



The FMB's Brian Berry explores the new NPPF, arguing that smaller sites should be a higher priority



Patrick Mooney considers how the industry can 'de-stigmatise' social housing



Construction output growth rises to a seven month high in June, with residential performing best

07.18

# HOUSEBUILDER & DEVELOPER



## EAST LONDON GETS THE ROYAL TREATMENT

Plans for a major regeneration of the Royal Docks in East London have been given the green light

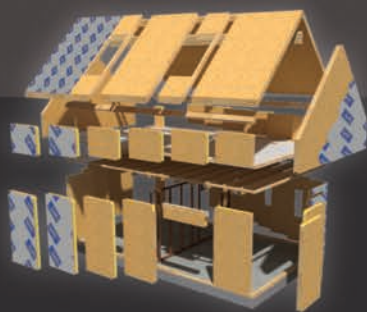




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James Parker

# FROM THE EDITOR

Things are moving so fast at Government level with the shambles that Brexit is becoming, that there's little guarantee we will have the same set of leaders by the time you read this. And, as the time for negotiating the so-called deal before the EU's October treaty deadline shrinks, we might not even be heading for Brexit as some thought they knew it.

However what we do know is that David Davis, having been apparently sidelined in Theresa May's compromise deal which enraged hardline Brexiteers, was forced to resign. While his exit has created a major headache for her given the tight deadlines ahead, the fact that the housing sector has taken the hit by losing yet another Minister prematurely, is not good news.

Dominic Raab has been shoved into the Brexit frontline, only a few short months after being appointed to deliver the mythical 300,000 homes a year the Government wants. While May isn't exactly spoilt for choice with remaining (as it were) talent for handling the poisoned chalice of leading on Brexit, his quick shuffle over to fill Davis' shoes also suggests in part that the housing brief is not seen by the PM as needing the meticulous focus which it surely must have, if we are to have any chance of hitting the numbers.

It is however probably more about the fact that there is only one game in town currently. Brexit is sucking up nearly all of the administration's energy, and yet Departments must somehow carry on with their agendas while it is sorted out.

After only being elected as an MP in 2015, Kit Malthouse now finds himself the 18th Housing Minister appointed in 20 years, and the property sector is understandably dubious as to whether he will be sticking around to deliver the consistency and clarity on long-term policy they desperately want. The Government has as ever focused on acting quickly to announce a replacement, but is he the right man to offer reassuring utterances to the industry – such as on any fallout from Oliver Letwin's planning review, and the drive to release smaller sites for development in the new NPPF. The suspicion is that everything is a sideshow until Brexit is resolved either way.

The biggest surprise among the recent turmoil was the resignation of the ever-wayward Boris Johnson, possibly to plot a leadership challenge. While we should be releasing sites for development, everyone is wondering will he, and when, and what will the results be?

We were beginning to get used to seeing a genuine central steer on housing – from figures such as Sajid Javid, in the wake of a strong White Paper, but it looks like the sector may not be able to wait for Government to sort out its problems. The likely success of that is anyone's guess, in an even more uncertain future if the Brexit deal starts to unravel. However given the recent maelstrom, you wonder if industry may actually be better left to resolve things on its own in the long term!

*James Parker*

## ON THE COVER



07.18

### HOUSEBUILDER & DEVELOPER



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Royal Docks, London  
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## HOUSEBUILDER & DEVELOPER

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# Government announces measures to remediate “unsafe” cladding



Measures to speed up action on the removal of unsafe cladding on private high-rise residential properties have been announced by the Secretary of State for Communities and Local Government, James Brokenshire.

Government monthly data has indicated that 297 private sector residential high-rises currently have unsafe cladding, with a “small additional number” expected to be confirmed.

So far, remediation work has begun on 21 of these buildings, of which four have been completed.

Intending to speed up work on this, the Government has announced a new taskforce to oversee a national programme of remediation in the private sector, to be chaired by Ministers. Members will include the Local Government Association, National Fire Chiefs Council, London Councils, local authorities and industry representatives.

News of an inspection team backed by Government funding, to consist of experts from environmental health, building control and fire inspection to support individual councils, followed the release.

Letters are also to be sent to all relevant private sector building owners to remind them of their responsibility to make their buildings safe.

The Secretary of State commented: “The safety of residents is my main priority

and fire and rescue services are working with building owners to ensure residents are safe now. But I want to see swifter progress in removing unsafe cladding which is why I have announced further action to support councils as they work with owners of high-rise blocks.”

Brokenshire added: “I have been clear that leaseholders should be protected from unfair costs and we expect the industry to do the right thing. If they don’t, I will continue to explore other routes and I am not ruling anything out.”

## PMI shows June construction output growth hitting seven-month high

The IHS Markit/CIPS UK Construction Purchasing Managers’ Index (PMI) rose to 53.1 in June, up from 52.5 in May, the sharpest overall rise in construction output

since November 2017.

The June PMI revealed that new orders in the construction sector rose at the fastest pace since May 2017, with residential remaining the best performing area.

Commercial building also performed well to boost construction output, expanding at the fastest pace since February 2017. Civil engineering activity only rose slightly in June, with the rate of growth easing to a three-month low.

The PMI reported positive signs for growth in the near-term, signalled by the strong rise in new orders and the largest upturn in input buying for two and a half years.

Duncan Brock, group director at CIPS, commented on the news: “With the fastest rise in new orders since May 2017, it appears the brakes are off for the construction sector.

“Despite being hampered by economic uncertainty, firms reported an improved pipeline of work as clients committed to projects and hesitancy was swept away.

“Input prices were a challenge with the biggest inflationary rise since September 2017, so the pressure was on to build up stocks of materials rising in price and becoming more scarce. This resulted in a heavy impact on suppliers unable to keep pace as deliveries became laboured and purchasing managers were at their busiest for two and a half years.”

## Kit Malthouse appointed to Housing after shock Cabinet resignations

Kit Malthouse has been appointed as Housing Minister, replacing Dominic Raab who was announced as Brexit Secretary following the resignation of David Davis.

Malthouse, the MP for North West Hampshire, was first elected in 2015, and has recently served as Parliamentary Under-Secretary of State at the Department for Work and Pensions.

Commentators have expressed concern regarding stability in the housing sector, with Malthouse being the eighth Housing Minister since 2010.

Davis resigned from his post in the wake of Theresa May’s ‘softer’ Brexit plan, followed shortly afterwards by Boris Johnson who left his role as Foreign Secretary.



# NFB calls for a Brexit that “works for SMEs”



After the Government published a technical note on the temporary customs arrangements, which will determine the UK's negotiating position at the European Council Summit on 28 June, the NFB has called for the reassurance of construction SMEs.

The NFB has argued that the ‘continuous disagreement’ over the future direction of Brexit among backbench MPs and Cabinet Ministers in Government has created a degree of uncertainty, which it believes is harmful for businesses across the UK construction industry.

Figures from the Construction Trade Survey for Q1 of 2018 shows that output has decreased from £39.3bn Q1 of 2017 to £38.2bn in Q1 of 2018, and that 87 per cent of contractors reported increasing material costs throughout the first three months of 2018. This has reportedly been made worse by the depreciating pound, which has contributed to rising material costs for contractors.

Richard Beresford, chief executive of the NFB, said: “Currently 77 per cent of products consumed in UK construction are already made in the UK, with some of our most exported products also being the most imported. Therefore, it is crucial that we invest in the capacity of those industries.

“MPs and Cabinet Ministers need to stop fighting the EU referendum and come together to work out a cross-party approach to Brexit. SMEs and regional contractors across the construction industry

need consistency and certainty if they are to grow and succeed after we leave the EU.”

## Pocklington appointed to central housing role at Ministry

Jeremy Pocklington has been appointed as the new Director General for Housing at the Ministry of Housing, Communities and Local Government, overseeing the implementation of housing policy.

Pocklington is currently the Director General for Energy and Security in the Department for Business, Energy and Industrial Strategy.

He will take over the new position in September, replacing Helen MacNamara, who has been appointed to the role of Director General of Propriety and Ethics in the Cabinet Office.

Pocklington commented on his appointment: “I am delighted to take up this exciting challenge as the Government builds the homes our country needs, ensuring safe and decent homes in a market that's fit for the future.”

## French family is first to live in a 3D printed home

In what is a world first, a French family have moved into a 3D-printed home, in the city of Nantes.

Taking just 54 hours to print, as well as four more months for contractors to complete the fenestration, roofing, and installation of the doors, the four bedroom property cost around £176,000 to build. This reportedly saved 20 per cent of costs as opposed to identical construction utilising more traditional methods.

With a footprint of 95 m<sup>2</sup>, the home was built for a family of five, with four bedrooms and a large central space. The construction method has allowed for a curved form to fit the features of the site, with the curved walls also being claimed to

reduce the effects of humidity on the building, as well as improving circulation and thermal resistance.

Located in a deprived neighbourhood in the north of Nantes, the project was a collaboration between the city council, housing association and the University of Nantes.

The house was designed in a studio, and then programmed into a 3D printer, which carried out the construction. Once brought to site, the large machine ‘prints’ walls in layers from the floor up, with each wall consisting of two layers of insulating polyurethane, with a space inbetween to later be filled with cement.

## Khan announces measures to tackle skills crisis

A new Construction Academy has been launched by the Mayor of London, Sadiq Khan, along with the publication of his ‘Skills and Adult Education Strategy - Skills for Londoners’ paper.

The new paper hopes to “ensure all Londoners have the skills, education and training they need to succeed”.

Developed with the support of construction employers, industry experts and skills providers, the new Academy is partly funded through the London Economic Action Partnership's Growth Deal with central Government, which included £8m allocated to the programme. With no single centre, the Academy is a network of construction skills providers across London.

A Mayor's Construction Academy ‘quality mark’ has been created to identify high-quality construction skills training provision. Later this year, quality-marked providers will also be able to apply for investment from the Londoners Capital Fund to develop their training facilities.

Khan has also announced a £1.4m extension to the London Enterprise Adviser Network, which matches volunteer business advisers with school leaders to help them offer better careers advice and work more closely with businesses. City Hall claims this will triple the size of the existing network, meaning up to 700 volunteers will work with at least 470 schools and further education colleges across London.





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# Survey reveals attitudes to new house construction



The public's attitude towards housebuilding has been revealed by the Ministry of Housing, Communities and Local Government, using findings from the 2017 British Social Attitudes survey.

More than half of respondents "supported local housing", and those that didn't "believed that improved infrastructure would make them more supportive".

According to the survey, in 2017 55 per cent of people were supportive of new homes being built in their local area. This is consistent with results from 2014 when 56 per cent of respondents were in favour, and shows an increase in support over a longer time period, as compared with 47 per cent in 2013 and 28 per cent in 2010.

21 per cent of people were found to be opposed to new homes built in their local area. The strength of opposition to new homes has however decreased since 2010. In 2017, the proportion of respondents stating they would strongly oppose new homes being built in their local area was 5 per cent, compared to 15 per cent in 2010.

Those who did not support new homes were asked what would make them "more supportive". Among the most frequent selections were 'More employment opportunities', 'More medical facilities built or existing ones improved', 'Transport links improved', 'More schools built or improved', 'More affordable homes to rent (from LA or HA)', 'More green spaces/parks created or existing ones improved', and 'More homes for low cost home ownership/shared ownership'.

Respondents were asked whether the provision of a cash payment for households who lived close to a proposed development would influence their support. Results showed that 65 per cent said it would make no difference, 23 per cent said it would make them 'more' or 'much more' supportive, and 9 per cent stated that the payment would make them 'more' or 'much more' opposed.

The survey also asked who should be

responsible for deciding where the new homes are built. 50 per cent of respondents said local councils should be responsible, and 41 per cent said local communities should decide where the new homes are built.

The British Social Attitudes survey measures the extent to which the attitudes, values and beliefs of the British public change over time. The survey has been run annually by the National Centre for Social Research since 1983 (apart from in 1988 and 1992 when its core funding was used to fund the British Election Study series).

## Two TfL sites earmarked for community-led housing

Community-led housing projects are to be delivered on two Transport for London sites by the London Community Land Trust, as part of a City Hall initiative.

The Trust, formed as a result of campaigning by community organising group Citizens UK, was confirmed as the successful bidder for building on sites at Cable Street (Tower Hamlets) and Christchurch Road (Lambeth). They hope to deliver around 70 'genuinely affordable' new homes.

Homes will be priced according to average local incomes and based on the principle that residents shouldn't have to pay more than one-third of their income on their mortgage – meaning that they will typically be sold at between a third and a half of market value.

The sites were brought forward through the Mayor of London, Sadiq Khan's 'Small

Sites, Small Builders' initiative, which will now be extended with £3.8m of funding next year, with further funding expected over the next four years as more successful bidders are announced. TfL will continue to bring forward and advertise small sites on a rolling basis, with Boroughs and other public landholders encouraged to take part.

Ten small TfL sites located across seven different boroughs were launched in February as part of the pilot, many of which are 'left over' land. The number of homes proposed at each site ranges from two to 90.

The pilot received 134 bids from 80 organisations, from developers and community-led organisations to registered providers and architect-developers. Khan commented: "Making small plots of public land available for housing development is a key part of addressing London's housing shortage, and the fantastic response to the pilot of my 'Small Sites, Small Builders' programme has shown that these small sites can be an important way to get new genuinely affordable homes built."

## Three quarters of construction SMEs optimistic

Construction SMEs have a forward-thinking approach to business and are willing to adapt to new working practices, according to a survey from Constructiononline.

The survey, undertaken by members of the construction supply chain and procurement experts, shows that SMEs are very aware of the changes currently impacting the construction sector, but remain positive, with 74 per cent of respondents optimistic about the success of their business in the next two years.

Of those that did not expect their business to progress in the next two years, 60 per cent said the ongoing squeeze on price margin was the biggest threat, while 53 per cent cited concerns about labour issues, a lack of skilled people, and the impact of Brexit.

John Edmunds, Constructionline's managing director, commented: "The survey shows an awareness of changes that are coming to the sector and the vast majority of SMEs understand the need to engage with new technologies, which is promising."

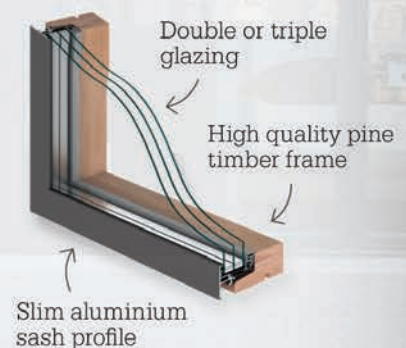
"In particular we noticed the need to embrace Building Information Modelling (BIM) – as a way to adapt to digital working to utilise off-site manufacture."





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# First modular home starts at research project in Gateshead



Work has started on the first modular home for a “housing research” project in Tyne and Wear.

Gateshead Innovation Village, a live research project led by Home Group, will see a range of house designs take shape on the site. Working with an external research partner, the scheme will allow Home Group and its partners to “robustly compare and contrast modern methods of construction”.

The project aims to highlight potential and viable solutions to the housing crisis in a bid to grow confidence in off-site builds within the sector.

ilke Homes has started work on the first modular volumetric unit that will be delivered to the site. Bjorn Conway, CEO at ilke Homes said he was “proud to partner with Home Group to create sustainable communities, bringing additional housing capacity to help solve the housing crisis.”

Joy Whinnerah, head of delivery, Home Group also commented: “We’re all incredibly excited about this project as it will see a

wide range of homes and construction methods being tried and tested together on the one site.

“Not only that, but we are really keen to understand what our customers like and don’t like about living in these types of homes. So we will be monitoring a range of aspects to check how these homes perform for the customers who live in them.”

## 1,300 new homes for Cambridge



1,300 new homes are to be built at Wing in Cambridge, with a £22.4m funding deal accelerating the build by 18 months.

Hill Marshall LLP, a joint venture between two Cambridge businesses, Marshall Group Properties and Hill, have secured the funding deal with Homes England.

The new development will be delivered on 160 acres of brownfield land owned by the Marshall Group. The 10-year loan, worth £22.4m, will be drawn from Homes England’s Home Building Fund.

The money will be used to enable infrastructure works for the entire development, including the delivery of Main Spine Road, a strategic drainage network, pumping station and strategic landscaping. New transport infrastructure will also be delivered as part of Wing, and the nearby Newmarket Road will be upgraded to create access to the development.

The first phase of the development will be delivered by Hill and, once complete, will comprise 350 private homes and 150

affordable homes, including shared ownership and affordable rent tenures.

Homes on the first phase of Wing are designed by Pollard Thomas Edwards architects, and will offer a range of properties, including 1,2 and 3 bedroom apartments, and 2,3,4 and 5 bedroom houses. The development will also be homes to a wide range of facilities to support the new community, including a new primary school, sports pitches, allotments and retail and commercial space.

## Willmott Dixon and EcoWorld target London together



EcoWorld London has been launched by EcoWorld International and Willmott Dixon, with a view to delivering over 10,000 new homes across London and the South East.

The launch follows the recent completion of a joint venture, whereby Malaysian developer EcoWorld International acquired a 70 per cent stake in Be Living, the residential development arm of Willmott Dixon.

Initially, EcoWorld London will develop 12 sites in Greater London and the South East of England, with an estimated gross development value of over £2.6bn.

Sir Edward Lister, the Chairman of EcoWorld London, commented: “The capital is facing a chronic housing shortage. The launch of EcoWorld London will play a significant part in alleviating this, ensuring the delivery of much needed new homes that are accessible to those on middle incomes.

“For many, London remains the de-facto capital of the globe, and it is imperative that together we provide enough housing to sustain its future.”





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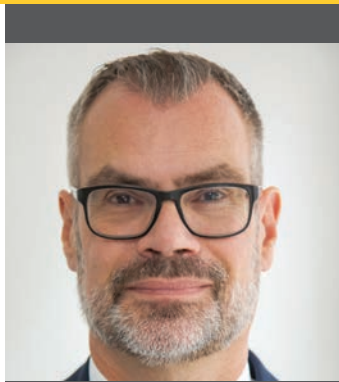
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Brian Berry, chief executive of the Federation of Master Builders

## THE INDUSTRY ADVOCATE

# PRIORITISE SMALLER SITES

Brian Berry, chief executive at the Federation of Master Builders (FMB), explores the upcoming planning reforms, and argues for a much higher focus on small sites.

**T**he planning reforms that are due to be published “before the summer” as part of the new National Planning Policy Framework (NPPF) are fundamental to delivering the homes we need. It’s also central to ensuring that we get, as the politicians like to say, the right homes, of the right quality, built in the right places.

As part of the reforms, changes to the NPPF are expected to ensure that a suitable proportion of sites on which planned-for housing is delivered are small sites of less than half a hectare. Currently, local plans and five-year land supplies tend to be overwhelmingly focused on larger strategic sites. As many housebuilders will be aware, the effect of this is that it tends to leave small and medium-sized (SME) firms largely reliant on bringing forward non-allocated sites, so-called windfall sites. This means SMEs have to deal with, at best, much greater uncertainty as to whether they are likely to get planning permission, and at worst the possibility these windfall applications will be seen as unwelcome additions to larger sites ear-marked in local plans.

Anecdotally, FMB members regularly say that they know of a number of small sites, which would be well-suited for the delivery of new homes, but local authorities appear uninterested, instead preferring to focus on delivering numbers almost entirely through a small number of large strategic sites.

We believe that this current situation is a major problem because it skews the development market by limiting the number of opportunities for SME housebuilders. There is no doubt that lack of small site opportunities is one of the most important, if not the most important, structural barrier to growth facing SME housebuilders. In recent years, the FMB’s House Builders Survey, an annual survey of SME housebuilders, has consistently shown lack of available and viable land as the most commonly-cited barrier to their ability to build more homes. Indeed, in the most recent survey 62 per cent of firms cited this as a major barrier. The impact is not just that it reduces competition, diversity and resilience in the housing

supply industry, but also that it slows down overall delivery of new homes. It concentrates delivery on larger sites which tend to get built out less quickly.

The draft NPPF states that “20 per cent of sites allocated in local plans [are] to be sites of less than 0.5 hectares”. We believe that in order to have a truly significant impact in terms of increasing opportunities for small and medium-sized development, a small sites requirement must be defined in terms of overall housing provision rather than a percentage of allocated sites. Basing the requirement on housing delivery is how the proposal was set out in the 2017 Autumn Budget.

As well as this, the FMB believes that earmarking a small site as 0.5 hectares is too restrictive for local authorities and the SME housebuilding sector. The FMB maintains that the measurement should be changed to sites of 30 dwellings or fewer.

The benefits of looking to deliver a greater proportion of their housing targets through small sites for local authorities are plentiful. Generally speaking, having a larger number of small sites coming forward will speed up delivery. It should also, on average, provide a more consistent and reliable pace of delivery than relying on a handful of large sites. In the same way, it should also mean that local authorities’ five-year land supplies are at less risk and should decrease the likelihood of them failing the Housing Delivery Test. In addition, smaller scale developments are more likely to bring forward higher quality, and a wider, more innovative range of new housing. As part of this is more permissions for custom and self-build homes, which local authorities have obligations to deliver under the Self Build and Custom Housebuilding Act.

There can be little doubt that if we are to begin to build the number of new homes we need, then we desperately need to see a reinvigorated SME housebuilding sector and the use of more small sites for the delivery of new housing. We hope the new NPPF acknowledges this.

THE DRAFT NPPF STATES THAT 20 PER CENT OF SITES ALLOCATED IN LOCAL PLANS ARE TO BE SITES OF LESS THAN 0.5 HECTARES





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Patrick Mooney, managing director at Mooney Thompson Consulting

## THE SOCIAL NETWORK

# CAN WE DE-STIGMATISE SOCIAL HOUSING?

It was probably one of the more surprising nuggets of feedback from survivors of the Grenfell Tower fire, but they strongly felt there was a stigma attached to living in social housing and this lay at the heart of many contributory factors to the disaster.

**T**hey felt they were not listened to when they voiced concerns about the quality of work, that they were left feeling they should be grateful 'instead of complaining' and that they should be content with receiving services in a benign manner rather than trying to influence their landlord, service provider or other decision-makers. In effect they were expected to keep quiet and accept what they were given, even when this wasn't very nice.

This has clearly struck a chord with many working in the sector and has even caused our politicians to pause and reflect on the basis of this feeling and how to put it right. The future Green Paper on social housing should go a long way to revealing how the Government thinks the problem can be addressed.

### RETHINKING

But in recent weeks we have seen more evidence of the causes and of possible solutions. It was a hot topic at the recently held Chartered Institute of Housing annual conference in Manchester, with many speakers and delegates raising the subject.

The institute itself launched a very timely report called 'Rethinking social housing' to spark a national debate about the role and purpose of social housing. The project took on greater significance when it was revealed the public inquiry into the Grenfell Tower

fire would not consider wider issues regarding social housing.

It revealed polling results showing that:

- More than six out of 10 people across England support more social housing being built in their area;
- 80 per cent of people agree that social housing is important because it helps people on lower incomes get housing which wouldn't be affordable in the private rented sector;
- 78 per cent agree that social housing should be available to people who cannot afford the cost of renting privately, as well as to the most vulnerable;
- 68 per cent agree that social housing plays an important role in tackling poverty in Britain; and
- 65 per cent of people agree that the negative view of the people that live in social housing is unfair.

It concludes that the time has come to reclaim social housing as a central pillar of society alongside education and the NHS.

But have social landlords – councils and housing associations – contributed to the problems? The residents of Grenfell Tower certainly appeared to think so, with many of them being critical of both the council and their managing agents at the tenant management organisation. Accounts given to the public inquiry by survivors, their relatives and friends left us in no doubt that they

THE FUTURE GREEN PAPER ON SOCIAL HOUSING SHOULD GO A LONG WAY TO REVEALING HOW THE GOVERNMENT THINKS THE PROBLEM CAN BE ADDRESSED





felt like the least important people in their community.

#### BETTER CARE

As the owners of a significant number of residential properties (at least 17 per cent of the nation's stock) social landlords often let and manage the majority of housing in many neighbourhoods. The housing is usually of a similar appearance

and often looks in need of further investment, or just sprucing up. This can be difficult to justify in a time of austerity with limited resources, when the politicians are demanding more new housing, but no-one wants to live on a sink estate, or one suffering from multiple deprivation.

Ruth Cooke, the new chief executive of Clarion Housing Group, appeared to speak for many when she said that while

the sector has got to challenge myths about tenants, it also needs to look in the mirror and consider whether it contributes to the problem.

"A lot of stigmatisation is about the place where tenants live," she said. "If our core landlord service is not good enough and contributes to a place looking unattractive then I think we feed some of that narrative. So every time we visit our estates and we see rotten window frames, we see meter doors hanging off, we see rubbish, we see an estate that looks uncared for, we are feeding that perception. And I think we have to tackle that."

After a while we can get used to our surroundings and we may not be good at picking up on what might be a gradual decline. But by engaging with local residents and dealing with the small irritations, the small disrepair items and the little things that make a difference to the area around residents' homes, there is a good chance we will make an important difference to people's lives and their perception of us and of themselves. The challenge is out there for all social landlords to grab hold of this issue and work with tenants to find local solutions to local problems, rather than waiting for a top-down solution to be imposed from on high. After all, who knows best?



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# A CALL FOR CONSISTENCY

James Thomson, CEO of Keepmoat Homes, discusses the urgent need for consistency of policy to support the UK housing market.

A unified approach to housing policy is essential if we are to continue to see an increase in housebuilding in line with the Government's targets. For a partnership housebuilder, like Keepmoat Homes, working with local authorities, housing associations and other public sector landowners, it is encouraging to see that there is now a much greater consistency of approach to growing housing supply, regardless of political persuasion.

Keepmoat Homes is a partnership homebuilder and we don't purchase land on a speculative basis, but it is important that we have confidence and clarity on policy over a three to five year period to allow us to plan and make investment decisions. At a local level we find a commercial, innovative and supportive approach from a wide range of local authorities. For example, Doncaster Metropolitan Borough Council undertook a fundamental review of its Planning Service to look at the way it dealt with planning applications, with the aim of granting good development quickly without unnecessary cost or delay. It is this kind of thinking and approach, driven by strong leadership committed to new quality housing that is needed to ensure the planning process meets the needs of the housing industry.

Most large scale projects are delivered in phases over a period of several years so for this reason we welcome a high level of cross-party consensus on key issues currently facing the industry. But, we still need even greater certainty. Of course we expect any opposition to challenge and innovate - and we expect Government to respond to market changes. But it would be helpful to have certainty looking five years ahead, or longer, on areas including support for first time buyers, such as Help to Buy or shared ownership, mixed tenure developments and the introduction of incentives to use modern methods of construction (MMC).

With regard to Help to Buy, it is extremely positive that both of the major political parties are looking at extending the scheme beyond 2021, but we would support reforms that are put in place to ensure help is received by those who need it most. Introducing measures such as income testing should be expected as should reducing the current 20 per cent Government lending to 15 per cent or less

over time. This could potentially help more buyers with the same pot and shouldn't have a major impact on the scheme if it is introduced in the right way, given the significant availability of mortgage products in the market currently.

There is also now a growing national consensus on some approaches needed to get more homes built with greater speed, most particularly on the need for infrastructure, including utilities, skills and on the use of MMC. The Government is right to endorse modular construction as a means of delivering additional homes to provide additional capacity over and above what the industry can currently build through traditional construction methods. MMC also offers benefits such as more energy efficient buildings that are cheaper to run and can assist with fuel poverty. To create additionality and increase capacity we need this sector to grow quickly and sustainably, at the same time modernising the skills of the construction workforce and generating economic growth through a native high-tech industry.

Keepmoat Homes has invested substantially in modular construction through ilke Homes, which was launched in May 2017 as a joint venture with modular construction specialist Elliott and is now established as a strong independent business with a factory capable of producing 2000 quality new homes across a wide range of house types. ilke Homes is not exclusive to Keepmoat Homes as we saw the need for the whole market to have access to this solution. MMC is now at a point where government policy and support should be used to stimulate wider adoption to increase momentum significantly and capitalise on the benefits it can bring to the industry.

However, housing delivery doesn't rely entirely on politicians. The industry also needs to make its own commitment to training, investing in technology and building its supply chain. At Keepmoat Homes we actively manage a high-quality supply base that shares our values and is fully aligned to supporting our growing business. We are also supporting many of our procurement objectives by moving to digital construction and other advanced construction techniques, both of which are also vital to improving quality across our range and across all of our regional businesses.



THE SPEED OF  
CHANGE IS  
UNPRECEDENTED  
AND THE INDUSTRY  
MUST BE OPEN TO  
OPPORTUNITIES  
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TRADITIONS TO FIND  
NEW SOLUTIONS

A fourth industrial revolution is also putting artificial intelligence, robotics, virtual reality and a host of new materials at the service of the construction industry. The speed of change is unprecedented and the industry must be open to opportunities and willing to challenge traditions to find new solutions that complement our current ways of working as well as meeting demands for speed, efficiency, productivity, certainty and quality.



## NEW DEVELOPMENTS

# 900 offsite timber homes start for service personnel

Work on a collaborative project to relocate approximately 4,000 service personnel and their families from Germany to Salisbury Plain in South Wiltshire has begun.

The housebuilding project is part of a £250m contract awarded to Lovell by the Ministry of Defence (MOD). Over 900 homes will be built as part of the project at three sites, Ludgershall, Larkhill, and Bulford by May 2020.

The relocation scheme is part of the MOD's Army Basing Programme (ADP), with each site set to include six different house types, each with 3-4 bedrooms. Each home is also intended to beat Building Regulations energy performance levels by 25 per cent.

Stewart Milne Timber Systems will be building the timber frame homes offsite, with a reported handover rate of 20 homes per week.

Lovell's major projects director, John Leary, said: "Intelligent selection in supply chain assembly is essential in a project of this magnitude. This stands across the trades but is clearly crucial on key packages such as timber frame. The speed of build on the SFA scheme means that timber frame and thus an element of off-site manufacture was a given but the choice of provider is the challenging piece."



**THE PROJECT IS PART OF A £250M CONTRACT WHICH HAS BEEN AWARDED TO LOVELL BY THE MINISTRY OF DEFENCE**

He concluded: "We are extremely confident in our ability to deliver the timber frames to programme, across each site."

Construction of the first timber frames for the Ludgershall site will begin in June 2018. Construction for the Larkhill site is planned from late summer 2018.

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## CASE STUDY

# Royal Docks to be revived in London



A £300m regeneration plan for the Royal Docks in east London has been given the green light, with plans in motion to introduce a new district to the area.

Plans have been approved for a £314m regeneration of the Royal Docks in east London over the next five years. A new waterside residential, leisure and business district is included as part of the plans.

The plans were led by the Mayor of London, Sadiq Khan, and Mayor of Newham, Rokhsana Fiaz. According to City Hall, the Royal Docks project has the potential to

generate 35,000 jobs, 4,000 new homes, and attract more than £5bn in inward investment by 2037/38.

Some of the key projects in the plans are a new district, the enhancement of the public realm, improvements to transport and digital connectivity for both businesses and residents, an increased provision of affordable workspaces, and skills and cultural programmes.



To be carried out over five years from 2018/19, the plans include proposals of investment in transport infrastructure, connectivity, economic development, peacemaking, creative programming, promotion and estate management.

A delivery plan for the 112 hectare Royal Docks Enterprise Zone was signed off by the board of the London Economic Action Partnership (LEAP), which, as London's Local Enterprise Partnership (LEP), is responsible for allocating funding raised through the Enterprise Zone. The Royal Docks is currently London's only Enterprise Zone, a designated area where employers can access business rate relief and other financial support.

The area which is now known as the Royal Docks played an important role in the capital's economy for more than a century from the mid 1800s, before falling into decline in the 1960s and 70s. The last vessel to be loaded there left the docks in December 1981. Around the same time, the wider regeneration of London's Docklands began, leading to the creation of the Canary Wharf estate, the development of the Docklands Light Railway and the opening of London City Airport in 1987.

Thousands of visitors are attracted to the area each year, the Royal Docks

offering exhibitions, events, water sports activities, bars restaurants and gardens.

The Mayor of London, Sadiq Khan, said the news "marks a major step forward in the development of this site, which has the potential to become not only an important new business destination but also a key part of the capital's cultural life."

He continued: "Through these plans to attract businesses and talent into the Royal Docks, we are aiming to unlock this area's potential to support the growth of innovative new businesses across all sectors of our economy."

"The Royal Docks was once an economic powerhouse – with these plans we are aiming to lay the foundations so that it can once again play a crucial role in the life of the capital."

Mayor of Newham, Rokhsana Fiaz also commented on the "exciting news," praising the project for funding more "homes, highly skilled jobs, apprenticeship opportunities for our young people and improved transport infrastructure to an area steeped in rich industrial history."

She believes the plans have the potential "to improve the lives" of residents, and "benefit the whole of London."

"I am really excited to be working with residents, partners and the Mayor of London to help deliver this ambitious plan," Fiaz concluded.

**ACCORDING TO CITY HALL, THE ROYAL DOCKS HAS THE POTENTIAL TO GENERATE 35,000 JOBS, 4,000 NEW HOMES, AND ATTRACT MORE THAN £5BN IN INWARD INVESTMENT BY 2037/38**

## Timber frame is re-shaping the industry



Recent developments in the housebuilding industry look set to stimulate the market for timber frame construction, says **Norbord** marketing manager, David Connacher. The growth of timber frame is gradually changing long-established practices within housebuilding as the construction industry embraces

the idea of off-site manufacture. This slow and cautious approach is due mainly to the fact that offsite manufacture means a huge reduction in the site-based activities that define a traditional building firm. The reduction in on-site activity means that, once the building's foundations are installed, erection of the main structure follows very quickly. New timber-framed homes can therefore be brought to market at a much faster rate.

[www.norbord.co.uk](http://www.norbord.co.uk)

## New I-Joist assembly line building completed



Structural work is now complete on the new 3,000m<sup>2</sup> I-Joist assembly line building at **James Jones & Sons Ltd** in Forres. The new line will see JJI-Joist production capability more than double from the 7.5 Million lineal metres per year the site currently produces to a potential 20 Million

lineal metres a year. Globe Machine are supplying the new I-Joist line and components will arrive on site in the coming weeks. Once commissioned, the new line should alleviate any concerns the UK construction industry might have over I-Joist supply due to on-going Brexit negotiations, with the world's most advanced assembly line being on UK soil.

[jjj-joists@jamesjones.co.uk](mailto:jjj-joists@jamesjones.co.uk) [www.jji-joists.co.uk](http://www.jji-joists.co.uk)

## Vent-Axia Supports Clean Air Day 2018



Sussex-based **Vent-Axia** is delighted to support Clean Air Day on 21 June 2018. The day is co-ordinated by environmental charity Global Action Plan and aims to raise awareness of the risks of air pollution and the simple things everyone can do to improve their air quality and health. "We are pleased to support Clean Air Day as it continues to raise awareness of the importance of clean air, particularly

indoor air quality, and how everyone can make changes to improve their IAQ and their health" said Jenny Smith, Marketing Manager at Vent-Axia. Vent-Axia has been working hard to provide ventilation solutions to improve IAQ for households.

0844 856 0590 [www.vent-axia.com](http://www.vent-axia.com)

## Winner of Dulux Academy challenge



Barrie Thompson, a professional decorator based in North London won the 2017 Dulux Academy Design and Decorating Challenge. Run in partnership with Graham and Brown, wallpaper supplier partner to **Dulux Academy**, entrants were asked to submit their own

wallpaper design and take part in an installation challenge. Barrie explained: "This competition has been a valuable experience and I have since taken advantage of the courses available at the Dulux Academy, including Mural Effects and Feature Walls, which has given me the opportunity to develop my industry knowledge and really enhance the technical expertise I can offer my clients."

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**B**uilding Regulations have pushed people in the UK closer and closer towards airtightness in recent years, but while this is a demonstrably good thing with regards to the efficiency of heating your home, they seem to have ignored an important element of every building – ventilation.

The Victorians knew that it was important to allow fresh air to replace all of the smoky dampness you would get from boiling a kettle on the fireplace, so Victorian homes were designed to draw stale air up the chimney, with replacement air being drawn in through inherent gaps in the building fabric. Current regulations assume that ventilation technology hasn't improved since. There have been some changes in the way things are done, of course. We have compensated for less leaky building materials by introducing trickle vents in window frames, and mechanical extractor fans instead of open chimneys for example, but the end result is the same. You must have holes in your property for the specific purpose of letting 'fresh' air in, even though the rest of your home needs to be airtight!

When you add up the combined 'free area' of all the trickle vents required to let adequate amounts of air in, you're looking at a hole typically over one square foot for a small three-bed home – effectively the size of an open window. If you close the trickle vents to stop draughts, your ventilation simply doesn't work. You can't extract air from an airtight box without the means of replacing the air being extracted.

Ventilation is even more important today given indoor and outdoor air quality issues, even if the regulations haven't advanced much from the 19th century to the 21st. The recent drive to better insulate people's homes for environmental reasons is all very well, but a lack of forethought and knowledge about ventilation has led to new problems. Insulation might well reduce fossil fuel consumption and with it CO<sub>2</sub> emissions, but ventilation doesn't, so funding for ventilation hasn't happened because it doesn't help anyone meet CO<sub>2</sub> targets. Well-insulated but under-ventilated homes trap damp, which leads to mould and then poor health. The problem has become common enough for a small industry to spring up to help homeowners gain compensation for having had their home insulated. Insulation providers are becoming the scapegoat when Government policy is to blame.

Inadequate ventilation has now been shown to cause more than cosmetic problems for home owners. Black mould has been linked with respiratory problems in children, and recent research in Wrexham and New Zealand has shown that not only could mould exacerbate the

# A BREATH OF FRESH AIR

Eliot Warrington of Solarcrest argues that Building Regulations need to reflect 21st century ventilation.



symptoms of asthma, but it could also be linked to triggering a child's first attack, meaning that ventilation isn't only vital for the health of your home.

External pollution can also come into play. Millions of hayfever sufferers in the UK look forward to the summer with a mixture of hope and dread. At the same time the more serious issues of poor air quality and pollution from diesel engines are causing serious health problems, particularly in the cities.

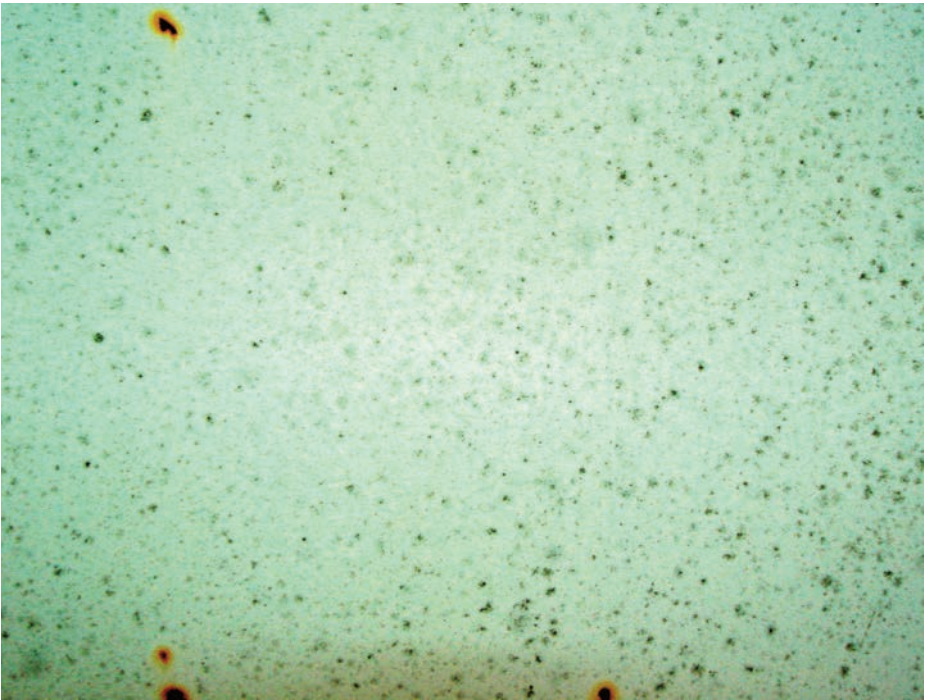
## FIXING THE PROBLEM

While Building Regulations might be stuck in the past, the technology

available to fix the problem has progressed significantly.

Mechanical Ventilation with Heat Recovery (MVHR) is a simple enough concept. It's a machine which includes a series of ducting pipes that extracts damp air from wet rooms like the kitchen and bathrooms, without wasting the heat that's in the air. Instead it uses the heat from the stale air to warm fresh air which is being drawn in. Usually situated in an attic or plant room, the MVHR unit will also filter fresh air to remove pollen and dust, with some top-level units even offering filtration powerful enough to remove the tiny

**VENTILATION IS EVEN MORE IMPORTANT TODAY GIVEN INDOOR AND OUTDOOR AIR QUALITY ISSUES, EVEN IF THE REGULATIONS HAVEN'T ADVANCED MUCH FROM THE 19TH CENTURY TO THE 21ST**



diesel pollution particles, too. The technology is nothing short of a game-changer when it comes to air quality. So once you have identified that you want to move into this century with your ventilation, what next? First, you need to make sure you take

it into account in your planning. While the systems can be installed into properties which are already occupied, and this would actually help cure the problems caused by poorly insulated airtight homes in the past, it's easiest to install during the build. The ideal time to minimise any

interruption to the rest of the process is just before the electricians and plumbers arrive, so it's important that you have this in your thoughts from early in the planning process. It's also important to remember the old maxim that, as with anything, you get what you pay for. The cheapest system on the market is cheap for a reason. When you are building, you don't want to cut corners on comfort or end up with something noisy. If people advise against it, because 'you can get through Regulations without it,' think about what residents could be missing. Imagine building a car to spend over 12 hours a day in for the next 10 years. In terms of features, climate control would be a no brainer. So now it's available for homes too, why miss out just because its not mandatory under regulations? It's time for building control to change, you can't demand airtightness as well as holes in every window frame. It doesn't make sense. Look again at the benefits of 21st century ventilation, set higher minimum standards, and do what's best for homes and the people who live in them. Eliot Warrington is managing director at Solarcrest

# The QuietAir Fan from Airflow

A stylized illustration of a woman with red lips and dark hair whispering into the ear of a man. A yellow speech bubble from her mouth contains the text: "The quietest bathroom fan meeting regulations\*".

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\* On both speeds, the QuietAir 100 meets the installed performance requirements when ducted as per the Domestic Ventilation Compliance Guide of the current Building Regulations Approved Document F. Sound level of 25 dB(A) on low speed.

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## LG launches new R32 product range



LG has become one of the first manufacturers in the UK marketplace to launch an air conditioning range operating on R32 refrigerant with the launch of its Single Splits and Multi Split Smart Inverter products that offer supreme energy efficiency, high operation reliability, a comfortable environment, a number of new convenient functions some of which are industry firsts, and the use of R32 as the refrigerant, offering huge benefits over the R410A refrigerant that has been utilised in previous models ranges. The new LG range line up offers external units from 4.1kW up to 18.7kW.

uk.aircon@lge.com partner.lge.com/uk

## Norcros Adhesives is a winner!



Norcros Adhesives, the tile adhesive, grout and preparation products manufacturer, has just won the Gold Award for Best Environmental Initiative at the recent Tile Association Awards. This achievement is impressive enough in its own right, but is even more so, since this is now the third year in a row that the company has won this prestigious accolade.

The company's work on environmental improvement goes back to the time of its founding. Since the earliest days it has been the intention to eliminate waste going to landfill.

01782 524140 [www.norcros-adhesives.com](http://www.norcros-adhesives.com)

## Consumer awareness of poor IAQ on the rise



Consumer awareness of the potential health impacts of poor IAQ is on the rise in the UK, according to a recent survey by BEAMA. With exterior air pollution already high on the UK's agenda, Vent-Axia has welcomed this news since the latest research on respiratory health has pointed to VOCs in the home posing a risk to health. To help protect health in the home Vent-Axia has been working hard to provide ventilation solutions to

improve IAQ for households. For new builds, Vent-Axia's Sentinel Kinetic MVHR system boasts an impressive 94 per cent thermal efficiency. For private refurbishments, Vent-Axia's Lo-Carbon Svava offers quiet, disturbance-free running helping ensure good indoor air quality and comfort.

0844 856 0590 [www.vent-axia.com](http://www.vent-axia.com)

## Designer Contracts awards employees



Designer Contracts, one of the UK's largest flooring contractors, has acknowledged 65 long-serving members of staff with special awards, as it celebrates its 25th year in business. The company, which has grown rapidly over the past 25 years, treated five of the longest serving employees to a celebratory meal at the

Casa hotel in Chesterfield, the town where the business is headquartered. At the dinner, Designer Contracts md Peter Kelsey presented Andrew Brent, Jill Lee, Cath Amphlett, Tim Williams and Fay Sykes with engraved iPad Pros as a thank you for their dedication and loyalty.

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The future is HPV Technology. Launching in the UK this month is the HPV Series; a highly efficient system that redefines levels of comfort by giving precise delivery of heating, cooling, hot water and heat recovery ventilation, with unparalleled levels of responsiveness. Typical energy consumption is under 20kWh/m<sup>2</sup>/yr in comparison to say gas at 55kWh!

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0345 260 0123 [www.totalhome.co.uk](http://www.totalhome.co.uk)

## Aqualisa releases training videos for installers



Aqualisa has launched a series of training videos covering the most common queries for some of its most popular products. Vicky Daniels, Channel Marketing Manager at Aqualisa commented: "While we offer hands-on training sessions across the UK, we

realise installers can't always take time out of their business to attend. With a growing interest in smart showers in particular, we wanted to give installers easy access to training materials that can help them day to day, enabling them to take full advantage of this growing market." For more information about Aqualisa's training sessions you can visit their website.

01959 560010 [www.aqualisa.co.uk/training](http://www.aqualisa.co.uk/training)

## Wilo Yonos-PICO takes off



Wilo's new generation of the Wilo-Yonos PICO has taken off in the UK.

Together with the new functions, the compactness of Wilo-Yonos PICO has been dramatically improved to make it easy to install and use in any application.

Front access to motor screws and the Wilo connector position, contribute to the adaptability of the pump in any installation.

New ease of use functions make maintenance far easier for the installer. For more information, head over to Wilo's website.

01283 523000 [www.wilo.co.uk](http://www.wilo.co.uk)

## Waterproofing a wetroom



Waterproofing is one of the greatest concerns for specifiers and developers when it comes to creating the perfect wet room. Wetroom floor manufacturer, **On The Level**, offers a flexible liquid rubber tanking system, available in three different kits, which has been specially developed to eliminate the problem of wet room leaks. It comes in the form of a solvent-free, silicone-compatible sealing compound which can be applied to wood, plasterboard, MDF, concrete screed

and most commonly used construction boards. By working alongside natural movement within the room it doesn't become brittle with age. It's also suitable to be used with underfloor heating, both electric and water.

[www.onthelevel.co.uk](http://www.onthelevel.co.uk)

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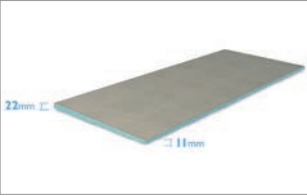
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CCL Wetrooms launch the Linear Screed Dec



CCL Wetrooms, one of the UK's leading wetroom specialist, have launched a new pre-formed tapered board, to effortlessly create a consistent gradient on a solid floor. The Linear Screed Dec has been designed for use in combination with the shallow Linear Screed Drain and the new HBL-50 Wetroom levelling compound, and removes the need to create the falls directly into the screed. The introduction of the new Linear Screed Dec and Hi build latex system, provides customers with a complete floor build up solution for a wetroom on a solid floor.

0844 327 6002 [www.ccl-wetrooms.co.uk](http://www.ccl-wetrooms.co.uk)

Electrorad launches programmable towel rails



A new and luxurious range of towel rails from **Electrorad** is guaranteed to bring warmth and comfort to the smaller rooms and bathrooms in the home thanks to an array of controls and intelligent energy saving features. Featuring two stylish models that provide 400W and 700W heat outputs respectively, these straight rung ladder towel rails feature sophisticated digital programmable controls that enable the user to create weekly programmes specific for each day of the week. Featuring an LCD screen that is discretely located on the base of the rail, the controls offer a series of options including; automatic, comfort, night, antifreeze, key lock and even a two-hour boost.

[www.electrorad.co.uk](http://www.electrorad.co.uk)

Harvey Water Softeners eliminates



Hard water will take away the shine of new kitchens and bathrooms, clogging it up with limescale! With a Dualflo Water Softener you can keep them looking brand new. The trade brand of **Harvey** Water Softeners eliminates any existing scale and keeps it away, meaning appliances will also live longer and be more efficient – saving money

throughout the home. Dualflo Water Softeners are maintenance free, by simply running on water pressure. They only require the addition of block salt. The twin-cylinder design supplies 24/7 softened water to the whole water system, making it the easiest way to protect your new investment.

[www.harvey.co.uk](http://www.harvey.co.uk)

Snickers' 'Climate Control' Workwear



From keeping warm and dry in winter, warmer weather brings with it a need for professional craftsmen and women to be cool and dry – to maintain well being and working efficiency. That's why **Snickers'** new working clothes for the summer uses 37.5° fabric technology which is really good at 'wicking' moisture away from the body and keeping you dry. In the Snickers Workwear FLEXIWork, LITEWork and RUFFWork product families, there's NEW Shirts, Shorts and Work Trousers that are super-light and quick-drying with advanced ventilation to keep you cool in the heat. They've all got superb, body-mapping designs for an amazing fit, outstanding functionality and long-lasting comfort – all day, every day.

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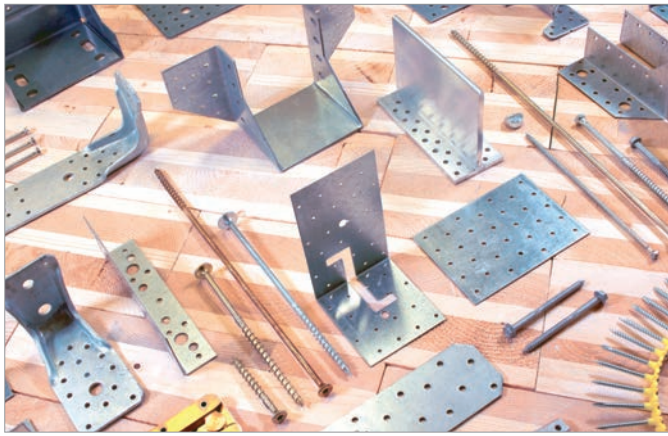
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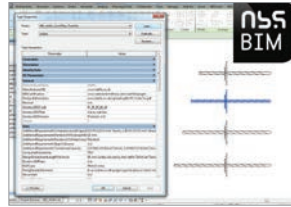


## Connecting Cross-Laminated Timber

To support the growing use of cross-laminated timber (CLT) in the UK and Europe, leading connector manufacturer **Simpson Strong-Tie** has released an updated version of its 'Connectors for CLT' catalogue. Featuring a host of new products including heavy duty angle brackets, hold-down connectors and structural screws, this edition represents a complete set of solutions for the assembly of CLT buildings, as well as steel and chemical mortar products designed specifically to connect the entire structure to concrete. Sales Director, Jon Head explains: "We have drawn together a huge variety of products from across our European operations to produce a comprehensive range of performance tested connectors and fasteners to enable CLT constructions from floor to ceiling – the CLT designer need look nowhere else". Simpson Strong-Tie also has a team of engineers based at its manufacturing plant in Tamworth, offering technical support and assistance.

01827 255600 [www.strongtie.co.uk](http://www.strongtie.co.uk)

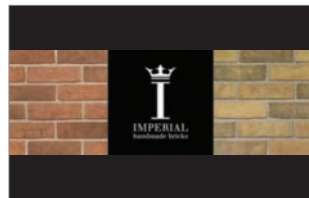
## Helifix BIM Object Library Launched



Helifix has launched a BIM object library to support the industry's transition to digital building modelling. Available to download from the Helifix or the NBS National BIM Library website, these Revit format BIM objects allow Helifix products to be easily incorporated into a 3D building model and its associated component database. Offered as part of the NBS portfolio, BIM Objects are available for masonry repair products and new-build wall ties. For more information, please contact the Helifix team by calling.

020 8735 5200 [www.helifix.co.uk/downloads/bim-objects](http://www.helifix.co.uk/downloads/bim-objects)

## Imperial answers demand with new bricks



**Imperial Bricks** has introduced new Restoration Red and Restoration Oxford Yellow Multi Waterstruck bricks in response to increasing demand for regionally appropriate variations. These traditional handmade bricks are made using a relatively soft clay, with water used

as the releasing agent for the moulding process, giving them a smoother appearance, while still retaining character. The new additions work well in the renovation of period properties, extensions, boundary walls as well as high-end new builds.

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When most people think of modern rainscreen cladding systems, they picture steel and glass. However, architects are increasingly looking to alternative materials that have a traditional appearance but are compatible with modern methods of construction. Brick effect facades, for example, are extremely popular as they can be used to create a structure with a brick appearance but without the time, expense and labour of building in a traditional way.

Dating back to 7000 BC, and originally made from dried mud blocks, bricks are one of the oldest known building materials. The clay bricks that we commonly use today were made popular by the Roman Legions, who operated mobile kilns and built large brick public and private structures throughout the Roman Empire. They built walls, forts, cultural centres, vaults, arches and faces of their aqueducts.

The Herculaneum gate of Pompeii and the baths of Caracalla in Rome are great examples of Roman brick structures that still stand to this day. During this period, the art of brickmaking was spread throughout Europe, where it is still one of the most common construction materials, particularly for housing.

#### MODERN MATERIALS, TRADITIONAL FACADES

To this day, a brick facade remains a popular choice with designers. As such, the trend for brick slip panels continues to grow with architects that want an authentic aesthetic, alongside the benefits that are offered by rainscreen facades. These include increased insulation performance, reduction in wall thickness and, as brick slip systems tend to be very light when compared with traditional masonry, substantial weight savings.

Lightweight brick slip panels give building designers greater freedom of expression because they avoid the need for heavy masonry-based internal supporting structures. The result is not only a building with a reduced carbon footprint, but one that incorporates a modern aesthetic with a conventional style. The material's visual appeal also creates an architectural fusion between other commonly-used facade materials, such as timber and terracotta tiles.

Take Highwood Garden Terrace, for example – a 10 storey mansion style building containing 85 homes situated on the West Grove residential development on Elephant Park in London's Elephant & Castle – the new £2.3bn multi-phase regeneration of the former Heygate Estate.

The scheme is a major mixed-use development that will create almost 2,500 new homes and the largest new park in

# MODERN MATERIALS, TRADITIONAL FACADES

Adrian Storey of Horbury Facades looks at how innovation in modern rainscreen cladding materials is resulting in a rise in brick facades.



central London for 70 years. West Grove, which is due for completion in 2019, is the second phase of the development and will contain 593 homes in total.

The Highwood Garden Terrace development features a brick slip corium facade in grey and red, in assorted textures. Glazed terracotta tiles in seven





**ASIDE FROM THE AESTHETICS THAT CAN BE ACHIEVED WITH BRICK SLIP, THE MATERIAL IS MORE COMMONLY USED FOR LARGER RESIDENTIAL DEVELOPMENTS AS IT ENABLES BUILDERS TO COMPLETE PROJECTS MORE QUICKLY.**

varying shades that gradate from buff to a dark red, are also fixed onto playfully arranged infills in a staggered bond of differing lengths. The design of the structure is inspired by traditional London mansion blocks and incorporates a number of tiers where the building steps back to offer terraces to many of the homes.

#### MEETING DEMAND

Aside from the aesthetics that can be achieved with brick slip, the material is more commonly used for larger residential developments as it enables builders to complete projects more quickly.

According to official statistics published in March of this year by the Government, there were a total of 78,930 families living in temporary accommodation at the end of December 2017. This includes 120,510 children, representing a 75 per cent increase since 2010. With the number of people without a permanent fixed abode in England rising, pressure is mounting on local authorities and developers to build new accommodation quickly and cost-effectively to alleviate the problem.

To meet this rapidly increasing demand, the Government would need to commission the construction of approximately 250,000 new homes each year, through to 2030. Currently annual

construction levels sit at around 50 per cent of this figure, with only 63 per cent of traditional construction projects delivered on time, and only 49 per cent delivered to budget.

As such, materials that will not only offer great aesthetics, but also enable new residential developments to be completed sooner, are highly sought after. Due to its simplicity to install, covering a building with brick slip is vastly quicker than bricklaying. This not only enables earlier project completion, but also reduces the costs incurred in areas such as waste disposal, deliveries and storage requirements. Furthermore, as brick slip panels are factory made, the quality of workmanship is often expected to be higher than traditional brickwork.

Brick has been used as a building element for centuries and is still sought after. With a need for more cost-effective and energy-efficient buildings to be completed in less time however, many new developments that require traditional facades now include brick slip panels as an aesthetically pleasing alternative. As such, the rise in specification of this type of facade looks set to continue.

Adrian Storey is general manager at Horbury Facades

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fenestration and offsite construction specialists Sidey Solutions. "It's quick too – 11 windows can be first fixed in 23 minutes. They are installed when the walls are horizontal in the factory and the innovative Kitfix brackets are twist fitted to the window or door frame. Air tightness, thermal and acoustic seals can also be included at this stage."

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01250 872261 [www.proctorgroup.com](http://www.proctorgroup.com)



## Morris Homes feature Freefoam colour Fascia

**Freefoam Building Products** are delighted to showcase Dark Grey Fascia at a new Morris Homes site in Leicester. Morris Homes selected Dark Grey fascia to perfectly complement the grey window frames, Juliette balconies and garage doors to achieve a coordinated, contemporary look. Freefoam Building Products is the colour specialist. Colour fascia, soffit and guttering is manufactured using Freefoam's patented Colormax™ technology - an advanced master-batching process with a blend of natural PVC and pigments that are simultaneously co-extruded. Fascia and Soffit is produced with built-in colourfastness, colour variety, and reliable colour matching, all with a ten year guarantee. Eight roofline colours are all available straight from stock, ranging from subtle Pale Gold Sand to more dramatic Black and Grey. Freefoam Building Products have established themselves as experts and have put in place manufacturing and ordering processes to meet customer expectation and deliver customer demand.

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01384 78361 [www.ketley-brick.co.uk](http://www.ketley-brick.co.uk)


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there is the Unilift KP stainless-steel family, these are the preferred solution for many situations including those involving effluent from domestic septic and sludge treatment systems; then the Unilift AP is the right choice in many instances as it can cope with a flow rate of 9.44 l/s and a 18m head.

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






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# New build home insurance policies at risk after the collapse of insurance firm Alpha

**T**HOUSANDS of new build homes have been left without vital structural defects insurance after the collapse of insurance carrier Alpha.

And yet many housebuilders and developers, including self-builders, who require the 10-year structural defects insurance are still unaware that they have been left without cover.

Alpha, who was a supplier of the insurance new homes require to protect against structural defects, was declared insolvent in Denmark in May meaning policyholders cover came to an immediate end.

Policyholders are just receiving the news that their homes are no longer insured and at this stage no plans have been announced by those who issue policies under Alpha as to how customers can be protected going forward.

David Sumner, Sales Director of Advantage Home Construction Insurance (AHCI), has warned that many new build properties built will have been left without the protection of these warranties.

Following the collapse of Alpha, Advantage has been inundated with calls from housebuilders and developers in need of retrospective structural defects insurance.

He also explained the importance of housebuilders and developers choosing a property sector specialist insurance carrier to ensure the security of policies.

He said: "Much has been reported of the knock-on effect of Alpha going bust, car insurance policies and the impact on London black cab drivers.

"However, what hasn't been highlighted is the impact this will have on thousands of new homes - including those homes already built or still under construction.

"This is a catastrophic blow for all of those whose properties were protected from any potential structural issues by the now defunct Alpha.

"What is becoming worryingly apparent is the fact that as most policies are purchased via brokers many housebuilders and developers, and as a result many policy holders, are now unaware that their policies are void.

"Information is beginning to slowly filter through, but unfortunately many policyholders



will have to take out fresh retrospective insurance, which is an unwelcome and unexpected blow, but is something we can source quickly.

"We need urgent action to ensure that those who are affected are informed and what steps are now going to be taken to protect these now uninsured homes."

Alpha, an unrated Danish insurer, said all policyholders will be contacted by the firm's liquidators to offer guidance on what to do next.

Alpha is the latest in a string of companies that have announced they have gone bust or reducing their size in a bid to stay afloat in challenging markets.

The Danish FSA has announced that UK policyholders need to find and pay for alternative cover as soon as possible.

While the UK FCA has said Alpha insurance policyholders should immediately contact their insurance broker or firm who sold them their policy in the first instance to seek new insurance cover.

David added: "At Advantage all of our insurers are property sector experienced carriers to ensure we offer the best protection for our customers. We are also able to provide the retrospective cover required.

"As experienced property developers ourselves we know it is critical to provide the

highest standard of building warranties to give customers the peace of mind that any structural faults or defects are covered.

"Unfortunately, the quality of cover provided differs widely in the industry and often homeowners have no idea who their policies are placed with or the ratings of the carrier.

"I would urge anybody that is building new homes to do their research and ensure they use specific sector-experienced carriers as an absolute minimum."

## NEXT STEPS:

If you are unsure whether you have been affected by the Alpha collapse or would like further advice on structural defects insurance for new build homes, then please call the Advantage team.

## ABOUT ADVANTAGE:

Advantage provides structural defects insurance - operating nationally with offices in Warrington, London, Horsham and Birmingham - offering development-related insurances and a service designed to give customers peace of mind.

Policies are underwritten by industry-leading insurers with access to AA-rated insurers, giving customers reassurance when it comes to choosing the right insurance. Projects cover both commercial and residential properties and range from individual one-off houses to developments with a build cost over £50m.

With more than 40 years of industry experience, Advantage are equipped to deal with the challenges faced on and off-site and are proactive in their approach to move projects forward with a fast turnaround.

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### New online tool helps designers

**Evinox** are excited to announce the launch of the ModuSat® Heat Interface Unit Online Selector. Available via the Evinox Energy website, this intuitive tool recommends the ideal HIU(s) for a district or communal heat network development, based on project parameters entered by the user. With over 15 years of experience in the design and manufacture of interface units for heat network systems, Evinox created the Selector with M&E consultants in mind, aiming to provide a tool that is easy to use, and can help with sizing and selection whilst saving time for the specifier. As well as all the functionality detailed, the user can also save unit selections and calculations for each project and come back at any time to access or edit them or to create a new selection, making this a really useful resource for consultants. Find out how the ModuSat® Selector can help with the specification of heat interface units and try it out by visiting their website or contact Evinox for further information.

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# HOUSING BENEFITS

Alternative ground engineering solutions, such as those incorporating geogrids, can play a vital part in meeting the UK's future housing needs. Jonathan Cook of Tensar explains.

**T**he UK Government is committed to building hundreds of thousands of homes a year to meet the country's housing crisis. To ensure they can meet this target, it is crucial for housebuilders to maximise land use, minimise construction costs and deliver new homes as quickly as possible, while maintaining profitability.

This essentially boils down to mitigating risk – a large proportion of which is in the ground. It is incredibly difficult to predict every possible situation arising during construction, but designing to actual ground conditions can deliver more appropriate solutions, mitigate risks and ultimately add more value. This does not necessarily mean spending more money, but requires a change of approach from traditional solutions to acceptance of 'alternative' value engineered designs.

Geogrids, for example, have been used on thousands of residential schemes around the world and on hundreds of projects in the UK, allowing developers to build new homes and associated infrastructure over a wide range of ground conditions, particularly weak and saturated soils.

However, designs incorporating geogrids are sometimes viewed as 'new' or 'alternative' solutions and, as a result, are sometimes rejected in favour of more traditional approaches. This is despite three decades of empirical evidence and independently-verified research demonstrating how geogrids have helped improve construction efficiency, mitigate risk and reduce delays.

Geogrids can be, and have been, used at every stage of a housing project. They can control differential settlement in capping layers, maximise development space by creating steep slopes, deliver thinner and better-performing temporary access roads and working platforms, and can help build long-lasting and low-maintenance permanent roads.

## MAXIMISING DEVELOPMENT SPACE

With a shortage of suitable land for housing across the UK, housebuilders need to maximise available development space. This can mean creating a level area for construction, supported by perimeter



retaining walls, or steepening slopes on the edge of the site to extend the site's useable area.

The conventional approach is to build reinforced concrete walls, but these can be expensive to build. Those using geogrid to reinforce soil behind block, gabion or vegetated facing, however, can deliver the same level of performance (and slope heights and angles). They are also faster and more economical to construct, with the added benefit that they provide a more aesthetically-pleasing finish. Reinforced soil structures can also serve as noise and visual barriers to both homeowners and those living next to the new development.

## PROVIDING SAFE WORKING AREAS

Providing safe working areas is critical on any construction project, particularly on weak and variable ground. Geogrids improve the performance of granular fill used for working platforms, increasing bearing capacity so the ground can support heavy loads from cranes and other construction plant.

Load-spread designs incorporating geogrids, in line with 'BR470: Use of 'structural geosynthetic reinforcement' – A BRE review seven years on', backed by perform-

ance testing, have been proven to deliver thinner platforms, shorten construction times and reduce materials use, compared with conventional approaches.

## UNPAVED ACCESS ROADS & PERMANENT ROADS

Much in the same way as working platforms, geogrids can be used to mechanically stabilise aggregate layers of unsurfaced access roads, improving their performance and enabling them to support construction traffic.

Once homes are finished, temporary roads can form the foundations of permanent infrastructure, including highways



adopted under Section 38 agreements and car parking areas. This can speed up these important aspects of residential developments, ensuring projects are completed on time and as economically as possible.

Because the trafficking capacity of pavements incorporating geogrids can be up to six times greater than traditionally-built roads, they can help make roads safer, for longer. This improved performance also reduces longer-term maintenance and repair requirements, reducing disruption to road-users and local residents.

GREENER DEVELOPMENTS

Because geogrids can reduce the overall thickness of working platforms, capping layers and road pavements, they can contribute to the green credentials of a scheme.

Fewer materials are needed and weak and unstable soils can be left in the ground. Geogrid solutions can also use site-won material, including non-standard fill that would otherwise have to be disposed of and replaced with imported material.

Not only does this mean construction costs can be lower, but it can also result in fewer lorry movements, reduced embodied energy and lower CO<sub>2</sub> emissions. An added bonus is that there is less disruption to local residents and businesses – a great selling



point to both housebuilders, developers and local authorities.

**QUANTIFIABLE BENEFITS**

Geogrids bring a wealth of benefits to housing schemes. They have been shown to deliver up to 50 per cent cost savings in road construction and up to 75 per cent savings in reinforced soil wall construction. They can halve aggregate thickness in temporary access roads and working platforms, and cut permanent road pavement thickness by up to 20 per cent.

All of these benefits can be realised by housebuilders if they are willing to engage with the supply chain and are open to alternative ground engineering solutions. These products were ‘innovative’ 30 years ago, but are now well-established ways of reducing ground risk, maximising the returns on land, and delivering much-needed housing faster and more economically than ever before.

Jonathan Cook is senior product manager at Tensar

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## NIBE increases product range



The demand for renewable heating solutions for our homes continues to gather pace with an ever increasing number of homeowners exploring the options available to them. In order to support this growth in demand, a leading manufacturer **NIBE** has added a new smaller model to its extensive range which will support new build and smaller properties. The new, smaller heat pump offers the same product features as the established larger units such as compatibility with the VVM320 Indoor Module and SMO range of controllers. The F2040 is also a ideal size for complementing other energy sources for hybrid solutions and can be docked with an existing system such as an oil or gas boiler.

0330 311 2201 [www.nibe.co.uk](http://www.nibe.co.uk)

## GeoCeramica® a game-changer for driveways



**Brett Landscaping** has introduced GeoCeramica®, a new product range which integrates porcelain with an innovative pre-bonded drainage mortar base. This brand-new development in paving vastly increases the ease-of-installation and long-term durability of

porcelain paving in the UK market. Inspired by nature, GeoCeramica® is available in four beautiful variations, each coming in several colours to provide maximum design flexibility from the driveway through to the garden. GeoCeramica® paving in 40mm is ideal for use on patio's whilst the 60mm thickness allows for its use on driveways.

0845 6080570 [www.brettpaving.co.uk](http://www.brettpaving.co.uk)

## Offsite Solutions' first timber-framed scheme



**Offsite Solutions**, one of the UK's leading bathroom pod manufacturer, has supplied the final batch of bathroom pods for its first timber-framed residential development. Under construction by the Hackwood Group, the Fleur-de-Lis development in Sandhurst will provide 42 spacious retirement apartments set in landscaped gardens. The use of an offsite solution for bathroom construction reduces the number of activities and trades on site. This achieves significant programme savings, quality improvements and reductions in waste of up to 50 per cent compared to site-based construction. Offsite Solutions offers a range of bathroom pods to suit different building types and applications.

[info@offsitesolutions.com](mailto:info@offsitesolutions.com)

## TorFloor RdB chosen to heat renovated house



A recent renovation project carried out on an early 19<sup>th</sup> century town house in London's fashionable Holland Park area, has made use of the innovative new TorFloor RdB system, manufactured by underfloor heating specialist, **OMNIE**. TorFloor RdB is a dry install where the panel doubles as

the structural decking. It also now forms part of OMNIE's LayFast product offering: speeding up installation time and offering the potential for overall project cost reductions. Furthermore for retrofit situations, combining the structural deck and heating system into a single panel can save precious head height where floor-to-floor dimensions are restricted.

01392 363605 [www.omnie.co.uk](http://www.omnie.co.uk)



## Wide soffit just got woodgrained!

**Freefoam Building Products** are delighted to announce the addition of four beautiful woodgrain finishes to its Wide 605mm Soffit Range. The wide General Purpose Board is becoming a popular choice on many contemporary house styles, and has been added to the range as part of Freefoam's continuing support of our customers servicing the Housebuilder. The Freefoam woodgrain range is manufactured to last using Renolit Exofol MX foil that features Solar Shield Technology, a technology to provide built in UV protection, to reduce heat absorption, temperature build up and expansion. These properties allow Freefoam to offer a ten year guarantee on all woodgrain fascia and soffit. House builders are increasingly using colour to bring style and definition to developments. Freefoam made a commitment to colour right at the start of this trend embracing new ways of manufacture and ensuring that colour and woodgrain fascia and soffit are available across the entire range.

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## Ubbink announces the end of dry verge installation problems

Ubbink has launched an all-new BS8612 compliant Ambi Dry Verge System designed to provide a clear and simple installation procedure. Prior to the launch of the system, the Company undertook consultations with contractors nationwide, to fully understand widely reported issues regarding the installation of other currently available products.

Ubbink's new system now overcomes the common problems which have resulted from poor design, over-complexity and a lack of

clarity regarding the installation procedure and the fixing of individual components.

A key feature to this system is the mechanically fixed starter and eaves closure unit! This unit was designed to mechanically fix to the barge board, and can be fitted either before or after the gutter has been installed, overcoming a common problem reported with other systems.

The Ubbink batten bracket is fitted to the face of the batten, allowing the verge unit to be fixed without screwing into the end of the batten giving a more secure reliable fixing. This bracket can also be used at the eaves starter where no barge board is fitted, or to the front of the fascia board if additional fixings are required at eaves for areas where extreme weather conditions may prevail.

To allow a quick, simple install and gain a straight line, the bracket also has a built-in depth gauge, removing the need to extend the battens past the barge board so all can be cut flush.

The ambidextrous unit's suit most metric tiles and the thin leading edge tile, allowing easy purchasing and stocking – and ridge end caps are available to suit all common



concrete ridge tiles. The unit's also include a water channel which prevent unsightly water staining, another well-known issue which needed addressing.

Ubbink's Technical Manager Keith Plummer, said "Trials of the new system have been extremely positive, with contractors praising the design for at last providing a simple and clear-cut method of installation for a dry verge system."

Ubbink's new Universal Dry Verge System is available in grey, brown and terracotta now, from Roofing and Builders' Merchants throughout the UK.

01604 433000  
www.ubbink.co.uk



### Door closer enhances high-rise fire safety

British designed and manufactured, Powermatic controlled, concealed door closers from **Samuel Heath** are gaining increasing popularity for use on fire doors in high-rise flats and apartments. The door closers carry the CE mark and have been independently tested and proved to meet the requirements for one hour and half-hour fire doors under BS EN 1634-1. Unlike other jamb-mounted devices, Powermatic door closers facilitate a door's compliance with Approved Document M, neither do they have to be removed from the door to be adjusted. Powermatic is ideal for restricted door reveals and, thanks to the fact that it is totally concealed when the door is closed, helps retain the aesthetics of interiors and create a less institutionalised, more homely feel. Concealment also reduces the risk of the door closer being damaged through vandalism, misuse or tampering, which could render a fire door useless. It also means less maintenance call-outs and continued fire safety.

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### Cembrit slates guaranteed for 75 years



Roofing specialist, **Cembit**, is now offering an impressive 75-year durability guarantee for its Glendyne natural slate range. Glendyne is a high-quality slate that combines first-class performance with all the inherent beauty of natural slate, making it the 'natural' choice for specifiers and roofers. Used on a number

of prestigious buildings and monuments around the world, Glendyne slates achieve innovative and imaginative designs. Available exclusively from Cembrit in the UK, Glendyne is a distinctive blue-grey colour. The range offers a quality alternative to Welsh Slate and is readily available.

sales@cembrit.co.uk

### Cavity Barriers protect against fire spread



According to Document B of the UK Building Regulations fire barriers must be installed in cavity areas that are vulnerable to the spread of fire. Using the correct passive fire cavity protection system within a building is crucial, in the event of a fire, intumescent fire barriers

activate and seal holes, penetrations and cavities, preventing the spread of fire and smoke, thereby fulfilling UK regulations. Standards and Regulations also stipulate that two storey buildings and above require cavity barriers to stop fire from spreading through walls, floors and cavities. The **Envirograf**® Cavity Barrier range fully satisfies the requirements stated in Document B of the Building Regulations.

01304 842555 www.envirograf.com



# RETHINKING HOUSING SAFETY

In the aftermath of the Grenfell Tower fire, Kidde Safety explains why it's more important than ever for developers to consider appropriateness of fire detection

**A**s a straightforward, low cost early warning, the wider installation of interconnected smoke, heat and CO alarms is an essential first step for fire safety in all types of housing, offering reassurance to developers and buyers alike.

The various inquiries, investigations and regulatory reviews currently in hand following the Grenfell Tower fire cover issues ranging from sprinkler systems to material combustibility. Little has been said however about fire detection and alarms, their key role in housing occupant safety, and how that will be reflected in new regulations and standards.

## NOT FIT FOR PURPOSE

Generally, Dame Judith Hackitt's recently published 'Independent Review of Building Regulations and Fire Safety' considers how "the whole system of regulation, covering what is written down and the way in which it is enacted in practice...is not fit for purpose. The Government should consider how the suite of Approved Documents could be structured and ordered to provide a more streamlined, holistic view while retaining the right level of relevant technical detail." And this does not just apply to high-rise, high-risk buildings.

Clearly, it will be some time – probably years – before new regulations and standards are in place. So, what should be done in the meantime? The Hackitt report points out that "there is a widespread culture in relation to building and fire standards of waiting to be told what to do by regulators rather than taking responsibility for building to correct standards. The approach is very much driven by aiming for minimum compliance, not ensuring safety for the lifetime of the building." All those involved with all types of housing should now reassess the standards of fire safety that they consider appropriate.

## CODE OF PRACTICE

Building Regulations Approved Document B (AD B) and other recommendations for smoke and heat alarms are based on the

Code of Practice BS 5839-6:2013. It defines 'Grades' (the reliability of a system in terms of its power sources) and 'Categories' (in which areas smoke/heat alarms are required for detection). The Code is based on an individual risk assessment approach, although it recognises that, in most cases, guidance can be applied as a minimum recommendation set out in tables.

Building Regulation guidance documents in Scotland and Northern Ireland generally mirror the Code with Category LD2 for most general housing. This sensible level of protection means interconnected smoke and heat alarms, including smoke alarms in principal living rooms and heat alarms in kitchens, in addition to smoke alarms in circulation areas on each storey. However, in England and Wales, AD B falls short, requiring only Category LD3 with smoke alarms just in escape routes. But smoke alarms in living rooms are an important consideration. As the Code stresses, with Category LD3 the evacuation time once fire is detected in the escape route "might not prevent death or serious injury of occupants of the room where fire originates."

## COST-EFFECTIVE SOLUTIONS

In addition, AD B only calls for heat alarms in kitchens open to escape routes. With over 60 per cent of domestic fires starting in kitchens, this is a misguided approach. Although some kitchen fires are started accidentally by occupants, other less obvious sources can go unnoticed – notably faulty electrical appliances, perhaps operating at night while occupants sleep. Heat alarms are therefore essential in all kitchens and must always be interconnected with smoke alarms elsewhere. Straightforward, hard-wired interconnected smoke and heat alarms provide a cost-effective solution in existing properties, as well as new-builds, particularly during refurbishment or rewiring works. And the extra cost of additional alarms to meet Category LD2 is negligible.

Interestingly, wide-ranging new proposals recently confirmed by the Scottish Government call for a consistent, high level of smoke and heat alarm provision to be applied across all types of housing. They herald a fresh, straightforward approach to fire and carbon monoxide safety, recognising the key role of alarms as the first line of



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## THERE IS GROWING INTEREST IN COMBINING SMOKE, HEAT AND CARBON MONOXIDE ALARMS TO PROVIDE MORE COVERAGE AND ENSURE OCCUPIERS ARE AWOKEN

defence to provide critical early warning at low costs. Based on the BS 5839-6:2013 Code of Practice 'Category LD2' level of protection and Scottish Building Regulations, the minimum standard will now be extended to all types and tenures of housing.

### FIRE AND CO PROTECTION

The proposals call for "CO alarms in all homes" – although this is likely to mean all dwellings with a fixed combustion heating appliance – commenting that "it makes practical sense to combine installation programmes for ... smoke alarms and carbon monoxide alarms together." There is growing interest in combining smoke, heat and CO alarms to provide more coverage, ensuring that occupiers are awoken and alerted wherever they are in the property, whatever the risk.

Developer Thakeham Homes is one example. A Thakeham spokesperson commented: "Interlinked products provide

an integrated alarm system, meeting all our technical requirements from a single manufacturer. At Thakeham, we aim to exceed minimum standards and regulations. A working chimney will be installed with a solid fuel appliance – along with a CO alarm to meet current Building Regulations. But we also ensure a CO alarm is positioned in the proximity of any gas boiler, as an extra precaution. We insist that all the alarms – including CO – are mains powered, interlinked and have battery back-up to give our home owners real peace of mind should the unthinkable happen."

Crucially, all the alarms have different, distinct alarm sounder patterns for carbon monoxide and fire. So, without the need for any further operation of the system (such as remote switches), the system automatically alerts occupants of the specific hazard that confronts them. This allows them to respond quickly, making the right choice from the very different alternative actions



for either fire or the presence of carbon monoxide.

As a straightforward, low cost early warning, wider installation of smoke, heat and CO alarms is an essential first step, whatever else is done to make housing safer.

## Fire sprinklers go undercover with Encasement

Where fire sprinkler systems are being installed or retro-fitted in tower blocks and flats, Encasement's 'Versa' pipe boxing range provides a cost effective, durable and easy-fit solution for concealing sprinkler pipework.

Manufactured from pre-formed FSC® certified plywood and pre-finished in a durable white melamine, Versa 'L' shaped boxing is available in either 5mm or 8mm thicknesses for use within flats, as well as communal areas, such as corridors and lift lobbies, where sprinklers are required. Versa boxing can be used with standard sprinkler heads or concealed 'pop-out' units with cover caps.



Available in a wide range of sizes, Versa sprinkler pipe boxing helps save on installation time, as there's no need for fabrication or painting on site. All that's required is for the boxing to be cut to length and holes drilled for the sprinkler heads before securing to the wall or ceiling.

Encasement's Managing Director, Martin Taylor, commented "Our fire sprinkler boxing has already been installed on a large number of number of high rise refurbishment projects, where pipework and sprinklers need to be concealed for both aesthetic and practical reasons, as they are cost effective and easy to install.

"From our experience of working with contractors on countless social housing projects where pipework needs to be concealed, Versa boxing solutions can be fitted in less than half the time of site made alternatives. Also, as they're pre-finished with durable white melamine, there's no painting required on site, which also saves time and cost."

He added: "As Encasement holds a full FSC® 'Chain of Custody' certification, which certifies that our products are manufactured from sustainable timbers, this helps HAS



and LAs meet their compliance obligations under the UK government's timber procurement guidance."

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# SIPS VS TIMBER FRAME

Ian Loughnane of Kingspan Timber Solutions weighs up the relative merits of structural insulated panels (SIPs) and timber frame structures.

**D**espite them often being confused, there are quite a lot of differences between a SIPs and a timber frame structure.

A timber frame supports loads via regularly spaced studs, whereas a SIPs panel supports loads via the facing laminate, which is restrained from buckling by its bond to the internal insulation core. So for a SIP, the nature of the insulation in the core, its bond to the external laminate and the type of laminate used all combine to determine the structural characteristics of the panel as opposed to timber frame, where the stud centres and stud size are the key drivers.

SIPs structures do use timber studs, but generally only to support significant point loads generated by purlins, for example.

From a buyer's viewpoint, a timber frame can be bought with or without any thermal properties, but a SIP always has thermal properties built in. Common thermal core types are XPS, PUR or PIR. The XPS versions will be thicker than the PIR/PUR versions for the same thermal performance because XPS doesn't perform as well as PIR/PUR.

There are two main forms of manufacture: liquid core injection and adhesive bonding. Liquid core injection involves either a static hydraulic press or a rolling

press. In each case the top and bottom laminate is held in place by spacers between and pressure externally. The liquid insulation is injected and expands to fill the gap between the sheets. The liquid core chemically bonds to the sheets. The adhesive method applies structural adhesive to the core and laminates in controlled conditions. The three elements are then assembled and pressed to create the panel. In both methods quality control of the chemicals/adhesives and the factory conditions/processes are important to the quality of the finished panel.

SIPs behave as a composite structure and are surprisingly strong. It is not unusual to have certified performance equivalent to a building four storeys high.

SIPs behaviour in fire is determined by the core and laminate reaction to fire. One

manufacturer, for example, uses a PUR core and 15 mm OSB3 laminates which achieves 60 REI with one layer of 12.5 mm Type F plasterboard. So sourcing a good fire rating isn't a problem.

The other key difference is how the structure is constructed on site. SIPs are usually jointed with a "spline" which fits into a groove around the panel. These splines are usually a thinner version of the main panel and thereby continue the insulation integrity through the joint. This jointing method means that in general SIPs structures have much less thermal bridging than a timber frame. The use of a spline joint also allows the joint to be sealed with foam or silicone resulting in a highly airtight structure.

As overall thermal performance is driven by U-values influenced by core type and bridging fraction, Psi values and airtightness, it can be seen that the thermal performance of SIPs panels potentially score well on all three counts. Most systems range from below 0.2 W/m<sup>2</sup>K down to 0.1 W/m<sup>2</sup>K.

Compared to masonry all this performance is achieved within a relatively slim profile. Indeed, SIPs systems have always been significantly ahead of the game in thermal performance. It's only now that regulations are becoming tighter that we are seeing larger builders seriously look at SIPs as a possible building method.

Developers can gain significant advantage from high performance wall systems like SIPs. Firstly, there is the

**A TIMBER FRAME SUPPORTS LOADS VIA REGULARLY SPACED STUDS, WHEREAS A SIPS PANEL SUPPORTS LOADS VIA THE FACING LAMINATE, WHICH IS RESTRAINED FROM BUCKLING BY ITS BOND TO THE INTERNAL INSULATION CORE**



opportunity to maintain the wall thicknesses (and therefore the site plotting flexibility and room sizes) defined by their "standard range" of house designs. Secondly, this could also build in some SAP headroom allowing greater trade off with slab, roof or window specification. Thirdly, these systems can facilitate some future-proofing against further development of Part L, in addition to much faster build times and the associated better 'cash cycle'.

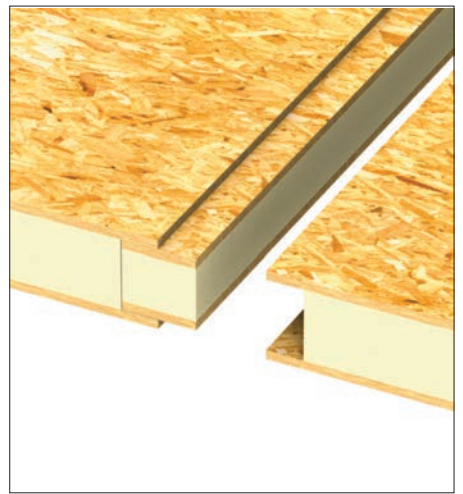
SIPs systems are very suitable for room in roof designs as an alternative to the various prefabricated roof systems that are now used extensively by builders. SIPs roofs can be used on timber frame walls or even masonry, but the build must be accurate. As with any prefabricated system, lack of fit problems can only be avoided by building to good tolerances.

Once fitted, the roof facilitates the early achievement of weather tightness and avoids the complex task of site insulating and ventilating traditionally constructed roofs.

For Passivhaus standards, SIPs is an ideal solution due to its inherent air tightness. Passive houses require an in service airtightness of less than 0.6 air changes per hour at 50 pascals in combination with U-values between 0.09 and 0.13 W/m<sup>2</sup>K.



SIPs can also be used as a very efficient replacement for traditional "Metsec and insulation" solutions for cladding steel and RC frame structures. As a cladding solution there are significant advantages. With the right choice of laminate a SIP can offer complete flexibility of fixing position, thereby dispensing with the risks of co-ordination and tolerance. With the right choice of core the thermal performance required will be achieved with a thinner wall profile. That means more internal space for a given footprint which in the rental sector has real value.



Due to its speed, the contractor achieves that all important weathertight date earlier, and therefore can improve programmes, reduce prelims and give the client an earlier handover. In city developments the financial impact can be very significant indeed.

There are many choices of SIP system in the UK. By understanding the product and how it performs, SIPs can offer real benefits to the builder and developer alike.

Ian Loughnane is business unit director at Kingspan Timber Solutions



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# THE RIGHT TILE FOR THE PROJECT

Tiles have long been the go-to option when it comes to the bathroom, but today the demand for trend-led tiles throughout new builds is on the increase. Liam Poole of British Ceramic Tile explains how to select the right tile for the job.

**T**iles have evolved in recent years. Once seen as a purely functional product, tiles are now a style statement, bringing colour, pattern and designer style to walls and floors. Still incredibly hard-wearing, tiles are now as much about design as they are practicality, with designer collections and fashion-led ranges readily available to appeal to the brand conscious consumer.

With so many different materials, sizes and finishes to choose from, tiles can add a point of differentiation in new builds, capturing the imagination of prospective buyers, but knowing what tiles to choose can be a challenge.

## MATERIALS

Ceramic and porcelain tiles are both frequently specified by developers. One common dilemma is which material is best, and where can it be used. Both ceramic and porcelain are manufactured using natural clay and sand, but the difference between the two materials occurs during the manufacturing process.

Ceramic tiles that are twice-fired provide a greater range of designs. The second firing process allows for more decoration on the tile, with glazes, lustres, patterns and metallic effects added. It's this process that makes all the difference, and allows manufacturers to push the boundaries of design. Stone and wood effects, for example, can be printed onto a ceramic base to give the impression of natural stone or timber, meaning they can be far more hard-wearing and water-resistant than some of their natural counterparts.

Ceramics are known for being much easier to cut and install when compared to porcelain, and don't require any sealing or special maintenance, making them a lower cost, practical option. Hard-wearing and waterproof when correctly installed, they can be installed within wetroom environments

or just about any room in the home as they will easily withstand regular use. They are not, however, advised for outdoor use.

Porcelain tiles are fired once, but at a higher temperature, which makes them incredibly hard-wearing and well suited to high traffic areas such as hallways and kitchens. Denser than their ceramic counterparts, they'll withstand wear and tear, but can be more difficult to cut and install, something to be factored in to labour costs.

Another advantage is that porcelain tiles are less porous than ceramic and are equipped to deal with freezing temperatures, so can be used outside. This works well in developments that have outdoor patios and feature areas. The tiles can flow

from the outside in, a look that remains popular with homeowners wanting to bring a sense of the outdoors into their homes.

## SIZE & FORMAT

There are no hard or fast rules when it comes to selecting the size and format of a tile. There is a movement towards larger format tiles on walls and floors, with 25x50 cm, 33x33 cm and 50x50 cm tiles often specified for projects as they are simple and quick to install. Large tiles can be creatively installed within small spaces, as less surface breaks deliver a more streamlined aesthetic, with less grout lines to maintain.

Metro format tiles are not limited to the kitchen either. They work equally well in bathrooms or living spaces, especially when several different colours are brought together into a chevron pattern design. Glass splashbacks should also be considered and factored in to any kitchen design. Hygienic and easy to clean, these stunning light-reflecting glass splashbacks are full of contemporary style, and provide a practical surface covering for the area behind the hob or sink.

## WHERE TO TILE

Kitchens, bathrooms, living areas, conservatories, cloakrooms, ensembles, hallways, the options are endless when considering where to tile. As ceramic tiles are water-resistant and hard-wearing they provide a durable surface solution for all rooms.

Such is the choice of designs now available that developers can create feature



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Fashion very much continues to influence our interior spaces, with tiles now echoing some of the key trends filtering through from the catwalk. This appeals to homeowners looking to reflect their personality through their homes.



### KEY TRENDS FOR 2018

Texture is in abundance this year, with tactile surfaces a key look for 2018. The trend sees character, texture and depth brought to surfaces. Discreet, natural stone effects are sought after, with wood, stone, concrete and marble finishes tapping into current looks. Raised surfaces are also popular in the style stakes, with surfaces becoming three-dimensional to offer a tactile quality.

In terms of colour, the traditional neutral colour palette of beige and grey

has been updated with dove greys and charcoals, alongside soft clay and putty shades to appeal to homebuyers across all demographics. Pattern is also a key trend that shouldn't be overlooked when it comes to selecting tile collections. Sales of feature floors are soaring, becoming a key growth area as developers turn to patterns to add an extra dimension to floors.

Liam Poole is head of specification marketing at British Ceramic Tile

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