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#### THE CLASSIC CONSERVATORY

Top tips from industryleading professionals on updating your conservatory space



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Inside knowledge on trends from the self-build and home renovation markets

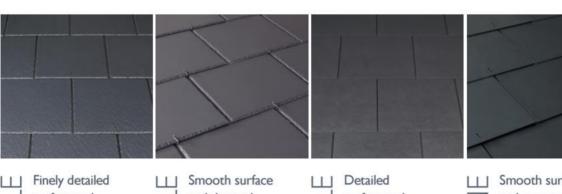


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Cover story:

When a large plot of land became available in Hampshire, Val and Mark Darwin invited their daughter, son-inlaw and grandchildren to take residence in a second self-build on the same plot. See page 18.



As we head into the colder months, much of the nation is preparing for the UK's notorious weather. As usual, we're all expecting the torrential downpours and gale-force winds that hit the country year on year - and scaremongering reports of expected snow are already beginning to roll in. For those selfbuilders still on-site, suffice to say, this isn't an ideal scenario - half-finished construction sites laden in mud, pools of knee-deep murky puddles, darker evenings slowing down the construction process; the list goes on.

The issue is that water - be it falling from the sky or seeping into structures from underground - is a real bugbear for self-builders and home renovators; especially in the autumn and winter months. If heavy rainfall is presenting problems to your home-building project, imagine building a house sited on a high water table; and then add the prospect of integrating a basement into the design. This is the exact scenario David and Tanith Ridgway faced when they embarked on their ambitious six-bedroom house-building

project. Luckily, thanks to a prefabricated solution, the couple completed the project, and the result is truly inspiring. That said, the build did not come without complexities. To read their full story, turn to page 34 of this month's issue.

If this project sounds familiar and waterproofing a current non-existent basement is leaving you scratching your head, look no further. This month. we've teamed up with waterproofing specialist Safeguard and quizzed Managing Director, Hudson Lambert, for his top tips for such complex projects. On page 38, Hudson takes us all back to stage one in a waterproofing 101 lesson.



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#### Editor's picks

Learn more about cladding and decking from Round Wood of May field: See page 41 Lumi-Plugin is a low-energy, dimmable, LED downlight: See page 42 DRU announces a new two-sided wood fire: See page 40







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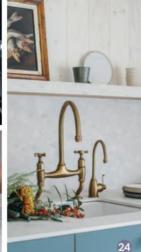
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#### November 2019















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i-build talks to Hudson Lambert, Managing Director at waterproofing specialist Safeguard Europe to answer all your basement waterproofing questions. In this article, Hudson offers his professional advice for an optimum underground system for tackling water ingress.



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# Piece by piece

Best known for its place on the Hollywood Walk of Fame, terrazzo is a trend that is building in popularity within the home. Here, i-build rounds up some colourful and playful examples that will give your home texture and edge.

Ithough the use of terrazzo can be traced back to the ancient mosaics in Egypt, the most common form originated many years ago in Italy, namely within Venetian pavements. The concept essentially is chips of marble set into a cement base, hand polished to create a shiny, smooth surface. Terrazzo artisans use this method on walls, floors, patios and panels; however, most recently this surface trend has grown in popularity across a number of other products and accessories within the home. From crockery and ornaments to textiles and wallcoverings, the playful and colourful patterns of terrazzo are a welcome addition to any interior decor. Generally comprising pastel tones, the impact is subtle but contemporary in order to make a real design statement in any room.

- 1 Terrazzo print lampshade blush £30. Red Candy
- **2** Zula terrazzo bird object £20, Habitat
- 3 Handmade terrazzo candle holder
- 4 Karlsson Tom Terrazzo wall clock pink, \$154.9. The Design Gift Shop
- 5 Terrazzo lamp, €97, Nedgis
- 6 Pink and green terrazzo succulent planter, £25, Mint & May
- 7 Olka table lamp ceramic and brown, £114, dar lighting group
- 8 Square pink terrazzo side table, £149, Rose & Grev
- 9 Pop placemat, £20, Emily Marlin
- 10 White terrazzo pen holder,









- 1. Kitchen (bespoke kitchen island top), £POA
- Pop, classic and darkside coaster, £10
- 3. Pop side table, £352
- Classic coffee table collection, £POA





#### Emily Marlin

Whilst studying art and design, Emily Marlin discovered a passion for hand-made objects. Inspired by surface design, shapes and colour emerged her homewares and furniture collection. Made from Jesmonite, her work is inspired by the '80s with bold colours and quirky designs modernised with a contemporary twist.



#### Terrazzo has it covered

Make a bold statement with either wall tiles, flooring or a rug.

- 1. Dollymixx beige shroom terrazzo tiles, Walls and Floors, £19.95
- 2. Rug | Terrazzo, Rug Society, £POA
- 3. Dollymixx patina dark grey terrazzo tiles, Walls and Floors, £19.95
- 4. Terrazzo, The Baked Tile Company, £47











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thought

#### Food for thought

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## Bring the outdoors in

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#### It's a wrap

Developed for wellness situations, after the bath and on the beach. This extra-long towel takes up little space when folded and dries up fast – perfect for the gym.

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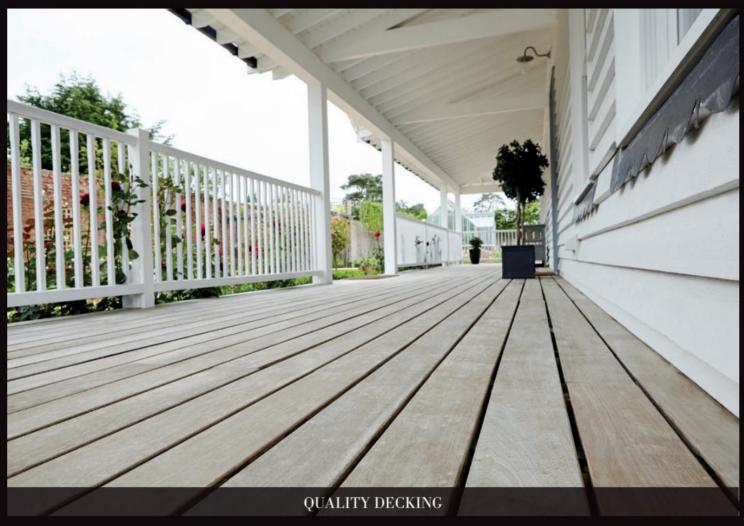
#### Only the best

Dissolve into wellness with the Pure Whirlpool Bath range from Smiths Briten, offering the ultimate in luxury – without the luxury price tagl

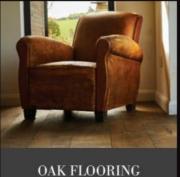
www.purebathroomcollection. co.uk

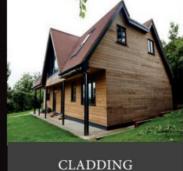


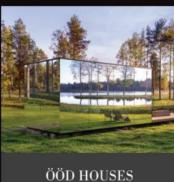
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There are many considerations when embarking on your self-build journey, but one of the most important is deciding on the build method and making sure you have all the relevant evidence to make an informed decision. This may appear straightforward, but there are several considerations that may influence lenders, warranty companies, building control bodies and the standards required to meet Building Regulations. Here, Mark Stevenson from the Structural Timber Association (STA) discusses two different aspects of timber construction.

he self-build landscape is rapidly changing, and now many are turning their backs on traditional masonry methods and looking to timber systems to develop energy-efficient, sustainable homes. Understanding the differences between timber construction approaches is one of the first steps that will help you to select build methods that best suit your needs.

#### Stick build - considerations

Stick build is a term that describes structures that are constructed on site from individual timber elements, usually by joiners using traditional methods and hand tools. Packs of timber and sheathing board are purchased from builders' merchants and delivered to site, where joiners construct the timber frame. More latterly this method has been on the decline, and there are some fundamental reasons behind this change.

The quality and accuracy of this approach is purely down to the individuals involved — as a result, stick builds cannot be subject to any preliminary testing, so performance is not assured, and as standards cannot be verified — quality certification is not viable. I would, therefore, highly recommend that you do your research.

Firstly, consider the quality of the workmanship and if the proposed builder

is a member of any schemes that conduct independent quality checks. Also, ask whether panel fabrication drawings will be provided to ensure the joiners know exactly how to erect the individual timber elements. The next step is to ensure the materials used are the correct specification and fit for purpose to achieve the intended strength and energy efficiency. Finally, and most importantly, as this approach does not carry any recognised industry certification, consult your finance and warranty company together with building control, to ensure they are satisfied that this method can meet Building Regulations and gain the necessary warranties to satisfy the lender's requirements.









### Offsite-manufactured timber systems – considerations

There is a raft of structural solutions in the timber portfolio – from timber frame and structural insulated panel systems (SIPS) to engineered timber such as glulam beams and cross-laminated timber (CLT) panels. All are manufactured in controlled factory environments and considered highly sustainable. Offsite manufacture eliminates the risk of poor on-site workmanship and the exact strength, grade and performance can be specified for each timber system.

The factory manufacturing process delivers rapid and predictable build programmes, but each timber system can achieve different performance levels. U-values accurately predict these performance levels and the lower the U-value, the higher the performance. Investment upfront in a high-performance system will reduce energy costs across the lifecycle of your home. Also, the levels of prefabrication vary – most are insulated as part of the manufacturing process, but doors and windows can also be included

right up to complete volumetric modular homes, which are delivered to site in a complete format just requiring the services to be connected. As structural timber systems are delivered in an advanced format, costs are upfront. However, lenders have developed funding products that take this into account.

The construction industry is evolving and moving away from traditional site-based brick and block techniques and is increasingly adopting Design for Manufacture and Assembly approaches. This means that homes are designed to be factory manufactured and then rapidly assembled on site – offering both cost and programme certainty.

Manufacturing is not just about building performance. Engineered systems such as cross-laminated timber panels and glue-laminated beams, used predominately by the commercial construction industry, are now being specified by architects and adopted by self-builders to unlock architectural freedom and enable large open-plan spaces, that are not achievable using traditional building methods.

#### Why use a Structural Timber Association (STA) member?

We have done the research work for you. As the UK's leading representational organisation for the structural timber sector, it is mandatory that all our manufacturing members go through our rigorous and independently assessed STA Assure Membership and Quality Standards Scheme. STA Assure benefits selfbuilders by promoting the different levels of accreditations held by each individual member companies - offering reassurance and the evidence required to make an informed decision. STA Assure has received formal recognition from leading self-build finance organisations together with the NHBC and six of the industry's leading structural warranty and building control bodies, ensuring that our members meet current legislation and regulatory requirements.

www.structuraltimber.co.uk/self-build





This five-bedroom Victorian terraced house featuring the original scullery extension at the rear and an unusual central staircase was purchased in a poor and rundown state. Conveniently located on the favoured Heaver Estate in Balham, the new owners, Julia and James Simpson, embarked on a complete renovation; with tailored storage and joinery by Barbara Genda Bespoke Furniture.



ooking to downsize from their double-fronted house on the Heaver Estate after their children had grown up and moved out, Julia and James Simpson embarked on a property search. "We had lived in our house for almost 20 years. And, we previously lived elsewhere on the Heaver Estate for about eight years," commented Julia. "We really liked the area and although it has changed a lot over the years; it is well-placed for public transport (train, tube and bus

routes). So, we didn't want to leave. Although we had considered moving out of London several times over the years; we always decided against the commute and decided to stay local."

When asked about choosing the property, Julia said: "I had been haunting agents' websites (such as Zoopla etc.) and saw it advertised on a Friday. I arranged a viewing on the very next day - the last of four on our list that day. However, the agent had made a mistake, and the booking hadn't made it to the viewing list - we arrived to find the agent leaving after a previous viewing. He was due back in the office but said he would show us around if we were quick. Long story short, we put an offer in to buy it on the Monday and completed on the purchase a little over two months later."





#### Purchasing the property

A late-Victorian terraced house, the property is slightly wider than usual and built across two floors with no cellar. It had been divided into two flats around 40 years ago, yet still featured the original scullery extension to the rear. And – somewhat unusual for a typical London Victorian terrace – featured a central staircase where the stairs run up one side of the house. There was also more light within the centre of the house than is usual for a Victorian terrace thanks to an ample-sized skylight above the staircase and a galleried landing, offering a sense of light and space.

Talking of the renovation, Julia said: "The house had lost its original features when it was converted into flats – which meant we weren't constrained by having to work with those. So we had, effectively, a blank canvas. Having lived in London Victorian houses all our working lives, we wanted to have a more open-plan, cleanlined type of environment with less clutter – and we were determined to have as much light in the house as we could achieve.

#### The challenge

"We knew that the house needed a lot of work, but that was also its potential for us. So as long as it wasn't structurally a liability, we were prepared for a 'project'. However; possibly not quite the project it actually turned out to be. One important part of the brief was to create a proper working cellar, which meant creating a basement level – this was hugely expensive.

"That said, the most challenging aspect was the construction of the staircase – which is too painful to think about! Ultimately, we arranged a deal with the sub-contractor, and the main contractor took on the finish of the stairs."

#### Hiring the professionals

After obtaining some suggestions regarding possible architects from friends and other professionals Julia had dealt with at work, she took up some references and interviewed possible candidates. After observing other properties within their portfolio, Flower Michelin (a practice based in Parsons Green) was selected to undertake the project.



















bespoke-made units

Far left: Barbara Genda Bespoke Furniture created a variety of built-in storage and joinery for a walk-in dressing room

Left centre: LED-lit bookshelves were fitted in the living room, and an extensive range of storage options were provided in all the bedrooms, basement and landing areas

Top left: A study was designed in the extended roof space and all utilities were rehoused in the basement within



"The architect was in control of the build," said Julia. "However, we were heavily involved – attending site meetings every week (taking flasks of 'real' coffee with us for all the team). We also employed an Interior Designer (Henrietta Thorn, a friend from Devon) who took the lead on the development of the project. Her input was invaluable."

The Simpsons had to make planning applications in three stages. "We got there eventually," explained Julia. "We had a preapplication process with Wandsworth, which helped. Final permissions were all in place by early 2016, and the build completed at the very end of August 2017.

"It was fantastic to see the house grow from a huge hole in the ground open to the sky; to a four-bed house with lots of downstairs space. It's a bit like a Tardis – neat from the street, but a very good size with plenty of internal light."

#### Storage solutions

Barbara Genda Bespoke Furniture created copious amounts of built-in storage and joinery for a walk-in dressing room. LED-lit bookshelves were fitted in the living room, and an extensive range of storage options were provided in all the bedrooms, basement and landing areas. Elsewhere, a study was designed in the extended roof space, and all utilities were rehoused in the basement within bespoke-made units to provide a clutter-free environment. Extra height doors and built-in pocket doors maximise space throughout.







"The house is very comfortable and warm — which for me is very important," says Julia. "We designed a special space for the dogs' bed — so they can be tucked away yet remain a part of the main family living space. The sliding 'dog door' also prevents them from wandering between the kitchen and hallway. And, an outside hose allows us to wash them down after muddy walks.

"Overall, the joinery is excellent; including the extra height doors and pocket doors downstairs — to maximise space. The doors that lead into the garden stack to one side and open up the back of the house — it's glorious on warm days. The light and space, and the way that one moves from house to garden is what I love most."

#### In hindsight...

When asked if she would do it all over again, Julia replied: "It was very stressful for us running this project with two full-time jobs and caring for elderly parents. My husband says never again; however, I'm not so opposed to the idea!." That said, if the pair were given the opportunity again, they would certainly do one thing differently. "I probably would not buy a house and start a project before even putting my current home on the market," humours Julia. "That was slightly unnerving.

"Also, we didn't budget enough – but that was always going to be the case. The biggest extravagance was probably the cellar, the AGA and the extensive amount of lighting we have put into the house. Traumatised by living in a rental with very poor lighting throughout, we probably overcompensated, but at least we can see!"

#### Top tips

Talking of their accommodation throughout the build process, Julia explained: "Towards the end of the build, we had to move out of the rental property as the landlord required its return. The furniture we had been using in the rental went back into storage, and we moved in with our former next-door neighbour. The dogs got a long summer holiday in kennels. It was slightly surreal living next door to the house we had sold two years previously – I was never quite sure which path to walk up!"

Offering their guidance to others about to embark on a self-build journey, the Simpsons advised: "Don't underestimate how much time and effort you will have to put into the project. Even with a team of professionals to help, it was very time-consuming, quite draining – and stressful!"





Top left: The house had lost its original features when it was converted into flats

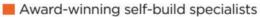
Far left: The Simpsons also employed an Interior
Designer (Henrietta Thorn, a friend from Devon) who took the lead on the development of the project

Middle: After observing other properties within their port folio, Flower Michelin (a practice based in Parsons Green) was selected to undertake the project

Above: The Simpsons wanted to have a more open-plan, clean-lined environment

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## Home sweet home(s)

In December 2018, architectural practice Adams+Collingwood Architects completed a superb, two-house multigenerational project in Odiham, Hampshire – named Darwins – on behalf of Val and Mark, their daughter Victoria, son-in-law Tom and grandchildren. The challenge was to design two different houses, each to suit the individual needs of its residents while ensuring they worked as a whole architecturally. Sustainability was also crucial, with Mark championing the creation of properties that would have minimal impact on the environment.



hile the multigenerational plot was initially intended to be a weekend retreat for Victoria, Tom and the children, the family quickly fell in love with the design that Adams+Collingwood developed and took the decision to move from London. With a 39-minute rail connection to Waterloo, Tom can commute to his job in Canary Wharf almost as quickly as he could from Islington.

Val and Mark found the plot and almost instantly fell for the idyllic rural setting, having already sold their house and renting while looking for land. They had lived in Hampshire for decades, and Victoria had grown up there.

Commenting on the start of her self-build journey, Val explained: "We looked at a range of existing properties, but none of them provided what we wanted. We carried on looking, then happened across the perfect plot for a self-build project almost by accident. The plot was too big for just one home, so we began developing plans for two, and that's when the idea of a multigenerational family project began to take shape. We got planning in principle advice for two homes and decided to take a chance. Affordability came into play then as well – one plot of land bought between two families provides an obvious saving."

The whole family quickly became inspired by the idea of sustainable living, concealed in nature, and decided they would all live on the same plot. "The natural setting was a real inspiration," said Val, "as was Mark's passion for sustainability and Tom's love of architecture – it truly was the perfect combination.

#### Planning permission

"The planning permission process went smoothly. Adams+Collingwood navigated the planning process with ease. There were several preplanning applications, with negotiations centring on moving the sides and scale. The team worked closely with the planning officer and went to the architect's board first due to the contemporary nature of the build. Altogether, the whole process took just under three years from the appointment of Adams+Collingwood.





"We used Adams+Collingwood to project manage the build, although we were closely involved. Tom took the lead on driving forward the contemporary style for the larger home – he loves modern architecture and design, so we all ended up running our purchases past him as part of the build management!

"Tamsin at Adams+Collingwood and her team were just fantastic. They allowed our ideas to take shape in ways that we would never have imagined. They were also great at managing all of our input and ensuring that everyone had a voice while still creating homes that had a consistent design!"

### Designing for sustainability

Val added: "We worked closely with Adams+Collingwood when it came to finalising the design brief. We explained what was important to us, and they took our ideas and created two outstanding designs. They decided to use the same materials but to interpret them in different ways for each home, which we loved. It means that there is a lovely dialogue between the two properties, while each has its own distinctive character."

Sustainability was an essential requirement for the family, as Val explains: "We wanted the homes to be as eco-friendly as possible. That meant using local materials and firms, as well as implementing a range of environmentally-conscious features. We have ground source heat pumps instead of gas supply, with wood-burning stoves in case we need extra warmth in winter. Fallen branches for the 100 or so trees that line the plot of land provide plenty of fuel for them. That said, the houses are so well-insulated that we can go for days without using the heating once they're up to temperature.

"We opted for zinc rooves and windows and untreated cedar for the wood panelling, meaning that they don't need repainting. There are also solar panels on the roof and rainwater harvesters for the garden. Every element was considered from a sustainability perspective."

Sustainability was at the heart of many of the family's decisions when it came to materials, but the architect's board also played a role. They pushed for contemporary materials, to suit the modern nature of the designs. As such, plans changed from the

original idea of red brick and oak to more contemporary materials, such as untreated cedar. The use of the same materials for both houses has helped to ensure a lovely flow and deliver a modern style.

Val explains: "In terms of other products, we sought advice from Adams+Collingwood and also Tom, who became our 'de facto' lead on all things purchase-related!"

When asked if she opted for renewable systems, Val responded: "Yes, absolutely. The heat pumps are very eco-friendly. They cost about £6000 each but are very cost-effective in the long run – particularly when factoring in the Renewable Heat Incentive (RHI).

"We also opted for solar panels on the roof, to add to the properties' environmental credentials. Although AECB certification wasn't a requirement, the houses employ the 'Silver Standard' ethos for sustainable homes.

"What's more, the houses have a fabric first approach, following Passivhaus principles, and the insulation thicknesses are based on Passivhaus values. In essence, we took the principles of Passivhaus and applied them to our design. However, we had to adapt to suit the skills of the local builder and his tradesmen."



#### The final site

Today, the two south-facing houses sit on the same northern axis, framed by a mature treeline and opening out onto the family's picturesque pasture to the south.

The larger property – occupied by Victoria, Tom and their children – boasts an open-plan kitchen/dining room/lounge that runs the length of the property and features floor-to-ceiling, retractable glass. The home, with its contemporary mono-pitch roof, was designed to provide a social gathering space for the parents and children, as well as their friends and extended family.

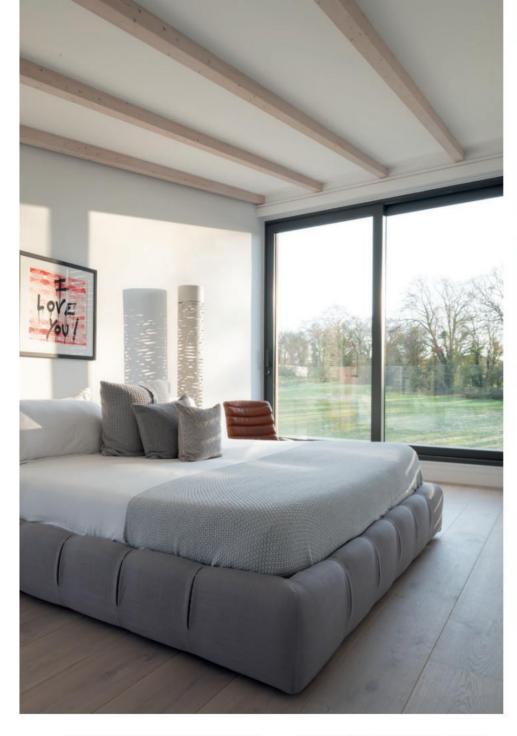
Victoria comments: "We probably spend 99% of our waking hours in the kitchen/lounge/diner. The fact that the whole south side of the room is glass makes it feel like we're outside and being able to slide the panels back during nice weather is ideal for an indoor/outdoor living experience. The space is perfect for entertaining while also feeling cosy enough for quiet family meals."

The smaller of the two houses, which is home to Val and Mark, is a cosy, quiet retreat with a traditional pitched roof. It also features extensive glasswork along the south wall, providing a light, airy feel and a sense of connection with the pasture.

#### The landscape

"The surrounding landscape is a celebration of nature, from the gently sloping pasture to the mature trees that border the plot," says Val. "The extensive glasswork provides for a sense of the natural environment even indoors, while the emphasis on sustainable materials means that the homes are in harmony with nature so far as possible. Mark, in particular, delights in being surrounded by the sound of birdsong and rustling trees.

"We wanted large terraces that worked as a natural extension to the internal space and flowed into the pasture beyond, which is precisely what Adams+Collingwood delivered.



"In terms of the pasture itself, very little needed doing. The land is a beautiful, natural space and the mature trees that line the plot frame it beautifully. We took expert advice from a local independent garden centre, Hortus Loci, who advised appropriate plants for the soil and location. It's currently a work in progress, but all plants have been sourced to reflect the contemporary houses, materials and beautiful pasture.

"We complemented the external space with a custom-built oak table from my nephew, Harry Baker the Cabinet Maker (who also made our dining table). It's a beautiful contemporary design that perfectly suits the space. "The locals have all responded positively to the new builds. All the houses on Hillside are pretty different so having two contemporary houses add to the eclectic mix."

#### Reflection

When asked if the property is everything she hoped it would be, Val answered: "Everything and more. Our hopes evolved and took shape along with the project, with Adams+Collingwood guiding our growing excitement along the way! Not only did the design end up exceeding our expectations, but the incorporation of so many eco-friendly features was fantastic.



"It's great having the grandchildren living just next door. I was slightly worried that the family would be in each other's pockets, but that hasn't happened at all. Everyone has their own space, while also having plenty of room for spending time together.

"As for the house itself, I love the simple, open design that delivers on every level. My favourite room is the open-plan kitchen/diner – I love the light, airy aspect of the space."

When asked if she would do it all again, Val commented: "Never say never. Victoria is already considering a similar project in France (Tom's homeland) at some point in the future!" Val's advice for other self-builders is to: "Plan and research thoroughly, And use a builder that you can trust! Doing so means that you can keep incredibly tight control over what you spend."

www.adamscollingwood.com



# Best insulation for self-builds

When planning a self-build, you'll have a lot of decisions to make; however, one that may leave you feeling overwhelmed is deciding which insulation to purchase. But, finding the right insulation isn't something you should choose lightly. After all, annually it can save you up to £455 in energy bills, not to mention you will be making your home eco-friendly.

o, we've asked the experts at Insulation Express to highlight the top five insulation boards for self-builds, before highlighting the benefits of each one.

The best insulation for general use and preventing heat loss:

Celotex GA4000 Insulation Board

Rooms: A variety

No doubt you're already aware of this brand if you've researched 'insulation boards' before now. Celotex is an extremely well-known brand of insulation, famed for its versatility and its low thermal conductivity – meaning your self-build will be kept nice and warm. Celotex GA4000 is perfect for

a self-build project as it can be used in a variety of places, such as:

- Floors whether solid concrete, block and beam, or suspended timber joist – and even where underfloor heating is used
- Timber and steel-framed walls between and across the face of studs
- Pitched roofs between and across the face of rafters
- Flat roofs in ventilated cold roof constructions, installed from inside the buildings
- Refurbishment projects lining existing timber to make them more thermally efficient.

What's more, it's easy to handle and install, and can be used to improve reliable long-term energy savings for buildings. Revealed: the ideal acoustic insulation for your self-build:

Rockwool RWA45 Acoustic Insulation Slabs
Rooms: Living room, active loft or a music room

If you just wish to soundproof between a WC and room, as now required for new internal walls under 'Approved Document E', Rockwool RWA45 is optimal for this.

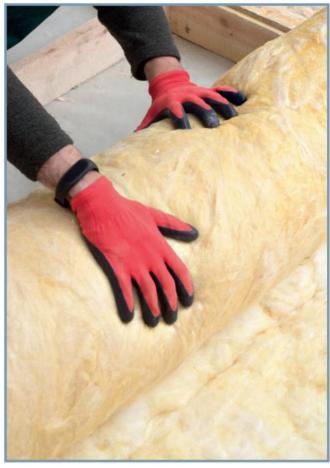
However, as this product is robust and provides excellent acoustic performance, you may want to use it elsewhere. If you're planning on having a loud living room or wish to cut off the sound from a loft conversion, or even design a music room — this is the insulation worth keeping in mind.

The Rockwool RWA45 doesn't just perform on acoustics; it's highly water-repellent and fire-resistant, which will help in the maintenance of the house. Best of all, the slabs are easy to handle and install, making it ideal for self-builders.

The top insulation for solid walls: Celotex PL4000 Thermal Insulation Board Rooms: Any for solid walls

If you want your self-build to have an efficient energy performance, this is the ideal option. Celotex PL4000 offers first-rate thermal insulation, perfect for autumn and winter nights, and will save you money for your heating bills in the long run.





This insulation board is great for use in selfbuild projects as it can be easily mechanically applied to timber frame studs, or joists and rafters in pitched and cold (ventilated) flat roofs. It can also be fixed using plaster to the internal face of existing solid walls or cavity walls to upgrade their thermal performance.

What makes the Celotex PL4000 so userfriendly, is it offers the ability to install both the insulation and the plasterboard in one go and reduces the installation time. Perfect for selfbuilders who have a lot to be getting on with.

The self-builders' optimal tile backing thermal insulation:

Marmox Multi Board

Rooms: Bathroom, kitchen and utility

When it comes to designing your bathroom, or any room that has a focus on water, the last thing you want is damp and leaks. However, the Marmox Multi Board is the ideal solution for waterproofing any areas prone to moisture, and it even provides thermal insulation.

It can be used as a shower backer board and provides an effective way of preventing tiles and grout from cracking due to horizontal movement in the floor. The unique pattern of Marmox allows heavier tiles to be safely and securely fixed to walls – making it ideal for those who choose expensive tiles for their dream self-build.

If you do decide to use this in the bathroom, we recommend using the thinner 4mm and 6mm boards, as they're ideal for waterproofing. What's more, you can even use the thinner boards with underfloor heating to boost the performance and save on energy bills.

The top choice for loft insulation: Isover Spacesaver Loft Insulation Roll Room: Loft

Even if you only decide to use your loft for storage, insulating your attic is essential for any home, new or old. Thankfully, there are excellent choices out there to keep heat inside your home, but one that particularly stands out for self-

builds is the Isover Spacesaver loft insulation roll. The product is strong, resilient and flexible, and is an effective way of ensuring your home is warm, energy-efficient and environmentally-friendly.

It is manufactured from a combination of silica sand and up to 89% recycled post-consumer glass from building regeneration projects or flat-glass manufacture that would otherwise go to landfill, which makes this product the eco-friendliest of the five – ideal for any eco-warriors.

Best of all, the lightweight nature of the product and long length makes it easy to roll and install – however, because the product is made of glass, remember to wear protective clothing.

No matter if you're starting a self-build or renovating a home, finding the right insulation for your project is essential for maintaining an ideal temperature all year round. So, we hope we've answered your queries on all things insulation, and you're on your way to building your dream home.

www.insulationexpress.co.uk



# What to consider when choosing a new worktop

There are a number of factors to consider when choosing a kitchen worktop, beyond just what material to use and which pattern you like. In this article, Neolith takes a look at everything you need to keep in mind.

hen you choose a worktop, always look for these three elements: durability, longevity and beauty.

Ensure the material you specify will stand the test of time. No one wants to have to replace a surface after only a couple of years. As such, delicately balancing aesthetics with functionality is crucial. Worktops should simultaneously achieve beauty of form while being able to handle the culinary tasks of everyday life, from breakfast through to dinner; each spill, splash and smudge, every chop, whack and roll.

When it comes to surfacing materials, homeowners and interior designers have never been so spoilt for choice. The industry is continually improving processes, developing new colours and finishes while refining existing ones. In conjunction with ambitious and otherworldly patterns, there is also an increasing

number of enhanced finishes available, building on the impressive array of natural stone-inspired surfaces currently on the market.

Hyper-realism is a feature which is becoming increasingly sought after by designers, especially the ability to capture the authenticity of natural stone. They want something realistic, which quite literally tricks the eye. From the natural beauty of exotic granite and the quiet elegance of white quartzite to engineered metals and urbaninspired concrete, the development of true-to-life patterns and colours gives homeowners more design possibilities than ever before.

Any pattern you choose should match the overall theme of a kitchen. This could either be a colour or pattern which seamlessly complements the decor or offers a point of contrast, creating a visual statement within the space. If you're looking for inspiration, here are some trends we've enjoyed recently:



#### It's only natural

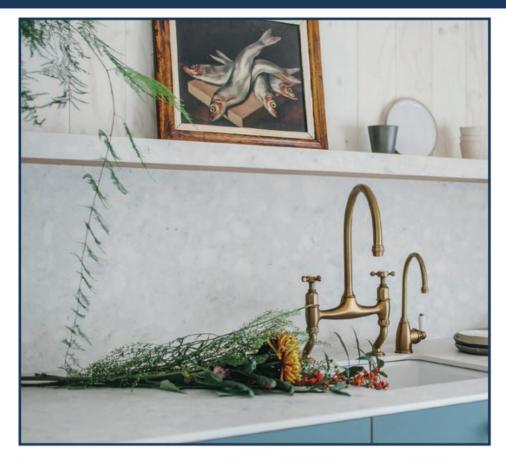
A greater appetite for natural-looking stone and a wider variety available than ever before has encouraged residential designers to be much more adventurous with their use of colour.

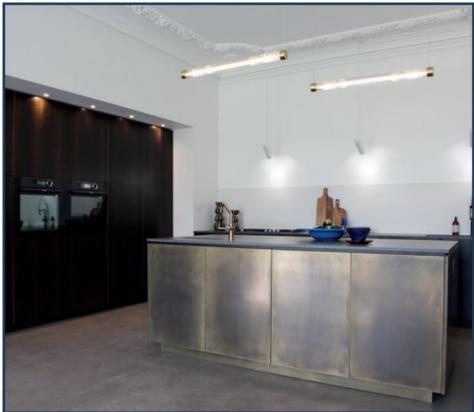
In particular, we have seen contrasts of lighter and darker stone, used judiciously in the kitchen to create a stylish design statement. Opposing textures can be used in conjunction with each other; for example, rough sandstone and wood-effect surfaces off-setting polished marbles or smooth cement.

#### Back in black

Many homeowners are looking to darker, inkier tones found in igneous rock. We've already seen plenty of surfaces which encapsulate beautiful detailing of these ancient stones including basalt and soapstone styles. Their eye-catching, complex swirling deep grains and organic continuous patterns are true to the look and feel of the real thing.

The depth and contrast offered by igneous rocks creates a visually striking statement. This is further emphasised when combined with a contrasting, lighter-coloured splashback and flooring.





#### Home comforts

One trend that never seems to fade is a desire for traditional kitchens. Nostalgia is nothing new, but across the industry, we're noticing a revival in design classics. Terrazzo immediately springs to mind. This playful and colourful stone, once so popular as a flooring material, is finding a new lease of life as designers rediscover this style icon.

It's not the only traditional material that will make a comeback in the near future. The organic look and feel of unpolished wood has timeless appeal and, with the steadily increasing desire for Scandinavian chic, has become highly sought after. In contemporary kitchens, it can be combined with contrasting materials, concrete or metal effects, offering a captivating juxtaposition of the natural and industrial.

Patterns and colour aren't the only elements to consider; texture is just as important. For example, if you use your kitchen to bake, a polished finish will improve the consistency and texture of pastries, providing a perfectly smooth surface with incredibly low porosity, ensuring an unblemished dough. Also, consider a white Italian marble effect, which will create a pristine blank canvas on which your culinary masterpieces can stand out. As baking becomes more popular in the domestic kitchen, we've seen more and more requests being registered for this type of finish.

Finally, a kitchen's layout has a meaningful impact on its overall aesthetic, so it's worth experimenting with. Why not consider using a waterfall kitchen island as a focal point? Combine it with a matching worktop and splashback, and make sure you book-match the island's slabs to ensure a seamless design spill-over across the space. This will establish it as a core feature in the room, without dominating it.

This integrated design is on the rise as homeowners seek simplicity and elegance in the cooking space. Monolithic kitchen islands play a significant role in achieving this, but other features should not be forgotten. Cabinetry veneered to match the worktop creates an eye-catching statement piece. A fully unified effect is more wholly realised through incorporating an integrated sink. Functionality can be subtly incorporated, concealed by continuous colours and patterns.

www.neolith.com



# Five top tips on weatherproofing your cladding this winter

As winter approaches, many homeowners are busy thinking about Christmas, winter holidays and other seasonal activities. Yet, the change in season and the unpredictability of the weather can cause havoc on external wooden surfaces – snow, ice and rain can cause all kinds of cosmetic damage.

teve Grimwood, Managing Director of Osmo UK, reveals his five top tips for weatherproofing your external cladding this winter.

#### 1. Preparation

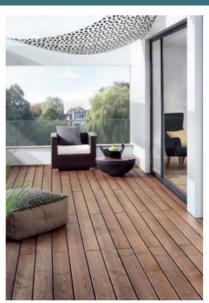
Before you consider applying a wood finish, it's essential to ensure that your cladding is fit for purpose. Fix any loose boards and make sure that there are no gaps or areas needing urgent maintenance and repair. By ensuring that the cladding is appropriately prepared, you can minimise the risk of structural damage in the event of a storm.

#### 2. Invest in a good base

I would recommend using a base coat before applying any protective and cosmetic finishes to the cladding. A good base coat will penetrate the surface of the wood, which not only provides extra protection but will also help to prevent rot, stain and other damage. Base coats can be easily applied with a roller or flat brush, to ensure even distribution and coverage.

#### Make sure it's water repellent

When choosing an appropriate finish, the first thing you should do is look at what that product can offer. You are going to want to look for a finish that is water-resistant – this will help to protect against wintery weather conditions, including heavy rainfall. Many finishes available on the market now contain active ingredients – these work to slow the growth of mildew, algae and fungi. This will ensure professional results that do not crack, flake, peel or blister.





#### 4. UV protection

It may be cold outside, but winter UV rays can still cause a considerable amount of damage on external wooden surfaces. As all wooden surfaces will inevitably start to grey over time, it's important to invest in a finish that aims to slow the process down. Investing in a finish that provides UV protection will help to maintain the appearance of the wooden cladding for many years to come.

#### 5. Care and maintenance

Ensuring the longevity of your cladding should be a regular part of your care and maintenance routine. Frequent cleaning of external surfaces will moisturise the wood's surface, helping to maintain its freshness whilst removing any debris or dirt.

To protect your cladding this winter, and to find out more about Osmo UK's range of eco-friendly wood finishing solutions, visit the below website.

www.osmouk.com



# Discharge legislation is changir is your system compliant?



The Environment Agency (EA) introduced new rules regarding the discharge of treated sewage by systems installed and in use on or after 1st January 2015. If you have a septic tank, you need to identify whether it discharges to a river or stream (surface water discharge) or whether it discharges to a drainage field, as after 1st January 2020 discharges to surface water from both old and new septic tanks will no longer be permitted by the EA.

f you have a septic tank that discharges directly to surface water, you will need to replace or upgrade your treatment system by 1st January 2020.

Where properties (domestic or commercial) with septic tanks that discharge directly to surface water are sold before 1st January 2020, responsibility for the replacement or upgrade of the existing treatment system should be addressed between the buyer and seller as a condition of sale.

It is not uncommon for a septic tank or soakaway to be located on neighbouring land. In these instances, the responsibility to upgrade still lies with the owner of the septic tank whether the soakaway is on their land or not, so it is important to act quickly. The process could be slowed, and deadline potentially missed if issues occur during the upgrading process.

If your system requires replacing or upgrading due to its discharge location, you have three possible options:

- Connect to mains sewer
- Install a drainage field so the septic tank can discharge to ground instead
- Replace your septic tank with a small sewage treatment plant.

Only small sewage treatment plants can be permitted to discharge to surface water, such as a river or stream. A small sewage treatment plant (also known as a package treatment plant) treats the liquid so that it is clean enough to discharge into a river or stream.

It is possible to apply for a permit for discharge to surface water from a septic tank; however, these are only granted in exceptional circumstances. It is certainly advisable to contact the EA before applying.

#### Discharging to ground

Discharge from septic tanks and sewage treatment systems can be made to the ground via drainage fields.

Discharge to a soakaway borehole can only be made from a sewage treatment system and must be permitted by the EA. Permits must be applied for in the following circumstances. If you discharge:

- To a well, borehole or other deep structure
- More than 2m³ (2000 litres) per day.

If any part of the building your system serves is within 30m of a public sewer, the EA will not allow you to start a new discharge. If there is a good reason why you cannot connect to the sewer (e.g. obstructions such as a river or a hill), then you must apply for a permit from the EA.

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Aside from creating a luxurious finish in the home, underfloor heating has many practical advantages too, yet installation is not always plain sailing. John Gittens, Maincor's Business Development Director, looks at the benefits of underfloor heating and the solutions available for fitting.

he benefits of underfloor heating are obvious for the end-user, making this a heating option that is fast gaining in popularity. Maximising warmth and comfort while delivering heat to a building in an energy-efficient and cost-effective way, underfloor heating also has environmental benefits. For example, much lower water temperatures are required than conventional radiator heating systems as the large surface area of the floor is enough to warm the room efficiently as the heat rises.

An underfloor heating system will generally run at around 45°C as opposed to a more common temperature of circa 80°C used in radiator systems, resulting in energy savings and a higher degree of user comfort; especially when used in conjunction with renewable heat sources such as heat pumps. In turn, this means lower CO<sub>2</sub> emissions, which is good news for the eco-conscious homeowner too.

Regardless of the style of property, or what look the homeowner may be opting for, underfloor heating delivers; out of sight but certainly not out of mind, keeping the property cosy and warm regardless of how much outside air temperatures may plummet. This is even more important with the trend towards wood and laminate flooring as a practical and stylish option.

particularly in family homes, which quite simply is not as warm underfoot as walking on carpet.

Underfloor heating helps with the aesthetics of a property too and creates complete freedom of interior design with no radiators to worry about, which means that every square inch of space can be used for room layouts and makes it particularly ideal for open-plan spaces where wall space for radiators is limited. With underfloor heating, the homeowner has complete control of the temperature too, as rooms are heated on an individual basis, so the living room can be kept at a higher temperature than the bedrooms, for example.

All these advantages mean that the underfloor heating market in the UK has grown considerably in the last decade or so, to over £150m per year, with underfloor heating now the heating method of choice for many of the nation's self-builders.

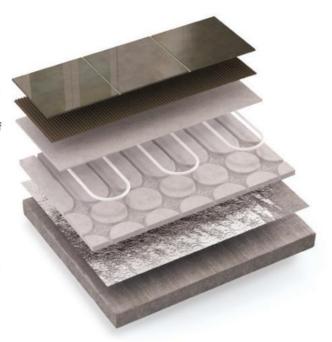
But what about installation? As with most things in life, there can be drawbacks to underfloor heating versus conventional central heating systems, particularly in terms of cost versus speed when installing retrospectively. While fitting underfloor heating is relatively straightforward on new builds and in empty buildings, retrofitting can necessitate removing floor and skirting boards and other disruption that slows a project down.

Fortunately, new advancements in technology mean that underfloor heating can be installed quite simply regardless of floor construction, location within the building it is required or the stage of the project. Although such systems can be more expensive than traditional methods in terms of initial outlay, without the cost of laying screed and the need to wait for a huge slab to dry, installation is far quicker, particularly when fitting is due to take place during the winter months when the weather is colder.

For solid floors, underfloor heating pipes can be laid on to an insulation board placed over a solid concrete base with screed then poured over the top of the pipes. This construction is typically used on ground floors or block and beam floors, with mainfoil or heat emission plates being suitable for suspended floors.

A mainfoil system uses a bubble aluminium foil which laps up and over the joists to create a sealed air void. The aluminium foil reflects the radiant heat up to the underside of the floor, which, in turn, heats the room; while heat emission plates, supported by the joists, are grooved so that the underfloor heating pipework can be fitted into them. The plates diffuse the heat for an even heat distribution across the floor.

The trick to maximising efficiency when retrofitting underfloor heating is to opt for a system that has been specifically designed with ease of installation and planning in mind. If the boards don't need to be laid in a brick pattern and are specifically designed to reduce the amount of cutting and routing required of the end panels and around pipes etc., then so much the better – as this will all save time, wastage, dust and breakages.



Opposite: Regardless of the style of property, or what look the homeowner may be opting for, under floor heating delivers

Left: An under floor heating system will generally run at around 45°C as opposed to common temperatures of circa 80°C used in radiator systems

Below: Under floor heating is now the heating method of choice for self-builders

Bottom: New advancements in technology mean that under floor heating can be installed quite simply







# Cotswolds cottage secured in style

Of the myriad of considerations when building or refurbishing a countryside home – one that should not be overlooked at the initial design stage is security.

ccording to research by NFU
Mutual, the cost of rural crime rose
by 12.1% to £49.9m in 2018.
If you are considering a property
in a rural area, it is important to remember that
you can deter criminals while still maintaining the
desired building aesthetics.

Charter Global is an industry-leading physical security specialist, trusted by security-sensitive organisations worldwide. It has more than a decade of experience working with architects and homeowners to ensure properties are secured against crime without sacrificing comfort and kerb appeal.



One of the best examples of this is a stunning property in the heart of the Cotswolds countryside. The property is a mix of traditional master craftsmanship combined with the latest building design techniques.

Charter Global's team provided a bespoke design solution to the architect (who also owned the property) that beautifully displayed the best of both worlds with a safe and stylish home.

The property, set in its own valley, comprises a period cottage with a contemporary extension built into the hillside. The architect was keen to ensure that the rolling Cotswold countryside vista was an integral part of their design.

Vast glazed facades were incorporated into the extension in order to enjoy the beautiful countryside views, and Equiluxsecurity shutters were intelligently concealed within the honey-coloured Cotswold stone.

One of the aesthetic advantages of Equilux shutters – the residential range of security solutions from Charter Global – is that, when lowered, the anodised shutters have a subtle matt silver finish which complements the natural choice of building materials.

A custom solution for this unique property, the shutters are perforated to allow the shutters to remain closed at night while allowing natural ventilation from the cooler external air.

Equilux shutters provide security, not only when the property is empty, but also during warm nights when the windows are open.

The lintel and cavity closer elements of the system were installed in the traditional manner at the time of the original build. The system addresses the usual issues of lintel design, such as structural load-bearing and damp-proofing, but has the added benefit of acting as a security shutter when required.

In the raised position, the shutter is completely concealed from view, retaining the clean lines of the opening.

The design also incorporated the convenience of a smart security system fully integrated into the property's building management system. The security shutter can be remotely controlled at the touch of a button.

The involvement of the Charter Global team in the design process ensured that the homeowners have the peace of mind that comes with a bespoke, in-built, integrated security system.

When you are spending time and money on a property – new-build or renovation – ensure that security is taken seriously and incorporated into the initial design process. If you take this holistic approach, the design will result in a beautiful and, more importantly, safe home.

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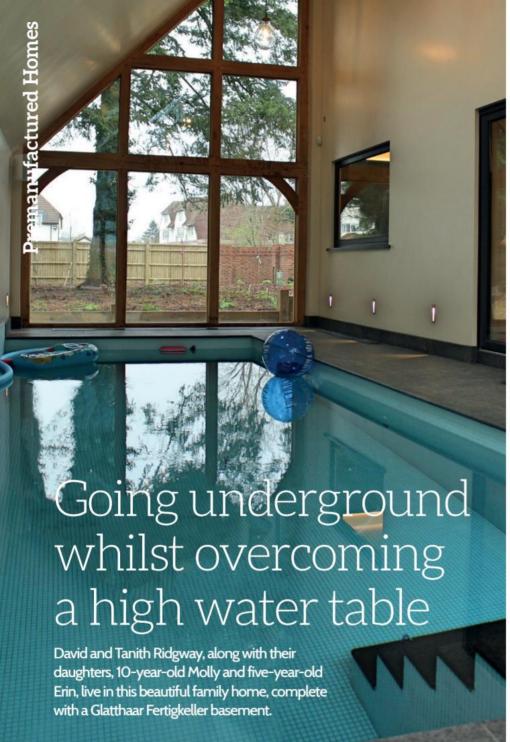


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aving left a successful career in IT a few years ago, David set up his own classic car business. With long-held dreams to build their own house, the couple decided that now was the time and went about drawing up a list of preferences they'd most want in a house.

"We looked around for plots to buy in the village of Tetsworth where we had been living but there was nothing," said David. "Then we found this plot almost by accident. I'd signed up to a couple of local plot search websites, and one day an alert just popped up with this piece of land on it. The vendors, now our neighbours, were selling it off, as part of their original garden, and although it already had planning permission, it didn't include a basement or a swimming pool which were both top priorities for us.

"We bought the plot in summer 2016 and worked with our architect to define exactly what we wanted. Given that the site includes river access and the house build was proposed on a site with a high water table, we were aware that building a basement wouldn't be without its complications.



"I found Glatthaar via an online search and was especially encouraged by the fact that they specialise in basements that are completely watertight. I spoke to two or three other companies, but it was clear that Glatthaar were the ones that could offer an effective solution and assurance of building a basement on a site with a lot of groundwater. The premanufactured element also meant that the construction of the basement would be really quick, which was another big attraction. Glatthaar worked in conjunction with our architect, and although there were a few questions from worried neighbours, we submitted the new planning application and it was approved in December 2016.

#### The build

"In January 2017, the plot became a building site. Given the complexity of the site, we couldn't find anyone, within reasonable cost, to do the groundworks. Glatthaar were extremely helpful in advising what was necessary for the excavation and made good recommendations, so we decided to do it ourselves. The Environment Agency had stipulated a six-month window of time to complete the work, and in this time frame, we filled 170 lorries with a total of 5100 tonnes of soil to be dumped. The high water table meant that we had to have a permanent drainage system in place which equated to 120 vacuum pumps around the perimeter of the excavation. A total of 57 reinforced concrete piles were put into place 4m under the basement to secure against 'uplifting', and to anchor the house. It was a huge job.















Main: The swimming pool, although accessed via the ground floor, is sunken into the basement

Bottom: David and Tanith bought the plot in summer 2016 and worked with their architect to define what they wanted

Collage: The basement provides extra living space for the family to enjoy sociable time together and with extended family and friends. There's a large party room with a stocked bar, pool table and seating.

#### Flawless operation

"Glatthaar then started work in August 2017. The team worked incredibly efficiently and professionally to build all the walls in one week and then another week to do the ground floor slab. The operation was flawless and watching it go in; I had every confidence that the Glatthaar build system was the effective solution to ensure against the high water table. The team knew exactly what they were doing and quickly found solutions to

any challenges. The swimming pool, although accessed via the ground floor, is sunken into the basement.

"With Glatthaar completing the basement, we used a traditional builder for the house, and the solid concrete slab built by Glatthaar provided the perfect foundation for the blockwork of the house to begin. The house was 12 months in construction, and once furnished, we moved in, in October 2018."

#### FACTS & FIGURES:

Plot: Over half an acre House: 575m<sup>2</sup> Glatthaar basement: 150m<sup>2</sup> Basement cost: £350.000

#### Living spaces

The basement provides extra living space for the family to enjoy sociable time together and with extended family and friends. There's a large party room with a stocked bar, pool table and seating. This room has a long light well flooding it with natural sunlight. There's also a wine cellar with its own seating/relaxation area, a cinema room complete with additional refreshment area/room for the popcorn machine, his and hers WCs and a large plant room.

The interior walls of the basement have a variety of facades including brick slips in the wine cellar to add a touch of authenticity.

The basement is accessed via the central staircase of the house, giving a free-flow feeling between the floors and meaning that the basement is incorporated within the main house. The stairwell also allows for borrowed light into the basement.

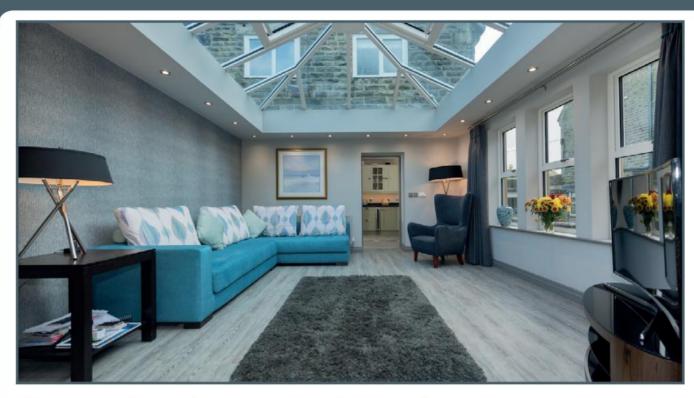
The basement has a high level of insulation, ensuring the same degree of warmth as the rest of the house. There's 300mm of insulation under the slab and all around the outside of the basement. Although it costs more to have insulation on the outside, living space is not lost to insulation in the walls. There is also underfloor heating and a heat recovery system throughout the house, including the basement.

#### The experience

"Having had no previous building experience, I've learnt several things along the way," continues David. "Probably the most significant lesson is that this plot isn't ideal for a basement. Glatthaar overcame the challenges with a quality product, but the amount of soil that we had to remove and the high water table meant that the groundworks were far from straightforward. If I had been building this property to sell, we wouldn't have had the basement, but as a family home, it gives us a fantastic social space and also means that the swimming pool doesn't infringe on living space either.

"The basement has definitely met my expectations, and Glatthaar is a good company with a quality product. Not only did they complete the build in a fixed time frame but also at a fixed cost. I would absolutely recommend Glatthaar."

www.glatthaar.com



# Four simple ways to makeover your conservatory without knocking it down

In the midst of Brexit, Britons are opting to stay put and improve rather than move, so it's important to understand that there are plenty of options for refurbishing homes.

rom roof replacements to upgrading windows, doors and tiles, there are plenty of ways to inject a new lease of life into a conservatory, without having to knock it down entirely to build a new one.

Managing Director, John Evans at home improvement company Stormclad, advises: "As well as being cost-effective, a conservatory makeover is a sensible choice if your conservatory is structurally sound and can be fixed and upgraded with simple refurbishment services."

Here are the four ways to makeover your conservatory:

#### 1. Window replacement

Simple window replacement will help to improve the overall look of an old conservatory, and modern materials, new colours and new stylings can be used to ensure that your conservatory matches with the home as an extension of it. Sculptured, chamfered and flush sash profiles are popular window choices for conservatory refurbishments, that can be easily designed and implemented.

#### 2. Replace with highperformance glass

Using high-performance glass, such as SMARTGLASS Ultra 86, is advisable if you wish to combine a low-maintenance, self-cleaning solar control glass with classic conservatory stylings that can be enjoyed all year round.

#### Door replacement

As a main feature of a conservatory, the look and function of a door is a focal point. Whether it's a classic door style with simple practicality, such as French doors, or an extremely popular and versatile option for letting light in, such as bi-fold doors, there are an array of options for door replacements to give conservatories a necessary upgrade.

#### Roof replacement

If the roof of a conservatory is tired and leaking, there are many roof replacement options to modernise and upgrade your conservatory. For example, Livinroof conservatory roof replacements bridge the gap between glazed and solid conservatory roofing with outstanding flexibility via aluminium or insulated composite external panelling. Whereas the WARMroof intelligently incorporates features of the main house, achieving the look of a traditional extension without any of the hassle. Or, the Stormclad WARMroof hybrid option is the ideal fusion of light and solid roofing, using double or triple glazed units and a plasterboard finish, the unique roofing system is thermally-efficient, with a modern, bright finish.

Usually, roof replacements and refurbishments don't need planning permission, but there are certain regulations that need to be adhered to.

www.stormclad.co.uk



## A room for all seasons

Davinder Sangha at Schiedel Chimney Systems suggests a wood-burning stove in conservatories would make the space more inviting during colder months and pinpoints issues to think about prior to installation.

here are clearly safety issues when it comes to installing a wood burner within the conservatory environment – primarily the flammability of UPVC. Still, there are solutions available to mitigate the risks. We'd recommend a twin wall flue system, such as ICS or ICID, which insulates the surrounding materials from heat dispelled by the fire. Although it's possible to cut a hole in the glass where the flue needs to exit, perhaps a more sensible option is to replace the glass panel above the stove made from an A1 fire-rated material such as aluminium, which meets BS EN 1350-1 standards.

Safety through the roof and support for the flue is another consideration. If

the conservatory roof is high and you've a significant run of flue, a wall band will help give lateral support.

The length and support of the flue outside the conservatory is also key. Positioning the wood burner close to the external wall of the house means the flue can be supported with a series of brackets. Building Regulations stipulate a chimney needs to stand well clear of any roofing material it passes through.

Finally, there's keeping the rain out. Flashing and a storm collar on the outside are the answer, but careful thought needs to be given to the materials used. Typical silicone adhesives tend to break-down after prolonged exposure to UV.

www.schiedel.com/uk

# Add value to your property with a conservatory

Probably one of the most profitable ways of improving and adding value and space to your home is to build a conservatory or garden room.

he addition of a conservatory enables you to make the most of the garden, whether it's raining or not. It also allows you to fully appreciate the summer months whilst indoors. They also look and feel incredibly comfortable and inviting, so it's easy to understand their popularity. Best of all; this is an extension that is quicker and cheaper, from order to completion in only a matter of weeks. The other benefit is also that most conservatories are exempt from planning permission and Building Regulations.

In recent years, there has been a change in conservatory buyer habits. Consumers want to use their conservatory all year round – through the hottest summer or the coldest winter, and want a room to fit in with their lifestyle needs. With developments in energy-efficient, solar reflective glass technology, double and triple glazing, improved profiles and beading to reduce

condensation and noise as well as improved wall insulation, a whole new generation of conservatory options are now available. There are six classic conservatory styles that are still the most popular choices for conservatory buyers:

**Victorian:** a popular style distinguished by a faceted front, giving a curved appearance. This is a particular favourite with period properties.

**Georgian:** a flat-fronted style that offers excellent use of floor space due to the square or rectangular internal shape. Its sloping roof and contemporary style is suited to the majority of property styles.

Gable: a gable-fronted conservatory adds a sense of grandeur to any home. Featuring the same rectangular floor space as a Georgian, a gable offers excellent use of internal space.



Lean-to: for properties with little room under the eaves or for those homeowners that prefer a clean, simple look, a lean-to conservatory is an ideal choice. The roof pitch can be varied, offering versatility and flexibility.

Lantern: the 'original' conservatory style, offering a feel of drama and grandeur. Distinguished by the two-tiered feature roof, the height within a lantern adds an extra dimension to the feeling of light and space.

Orangery: high, ornate glazed roofs and full-height walls create renaissance grandeur which, for centuries, has been seen as the ultimate conservatory structure for the home.

www.evolutionwindows.com



# Basement waterproofing 101: What you need to know before embarking on your project

Here, i-build questions Hudson Lambert, Managing Director at Safeguard Europe, about optimum waterproofing methods to tackle water ingress within basements.

# Q. What are the main problems you tend to face when waterproofing a basement?

A. Water ingress into basements has historically been a problem in the UK, largely because adequate attention has not been paid to waterproofing design, together with a desire to cut costs to allow funds to be used in other areas of the building.

In response to a high level of claims for water ingress into basements, NHBC conducted a study into the main areas of failure.

Summarising their findings in an article, NHBC wrote: "In our experience, the main causes of failed waterproofing are simple. Often, systems are poorly designed and/or poorly executed. At the heart of both these issues is a basic lack of appreciation that even the smallest defect can lead to problems that are both difficult to trace and expensive to repair".

# Q. How do water table levels affect the process?

A. In theory, the British Standard that covers basement waterproofing (BS 8102) allows for the use of less robust waterproofing systems in situations where there is a permanently low water table. However, the high cost of the hydrogeological surveys necessary to justify such a decision means that in practice, virtually all domestic basements are constructed on the assumption that the water table will reach the full height of the basement at some point during its design life. NHBC's guidance on basement waterproofing (Chapter 5.4) advises to "generally assume exposure to the full height of water during the design life of the building".

# Q. Is tanking or cavity drain membranes the most effective option?

A. This used to be a big debate in the industry. However, today, both systems tend to be used together. NHBC Chapter 5.4 calls for the use of "combined systems" to minimise risk, and most commonly this entails a combination of tanking and cavity drainage.

The approach is to use tanking to keep as much water out of the basement as possible and use a cavity drainage membrane system to redirect any water that manages to seep in towards a sump and pump.

There are those that would argue that combined systems are over-engineered and that either tanking or cavity drainage used alone would provide sufficient protection against water ingress. However, the reason that warranty providers require the use of a combined system is that levels of claims have historically been high where reliance has been made on a single waterproofing system due to inevitable errors in design or installation.



# Q. What is the typical step-by-step process for water proofing a basement?

A. There is a five-stage process to a successful basement waterproofing project:

#### Design a resilient basement structure

Ideally, reinforced concrete in a simple shape with minimal service penetrations.

#### 2. Choose a suitable waterproofing system

Choose a suitable outline waterproofing design suitable for the type of basement structure you wish to waterproof. Waterproofing product manufacturers can provide outline designs for different situations – e.g. piled walls, refurbishment of existing basement, 'dig out' basement under existing house, etc.

#### 3. Waterproofing design specialist

A Certificated Surveyor in Structural Waterproofing (CSSW)-qualified waterproofing design specialist should be employed to draw up a detailed design. You can either pay an independent basement design specialist to do this or work with a specialist basement waterproofing company that can provide a detailed design as part of their service.

#### 4. Specialist waterproofing contractor

Although it can be tempting to carry out the basement waterproofing yourself, there are good reasons for using the services of a specialist waterproofing contractor. For example, they will have a good understanding of correct sequencing of works, experience in liaising with following trades to prevent damage or piercing of the waterproofing system, and an understanding of how to correctly prepare surfaces prior to the application of tanking systems. Above all, qualified and insured contractors are able to take liability for design and installation.

#### 5. Handover and maintenance

Such a suitable contractor should be able to provide a handover package to the homeowner, providing evidence of the waterproofing system performance and a planned maintenance schedule. This might comprise photographic/video evidence of a 'flood test' of the system including the sump and pump as well as advice for following trades to avoid any damage before a final 'wash out' is carried out.



Detailed plans of the system should be provided showing the location of access points, pumps and alarm and control panels along with operator manuals and guarantee documents. There should be clear advice on the action to take in the event of an alarm activation.

It should be noted that an ongoing maintenance plan will likely be a fundamental condition of any insurance-backed guarantee, especially where a cavity drainage system forms part of the waterproofing design.

## Q. How much does waterproofing a basement tend to cost per square metre?

A. Basement waterproofing costs vary widely, depending on the level of waterproofing required and the complexity of the basement to be waterproofed.

The outline designs provided by waterproofing product manufacturers can provide a good basis for an estimate of product costs, but for a more accurate quote, ask the manufacturer to put you in touch with a specialist waterproofing contractor that installs their systems. In most cases, they will be able to provide a 'ballpark' estimate on the understanding that an accurate quote can only be provided once the plans have been seen and the project discussed in detail.

## Q. What waterproofing solutions should people look out for when carrying out this process?

A. Increasingly, environmental concerns are guiding people's choices when designing and waterproofing basements. For example, a study carried out for the Royal Borough of Kensington and Chelsea found that embodied carbon in materials used for basement extensions was considerably higher than for above-ground extensions – largely due to the large quantity of concrete required. The study suggested that a 20% reduction in carbon could be achieved by using recycled coarse aggregate in the concrete.

In terms of waterproofing systems themselves, the scope for reducing carbon is much lower. However, considerable reductions in plastic use can be achieved by using cavity drainage membranes containing at least 50% recycled plastic.

www.safeguardeurope.com



## DRU announces new streamlined Dik Geurts twosided wood fire

Dik Geurts is the brand name for the wood fires and stoves that are designed and manufactured by DRU. The latest Dik Geurts model is a new, streamlined version of its popular Instyle two-sided wood fire.

The Instyle Corner Slim 660/495 has a continuous glass window, giving the best possible view of the flames. It is 660mm wide with a slimline depth of only 495mm, allowing for greater flexibility of installation.

The standard model has an A energy label, with a 75% energy efficiency rating, which can be further improved by the option of external air connection. This means no air is drawn from within the room and no additional ventilation points are required, the ideal solution for modern, well-insulated homes.

Finally, like most of the Dik Geurts range, the Instyle Corner Slim 660/495 is Ecodesign-ready, complying with all European emissions and efficiency regulations.

It is available from approved DRU fireplace retailers throughout the UK. For further information, please visit the below website.

www.drufire.com 0161 793 8700

### Fantom magnetic door stop introduced to PC Henderson range



P C Henderson has partnered up with Fantom to introduce a magnetic door stop accessory to its range of products. The Fantom magnetic door stop is an innovative door stop solution which uses a neodymium magnet installed into the base of the door to pull a floor pin up and stop a door in the open or closed position. The accessory has been expertly designed to offer a more discreet and concealed alternative to a traditional doorstop and is set to be extremely popular across the DIY, building and construction markets. Andrew Royle, Sales and Marketing Director at P C Henderson, commented: "What's great about Fantom is that, unlike conventional door stops, it offers a completely concealed finish meaning no trip hazard and a cleaner finish. The striker plate is fitted underneath the door, and the stop sits completely flush to the floor — meaning there's no unsightly hardware on display and all moving parts are hidden."

www.pchenderson.com 0191 377 0701 sales@pchenderson.com

# Discover your dream door

When renovating the interior of the home, all too often our immediate thoughts turn to changing wall colours or putting down new floor coverings, but replacing the internal doors can also make a drastic improvement to the home. Whether classic or modern, white lacquer or beech, with glazing or without, choosing an internal door is no longer a one-size-fits-all approach. To help you discover the door of your dreams, Hörmann has extended its internal door offering with a new collection — DesignLine Concepto. The new range features four high-quality surface



finishes, including Gloss, Duradecor Ultra Matt, Duradecor Slate and Duradecor Linen. Duradecor is a high-quality laminate, available in a range of colours and textures. All Concepto finishes are available in four colour options; white, light grey, anthracite and, new for 2019, taupe. The Duradecor Ultra Matt option can be used as a chalkboard when chosen in the anthracite colour offering – making it an ideal addition to a kitchen or child's bedroom.

www.hormann.co.uk 01530 516888 hormann@hroc.co.uk

# George Barnsdale celebrates becoming finalist at BWF



George Barnsdale is celebrating being shortlisted for two categories at the prestigious BWF (British Woodworking Federation) annual awards. There are six categories in all and George Barnsdale is a finalist in the BWF 'Woodworking Project of the Year' award and the 'Health and Safety Hero' award. Commenting on being chosen as a finalist in the Project of the Year award for the design, manufacture and installation of more than 200 customised wooden windows and doors for the prestigious Twenty Grosvenor Square, Tom Wright, Managing Director, said: "We are delighted that our growing expertise in large commercial projects like this has been officially recognised. Whether we win or not, it is great to be one of just three finalists." The company's entry to the Health and Safety award demonstrates the highly successful programme of training and policies to keep installation staff safe on site as well as staff working in the factory.

www.georgebarnsdale.co.uk enquiries@georgebarnsdale.co.uk 01775 823000

### VELUX and Guardian Warm Roof join forces

VELUX Company and Guardian Warm Roof are joining forces to help create the perfect indoor environment. The



partnership means that Guardian Warm Roof will exclusively fit VELUX roof windows in its range of roof and extension projects across the UK and Ireland. Both brands share a passion for creating better living environments for homeowners and have a reputation for quality and innovation. VELUX products include roof windows and decorative blinds, sun screening products and roller shutters, as well as installation and smart home solutions. VELUX Managing Director, Mick Schou Rasmussen, said: "Our partnership with Guardian Warm Roof demonstrates our ambition in the home extensions market and today's announcement marks a critical step as we look to strengthen and grow our roof window business. It's an exciting opportunity to work collaboratively with our combined communities of installers and fabricators, share knowledge and collectively learn in the fast-paced home improvement market and create even better living spaces together."

www.velux.co.uk sales@velux.co.uk 01592 778225



# Cladding and Decking from Round Wood of Mayfield

Whilst Round Wood of Mayfield offers a wide variety of products in oak – including buildings, flooring, joinery and skirting – it is far from its only option when it comes to decking and cladding.

Round Wood has years of industry expertise in a wide variety of hardwoods and so, is perfectly placed to help you source the best materials for your project.

Decking timbers include Ipe, Balau and Cumaru, which feature beautiful grain patterning and durability. Many are supplied with matching components, should you require balustrades.

The available softwoods supplied are; cedar, siberian larch and radiate pine, due to their high-end qualities.

Round Wood of Mayfield also prides itself on its ever-growing selection of cladding. The company's collection now includes boards cut from oak, softwood and cedar, to accompany its decking options.

Round Wood's newest addition to its cladding choices is boarding from its Thermory collection, in either pine or ash. All are thermotreated for added durability and attractive, contemporary tones. The Thermory collection also includes decking boards. As with the decking, a number of innovative fastening systems are available.

Round Wood of Mayfield prides itself on its ability to machine bespoke cladding in a range of materials to best suit your specification. With Round Wood, you can be sure that only the highest quality decking and cladding will leave its yard ensuring you receive the decking you paid for.

For more information about Round Wood of Mayfield's decking and cladding choices, please contact the company via phone, email or online.

www.roundwood.com sales@roundwood.com 01435 860 888

#### Circoflopro kits prove best for barn complex contract

A regular customer of Circoflo has made use of its bespoke design service and custom-sized underfloor heating solution



to carry out a challenging contract, involving the installation of an air source heat pump, during the conversion of a traditional barn structure in an off-gas area of the Bedfordshire countryside. Air Install Ltd offered a high-performance renewable energy solution as an economical alternative to the oil-fired boiler package originally under consideration. Air Install's engineers have now completed the installation of the ClipRail and FloFloor underfloor heating, supplied as a bespoke bill of materials complete with manifolds and controls, throughout the ground and upper floors and using layout drawings supplied by Circoflo.

www.circoflopro.co.uk info@circoflo.co.uk 01392 360457



#### Redefine your roof with Eternit Slates

Are you looking for stylish roof slates that are built to last? Eternit's fibre cement slates help to create a unique exterior for your home, without compromising on performance. The Rivendale range is ideal for use on self-build projects where a natural look is sought, as it combines modern technology with a traditional-looking slate. It features a finely detailed surface and dressed edges and is available in striking Blue-Black and Cromleigh Graphite. The lightweight and easy installation of Rivendale makes it perfect for all refurbishment projects.

www.eternit.co.uk 01283 501555

#### Kitchen worktops enhanced with Osmo UK

A Brighton couple was looking for a product that would refresh their heavily worn, wooden worktops in the kitchen. With a brand-new worktop out of the question, they chose Osmo UK to provide a high-quality, durable finish that would give the surface a new lease of life. A recommendation from their carpenter led to the couple choosing TopOil from Osmo UK, a microporous natural hardwax-oil finish known for its durability and hardwearing nature.



TopOil is almost odourless, contains no biocides or preservatives and will not crack, flake, peel or blister. The finish achieved with Osmo TopOil ensures the worktop is impervious to a wide range of liquids.

www.osmouk.com 01296 481220

#### Achieve thermallyefficient windows and retain character

As a specialist in working with listed and period properties,



Storm Windows can help you gain the benefits of modern glazing whilst preserving the character of your property. The company's handcrafted bespoke secondary glazing is made to measure, virtually invisible, prevents draughts and provides noise insulation. Its unique system allows you to make your draughty windows thermally-efficient without contravening listed Building Regulations. Spread the cost of the installation interest free over 12 months and enjoy a warmer, more thermally-efficient home this winter. Contact Storm today for a free no obligation survey.

www.stormwindows.co.uk 01384 636365

#### Lumi-Plugin – the revolutionary fire safety downlight

Lumi-Plugin is a low-energy, dimmable, LED downlight which is a ring of light in a recessed metal chassis. It has a hole in the middle to receive other components such as concealed fire sprinkler head, the world's smallest mains-



powered, battery back-up, radio interlinked smoke alarm, the world's smallest mains powered, battery back-up, radio interlinked heat alarm, 10-year battery powered CO alarm and PIR sensor. All of the above lights can have a three-hour emergency light battery connected to it. This unique product is designed to not only save lives but simplify and streamline your interior design.

www.lumi-plugin.com info@lumi-plugin.com 0330 380 1329

#### OMNIE solutions selected for sustainable and stylish Cornish development

A building services contractor has put together a package of renewable and underfloor heating products, from the OMNIE range, to meet the energy and comfort ambitions for a housing development on the Cornish coast. The properties are being constructed by builder,



Karn Havos Developments, while Sadler and Bourne from Liskard is the long-term supplier of OMNIE's products. While the company has experience of installing OMNIE's ground source heat pumps on other sites in Devon and beyond, conditions at Bedruthan led the firm to propose the use of the compact, high-performance LWD50 air source heat pumps along with 50mm Foilboard Floating panels over concrete sub-floors, connected via the manufacturer's Precision-Flo manifolds. projects@omnie.co.uk www.omnie.co.uk 01392 363605

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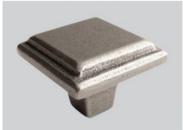
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