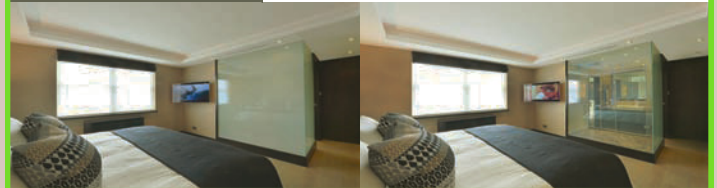


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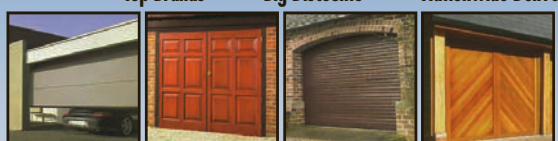
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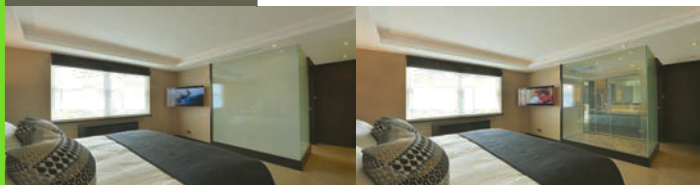


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