



HbD

Housebuilder & Developer

July 2016

**The industry reacts to the
UK's decision to 'Brexit'**

**HCA turns up the heat on social
landlords over value for money**

**Crest Nicholson's 2,000-home
Garden Village development**

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Bathrooms & Wetrooms
Drainage & Plumbing
Floors & Floor Coverings
Stairs, Balustrades & Balconies
Sustainable Building Products

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David Mote,
Housebuilder
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Editor's comment

As the Chinese proverb says, "May you live in interesting times," and following the recent referendum result, we certainly are.

Not even the Prime Minister visiting a Crest development in Wiltshire could stop the country narrowly deciding to leave the EU. Almost immediately following the vote, £8bn was wiped off the market capitalisation of the country's four biggest homebuilders –Berkeley, Barratt, Taylor Wimpey and Persimmon. The drop was so drastic at Taylor Wimpey that it triggered a five-minute suspension in trading.

In the second-hand market a plentiful.com survey found sellers are now playing a 'waiting game' and homeowners are less likely to move in the next three years.

So has Brexit created a housing market where supply of homes is slowed and first-time buyers will find it even harder to get on the 'housing ladder'? It is still too early to say, but as the English proverb says, "The proof of the pudding is in the eating."

BREXIT

Sector leads post-Brexit slump

The housebuilding sector fell into decline for the first time in more than three years in June, leading to housebuilders' share prices tumbling following the announcement of the Referendum result.

The purchasing managers' index (PMI) for the overall construction sector recorded its worst level for seven years based on pre-Brexit worries in early June, dropping from 51.2 in May to 46 where a score below 50 marks a contraction.

Markit, which compiles the PMI together with the Chartered Institute of Procurement and Supply, said there had been a "steep decline in residential building," and major housebuilders' shares saw substantial falls following the Brexit result (see story on page 5).

Financial analysts offered warnings over the impact of the data, "This is an absolutely dire survey that fuels serious concern over the construction sector," Howard Archer of IHS Global told City A.M. Joshua Mahony at IG commented: "Many firms have seen investment ground to a halt both before and after the Brexit vote."

Tim Moore, senior economist at Markit commented: "The extent and speed of the downturn in the face of political and economic uncertainty is a clear warning flag for the wider post-Brexit economic outlook."

The London property sector saw Standard Life Investments suspend trading in its £2.9bn UK property fund due to "exceptional market circumstances," post-Brexit. The fund manager which had not taken the step since the financial crash of 2008 said that investors had been seeking to withdraw money in increased numbers since the vote.

HCA CHAIR

Lister appointed as HCA chairman

Sir Edward Lister has been appointed as the new chairman of the Homes and Communities Agency, having been put forward by the Department of Communities and Local Government as its preferred candidate for the important post.

Following a DCLG committee hearing in June, where a cross-party group of MPs examined a range of issues including the challenges facing the HCA, the committee concluded that Sir Edward was a suitable candidate for the post based on his skills and experience.

For the past five years Sir Edward has been London's deputy mayor for policy and planning and served as chief of staff at the Greater London Authority. His role included increasing public land disposals and developing new finance models to sustain investment in the capital's infrastructure.

Speaking about the appointment, Communities Secretary Greg Clark said: "The HCA has a big role to play in driving up housing. Sir Edward's experience and leadership that he brings to the HCA will ensure it is delivering the homes our nation needs."

BREXIT

Industry expresses concerns over Brexit result

Following the UK's vote to leave the European Union, housebuilders and experts from across the sector have been quick to speculate on the likely results of Brexit. The responses range from predictions of migrant workforces being hardest hit, to confidence in the industry's resilience to tackle the ongoing housing crisis.

Brian Berry, CEO of the Federation of Master Builders (FMB), quickly raised concerns about the loss of skilled workers from the EU following Brexit: "The UK construction industry has been heavily reliant on migrant workers from Europe for decades now – at present, 12 per cent of the British construction workers are of non-UK origin. They have helped the construction industry bounce back from the economic downturn when 400,000 skilled workers left our industry, most of which did not return. It is now the Government's responsibility to ensure that the free-flowing tap of migrant workers from Europe is not turned off.

Berry added: "The next few years will bring unprecedented challenges to the construction and house building sector, and it's only through close collaboration between the Government and industry that we'll be able to overcome them."

Tom Curtin of community consultation firm Curtin & Co expressed similar concerns that the skills shortage could be further hit by the vote, explaining: "Housebuilders could now find it harder to recruit workers from the EU to address the skills shortfall in the development industry. This would likely then have a knock-on effect on the number of houses built every year, making it harder for the Government to meet its very ambitious targets."

He also said challenges could be posed to meeting tough housing targets in emerging Local Plans and Strategic Housing Markets Assessments, "as growth forecasts are now outdated."

However, John Elliott, managing director of Millwood Designer Homes, welcomed the vote on the basis of 'red tape' objections, saying: "For many years, the EU Habitats Directive has had an unnecessary impact on housebuilding. The mere hint of great crested newts or slow worms on a site, which are prolific in the south east of England, can delay building for months.

"Our exit from the EU will stop the continual flow of red tape and see our housing market grow and flourish without unnecessary constraints placed on building much needed new homes."

Home Builders Federation deputy chairman, Peter Andrew commented that it was "too early to understand all the implications of the Brexit vote for housebuilders.

"However," he added, "it is clear that after decades of undersupply we face an acute housing crisis and demand for new homes will remain high. We will continue working with Govern-



ment and others to ensure we can deliver the number of homes the country needs in the coming years."

Julia Evans, CEO of testing body BSRIA, called on the Government to address the many questions Brexit has raised: "Government needs to take the lead and show direction now. With the current housing shortage crisis – we ask how are we going to find the workforce with the right skills to build these? But we must not lose sight of the fact that house building volume cannot be at the expense of quality – so such skills shortage are even more acute.

Evans added: "We also ask Government where direct investment will now come from without EU financing and backing? If the Government is not going to make any necessary investment – where will it come from?"

Monika Slowikowska, founder of Golden Houses Developments, argued that leaving the EU will be a huge shock to the construction industry: "Britain leaving the EU will have a catastrophic effect on the construction industry. Everyone is in shock. Property analysts are predicting an immediate slowdown in transactions. By leaving the EU, and based on our projects, we predict that the cost of labour could increase by an extra 15 to 20 per cent."

Julie Hirigoyen, CEO of the UK Green

Building Council hopes the green agenda is not affected: "Both economic and political uncertainty will have some people asking whether the green agenda needs to be de-prioritised while business goes into fire-fighting mode. This must and need not happen."

Iain McIlwee, CEO of the British Woodworking Federation (BWF) commented on the effect it will have on the manufacturing sector: "We will be lobbying to ensure that the manufacturing sector is not left to struggle through uncertainty, but is placed in an incubator ensuring that we can start growing again, adding jobs and value to the new economy. Initially this must come through tax breaks, incentives to employ, and light-touch legislation. We must also ensure that public sector procurement, now unfettered by EU policies, very carefully measures and takes into account the socio-economic impact of decisions within specification.

James Roberts, chief economist at Knight Frank reminded that the UK is still a desirable market: "Ultimately, it should be remembered that the UK is a country with 60 million wealthy consumers, and a high skill workforce.

"The underlying strengths of the UK economy remain in place, and ultimately real estate is an investment that works best for those who pursue long-term goals."



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HOUSEBUILDER SHARES

Brexit triggers housebuilder share price falls

In the aftermath of the UK's vote to leave the European Union, housebuilder share prices fell by around 20 per cent, on the back of figures showing a seven-year low in sector output.

Housebuilders' shares were among the worst hit across the FTSE 100 as the markets reacted adversely to the vote and the resignation of the Prime Minister, prompting warnings of house price deflation.

Speaking on the day after referendum Richard Donnell, insight director at Hometrack, said: "The immediate impact of Brexit is likely to be a fall in housing turnover and a rapid deceleration in house price growth as buyers wait and see what the short term impact is on financial markets and the economy at large.

He added: "The decision to leave the EU will be most keenly felt in the London housing market, which is fully valued and already facing headwinds."

Paul Higgins, CEO of the HomeOwners Alliance commented: "No one knows the full impact of this momentous vote yet, and in the short term the only certainty is uncertainty. This is bad news for financial markets and will proba-

bly impact interest rates longer term, so mortgage holders will want to watch this space."

"House sales fell ahead of the referendum and people will continue to watch what unfolds before making any big financial decisions. We can expect the rate of house price growth to slow nationwide, while in London the limited housing supply could reduce the impact on house prices."

Melanie Leech, chief executive of the British Property Federation called on the Government and the Bank of England to stabilise the situa-

tion: "The effect of the vote has been immediate, and we are already seeing market turbulence and a fall in the pound. The priority must now be to stabilise the position and maintain confidence in the UK."

She added: "There are many unknowns ahead. Our priority is that Government maintains focus on existing national priorities such as housing and makes swift decisions on major infrastructure projects, such as airport capacity and maintaining momentum around HS2."



COMMENT

Awards are helping to change industry's image

As housebuilders triumph at the recent National Site Awards, Edward Hardy, chief executive of the Considerate Constructors Scheme explains how the awards can help to enhance the image of the housebuilding industry.

It is not too long ago that housebuilders had a reputation of being one of the least, shall we say, 'considerate' industry sectors, based on their performance during the construction phase of a project. Dare I say, construction of new homes was considered only as a 'means to an end.' Yes, their image was clearly crucial at the marketing and sales stages, but significantly less of a concern during the construction stage.

Maybe it was because housebuilders did not (and some still do not) consider themselves as a part of the construction industry. This is of course not true. They are at the core of the industry. Indeed, building new housing is a key priority for the Government in its target to deliver the 1 million during this Parliament.

So, where does image come in? The answer is easy: everywhere. All stages of the process – pre, during and post construction – need care and attention, to ensure the public and the workforce have an inspiring and positive perception of the



industry. This is what the Considerate Constructors Scheme is all about – improving the industry's image – and firms are now fully embracing the scheme to continually raise their standards.

The scheme works through the voluntary registration of sites and companies, though sub-contractors and suppliers are also able to register. Every organisation that is part of the Scheme agrees to abide by the Scheme's Code of Considerate Practice. They are monitored by peers on their performance in three areas: consideration

towards the general public, the workforce and the environment. Every year, the Scheme registers around 8,000 sites and makes around 13,000 site visits, over 3,000 of these being house sites, with figures growing year on year.

Over the past five years, a significant proportion of the UK's largest housebuilders have showcased some of the very best practice in the construction industry, demonstrating how they are improving their image. At this year's Considerate Constructors Scheme National Site Awards, Robert Woodhead scooped one of four of the highest accolades. Berkeley Homes, Barratt Homes, Bellway Homes, Crest Nicholson, St George and United Living were among other firms picking up 2016 National Site Awards.

It is very pleasing to see how the sector is increasingly raising the standards for considerate construction. Firms have achieved truly exceptional performances, and are going way above and beyond compliance with the Scheme.

PRIME MINISTER VISIT

Cameron tours Crest Nicholson development on eve of vote

On the day before the EU Referendum, the then UK Prime Minister David Cameron paid a visit to a new development designed to be highly sustainable – Crest Nicholson's Tadpole Garden Village in Wiltshire.

Tadpole Garden Village is one of the only developments in the UK which will be delivered

on the basis of Garden Village principles.

Crest Nicholson CEO, Stephen Stone said: "Government support has brought much needed stability to the housing market. The industry has responded by growing volumes and creating many highly skilled jobs, apprenticeships and new career opportunities for young people."



HELP TO BUY INVESTIGATION

First-time buyers priced out of Help to Buy

Potential homeowners in large parts of England are being priced out of Help to Buy, the Government's scheme to help first-time buyers, according to an investigation by BBC South East.

The Help to Buy Individual Savings Account (ISA) was introduced last year to help young people save for a home. First-time buyers save their deposit into a tax-free savings account and

get a 25 per cent bonus, up to a maximum of £3,000, when they buy their home.

The bonus is only available if the purchase price does not exceed the capped limit of £250,000 or £450,000 in London. However, in many areas of the south east of the UK, the average price of a starter home exceeds the cap, the investigation found.

Interviewed by BBC South East, the

Chancellor George Osborne defended the initiative: "Hundreds of thousands of people have made use of the Help to Buy ISA. What we wanted was for it to be available to people getting on the housing ladder, rather than for people buying more expensive homes." He added: "There are homes available but of course as the scheme goes from strength to strength we can always look at ways to improve it."

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HBSP

Home Building Skills Partnership starts work

The Home Building Skills Partnership (HBSP) board has met for its inaugural session beginning a programme intended to attract and train tens of thousands of new workers to the sector.

Headed by Redrow Homes CEO, John Tutte, the partnership consists of a group of leaders from across the housebuilding industry including the Home Builders Federation (HBF).

Over the next four years, the HBSP programmes will aim to engage with more than 3,500 companies, more than 40,000 workers and around 180 colleges and training providers, in its

quest to give the industry the workforce it needs to boost housing supply. The partnership will focus on attracting new entrants into the sector and applying targeted training.

The board, which comprises of representatives from housebuilders, training and trade bodies and warranty providers, will guide the partnership, defining its operational parameters and priorities. The board will also supervise the recruitment of a dedicated team to carry forward initiatives on a day to day basis.

HBSP board chairman Tutte explained: "The housebuilding industry is totally committed to

increasing output and meeting the housing needs of the country. The partnership will help us attract and train the people we need to deliver more high quality homes in the coming years. The broad experience of the board we have recruited will help us put in place the building blocks we need to succeed in this."

Among other tasks set out for the partnership, the HBSP aims to develop and improve the public image for housebuilding, and increase productivity and the "value added per employee," while improving the relevance and quality of industry training.

ECO CREDENTIALS

Redrow partners with heat recovery firm to cut carbon

Redrow Homes has joined forces with waste water heat recovery firm Power-pipe, adding its systems to the housebuilder's national trade specification in a move designed to save energy, reduce carbon emissions and keep heating bills down.

Waste Water Heat Recovery works by recovering heat from outgoing waste hot water, lost during showering, and uses it to heat incoming fresh water. It can save a property between 300 kg-

1000 kg of carbon dioxide emissions per year.

It is also one of the most cost-effective technologies that can be used to boost a home's energy efficiency performance within the Standard Assessment Procedure (SAP) calculation, which is required to pass Building Regulations.

On average, installing a waste water heat recovery unit will save a household 10 per cent a year on its annual energy bills or 500 kWh per person.

In a typical home, this could equate to a cost saving of between £80 and £100.

Redrow Homes Group technical manager, Jonathan Moss commented: "As well as the consumer benefits, from an operational perspective adding Power-Pipe to our trade specification will also provide us with the ideal solution for some of our properties."

He added: "This is because of its cost-effectiveness and generous SAP rating, which will assist us with reducing CO₂ emissions, and achieving compliance with Building Regulations on certain house types."

Waste water heat recovery is relatively new to the UK and started appearing in homes around 2009, although it's been used in Canada and certain parts of Europe for the last 15 years.

THE URBAN HOUSE

Berkeley's offsite solution for urban density

Berkeley Homes has launched what it is claiming to be a new modular offsite housing concept for modern living – a three or four-bedroom home adaptable to changing lifestyles. Berkeley has labelled the Urban House as a "fifth category of home, distinct from the detached, semi-detached, terraced or apartment properties homeowners currently know."

The Urban House has been designed in response to the need for "high quality housing built at a density that can sustain communities while accommodating the country's growing population," says the firm. It is thought to be the first time a major developer has designed and delivered its own housing typology and it has spent 10 years refining the design, for which there is a patent currently pending.

The Urban House concept addresses the need

low-rise living combined with high density, with a 'back-to-back' design. This enables twice as many homes to be built compared to traditional terraced housing, maximising land use without the need for tall buildings, says Berkeley, while still retaining privacy for its residents and maintaining a typical street appearance.

The developer commented: "The building elevation can take any form, incorporating bay windows, or contemporary and traditional elements to respond to the local vernacular and fit into existing streetscapes."

Berkeley added: "With ever-changing and increasing demands on the construction process to meet environmental challenges, the design of the house can also be adapted to the latest construction and build methodology."

Flexibility has been incorporated into the

Urban House design, via a volumetric system. This offers fully fitted, site-ready house components, factory-built and customised to satisfy homeowners' needs. Offsite construction also provides faster build times and reduced costs, with modular, pod or panelled framed systems which can be used alongside traditional construction methods.

Berkeley believes that the Urban House will provide the flexibility of design needed for modern lifestyles. Fully compliant with Lifetime Homes criteria the developer says it is also capable of simple adaptations, which can accommodate changes in occupants' mobility, family size and housing needs over the years.

The Urban House can also be built to provide a mix of private and affordable housing of different tenures.

COMMENT



Money, money, money

Patrick Mooney of Mooney Thompson Consulting comments on how the Government is turning up the heat on social landlords to put the focus firmly on 'value for money.'

Value for money has returned to the top of the agenda with a bang, but landlords are asking will the social housing regulator look beyond the headline figures to ensure that customer satisfaction and 'doing the right thing' share top billing alongside unit costs and operational efficiency?

Research undertaken separately by the HCA and by Housemark (on behalf of the National Housing Federation) has shown that landlords have already achieved sizeable reductions in operating costs and overheads over the past five years.

But under continuing pressure from Government ministers, the Homes & Communities Agency is turning up the heat on social landlords. Whether this pressure will turn into stronger regulatory action, such as downgrades in governance ratings remains to be seen. But it shouldn't take too long before the HCA's intentions become clear.

Its regulation chair Julian Ashby has recently written to the chairmen of the largest 350 HAs urging them to increase their efforts to save money. It appears they are being asked to perform something of a minor miracle by delivering the following outcomes:

- Absorbing the annual 1 per cent rent reductions through to 2020
- Increasing the development of new affordable homes
- Improving services to residents

Mr Ashby has pointed out that with Decent Homes work programmes largely completed, there should be room for cutbacks in expenditure on major improvement contracts and big maintenance projects. His contract has just been extended so no changes in the message are expected any time soon.

Unexplained differences

Analysis of HA finances by the HCA revealed large differences in landlords' operating costs and arising from this, several fascinating issues that really do need further investigation.

For instance, it appears that only half of the higher costs can be attributed to factors such as regional differences in wages and the higher unit cost of providing supported housing services for the elderly and other vulnerable residents.

So what causes the rest of the difference and can it just be down to the better prices for repairs

and maintenance works negotiated by savvy procurement managers? It doesn't appear to be that simple.

But possibly of most interest given the current trend for mega mergers, is the finding that larger landlords are not necessarily more efficient, nor do they have lower costs than other housing associations.

Although all statements by merger partners refer to them making financial savings through combining operations to create greater efficiencies, the HCA say their research found "there was no significant evidence of a clear relationship between scale of a provider and lower costs". So can we expect more scrutiny of mergers and more detailed follow-up work to ensure the promised benefits have been produced? You would like to think so.

Warning

In an explicit warning to HA boards that they have to step up and get a firmer understanding of their organisations' activities and costs, Mr Ashby said "We are not mandating a 'right' level of operating costs. However, we will seek assurance that investment decisions to deliver specified outcomes are rigorous and evidence-based."

It will be interesting if this assurance work includes obtaining the views of tenants, who are after all the customers and possibly the best placed to say whether the greater focus on VFM is improving matters for them. For instance - are their phone calls being answered more quickly and by staff who can properly deal with their inquiry? Are services flexible enough to fit in with their specific needs and does their landlord focus on preserving tenancies or evicting those with rent arrears?

The HCA said average costs per unit had fallen slightly to £3,550 over five years. It found the lower quartile cost was £3,200, while the upper quartile cost was £4,300. That difference is equivalent to more than £20 a week, a hefty chunk of the average rent of about £100 a week. A minority of landlords - mostly Supporting People providers - had average costs of more than £10,000 per unit.

The research showed the cost of housing management services stayed relatively stable over the period, dropping just 0.6 per cent while remaining at an average of £500 per property.

The cost of repairs and maintenance per prop-

erty fell by 11.1 per cent from around £650 per property to below £600, while the average time taken to complete repairs fell slightly from 8.51 to 8.22 days. Tenant satisfaction with repairs and maintenance fell from 83.2 per cent in 2011/12 to 82.3 per cent in 2014/15.

However, the overall satisfaction of tenants with their landlords rose from an average of 86.5 per cent to 88 per cent over the same period. All good news, but it appears the Government wants savings to be ramped up higher so that HAs can invest the money in bigger housebuilding programmes, towards its ambitious target of 1 million new homes by 2020.

Investment

Looking forward, HAs are forecasting making greater cost savings over the coming years, with the headline social housing cost per unit forecast to decrease by 7 per cent. They can expect greater scrutiny of these predictions and detailed checks on their delivery.

Fiona MacGregor, executive director of Regulation at the HCA, said "Savings being forecast between now and 2020 to offset the impact of cuts in social rents are significantly greater than anything the sector has achieved in recent years. As the sector seeks to produce savings and simultaneously deliver investment in new and existing homes, it will be increasingly important that providers optimise the use of their resources and assets."

Separate research undertaken by Housemark for the NHF found that housing associations managed to reduce their overhead costs relative to turnover over the last six years. The study looked at the benchmarking data from 250 HAs between the years 2008/09 and 2014/15.

This showed that overhead costs - covering such back-office functions as IT, human resources, finance and accommodation, fell from an average 13.6 per cent of turnover in 2008/09 to 11.8 per cent in 2014/15.

It also showed that the percentage of spending on activities like anti-social behaviour, tenancy management and resident engagement had all decreased while spending on rent collection went up.

Question marks

The report said this reflected HAs' response to welfare reform. While rent arrears fell during the

period – from 4 per cent to 3.4 per cent as a percentage of the rent owed, the rate of improvement slowed over the period and it remains to be seen if the improved performance can be sustained when further cuts in the rent cap kick in and Universal Credit is rolled out to all claimants.

This all combines to raise a question mark over the business cases being made for the current rash of mergers in the HA sector. Let's ignore the loss of competition for one minute. The case for mergers can be traced back to ministers urging associations to amalgamate and reduce the number of highly paid chief executives and directors.

While the number of mergers being announced has grown, it is noteworthy this is not being accompanied by a spate of executive sackings or redundancies. Instead we are seeing senior executives' jobs being retained, often with new roles or job titles.

This is not necessarily a bad thing – it preserves talent and knowledge, while retaining expertise within organisations as they look to get the best out of themselves. But it's not delivering the savings on the salary budget as envisaged by Ministers. How long will it be before those Ministers spot this as well, and

urge the HCA to take action on this?

The latest merger announcement saw Sanctuary Group and Housing & Care 21 declare their plans to combine all of their elderly-specialist housing operations into a single 32,000-home subsidiary of the Sanctuary organisation. They said the efficiencies generated would allow them to double their development programme to a combined 800 affordable rent homes for older people a year.

Regulatory fees

With the Housing and Planning Act now on the statute book, we wonder how long it will be before the regulator announces plans to introduce charges for its work. Consultation on bringing in regulatory fees has been postponed several times already but it is understood the time for a formal announcement is fast approaching and Communities Secretary Greg Clark is allegedly a fan of fees unlike his predecessor Eric Pickles.

Ministers and officials at the HCA are believed to be keen on allowing fees to be charged from 2017/18 if possible. The HCA and its sponsoring government department, the DCLG, have each witnessed significant funding cuts in recent

spending reviews, and more cuts are forecast.

Previous plans to introduce regulatory fees in 2014 and 2015 had to be dropped because Ministers did not sign off the necessary consultation papers in time. The election and the new legislation then took priority.

The regulator is currently funded via a grant from the DCLG. According to an HCA discussion document published back in February 2014, the total cost of the regulator was around £12.5m for 2013/14 but since then the number of regulatory staff has fallen.

Surprisingly the HCA analysis found 'other factors', such as associations' involvement in non-social housing activity and the geographical dispersal of stock, had no statistically significant effect on landlords' costs.

Any landlord with costs higher than the average cannot say they have not been warned. Apart from working hard to reduce costs (by learning from the better performers), they also need to ensure they know why their costs are higher and what if any justification there is for this.

Board members and executive teams need to expect closer scrutiny and to understand that value for money will remain an integral part of their oversight for years to come – well, for the next four years at the very least.

PERSIMMON PAYOUTS

Persimmon senior executives set to pocket multi-million payout this year

Following a 54 per cent rise in the company's share price over the past year, Persimmon is reported to be planning high payouts to senior board members despite the backdrop of a continued housing crisis in the UK and criticisms of the industry's failure to hit housebuilding targets.

In the context of major housebuilders seeing high profits recently, the reported £240m payout planned for Persimmon executives includes Mike Farley, outgoing CEO, who is thought to be collecting £20m in shares this December. A 10 year bonus scheme which started in 2011 tasks managers to return £1.9bn to shareholders, with resulting bonuses predicted to reach a total of nearly £620m.

Persimmon said the LTIP (Long Term Incentive Plan) scheme has been designed to "drive outperformance through the housing cycle," and "incentivise the management to deliver the capital return, grow the business and increase the share price."

Other firms such as The Berkeley Group have been the target of media criticism, with founder and chairman Tony Pidgley's six-fold pay rise to £23.3m making the headlines in 2014. Housebuilders are building more homes however – while Bovis reported a 9 per cent rise in profits

in the first half of this year, it also built a record 1,525 houses.

A spokesperson from Persimmon told *Housebuilder & Developer*: "Since the LTIP scheme was put in place, Persimmon has delivered

a 56 per cent increase in new homes completed, invested over £2bn in new land, opened 812 new development sites, returned £1bn to shareholders and created thousands of jobs, while at the same time building a stronger, bigger business."



EVENTS

National Housing Awards
8 September, London
www.nationalhousingawards.co.uk

RESI Conference
12 - 14 September, Wales
www.resiconf.com

HBf Planning Conference
14 September, Birmingham
www.hbf.co.uk/events-meetings

HBf Technical Conference
15 September, Birmingham
www.hbf.co.uk/events-meetings

National Housing Federation Annual Conference & Housing Exhibition
21 - 23 September, Birmingham
annual.housing.org.uk

Homebuilding & Renovating Show
23 - 25 September, London
london.homebuildingshow.co.uk

24housing Awards
6 October, Coventry
www.24housingawards.co.uk

Housing Market Intelligence Conference
6 October, London
www.hbf.co.uk/events-meetings

London Housing Summit
6 October, London
www.cih.org/events

Women in Housing Conference South
13 October, London
www.womeninhousingconference.co.uk

British Homes Awards
14 October, London
britishhomesawards.co.uk

UK Construction Week
18 - 20 October, Birmingham
www.ukconstructionweek.com

The Build Show
18 - 20 October, Birmingham
www.ukconstructionweek.com/build-show

Grand Designs Live
19 - 23 October, Birmingham
www.granddesignslive.com/nec

London Build Expo
26 - 27 October, London
www.londonbuildexpo.com

Housebuilder Awards
3 November, London
www.house-builder.co.uk/awards

Women in Housing Conference North
3 November, Manchester
www.womeninhousingconference.co.uk

Women in Housing Awards
3 November, Manchester
www.womeninhousingawards.co.uk

CML Annual Conference
9 November, London
www.cml.org.uk/events

Homes
16 - 17 November, London
www.homesevent.co.uk

Scotland Build Expo
23 - 24 November, Glasgow
www.scotlandbuildexpo.com

Ecobuild: What does sustainability mean?

Ecobuild has called on the industry to define future sustainability goals, in a campaign which will give the built environment sector an opportunity to define the 2017 Ecobuild event programme. The organisers are asking the industry to answer the question: what does sustainability mean now, and in the future?

Ecobuild has already begun canvassing built environment professionals, ranging from architects and designers, to contractors and engineers,

to get their views on the evolution of sustainability, and what it should stand for. Responses and questions submitted via the hashtag #SustainabilityIs will contribute to an industry-wide roundtable discussion on 22 June that will be chaired by Chief Executive of the UK-GBC, Julie Hirigoyen.

The roundtable panel will comprise of high profile figures from housing organisations, local government, manufacturing and built environment sectors, including the Construction Products Association, BRE, Marks & Spencer,

and Institution of Civil Engineers. Key outcomes of the debate will be shared at an event at the House of Commons later this month and published by Ecobuild.

The outcomes of the #SustainabilityIs campaign - including the roundtable - will come to life at Ecobuild 2017 (7-9 March, ExCel London) and be used to shape the conference programme, content and experience of the event. An industry manifesto for sustainability will be published following the show.

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Industry movers

The latest movements and appointments within the housebuilding industry

BARRATT HOMES

Barratt Homes' North Thames team has welcomed Paul Bowhill, who is newly promoted as a Field Sales Manager. Paul is working from the company's Watford headquarters and will play a key role leading the sales drive in major new developments across the division. Previously based at Barratt Homes' Southern Counties Region offices in Guildford for five and half years, he was most recently Senior Sales Adviser. Aged 52, Paul lives with his partner Lisa in North London and has a son, who is at university. As Field Sales Manager he is responsible for an area covering Barratt Homes' development at Meridian Place, Milton Keynes, as well as the Kingsbrook development, east of Aylesbury, which will provide 2,450 homes over a 10-year period.

T R FREEMAN LIMITED



Commercial roofing and cladding company, T R Freeman Limited, he joins the company from Prater Limited where he held the position of Project Director. Speaking about his appointment, John O'Kane said "I am delighted to be a part of a company that has such a long and successful history. T R Freeman's skills and knowledge base, and the staff's commitment to delivering nothing less than the most professional service to its clients, are as evident now as they must have been some 125 years ago."

Commercial roofing and cladding company, T R Freeman Limited, he joins the company from Prater Limited where he held the position of Project Director. Speaking about his appointment,

ISG

ISG's new CEO, Paul Cossell, has announced his first key appointment as Damian Farr is promoted to the newly created role of managing director for the company's Engineering Services business across Europe. Damian heads up a specialist team that has delivered over £1 billion, or over three million sq ft, of data centre projects across continental Europe in the past five years. ISG is currently delivering a number of complex and highly-engineered construction projects in Belgium, Finland and the Netherlands, giving Damian the perfect springboard to focus on growing market share in the technology, science and health sectors. Damian brings over 20 years' experience in the energy, technology, science and healthcare sectors.

CEA



CEA has announced the appointment of Rory Keogh as the incoming President of the UK trade association, which represents Construction Equipment manufacturers and suppliers. Mr Keogh succeeds outgoing President, Nigel Baseley, former sales director of EAME Industrial Power Systems Division of Perkins Engines, who held the role of President of CEA since 2014.

CEA has announced the appointment of Rory Keogh as the incoming President of the UK trade association, which represents Construction Equipment manufacturers and

LIA

Kirstin Shortt joins the LIA as the 'Support Hub' Assistant. As Support Hub Assistant, Kirstin is the first point of call for all enquiries whether by phone, email or via the LIA website. Answering questions from membership, training, technical or you just want to know where we are located to the best hotels to stay in for events. Kirstin has many years management experience within Customer Services, Recruitment and Finance Industries. She also has a history of providing and running a help support desk to clients and staff within a financial company.



Hill has strengthened its presence in the west of England by appointing Chris Walker as its new Regional Director. The appointment marks a major step forward in Hill's expansion plans under the company's new five year strategy. Chris Walker brings a wealth of industry expertise to Hill, having held senior positions at three major UK housebuilders. As Regional Director he will lead Hill's growing team in the western region and oversee the firm's new projects in the area. Hill will be recruiting a number of roles in its western region.

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RSM



RSM has appointed Kelly Boorman as its head of construction. Kelly, will be responsible for leading the firm's 40-strong senior team providing advice and support to the construction sector which accounts for around 10 per cent of RSM's UK business. Kelly, who has been a partner at RSM since 2012, has 20 years professional practice experience advising the construction sector.

RSM has appointed Kelly Boorman as its head of construction. Kelly, will be responsible for leading the firm's 40-strong senior team providing advice and support to the construction sector

JHG

Leading social housing support consultancy, Just Housing Group (JHG), has announced the appointment of former Deloitte Partner, Chris Sullivan, as Non-Executive Director. He will support the company in fulfilling its ambitious growth plans. Experienced as a Non-Executive with several organisations, combined with over 25 years' in senior positions, Chris believes he can play a pivotal role in helping the business develop its Governance and Assurance framework, as well as apply his expertise in building up consultancy and advisory practices in the public sector. As a former senior partner to one of the UK's leading accounting, advisory and consulting practices, Chris has a wealth of experience in leading and directing multi-disciplinary consultancy teams.

HILL

LOVELL

Cardiff housing developer and regeneration specialist Lovell's continuing investment in its workforce and commitment to training the next generation of construction professionals has been underlined by the appointment of Darryl Williams as regional training advisor. Darryl, who lives in Blackwood, Caerphilly, joins Lovell from national sector training body CITB (Construction Industry Training Board) where he worked for more than 22 years. In his last CITB role, Darryl was company development training advisor based in south east Wales. In his new position with Lovell, he will lead all training activities for Lovell across South Wales and the South West, including the development and training of the 90 staff members in the region.

Crest Nicholson creates a Garden Village on former Berkshire barracks



Crest Nicholson has launched its new £600m Garden Village scheme, Arborfield Green, which will see the regeneration of the former Arborfield Garrison site in Berkshire into a significant new community of 2,000 homes.

Crest Nicholson was appointed as development manager for the former Garrison site by the Defence Infrastructure Organisation (DIO), the estates arm of the Ministry of Defence, in April 2013. As long term custodian of the development, the company will be responsible for delivering the Arborfield Green vision over the next 12-15 years on behalf of the DIO.

Once complete, the development will provide all of the associated facilities and infrastructure required to support a high quality, sustainable and thriving new community. This will include 2,000 new homes, 62 ha of new public space, new primary and secondary schools, a library, gym, retail and hospitality units and a new community centre. The off-plan sales launch of Arborfield Green took place on 21 May at Haslams Estate Agents in Reading.

The Arborfield Green site was Crest Nicholson's first partnership with the DIO, following which the developer secured a second partnership with its appointment to the £1bn Wyton Airfield site in November 2014. The development of the site also includes the restoration of two former military buildings, the Horse

Infirmary and Moat House, for community use and value.

The regeneration scheme secures more than £66m of external investment into the Arborfield community, including around £26m for highway improvements on and around the former Garrison site. Once finalised the Arborfield Green development will provide Wokingham Borough Council with a £7m new primary school, and a £30m new secondary school, with three further community building assets of up to £5m, and increased council tax from 2,000 new homes.

Arborfield Green already enjoys a rich and established landscape which is being embraced as part of the new Garden Village development. Crest Nicholson has committed to creating new areas of country parkland to encourage biodiversity as well as providing open spaces for residents. Plans include the creation of a brand new Linear Park running the whole length of the site, while the newly created Hazebrook Meadow will be open in time for the first property completions in Autumn 2016.

When complete the site will include over 2.5 km of new bridleways and 5 km of new footpaths, alongside 3 acres of new play areas and 4 km of new cycle-paths. As part of the development process Crest Nicholson is working closely with both parish councils and key local stakeholders to ensure engagement with the local community. In

order to ensure the local community is kept abreast of construction activity, and to allow a two-way conversation between it and Crest Nicholson, a Community Liaison Group has been established.

Chris Tinker, board director at Crest Nicholson, commented: "We are excited to be launching this, our latest regeneration project, a multi-million pound development which will create much-needed new homes and community space for the local area, as well as new jobs, retail and hospitality units to boost the local economy. Arborfield Green will follow the design and community philosophies of the Garden City movement, but tailored to a more rural village scale and character."

He added: "The project is a long-term partnership and we are working closely with the DIO, Wokingham Borough Council and key local stakeholders to ensure a smooth delivery on site, allowing early investment in infrastructure and ultimately increasing land value and best value for taxpayers."

The development includes a host of local road and junction improvements, including an extension to the Nine Mile Ride and contributions to enable the delivery of the Arborfield Relief Road. The Nine Mile Ride extension will enable the planned new Secondary School, being delivered by Wokingham Council, to open in time for the first property completions in September 2016.



Gyproc Habito. A new wall solution to replace standard plasterboard.

Gyproc Habito is part of the Rooms Made For You range, a new generation of products designed to add value for developers and interior designers.

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Naturally versatile, strong and durable, wood is the perfect choice for exterior use. It's recyclable and sustainable and can be used for decking, fencing, roofing and cladding, where it will also provide an extra layer of insulation. Silva Timber's cladding products will enhance the character of your home while the Sansin range of finishes ensures that the exterior and interior timber stays looking like new and lasts for many decades to come.

When it comes to wood protection, one question is asked more than any other – how long will it last? It's difficult to answer this question, as there are so many factors to take into consideration. The design and orientation of the building, wood species, preparation taken, how translucent the finish is, exposure to sunlight and moisture among other variables, will all influence the life of the finish.

The timber industry is saturated with different finishing products. More commonly used are high build oil and water based finishes which have a greater viscosity and sit on the top of the wood creating a protective layer. Whilst it may give the appearance desired both of these finishes over time are likely to crack, split and flake and will essentially trap moisture in the wood which will cause the wood to rot.

The Sansin range of finishes from Silva Timber are a low build, highly penetrating water-bourne alkyd based finish which offers the best of oil based and water based finishes whilst containing no VOC's and is environmentally friendly. It works by using water to carry modified natural oils and resins deep into the wood's cell structure. The water then evaporates allowing the finish to bond directly with the wood substrate enabling the wood to breath whilst forming

Choose the right product to keep your timber cladding in top condition



a tough, durable barrier that won't crack, peel or blister. If the timber is well maintained it will grow old gracefully and will not go grey.

Finishes using water bourne technology harness the power of Nano technology to create finishes and colours like you've never seen before in wood protection. By atomizing high quality pigments into Nano-particles, the pigments can be combined with the protective oils and resins on a molecular level. Once applied to the timber they penetrate deeply, pulling the pigmentation down into the wood to provide a long lasting, vibrant and uniform colour.

When deciding on a stain it's important to understand the characteristics of the timber species it is being applied to. The effect of the stain will vary depending on texture, grain, colour and porosity so we'd recommend checking the colours on samples of the timber being used.

There are various staining options; natural and translucent tones, which let the beauty of the wood shine through or saturated to ultra saturated tones that provide a more solid colour appearance to the timber.

The key to an excellent finish is preparation; always ensure that the timber is clean and dry, for woods that contain knots and tannins use a primer (check the finish you are using – some finishes contain a priming agent), sand the timber thoroughly. Sanding the timber thoroughly removes mill glaze and creates an even surface allowing the stain/finish to penetrate the wood, providing an even, consistent and long-lasting finish. Studies have proven sanding can extend the life of a finish by up to three times compared to an unsanded surface. Following the preparation stages, finish/stain application is the most rewarding part of the protection process. Water-bourne alkyds can be applied in a variety of ways; brushing, dipping, hand or automated spraying (low pressure or airless). It is recommended to always flood the surface to the point of saturation (approximately five-six wet mil). If using a spray application remember to back brush following the grain pattern to ensure consistent penetration.

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Enq. 106



ThermoWood cladding in Sansin SDF Autumn Gold



ENVIRONMENTAL ANALYSIS



The impact of buildings in use

The BRE's James Fisher describes how commercial clients are seeing the need to analyse and improving the environmental impact of their buildings in use, to increase asset value.

tools available focus on one environmental category, such as energy, and look at one assessment area only. By limiting the assessment criteria the results of these environmental tools give a limited picture of the overall environmental impacts of a building, which can distort the decision making process and lead to unforeseen consequences when actions are taken to improve performance. BREEAM In-Use in contrast gives a clear overview of a building's environmental performance and can lead to informed management decisions.

In-Use, in practice

Citycon Oyj, based in Helsinki, has recently launched a project to introduce the certification to 75 per cent of its properties by 2017. As the leading owner, developer and manager of urban grocery-anchored shopping centres in the Nordic and Baltic regions, Citycon clearly sees BREEAM In-Use certification as a cost-effective way to manage its €5bn portfolio.

According to Nils Styf, Citycon's Chief Investment Officer, BREEAM In-Use certificates provide Citycon with a comprehensive overview of the environmental performance of their portfolio and a useful platform to identify improvements.

As a result of their recent environmental focus, Citycon has reduced its reliance on purchased heating energy by an impressive 30 per cent in 2015 for one centre by using renewable energy. Of course, this also positively benefits their carbon footprint too. These benefits can be realised in many more of their properties over time.

Interestingly it is not only private commercial organisations that are seeing the opportunity presented by using BREEAM certification. The methodology has also been widely adopted recently by the City of Stockholm. Stockholms stad, the public sector administration that is responsible for managing the Swedish capital, is fully adopting BREEAM In-Use as part of its asset management strategy.

As part of their commitment, Stockholm is also taking part in a new pilot project aimed at creating a more cost-effective volume assessment route for BREEAM In-Use across its portfolio. Focusing on a parcel of 50 public buildings, the objective is to establish a cost-effective methodology for certifying and maintaining certification

of asset portfolios against BREEAM In-Use International 2015.

The pilot one-year project will look at the type of evidence common to a large asset portfolio and how it can be supplied, collected and verified in order to minimise the need for additional site visits. It will focus on ascertaining the type of evidence that applies to buildings with similar characteristics or properties – asset clusters – and on establishing whether an assessor can review this evidence and accept it as applicable to all. The project includes engineering consulting firm PQR Consult AB and BREEAM In-Use assessor Piacon AB.

To date, 100 buildings in the city have been assessed within BREEAM In-Use or are in the process. They represent a broad spectrum of architectural styles, building ages, uses and building services designs, including the historic City Hall building where the Nobel prize-giving ceremony takes place each year. If the method can help to improve the sustainability of such a prestigious landmark building, then it will undoubtedly work across a variety of modern assets too.

The fact that both commercial and public sector property owners are now choosing BREEAM to set them apart only adds weight to the case for sustainability to be considered as a matter of course in everyday business. This is borne out by the findings from the recent CBRE EMEA Investor Intentions Survey 2016 – explored in more detail in an article authored by Rebecca Pearce, senior director and EMEA head of Sustainability for CBRE, which was published recently by the Better Buildings Partnership.

The evidence is loud and clear – the market now understands the compelling reasons to invest in asset certification. In the CBRE survey just 11 per cent of respondents now view sustainability as an insignificant factor during due diligence. Even more compelling is that 39 per cent of the institutional investors surveyed cite sustainable assets as 'critical' or 'one of the most important criteria' when selecting properties to acquire. This is why more building investors and owners than ever are keen to take control of operational costs across their buildings portfolio and deliver environmental benefits.

James Fisher is existing buildings lead & principal consultant, BREEAM.

For many businesses, operating their buildings presents a major cost overhead, often coming second only to staff costs. They also form a sizeable part of an organisation's environmental and social impact, with the largest percentage of carbon emissions associated with a building's life cycle occurring within its operational phase. A building and its occupants will consume energy, water and materials, and produce waste and emissions.

Since its 2009 launch, buildings in 34 countries are now certified under BREEAM In-Use, an assessment and certification scheme designed to help building owners, facilities managers, investment managers and building occupiers reduce environmental impacts. It enables performance of existing commercial buildings to be measured in a consistent and credible low-risk way, and areas for improvement to be identified. Dynamic performance scoring and reporting section is combined with a common set of questions that allows the comparison of assets internationally.

Buildings that initially score low on overall assessment have the opportunity to make future year on year improvements, and buildings that score high in their initial ratings can strive to maintain their rating by making on-going improvements. The method also builds on internal review processes to achieve optimal results, and its structure enables the standard to be adaptable to future changes and regulatory requirements.

The majority of environmental assessment

AFFORDABLE HOUSING CRISIS

UK needs new council house building programme to address shortfall post-Brexit

The Federation of Master Builders has welcomed the Local Government Association's call for a "renaissance" in council house building in the wake of the vote to leave the EU, which could mean private developers will struggle to deliver on demand for affordable housing.

Brian Berry, chief executive of the FMB, said: "The UK is suffering from a chronic shortage of homes. Although the Government has reaffirmed its commitment to addressing the scarcity, builders will be waiting for signs that confirm that this isn't mere rhetoric.

He added: "The call from the LGA for a 'national renaissance' in council house building is timely; we urge the Government to allow local government the freedom and support it needs to once again take a leading role in building new homes. By increasing public spend on house

building, homes will become more affordable and at the same time, significantly decrease the housing benefit bill."

The LGA's research showed that four million working people will need access to some form of affordable housing even if the country achieves full employment by 2024. However it says that if the UK "fails to train millions to take the higher skilled and higher paid jobs projected to be created by that time, demand for affordable homes will be much higher." It added: "Economic uncertainty facing housebuilders following the Brexit vote could make it difficult for private developers to rapidly build enough homes on their own."

Berry commented: "Uncertainty is beginning to weigh on the private sector, and support for a significant upscaling in social house building would send out a strong, reassuring message."



ADVERTISEMENT FEATURE

The Image Works celebrates 30 years of VEKA in the UK

Lancashire-based marketing agency, The Image Works has revisited three decades' work for one of its longest-standing clients, The VEKA UK Group as the German-owned company celebrates 30 years of UK manufacturing.

"The company set up in Burnley in 1986, near to our former studio in Colne," recalls Trevor Hind, MD of The Image Works. "They had just four extrusion lines then, but their international pedigree and UK aspirations were clear. Needless to say, we were keen to work with them from the outset!"

Archive editions of VEKA's periodical newsletter show the company's meteoric growth: "Within 10 years of UK production starting, the Burnley plant was turning out 11k tons per annum – amazing considering just 1,748 tons were produced in 1986!" Trevor continues.

"In the early days, VEKA worked with a number of agencies – some national – to establish itself as the 'go-to' name for PVC-U systems in the UK. Our versatility allowed us to prove ourselves, firstly with a series of 'one-off' brochure designs, advertising concepts, and so on; steadily becoming responsible for more and more project briefs. We oversaw the original Matrix 70 campaign – the company's

most significant product launch at the time – helping it to become the industry standard that it remains today."

1993 saw VEKA announce PLC status, reflecting its early successes and its ongoing commitment to manufacturing here. Where VEKA's marketing had hitherto targeted only trade customers, its tenth UK anniversary saw the advent of Network VEKA – a pioneering installer support organisation, with a manifesto to redress the lack of public trust in home improvement companies.

"The 1980s and early 1990s saw PVC-U systems become the new 'must-have' addition to the home," Trevor explains. "But unscrupulous traders had tarnished the industry's reputation. We're thrilled to have worked with Network VEKA since its inception, boosting and maintaining its reputation for quality and ethics. From 20 founder companies, its membership now totals around 140, and few would dispute its position as the original and most respected organisation of its kind.

"We introduced the online portal that allows Network VEKA members to add their branding and details to a suite of professionally designed marketing materials, and similar facilities have been introduced to all customers of what is now



The VEKA UK Group. That includes VEKA and Halo Approved Installers and Fabricators – the Group's second tier of installer support – that we helped launch to an unprecedented take-up, with more than 400 companies joining in its first year!

"The variety of ways in which we've supported The VEKA UK Group is testament to our all-embracing approach to marketing. Many in the glazing industry will recall our Elephant and Dog ads for VEKA's Fabmatch offering, and the current #JustTheFACTS message, emphasising the sheer magnitude of the Group's achievements here. But advertising is just one string to our bow.

"From web to copywriting, photography to display, and PR to print, we offer the full gamut of services in-house, saving clients time and money. VEKA is one of the leading PVC-U systems providers in the UK, Europe and around the world, and we're extremely proud to have played a part in that success. Long may our relationship continue!"



BY HEATRAE SADI



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SKILLS

Princes Trust partnership helps unemployed Scots youth develop construction skills

CALA Homes (East) has partnered with The Prince's Trust and Edinburgh College to launch a new initiative that aims to provide disadvantaged unemployed young people an opportunity to develop new skills and get hands-on experience.

Ten local people have successfully taken their first steps in the construction industry and secured apprenticeships after completing a 'Get Into Construction' course run by The Prince's Trust in partnership with CALA and Edinburgh College.

Established in 1976, The Prince's Trust is a youth charity that helps young people gain the skills and confidence to move into employment, education or training. The 'Get Into' programme develops unemployed young people's skills in a specific sector, which can lead to progression opportunities such as employment, training and education.

The group, all aged between 18 and 25, spent two weeks at Edinburgh College completing basic training on construction skills, careers advice and gaining their CSCS card which enables them to work on construction sites. They then undertook vocational experience at CALA developments across Edinburgh.

CALA Homes (East) MD, David McGrath, commented: "CALA is delighted to work with the Prince's Trust, offering young people the opportunity to learn about the construction

industry and the variety of careers that are available. The industry needs new talent if we are to address the national shortage in skilled trades and to have had such a positive response to the scheme from the trainees, CALA employees and our sub-contractors is fantastic.

"Unemployed young people often just need the chance to prove they have the motivation and talent required to get onto the career ladder. It's clear from the feedback we've had from the teams on site that these young people have jumped at the chance to make the most of this opportunity.

All 10 trainees have now been offered a permanent apprenticeship either with CALA or one of our sub-contractors, which is testament to the impact that these programmes can have. Everyone involved has worked extremely hard to get this pilot programme running and their enthusiasm and dedication has been key to making it such a success."

Over the next six months, each trainee will continue to receive support from a Prince's Trust mentor as they embark on their new careers in the construction industry.



LOVELL DEVELOPMENT



Lovell chosen for £7.4m homes programme

Lovell has been chosen to deliver a £7.4m housing redevelopment programme for housing association, Greenfields Community Housing, who are based in Braintree, Essex.

The scheme will see the demolition of 40 unsustainable 1950s concrete-framed Unity homes in Kelvedon, Essex, which will be replaced with 64 modern houses and flats in Church Road, Croft Road and Thorne Road. High levels of insulation and other low-carbon measures will make the new properties extremely energy-efficient.

The redevelopment work, set to start this autumn, will create 36 houses, 27 flats and one bungalow, with the first new homes set to be handed over in spring 2017. Five of the homes

will be available on a shared ownership basis, with the rest being available for affordable rent.

Andy Allocca, new business and project manager at Greenfields, said: "Helping to create and maintain thriving communities is at the heart of what we do. These properties will last for generations to come, and I look forward to handing the residents the keys to their new homes."

Lovell regional director, Simon Medler said: "Our team have a strong record in the successful replacement of Unity houses with brand new, high quality and energy efficient properties. We're delighted to bring that expertise to this exciting project – our first for Greenfields Community Housing – and help create much-needed new affordable housing for local residents."

FLOATING HOMES

New joint venture submits plans for floating homes in Berkshire

story by Jack Wooler

A planning application has been submitted for 24 homes in Berkshire which could provide a solution for building in areas liable to flooding as they are designed to float when needed.

Berfield, a joint venture formed between Larkfleet Group and Floodline Developments is looking to persuade planners to pursue the innovative development of 'can-float' homes on the edge of Theale Lake, alongside 201 standard homes.

The lake, in a former quarry, offered the opportunity to the JV to pioneer a solution to an issue which is being increasingly experienced across the UK as severe flooding events increase.

The Met Office estimated that one in six properties in England are at risk of flooding, with the number only expected to rise as the climate changes. As demand rises and space tightens, the trend to build homes on flood plains has grown. 'Can-float' homes propose one solution to the worsening weather.

Unlike floating homes, which are permanently submerged in water, 'can-float' homes instead only float as water levels rise. A waterproof concrete substructure is combined with a buoyant basement structure, which can rise and fall with any flooding, using guide piles to limit the movement of the building.

Floodline Developments is keen to explore the potential of off-site construction methods to build the lightweight structure above, with the aim of making the buildings 'future-proof'.

Believed to be the first developer-led scheme of its type, the site will promote a healthy outdoor lifestyle, including a sailing club due to be

redeveloped. Three and four bedroom family homes will be designed with ample space for bicycle parking and access to the canal paths, enabling residents to walk or cycle to the local train station.

The 201 conventional houses are set in a more open area, with the joint venture constructing only half the number of houses an average developer would plan for the same space, built around scenic undergrowth and mature trees.

The planning process is likely to last until

September, with the houses expected to be finished by 2021.

Justin Meredith, managing director of Floodline Developments, commented: "The development offers a lot more than just new homes, or even houses that are able to sit by the waters edge, actually it is demonstrating our ability to offer flood alleviation and attenuation in previously difficult environments.

"This is not just a one-off, it's about enabling flood alleviation at no cost to the public."



ULTRAFAST BROADBAND

HBF and Virgin Media announce partnership



The Home Builders Federation (HBF) has joined forces with Virgin Media to deliver ultrafast broadband to new homes across the UK. As part of the partnership HBF members will be able to build homes with

the infrastructure in place to provide 200 Mbps broadband, as well as more than 230 TV channels and customer landline services.

Virgin Media has also launched a new portal for housebuilders, which includes important technical guidance and a new site request form. The company will undertake all initial new site assessments free of charge as part of the agreement. It will also provide housebuilders with all the necessary equipment to connect homes to the Virgin network, offering a rebate scheme to cover any costs.

Announcing the partnership, HBF executive

chairman Stewart Baseley explained: "With connectivity now vital to the way we live our lives, being able to equip today's modern, high quality housing with 21st century connectivity is a key consideration for builders."

Virgin Media's chief operating officer, Paul Buttery, added: "By partnering with Virgin Media, developers can build 21st century homes, equipped with the most modern broadband infrastructure delivering the fastest specs. With our network growing at a faster pace than ever, the more demand we get from developers, the more we can do to support them."

QUEEN'S BIRTHDAY HONOURS

CBE for Redrow chairman

Redrow chairman Steve Morgan, who was awarded an OBE in 1992 for services to construction, was made a Commander of the British Empire in the Queen's birthday honours list.

The CBE recognises his philanthropic services through The Morgan Foundation, which was set up in 2001 and has given £32m of support to charities across North Wales, Merseyside, Cheshire and Shropshire.



Steve Morgan

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SOLAR PV

N Wales homes reap solar-powered savings

For years housebuilders have debated the commercial benefits of installing Photovoltaic Solar Panels. Now, a north Wales-based developer has taken the bold but commercially successful decision to build homes with integrated solar panels as standard.

For Beech Developments the long-term benefits of sustainable living to their customers are of paramount importance. Established in 1995 in Conwy County, north Wales, Beech Developments has made a decision to focus on building sustainable homes, which reduce energy consumption and long-term running costs while reducing their new homes' environmental impact.

Employing their own in-house technical and design team gives the company direct control over the design, specification and renewable technologies used in its developments.

Over the years the company has trialled a number of different technologies ranging from MVHR to solar thermal hot water systems, and more recently integrated photovoltaic (PV) solar panels.

Following undergoing these trials, the Beech Developments team has decided that the benefits of the integrated PVs far outweigh those of the other technologies. These benefits include:

- installation
- cost
- on-going maintenance
- long-term benefits for customers with reduced electricity bills and guaranteed Feed in Tariff (FIT) payments.

With Beech Developments also looking for a product that would visually complement the aesthetics of homes, this was another reason for deciding integrated PV was the way to go.

Gwel Y Mynydd installation

The chance to integrate these solar panels into a new home development came when Beech

Developments acquired land at Gwel Y Mynydd, which is located on the edge of Llandudno Junction, in North Wales.

The development of 66 timber-framed houses would incorporate property types ranging from two bedroom cottage apartments to four bedroom detached homes, all with sustainable features including integrated Photovoltaic Solar Panels. By integrating the panels Beech Developments saved the need for tiling 690 m² of roof area. In tile production alone this has saved the production of 7.6 tonnes of CO₂; equivalent to a train doing three laps around the planet. The production of solar panels does of

course produce CO₂ but this is paid off by their generation within two years followed up by many more years of CO₂-free electricity generation.

Procurement and installation

At Gwel Y Mynydd, Beech Developments had investigated the integrated PVs as an alternative to solar thermal hot water systems, which they had used on previous developments. The company was looking for a product which would be simpler to install with less long-term maintenance costs for their customers. The thermal hot water systems used in other developments

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required annual maintenance and therefore the almost maintenance-free benefits of a solar PV system was a big advantage.

However, having looked at numerous on-roof systems to support the aesthetics of the development Beech Developments wanted an in-roof system. GB Sol provided an in-roof system and with the added advantages of being a local company and able to manufacture bespoke panels if required they were selected to provide the in-house solar PV panels. After going to tender, a small solar PV and renewable energy installation company, Go Green Systems Limited, was awarded the contract to install the panels.

The initial design incorporated 2 kWp systems but after close inspection from Go Green Systems it was found that not all house types would fit this size of system. The designs were looked at and systems sizes were changed to meet the SAP requirements and the roof area available.

Helping create a low-carbon and commercial success

Smart meters also allow Gwel Y Mynydd residents to monitor how much energy they are using. Seeing the effect of reducing energy consumption, via the smart meter, has also helped residents save money. Heating can also be managed more efficiently as Beech Developments home systems are zone and time controlled to enable further savings to the environment and the pocket.

To further maximise the benefits of solar PV, Go Green Systems also recommended adding a smart export device. These SOLiC 200s allow unused power to be diverted to the immersion heater in the hot water cylinder; the FIT pays for all generation and export is assumed meaning

homeowners get paid for export even if they are able to use it all. This provides hot water and further reduces energy costs.

Beech Developments calculated that by passing on the benefits of the FIT, the energy consumption savings in their homes equated to an average of £388 per household, per year. Providing this as standard has helped set the Beech Developments' product offering apart from other housebuilders, who offer solar PV but at an additional cost.

The integrated solar panel initiative and other

sustainable home features were embraced by Beech Developments customers and all 66 properties on the first phase are now completed and many of the properties on the following phase have already been sold off plan.

The company believes this is a testament to how desirable their sustainable homes have become. By encouraging customers to embrace the features that come with a Beech Developments home they can reduce their carbon footprint, and energy bills while enjoying a more sustainable way of living.



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Living in history at redeveloped Clevedon Hall

Case study
By David Mote

The grounds of Grade II listed manor Clevedon Hall are to become the home of a community of 42 new properties, created by Spitfire Bespoke Homes. The new, secluded Clevedon Hall Estate will offer its residents modern living and a coastal lifestyle in a leafy location overlooking the Bristol Channel.

Situated in Clevedon near Bristol, this attractive and unique location required a truly customised approach to the development's design and character to unite contemporary architecture with its established country setting.

The existing Clevedon Hall dates back to the 19th century. With a fascinating history and a wealth of period architectural detail, the building is currently a successful events venue.

Its grounds offer 10 acres of meticulously maintained, mature parkland and the new development's residents will enjoy access Clevedon Hall Estate by a secure gated entrance and sweeping driveway. This entrance sets a tone of grandeur and leads into the new estate's private access roads.

Perfect for commuters, the development is situated within a short drive of Yatton station, which offers direct services to Bristol and London Paddington.

The Clevedon Hall Estate

The Clevedon Hall Estate features 24 terraced and semi-detached two and three bedroom homes on the original building's South Field, known as 'Hall Garden', which is due to be complete by spring 2017. There are also 18 detached homes are being built on North Field, 'Bay Green', which will follow on sequentially.

Guided by consultation with English Heritage and the local planning authority, the development has created low-density clusters of houses in the North Field around the edges of a central green. Split-level properties face directly onto the landscape with the site topography wrapping around the ground floors. Some properties will enjoy sea views on the upper floors. High quality paved courtyards conceal parking areas, leaving the houses and parkland set against a backdrop of mature trees.

In the South Field, pairs of steeply gabled houses face into a central shared area with parking and play space. Secluded and private, the same high quality surfaces are used throughout with natural earth tones. The historic Walled Garden houses eight two-storey hotel units which reference traditional Victorian glasshouses.

Special attention to quality and design

Working with Bath-based architectural practice DKA, Spitfire has paid special attention to the quality of every element of the design, specification and finish. The carefully planned layout of the homes will offer a modern approach to living, and blend spacious accommodation with modern styling that will create a distinct sense of place, character and identity for the community. This will ensure a collection of contemporary properties that compliment their surroundings.

The architecture draws inspiration from both Northern European and Scandinavian design. The strong geometric lines and a palette of materials combines smooth render, stone and sleek cedar hardwood finishes with slate and brick. Sharp gabled recesses to the rooflines offer visual interest, while expanses of glazing ensure the homes are airy and light-filled.

Interior design strikes a note of informal luxury with its clean lines, high quality fixtures and fittings. Well-proportioned rooms offer flexible, family friendly layouts including open plan living spaces that are both light and spacious. Large contemporary kitchen areas, some with a centrepiece

Continued overleaf...

island, provide an impressive space for entertaining. Bi-fold doors and first floor balconies with transparent glass balustrades create a sense of flow between external and internal living spaces.

The contemporary palette of finishes includes natural solid wood detailing and glazed features. The specification incorporates Spitfire bespoke kitchens with composite quartz worktops and glass splash backs. The interiors also feature Siemens appliances, engineered oak flooring, Villeroy & Boch sanitary ware and Porcelonosa ceramics, under floor heating and bespoke fully fitted wardrobes.

Sensitive regard to the estate's heritage

In addition to the established grounds, residents will have exclusive access to carefully landscaped space, which provides a focal feature for the homes. Approached via a stone wall and tree lined entrance, both Hall Garden and Bay Green have been designed to have a sensitive regard to the estate's heritage and setting and provide a secluded and peaceful place for residents to meet.

Passionate about design

Spitfire Bespoke Homes is passionate about design, sustainability and quality of construction. Although only six years old and growing fast, Spitfire has established a strong reputation as a niche housebuilder, creating sought after developments in premium locations including Bath, Cheltenham, Ascot and Leamington Spa.



Spitfire's ability to act swiftly

On this and other schemes Spitfire has drawn on the strengths of its parent company IM Properties and its portfolio which extends across the UK, Europe and the US. This has provided Spitfire with access to significant, fast funding, enabling it to act swiftly to secure prime development sites.

Richard Page concludes: "There is no doubt that the unique setting has intrigued potential residents and we are delighted at the reaction that we have had for our designs and carefully chosen fixtures and fittings. The recent release of a small number of the homes has resulted in reservations from first time buyers to retirees, showing the wide appeal of the location, and justification of our time and effort spent to produce well designed homes with high quality finishes."



Construction United welcomes partnership

Construction United, a coalition of some of the construction industry's key stakeholders which aims to change perceptions of the sector, has recently welcomed leading UK construction and regeneration group, Morgan Sindall plc, to its ranks. As one of the initiative's partners, Morgan Sindall will support Construction United in its three key objectives; improving public perceptions of construction, encouraging young people to consider careers in the industry and maximising the health and wellbeing of its workers. Formed in February 2016, Construction United has already gained the support of influential product distributor SIG, trade bodies including the Finishes and Interiors Sector (FIS) and the Thermal Insulation Contractors Association (TICA), and leading skills certification scheme, CSCS. We have a longstanding dedication to both encouraging new talent through our apprenticeship programmes and facilitating the development of our existing workforce".

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Enq. 113

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Plans submitted for Bespoke Homes in East Lothian

CALA Homes has submitted carefully designed plans for a development of 36 homes in a popular East Lothian village.

Following extensive engagement with local residents and the Dirleton Village Association, the developer has sought to design the site in a manner that respects the village setting, with a host of unique, tailored design features.

Designed by the internationally renowned firm of architects JTP, the properties will range from three to five bedrooms, including a mix of semi-detached and detached properties. It will also include 10 two and three bedroom affordable homes, to suit those on the waiting list.

Located to the south of Dirleton, on land identified for housing in East Lothian Council's Proposed Local Development Plan, a key element of the design is the outward looking nature of the 1.5 storey houses, which have been purposely designed for the site.

Andrew Statham, land buyer with CALA Homes (East), said: "We are delighted to be progressing with this exciting development that will complement Dirleton's surrounds, with a modern design interpretation providing quality family housing.

"It is over 10 years since CALA last developed within the village, and on this occasion we have chosen to provide a variety of product, that is generally smaller and can meet local demand."

Alan Stewart, partner at JTP Architects, commented on the design: "With Dirleton being a conservation village, it is important that design is

seen to evolve from the local context.

"The proposed housing takes design cues from local buildings, while we have repeated the outward looking southern edge to the village. Set within a landscape edge incorporating open space and tree planting, we have ensured that the setting of Dirleton Castle is retained.

"We have also tried to minimise the impact upon site neighbours, by exceeding set-back distances and taking vehicular access from the main road."

Subject to securing planning permission, CALA hope to be in a position to commence development in early 2017.



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Remmers UK Ltd has given their website a fresh new look and the fluent, responsive design means that it can now also be viewed on both desktop and mobile devices easily. The new site enables all visitors access to a wide range of detailed information quickly and efficiently. Highlights include Remmers product catalogues, technical data sheets and

system specific project references along with a host of other helpful product and system information. The website also has an up-to-date news section and integrated social media links.

01293 594010 www.remmers.co.uk

Enq. 116

Three decades of quality and innovation



PVC-U systems supplier **The VEKA UK Group** is marking its 30th year of manufacturing in the UK with a host of celebrations. MD Dave Jones believes that The VEKA UK Group's success can be largely contributed to its 'partnering' approach with customers. "If we're not providing the perfect products for the market, we don't deserve to succeed." The

VEKA UK Group marks the anniversary with a celebratory staff event at Burnley FC's Turf Moor, a promotion in the local paper, and the official unveiling of the NEW M70 profile system.

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Enq. 117

Kawneer teams up with John Sisk & Son



Architectural aluminium systems supplier **Kawneer** has been appointed as a new preferred supplier to John Sisk & Son, one of the largest privately owned companies in Ireland. The new agreement with John Sisk & Son, which has a turnover of €1 billion, runs until the end of 2018, and encompasses its international construction companies. Kawneer will work with the

group in all the sectors it works in residential, commercial, retail and leisure, education, healthcare and transport on the new-build, refurbishment and restoration sides.

01298 502500 www.kawneer.co.uk

Enq. 118

High hygiene characteristics of tiled surfaces



The Tile Association and its members are promoting the hygiene advantages of correctly installed tiled surfaces, especially in commercial kitchens and food preparation environments. Tiled surfaces are entirely safe to install and use in hygiene-sensitive installations, particularly if large format porcelain tiles are used with epoxy grouts. Tiled surfaces can safely be

cleaned at temperatures in excess of 60°C, since tiles are fired to temperatures far above that during the manufacturing process. This means that tiles are a good solution.

0300 365 8453 www.tiles.org.uk

Enq. 119

From colleague to client



Colin Torley, formally the Sales and Marketing Director for **The VEKA UK Group** has returned to his Scottish roots to become Managing Director of Ayrshire-based fabricator, Andrew Wright Windows. Colin worked with VEKA for over 27 years, initially as Sales Manager and then as Product Manager, before taking on the role of Sales and

Marketing Director for the last ten years. Discussing his move, Colin says: "I was already very familiar with the company, as Andrew Wright has been a VEKA customer for decades."

01282 716611 www.vekauk.com

Enq. 120

Single room heat recovery unit



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What's next for our air?

This year is the 60th anniversary of the Clean Air Act, which made a huge impact on smog and air pollution levels in our cities. How will we ensure the air we breathe is clean in the future? Jennifer Quinn of Vortice offers answers, discussing indoor air quality and trends in the ventilation market.

Buildings are now becoming more airtight with improved glazing and increased insulation, prompting an increase in energy-efficient ventilation systems. The knock-on effect of building more airtight buildings can mean a poorer quality of air within the home. Airborne pollutants such as mould spores, pollen, carbon monoxide and chemicals used for cleaning can all contribute to poor indoor air quality and affect human health. All dwellings need a supply of fresh outdoor air to ensure good health and comfort for the occupants and to control condensation.

Air pollution kills

The recent study by the Royal College of Physicians has served to highlight what those of us in the industry have been talking and writing about (the importance of good indoor air quality) for several years. It claims that around 40,000 deaths in the UK each year are related to air pollution and recognises that as a society we have only just started to recognise the harmful effects of poor indoor air quality.

As far as product development is concerned, much attention has been focused on improving the filtration methods incorporated into fans, in particular heat recovery units. As the importance of better indoor air quality is increasing, and to ensure any incoming air is fully filtered before entering the home, some brands have developed units with 100 per cent fully filtered bypass.

There are many different grades of filters which reduce pollen spores, dust particles and fumes. These products can be within the heat recovery units or separately boxed, which helps if access to the unit is limited. There have been even further developments with improved filtration systems, one in particular with a patented anti-bacterial solution. This filtration system involves an advanced air cleaner which reduces not only the fine particles within the air, but also the bacteria, allowing an even better standard of air quality and a healthier environment for the occupants.

The industry has been working on filtration systems for its ventilation fans for several years in order to help ensure external pollutants are prevented from entering the home, but there are still lifestyle issues to consider. This can include the use of cleaning chemicals, the number of people occupying a premises, whether they have pets and the lifestyle of the occupants – all of which can contribute to breathing-related illnesses such as asthma.



Awareness

Of course, ventilation units are only as good as the design and installation of the system and the education of the installers and occupants. Any weak point in these factors could cause a detrimental effect on the unit's performance. It is imperative that installers pass on their knowledge of the system to the occupiers by providing homeowner packs and education. Therefore ventilation companies need to set a real focus on delivering training, to ensure that the installers are being educated in the installing and commissioning of the units, so they perform to the best of their ability.

"Around 40,000 deaths in the UK each year are related to air pollution"

The relationship between external air pollution and indoor air quality is significant – not only do external pollutants potentially impact on the inside of dwellings, but our homes are generating their own pollutants too. These can be issues like the burning of fuels by our boilers, solid fuel fires and cookers, to our use of chemicals such as room sprays, deodorants and cleaning products – without filtration these not only pollute our homes, but they also affect outdoor air pollution. As houses are becoming more airtight through efficiency measures, a lack of

Continued on page 39...

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- Low energy DC electric motors
- Range of control options
- Acoustically insulated ducting
- Filter reduces effects of respiratory allergies
- Reduces heating bills
- Can promote conditions for improved health
- Easy to install for DIYer or professional alike
- Conforms to Building Regulations
- Full installation service available

...for a fresher, healthier, home

Rega's unique WhisperFlow® technology ensures that even when operating at full 'Boost' mode (usually during the morning bathroom rush hour!) the system remains whisper quiet - unobtrusively and effectively venting stale, damp air, replacing it with air that's been gently warmed and filtered.

Low energy DC fans, insulated ducting and a high efficiency heat exchanger also ensure that power usage and energy losses are kept to an absolute minimum.

RegaVent systems are designed and built here in the UK, to our own stringent quality assured standards, you can be sure that your RegaVent system will give you the

optimum balance of a technical specification that's exactly right for the UK climate, coupled with low energy consumption - for lower heating bills!

Rega Ventilation Limited

21/22 Eldon Way, Biggleswade, Beds SG18 8NH
fax: 01767 600487 email: sales@rega-uk.com

Call us on **01767 600499** or visit
www.regavent.co.uk



Enq. 124

Nuaire. The complete ventilation solution.



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info@nuaire.co.uk



Enq. 125

natural ventilation means pollutants and moisture from everyday activities like cooking and bathing remain in the home.

Moving indoor air quality up the agenda has begun and this report from the Royal College of Physicians and Royal College of Paediatrics and Child Health has significantly helped the process of highlighting it. The important thing now is to continue the pressure and raise the profile of the significance of clean air. This is something manufacturers have been doing for some time, but as architects, developers and housing associations begin to understand how the ventilation systems they specify impact on the health of their residents, there is an opportunity to use good ventilation as a strong selling point. In addition, like all things, once politicians recognise that poor air quality has an impact on the healthcare costs of a nation, the incentive to legislate



rises. With the hope of new legislation and advancing technologies, indoor air quality has a positive future.

“As houses are becoming more airtight through efficiency measures, a lack of natural ventilation means pollutants and moisture from everyday activities like cooking and bathing remain in the home”

Building Information Modelling (BIM)

On an entirely separate note, there has been technological advances in the way that ventilation systems are being specified, as Building Information Modelling (BIM) is used more widely. Architects and specifiers have begun to see the benefit in timesaving and accuracy that it can offer for their plans and modelling. The

big benefit of BIM is that all those interacting with a building can optimise their actions, with entire teams working to the same standards to produce the best possible project outcomes. BIM brings together all the components for a building so that different aspects of the design can be integrated more effectively.

The BIM objects website (bimobject.com) contains freely downloadable information about the product including for example (for ventilation systems) performance, specific fan power, visualisation and functional data.

The ErP Directive

As far as legislation is concerned, the ErP Directive, setting minimum performance criteria for ventilation, became effective from 1 January 2016, so all ventilation systems suppliers need to respond to these changes. The ErP Directive, which is European legislation, applies to products that can have an effect on energy consumption throughout their lifecycle, from manufacture, through use, and until the end of their life. With ventilation systems falling under this category, each product now has to carry an energy efficiency class rating which gives information about its energy efficiency of the product.

Jennifer Quinn is the technical and marketing manager at Vortice

Enq. 126

iCONstant

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Enq. 127

Fire safety, smoke control and compliance. Charting a path through the regulations

By Nelson Godinho – Fire Engineer with SE Controls



The legislative environment governing the smoke control and fire safety industry is, unsurprisingly, complex, far-reaching and absolutely vital to ensure that these systems not only operate faultlessly when they're needed, but also provide effective safety protection and allow people to escape.

Even so, you would probably be surprised by the number of construction companies that find that Building Control has rejected the structure due to the omission of a smoke ventilation system, which is required by law for any residential building of three storeys and above.

Clearly, there's no suggestion that designers, specifiers and building companies are brazenly flouting the regulations, but it is apparent that the main issue is ignorance of the complex and essential regulatory framework that governs this sector. But, as is often quoted, "Ignorance is no defence."



Navigating the maze

Building Regulations Approved Document B, The Machinery Directive and The Construction Product Regulations, via the various parts of the European EN12101 standard, provide a tight and far-reaching regulatory framework. Yet, this is only part of the story.

The Smoke Control Association's (SCA) 'Guidance on Smoke Control to common escape routes in apartment buildings' quickly became

the default reference document for many designers, installers and approving authorities throughout the UK.

Alongside this, BS 9991:2015, which covers 'Fire safety in the design, management and use of residential buildings – code of practice' is also a vital reference when addressing fire safety specification and requirements.

However, for an effective route to achieving compliance, the best starting point is the BS7346 – Part 8 Code of Practice. Prior to this, no single document existed that provided guidance for the industry from initial design, through installation to maintenance.

The core benefit of BS7346-8 is that by adhering to its guidelines; designers, installers and maintenance teams can create, install and operate a fully compliant smoke control system.

01543 443060 www.secontrols.com

Enq. 128

Glidevale presents intelligent, ultra-low maintenance ventilation system

Glidevale, the specialist building products and ventilation solutions provider, has launched *iPSV*®, a humidity-sensitive, intelligent passive stack ventilation system which requires virtually no maintenance once installed. Designed to combat harmful condensation, the energy efficient system is ideally suited to new build social housing and refurbishment projects.

The system has no electrical connections making installation straightforward. Once fitted, it requires no further adjustments or commissioning. With 'intelligent' yet simple components containing very few moving parts this has the net effect of lower lifetime costs.

iPSV offers comparable and in some cases superior energy efficiency compared with other ventilation systems. Operating without the need for power, there are no direct CO₂ emissions as a result of ventilating a property.

"Efficient and effective ventilation is mandatory under building regulations for modern airtight dwellings and to meet the need for low energy consumption," says Senior



Product Manager Laura Hughes.

"Glidevale's *iPSV* allows the most up-to-date ventilation requirements to be met with ease."

A whole-house ventilation system, *iPSV* is controlled by responsive air inlets and extracts which react automatically to changes in relative humidity. When the condensation risk is high, the humidity-sensitive control provides an automatic boost effect to allow greater airflow. As the humidity levels fall, the airflow is reduced. Working silently 24 hours a day with no operating controls or electrical

connections, the *iPSV* system is less likely to be tampered with by occupants, ensuring that the system runs at optimal performance.

With over 30 years in operation, the *iPSV* system meets the requirements of Building Regulations and Standards in England, Wales, Scotland and Ireland, and is also BBA certified.

0161 905 5700
www.glidevale.com

Enq. 129

Airflow's MVHR range helps limit impact



With energy efficiency a key requirement of eco-development project, The Edge in Lincolnshire, a construction team specified a range of Mechanical Ventilation and Heat Recovery (MVHR) solutions from **Airflow Developments**. Airflow's flexible Duplexvent MVHR range offers a 'whole house' approach to ventilation, extracting stale, moist air,

while supplying fresh, filtered air throughout each property. The unit's heat exchanger recycles the heat energy from the extracted air to warm the incoming supply.

01494 525252 www.airflow.com

Enq. 130

Hoisting compliance with lifetime homes



With the continuing emphasis on giving people the ability to remain in their own homes, house builders are being offered a new resource to create lifetime homes-friendly bathrooms. To help, **Clos-o-Mat** has produced a new white paper – Design Guidance & Considerations for a Domestic Accessible Toilet/Wetroom.

The white paper covers everything from adequate space to manoeuvre a wheelchair through the role of colour and texture to the structural considerations to accommodate personal care assisting technology.

0161 969 1199 www.clos-o-mat.com

Enq. 131

Vent-Axia completes the set



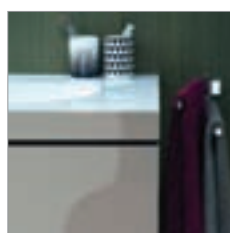
Vent-Axia has added the high performance Sentinel Kinetic F to its popular Lo-Carbon Sentinel Kinetic range of mechanical ventilation with heat recovery (MVHR) units. The range now offers MVHR options with airflow from 15l/s to 200l/s. The Sentinel Kinetic F features the latest high efficiency, backward curved impeller design which

provides higher flow and pressure and ensures the lowest possible energy consumption. The Sentinel Kinetic F combines supply and extract ventilation in one unit and improves air quality.

0844 856 0590 www.vent-axia.com

Enq. 132

C-Bonded – New Technology from Duravit



C-Bonded is a new technical solution developed by **Duravit** for the bathroom washbasin and vanity unit. Manufactured with millimetre precision, the ceramic of the washbasin is fitted to the furniture, with both materials appearing to bond seamlessly as a single unit. The C-Bonded solution not only looks and feels impressive, DuraCeram®, the special

ceramic that actually makes this precision possible, is also wear-resistant. The smooth, seamless surfaces are quick and easy to clean and also incorporate generous storage space.

0845 500 7787 www.duravit.co.uk

Enq. 133

Combining water efficiency and design



The latest **Hansgrohe** Crometta range has been developed in collaboration with long standing partner Phoenix Design. It combines water efficiency, sustainable technologies and premium design at an attractive price. The Crometta range is showcased at the Water Studio, London. With project expertise, the Hansgrohe Team is on hand to offer invaluable advice

on issues like water regulations (WRAS) and can demonstrate how to save money by using resources more efficiently and selecting products with long life cycles that deliver genuine value.

01372 465 655 www.hansgrohe.co.uk

Enq. 134



Crystal Obelisk joins RAK sanitary

RAK Ceramics has launched its new, floor-standing Crystal Obelisk cistern. Featuring a distinct, ultra-slim format, the on-trend cistern can be used alongside all RAK Resort wall-hung and back-to-wall WC's. It is offered alongside a variety of frame formats, with easy top access for installation and maintenance. All 'invisible' flush and mounting technology is included, for a fast fit and a very chic, contemporary look. Suitable for new and existing bathrooms – in home and commercial environments – RAK's Crystal Obelisk cistern is available in classic black and white and has WRAS and EN approval. The slimline design measures 1003mm tall x 483mm wide and has a depth of just 108mm. Tempered glass casing, with a protective film, provides an exceptionally durable and easy care surface. The concealed cistern is fully insulated against condensation and has a dual 3/6 litre flush. It is offered with two chrome flush plate options.

01730 237850 www.rakceramics.co.uk

Enq. 136

Find paradise with Kinedo Eden



The range of self-contained Kinedo shower cubicles from **Saniflo** now features the stunning Eden with polished chrome profiles and external Crsital Plus coated glass panels plus internal panels in gorgeous opaque white glass. As with all Kinedo cubicles they are completely leak-free with no requirement for silicone or grout.

Available as quadrant and corner versions, with either pivot or sliding doors and left and right handed versions. It comes in the full range of popular sizes ensuring it is suitable for every shape and style of bathroom.

020 8842 0033 www.saniflo.co.uk

Enq. 135

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Enq. 137

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Enq. 138

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Enq. 139

Boundless possibilities

Lisa Zebiche from C. R. Laurence, suppliers of frameless shower enclosures, describes how achieving open, light spaces for showering can be achieved in a far wider range of developments.

Whether the property concerned is a large country pad or a small apartment in central London, the bathroom has become one of the most important rooms in the house. It is the place where occupants with busy lives want to relax, and this is the case no matter the restrictions of available space.

One of the key requirements in the light of this and driven by users' experience of facilities such as spas is to try and maintain a feeling of openness and greater space than may be initially apparent.

Today, when building or renovating a bathroom, most consumers begin by thinking about the shower area and the way it can be transformed into an unrestricted space with a spa-like feeling. Once only available to the most modern and high-end residences, the sleek features of the frameless shower enclosure have become a must-have in new and renovated bathrooms, regardless of style or décor. In a very short space of time, frameless shower enclosures have evolved to provide the most understated configurations, providing next to no visual distraction.

Industry professionals are constantly being challenged to create minimalist styles that are as strong and as safe as the bulky and obstructive designs of the past. While we used to be happily confined to cubicles which resembled phone booths, modern frameless models draw on the



latest technological innovations to provide a more open shower experience.

A much wider range of products are now available to enable frameless enclosures, from the ideal steaming room comprising all-glass floor to ceiling panels fixed by U-channels and connected with hinges and clamps, to a simple sliding door system or fixed glass panel supported by a stabilisation bar.

Whichever way, most configurations achieve the illusion of a free-standing glass enclosure, offering an uninterrupted view of the surroundings. More light in the room means a more desirable environment for the shower to take place, enhancing the user's experience.

The UK population is ageing, with one in six people now over 65. It is crucial that we make bathrooms easy to access so that consumers don't have to worry about how they will overcome future difficulties, like climbing into the bath tub. Walk-in or walk-through frameless shower enclosures are an ideal option. They can be

constructed at the same level as the floor, making them easily accessible.

Hygiene and ease of cleaning are also key factors. Framed shower enclosures are not only often unsightly, they also have many intricate corners where dirt, moist and mildew can accumulate. The minimalistic designs of frameless showers do not allow deposits of dirt to build up. Rather, they provide a hygienic solution in moist and humid environments and are more durable, while reducing water retention compared to their framed counterparts.

Custom-made enclosures

With rising interest in interior design and the growing desire from homeowners to live in a distinctive space of their own, there is a greater demand for the creation of elegant shower enclosures. Customers want the size and shape to be perfect for their bathroom and this is where customised products come in.

Continued overleaf..

“Industry professionals are constantly being challenged to create minimalist styles that are as strong and as safe as the bulky and obstructive designs of the past”

Frameless shower enclosures are very easy to customise precisely according to customers' specification. Because the glass is cut to whatever size needed and modern hinges and brackets come in different sizes and shapes, it allows plumbers to make the shower fit the space. Whether they are trying to fit a shower into a corner, a triangular space or an L-shape is immaterial, because they are not trying to make an off-the-shelf unit fit an awkward angle. In addition, hardware often comes with an adjustable option so that the installer can easily achieve the right angle for every project.

While sliding door systems, hinges, stabilisation bars, knobs and other shower hardware tended to previously be specified in chrome, the trend is moving towards more daring, unique finishes such as dark matt black, brushed bronze and even red or white. Specific finishes suit the most modern bathroom styles enabling the consumer to mix colours and reach a new level of individuality – even more so when



not all hardware features the same finish! And for the most adventurous homeowners looking to make a statement, it is possible to order custom finishes that will suit the exact style of the room.

It is also important to remember that most buyers will pay a lot of attention to the bathroom. More and more homeowners are looking to bring

the minimalist luxury of frameless showers to their bathrooms. Having a light, sophisticated look which includes an frameless shower area and taps into buyers' desire to create an open, tranquil bathroom space will undoubtedly add considerable value to a home.

Lisa Zebiche is the marketing manager at C. R. Laurence

Enq. 140

Wetrooms made easy

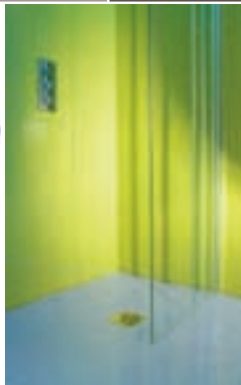


MAXXUS THE 3RD GENERATION WET DECK

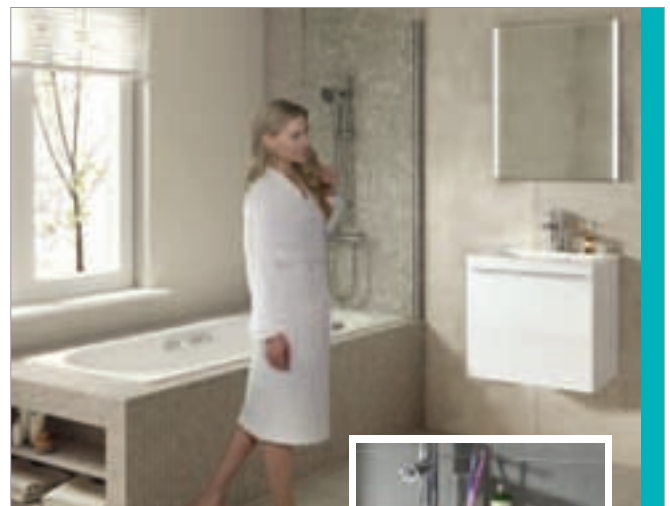
With our featured Maxxus Wet Deck Kit (the strongest on the market), easy-to-use tanking kits or membranes, and a wide selection of drains, it's easy to install a luxurious wetroom anywhere in the home. Add on our designer grids and extensive range of stylish accessories and it's easy to find the right product for any environment. Ask for our latest Price List today!



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01629 815500

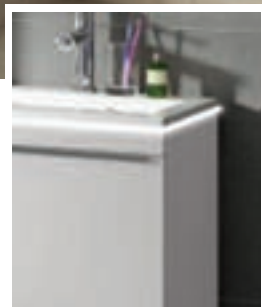


Enq. 141



Take your **bathroom** out of the ordinary and into the sublime with some inspirational ideas from HiB.

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A: Building 3, North London Business Park, Oakleigh Road South, London. N11 1GN

Enq. 142

An integrated wetroom solution from Schlüter-Systems Ltd

When it comes to long term success, possible time and cost savings and versatile design options for wetrooms, we recommend an integrated single-source system.

The beauty of the Schlüter®-WETROOM system is that its products have been designed and manufactured to complement each other and take care of installation issues, resulting in a reliable, water-tight finish which is CE marked and guaranteed to last for years to come.

A fundamental consideration is moisture management. Poor moisture management can cause leaks leading to damage in the surrounding structure and the potential for mould growth.

Heating under tile and stone coverings in a wetroom or bathroom, can be an extremely beneficial method of ensuring efficient heating, effective moisture management, preventing damp, mould and fungus by drying out any residual moisture, and providing comfort.

Under wall heating is a relatively new, innovative heating solution that not only offers a great source of heat but is also a safer alternative



to a towel rail or radiator; particularly for children and the elderly. Under wall heating from Schlüter-Systems is a unique solution that is very easy to install and allows radiated heating

underneath the tile, thus keeping the system protected and away from harm.

The electrical heating system for under tile and stone coverings, Schlüter®-DITRA-HEAT-E creates comfortably warm tile and stone coverings and can be used anywhere tile and stone is being installed such as kitchens, wetrooms, bathrooms, en-suites and shower-rooms.

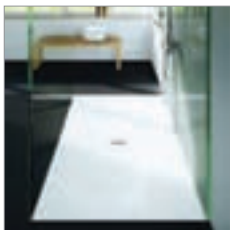
Schlüter®-DITRA-HEAT-E, has been updated with Schlüter®-DITRA-HEAT-TB matting. The special Schlüter®-DITRA-HEAT-TB thermal break, in addition to reducing impact sound, enables significantly faster heating of floor coverings. The revolutionary integrated thermal break reduces heat loss into the screed and subfloor, and it also benefits from up to 70 per cent quicker warm-up time on concrete than other electric underfloor heating systems.

For more information contact the company directly or visit the website.

01530 813396
www.schluter.co.uk

Enq. 143

Kaldewei Scona range



With the expansion of the Scona range, Kaldewei has grown its shower programme to include almost any size requirement and installation type for modern, low level showering. Combined with the new KA90 ultra low waste fitting, now available in a choice of coloured enamel to match the shower surface finish, it is now easier than ever

before to achieve a luxurious, seamless and contemporary look either at low level or completely flush with the floor. For stockist information contact Kaldewei.

01480 498053 **www.kaldewei.co.uk**

Enq. 144

The Shower Tray – Evolved by JT



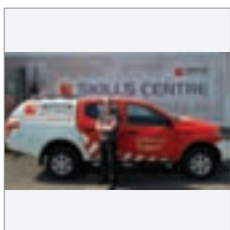
UK shower tray manufacturer, JT, has launched a new addition to its award winning range. Evolved by JT is a first in the market that fuses both tray and wet room concepts. At 25mm deep, Evolved by JT has been designed to incorporate the simplicity of installing a shower tray with the stunning look of a modern wet room. This next generation product

features a leading edge waste solution, powered by an exclusive partnership with global market-leading waste manufacturer Wirquin. Evolved by JT is available in a range of sizes.

0113 201 5090 **www.just-trays.com**

Enq. 145

Norcros open new Skills Centre



Norcros Adhesives is aiming to meet tiling industry demand for training with the opening of its new 'Skills Centre.' the company's new facility is set to become an important resource for companies in the tiling sector, as the company sets out to deliver an expanding range of tiling courses in state-of-the-art bespoke facilities for the benefit of customers

throughout the industry. The nature of the training that is carried out puts the emphasis firmly on the practical aspects, with all trainees encouraged to improve their own tiling techniques.

01782 524 140 **www.norcros-adhesives.com**

Enq. 146

Cheshire mansion transformed by BAL



BAL, have provided a full system solution of tiling products to help transform a high-spec six-bedroom mansion in Hale Barns, Cheshire. Shortlisted for the The Tile Association (TTA) Awards 2016 for Best Use of Tile in a Domestic Environment category, the project was completed over a six-month period. BAL tile adhesives, grouts, sealants and

preparation products were specified throughout the project which included a family bathroom, and four en-suites each with their own unique patterns and styles.

01782 591100 **www.bal-adhesives.com**

Enq. 147

Innovative British Gypsum products helping housebuilders drive up standards

New build houses often get a bad press when it comes to the quality of the internal walls, with many home buyers citing 'thin walls' as one of their disadvantages. To offer a solution, British Gypsum has developed a number of superior grade products, including Gyproc Habito super-strength plasterboard, Thistle Magnetic Plaster and a range of Sound Solution systems.

Cumbrian Homes has been quick to recognise the benefits of specifying higher quality materials. Last month they became Britain's first regional housebuilder to adopt Gyproc Habito as standard across their new development, Carleton Manor Park in Penrith.

Cumbrian Homes is also the first housebuilder to work with British Gypsum to create 'sound havens'. At Carleton Manor Park, Silent Floor soundproofing between floors is the norm across the development, but we know that 40 per cent² of people living in new builds say they have experienced noise travelling through thin walls. To address this widespread problem, Cumbrian home buyers who want to guarantee a peaceful night's sleep, create a quiet home office space, or

mask noise from loud hobbies, have the opportunity at Carleton Manor Park to create a 'sound haven' by adding Silent Walls in rooms of their choice.

"We believe our role as a developer is to bring the latest products and technologies to home buyers," explained Nigel Pallister, Managing Director at Cumbrian Homes. "When we opened our show home and saw the reaction to the products we'd used, we knew we'd made the right choice by partnering with British Gypsum. People loved the idea of sound havens, had a great time being creative with the magnetic wall and, in particular, the visitors were amazed to see the difference between standard plasterboard and Gyproc Habito."

"At British Gypsum, we're constantly pushing the boundaries of what's possible," commented Paul D'Arcy, Innovation Team Leader. "As home buyers continue to demand higher specifications, we're looking to partner with more forward thinking housebuilders to help create homes which sell quicker, for more money and which help create a positive buzz around a developer's brand."



If innovative products like Gyproc Habito, Thistle Magnetic Plaster and Sound Solutions would work for your new development, contact Paul D'Arcy to discover what a partnership with British Gypsum might look like for you.

07974 180783

Paul.Darcy@saint-gobain.com

Enq. 148

Best range of trays from 'one stop shop'



MX Group's impressive 'one stop shop' range of shower and bathroom products continues to be welcomed by the building trade looking for high quality, reliable products for new developments and refurbishment projects up and down the country. Shower trays, electric showers, thermostatic showers, shower enclosures, taps and mixers and shower accessories –

it's a huge range of products. MX remains the leading shower tray manufacturer in the UK, manufacturing 100s of different tray sizes, in six main product types, catering for the specific needs of customers.

01684 293311 www.mx-group.com

Enq. 149

Rå Build meets the need for speed



H+H's Rå Build method has been used by design and build contractor Canning Ericsson to speed construction of a three-storey apartment block on a confined site in Brighton. Canning Ericsson was already familiar with the advantages of H+H's Rå Build method of large format aircrete blocks, the Thin-Joint System and quick-drying Celfix Mortar having used the

modern construction method on several of its previous. Aircrete's structural strength was important because the weight of the project's cast in situ reinforced concrete first and second floor slabs.

01732 880520 www.hhcelcon.co.uk

Enq. 150

Products that make light work of working

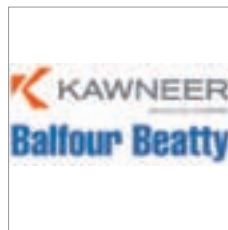


For professional craftsmen and women, this summer is all about getting to know more about the top quality products from the **Hultafors Group's** Premium brands. Snickers Workwear's Next Generation working clothes and accessories are delivering the ultimate in on-site functionality, comfort, protection and safety. They are perfectly complimented

by Solid Gear and Toe Guard safety shoes, which bring modern looks plus uncompromising safety and comfort in a range of styles. Add that to the Hultafors range and you have a unique family products that makes craftsmen's workday safer and easier.

Enq. 151

Kawneer remains Balfour Beatty supplier



Kawneer has renewed its preferred supplier status with Balfour Beatty, signing a new UK-wide supply chain framework agreement to the end of 2017. As a framework partner, Kawneer will continue to provide Balfour Beatty with comprehensive design, technical, value engineering and installation assistance for the supply of curtain walling, window,

door and framing systems. This renewed agreement is the latest in a series of similar partnerships Kawneer has secured with some of the UK's largest construction firms.

01928 502500 www.kawneer.co.uk

Enq. 152

Product Focus

Burnham Environmental Services Ltd

The Biodigester 'T' range caters for 6-42 people and larger Biodigesters are available for up to 2000 people. All Biodigesters are suitable for variable loading. The 'T' range Biodigester has been tested to EN12566 Pt 3 and has a CE Mark. Owners are impressed by the limited maintenance required, infrequent emptying intervals and the 'Odour Free' totally aerobic process. The 'T' range Biodigester has the significant advantage of continuous recirculation without any underground moving parts. The Biodigester range is backed over 40 years experience and full details may be obtained from Burnham Environmental Services Ltd

Enq. 153



Yale Door and Window Solutions

Alongside PAS 24, a new standard has come into effect that sets out the advanced security requirements covering letterplates. This means that a new door with a letterplate must also now pass the TS008:2015 standard to be PAS 24 compliant – a primary reference in the Building Regulations Approved Document Q. Yale is currently in the final stages of developing a TS008 compliant solution that will meet these new standards through patent-pending technology, allowing postal items to pass freely whilst preventing both fishing and unlocking of the door through the letterplate aperture.

Enq. 154



Rega Ventilation

Rega Vent offer MVHR systems and have designed a new high capacity unit; the 600R, capable of handling dwellings with a floor area up to 400m², efficiency up to 90 per cent and specific fan power as low as 0.51 w/l/s. The unit is tailored for the self-build market, fully equipped with an active humidity sensor located in the unit. Which reacts to rapid changes in moisture levels when bathrooms and shower rooms are in use, ensuring a fresh atmosphere. Additional pollen filters, summer bypass kits and other; heating, control and thermostatically controlled zoning options are available to suit all specific householder requirements.

Enq. 155



Dural

The popularity of underfloor heating systems has increased significantly in recent years, as they provide a cost-effective, comfortable, unobtrusive heating solution for millions of homes. However, these systems often cause movement between the subfloor and the top substrate in the form of expansions and contractions. Dural UK are proud to have developed a solution in the form of Micro Joint Infill, which provides discreet stress protection for tiles and natural stone on heated floors. A tiled flooring installation with Micro Joint Infill used is able to effectively absorb the movement energy transferred from the subfloor, protecting the tiles from cracking and loosening.

Enq. 156



Canopies UK

Do you struggle to find door and window canopies that aren't just high quality, but are available when you need them? Canopies UK's FastFit service has been designed to specifically help housebuilders and developers overcome this common challenge. With FastFit, the most popular products in the manufacturers' canopy portfolio are available within just two days, meaning you can deliver your projects on time and with minimum hassle. Conforming to all relevant British and European standards, all GRP door canopies from Canopies UK are paint and maintenance-free and delivered fully assembled and complete with full fixing kits.

Enq. 157



TDCA

Highly durable, fit for purpose timber decking and cladding starts with the Timber Decking and Cladding Association. Membership of the TDCA encompasses materials manufacturers including timber, fixings, coatings and other accessories as well as the best that industry can offer in the way of professional installers. In addition to website resources dedicated to decking and cladding, the association offers a materials sourcing service which furnishes you with a list of companies ready and able to meet your specific requirements. Members are DeckMark or CladMark accredited meaning they meet the stringent requirements of these TDCA quality schemes.

Enq. 158



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Quik Drive First for DeckMark



Simpson Strong-Tie's Quik Drive collated screw system has become the first ever tool to be awarded DeckMark® Plus accreditation from the Timber Decking and Cladding Association. The leading construction connector manufacturer has previously also achieved DeckMark® Plus for its range of CE marked decking and cladding fixings. DeckMark® Plus is a quality assurance and performance scheme run by the Timber Decking and Cladding Association, the recognised authority on all matters that relate to creating high performance, timber decking and cladding structures.

With a huge range of applications, from decking to drywall, modular homes to mezzanine floors the Quik Drive is the world's most advanced screw system. Built to last, all moving parts are coated with Teflon®, which is one of the reasons it comes with a lifetime warranty.

Sales Director Jon Head says, "We're proud to have achieved DeckMark® Plus accreditation and demonstrate our commitment to quality, as well as supporting the industry to help ensure good quality standards are met." The Quik Drive brochure can be downloaded via the company website.

01827 155600 www.strongtie.co.uk

Enq. 160

SMART Door from NorDan – at the forefront of technology



NorDan, one of Europe's largest manufacturers of high quality Scandinavian timber windows and doors, has unveiled its SMART door technology for the first time in the UK. NorDan is at the leading edge of technology in the development and manufacture of timber windows and composite doors. SMART Door, is a completely new product. Developed from NorDan's top of the range composite door range, with first class thermal properties, stability second to none, and security to keep you feeling safe at nights. The robust security layers of rust proof steel sheets ensure it doesn't warp or bend in hot weather or in a damp British winter. These external doorsets protect against driving rain and winter winds. New for 2016, is the additional of a high tech locking system which enables you to open the door from a distance using mobile telephony. This door of the future has no key, but has every other security aspect you would expect. It can be locked using a key fob, or from your mobile phone app. The NorDan SMART door alerts your mobile phone when someone 'rings' at your front door. You will be able to 'see' who is there, talk to the caller, and let the caller into your home, remotely from your phone, wherever you are.

01452 883131 www.nordan.co.uk

Enq. 161



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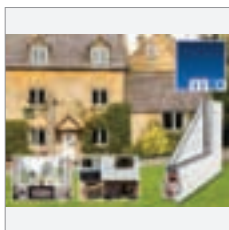
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Enq. 162

VEKA Group unveils the new M70 system



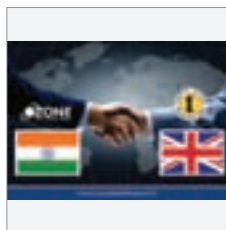
The Matrix 70 Window System from **VEKA** has led the industry for decades, with its classic good looks and impressive technical performance. Now, thanks to ongoing investment in the supplier's PVC-U systems, a new, even more energy-efficient M70 system has been launched. The new 2016 M70 is a fully-integrated, multi-chambered,

bevelled 70mm system with steel reinforcement sections. The clean bevelled lines of the M70 will appeal to homeowners looking for contemporary aesthetics to enhance their home.

01282 716611 www.vekauk.com

Enq. 163

Quality and innovative fittings



A new name in quality door hardware is set to make waves in the architectural ironmongery market. **Total Door Hardware** is a UK distributor for door hardware from Ozone, an India-based international architectural hardware brand. Offering certified hardware with innovative technologies and functionality, Ozone products are becoming established

globally. The product portfolio includes the new generation of concealed floor spring, better known as the hydraulic patch, along with fittings for commercial doors, shower rooms, balustrades and point-fixed frameless facades.

Enq. 164

Schueco doors meet PAS 24 standards



As part of an ongoing programme of security testing to PAS 24, **Schueco UK** reports an increase in the number of its sliding door systems that meet this police-approved standard. Newly qualifying systems include Schueco ASS 70.HI lift/slide double track, bi-parting and triple track doors, as well as the slide-only versions. Schueco ASS 70 FD and ASS 80

FD.HI sliding/folding doors have also been successfully tested. This announcement will be welcome news for specifiers and fabricators looking to deliver ultimate peace-of-mind to clients.

01908 282111 www.schueco.co.uk

Enq. 165

PURe windows give a capital view!



As well as offering its residents some of the most spectacular views across London, the energy-efficient windows of the latest phase of the Pavilions development in Tottenham Hale also provide some of the lowest U-values available thanks to the use of **Senior Architectural System's** new PURe® system. Senior's PURe® windows are the first on the UK market to benefit

from an enhanced thermal barrier manufactured from expanded polyurethane foam (PUR) to give U-values as low as 0.71 W/m²K when calculated as a commercial CEN standard window.

For more information visit the company website.

Enq. 166

RENOLIT EXOFOL Smooth 2: Style with performance



RENOLIT has launched Smooth 2, a new architectural surface texture with improved scratch-resistance into its RENOLIT EXOFOL MX range of exterior films. A smooth emboss with increased scratch-resistance opens up new perspectives as well. It offers a pleasant feel while being resistant against contact. The surface geometry has been developed so that the raised areas are slightly rounded, which improves performance whilst maintaining the uniform surface structure. The new emboss is available ex-stock in seven shades and can also be produced in any other RENOLIT EXOFOL colour on request. Year on year foiled window installations are growing and within that growth the percentage of installations which are solid colours has also increased. As demand for solid colour continues, so does the trend towards smooth surface solid colours which create modern architectural statements on new builds or refresh older buildings with a modern facade. This new trend is reflected in the UK where sales of the RENOLIT EXOFOL MX solid colours with smooth surfaces have grown by 35 per cent in 2016 compared to the same period in 2015. The many colours reflect the requests from increasingly design-led consumers. It is no longer enough to only offer one or two shades, this new generation of discerning customers want far more choice.

01670 718222 www.renolit.com

Enq. 167

Vicaima turn on design flair at Electricity House



Vicaima innovative door designs have been featured prominently in a landmark city centre project, which sees a modern apartment complex created in a former 1930's iconic utility building. Electricity House has stood at the very heart of Bristol City centre since its construction. With its Portland stone facade and magnificent curved frontage, the building embodies the grace of the Art Deco era. Now this bygone treasure has taken on a new lease of life following its lovingly re-imagined and inspired regeneration by developer Crest Nicholson. They have created luxury living space by blending period charm with contemporary interior design. Of course inspired design requires inspirational products and so Crest chose Vicaima to enhance the apartment entrance doors with Dekordor 3D Portaro matching door and frame systems. This was further augmented by a surrounding and matching wall panelling which incorporated distinctive back lit apartment numbering. Performance was to client requirements which included certified FD30 fire doors with a roller lock and eye viewer. Dekordor 3D provides a horizontal and highly tactile grain effect and Crest selected 3D Grey finish to provide the perfect tonal contrast to the wall and floor covering.

01793 532333 www.vicaima.com

Enq. 168

VEKA UK Group jumps the 'Q'



The VEKA UK Group, has achieved further professional acclaim for the newly unveiled M70 system. The VEKA UK Group has completed a major update of its BSI Kitemark accreditation with the inclusion of the new M70 and the system is already helping ensure that fabricators are Document Q-ready. The Matrix 70 Window System from VEKA led the

industry for decades, with its classic good looks and impressive technical performance. Thanks to ongoing investment, the new, even more energy-efficient M70 system has been launched.

01282 716611 www.vekauk.com

Enq. 169

Part Q compliance with no compromise



VELFAC composite windows, external doors and patio doors deliver the safety performance required by the new Part Q regulations, without compromising the contemporary, slim aluminium / wood frame. The VELFAC system also meets the exacting standards of UK Police flagship initiative Secured by Design (SBD), adding further value to any

residential or housebuilding project. To satisfy Part Q, the VELFAC system can resist damage inflicted by burglars using common tools such as crowbars.

01223 897100 www.velfac.co.uk

Enq. 170

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Enq. 171



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Enq. 174



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Enq. 176



Free your build from the water trap

Tim Wootton of Wavin explains how compact alternatives to traditional water traps can provide the practical answers while enhancing design freedom for housebuilders in kitchens and bathrooms.

The needs of modern housing developments can present a range of challenges to plumbers and contractors when it comes to installing pipework to appliances and fittings using traditional water traps.

They face a combined challenge of preventing foul sewer gases entering properties and complying with Part H of the Building Regulations, while also freeing up as much space as possible in tight building footprints. Whether it is providing a pedestal washbasin in an en-suite bathroom, a bath or shower installation, or simply an integrated waste bin under the sink to save space in the kitchen, standard water traps can compromise space, in turn limiting design freedom or leading to possible issues on site.

Being able to install a trap that saves space can provide significant benefits in domestic projects, whether as a result of reducing the size of the trap itself or by enabling it to be installed vertically or horizontally in plumbing systems. This can deliver both time and cost savings thanks to its ability to achieve a simpler system design, which can prove particularly beneficial in large housing developments.

Solving problems on site

There is a range of potential problems on domestic installations with standard waste trap solutions. For example, in order to accommodate the U-bend of a traditional trap, installers may have to cut the floor under a shower. Alternatively, they might consider installing a shallow bath trap – this will fit into the space, but is likely to be in breach of Building Regulations. Fitting a compact valve which can be installed horizontally under a bath avoids this risk.

Traditional water-based traps such as 'P', 'S' and bottle trap varieties have been used for many decades as a solution to prevent sewer gases. All such products however are vulnerable to failure if water is removed from the trap, which can

result from siphonage or evaporation from lack of use.

There are versatile options available which do not rely on water being present to operate fully, such as HepvO from Wavin – an alternative to a traditional waste trap. The self-sealing waste valve comprises a purpose-designed membrane which creates an airtight seal between the living space and the drainage system, avoiding the need for water in the trap. The membrane opens under water pressure of an emptying appliance, after which it closes to form a tight seal.

Design benefits for homeowners

The design flexibility offered when installing a compact waterless trap comes into its own in bathroom layouts; because the trap acts as an air admittance valve, the pipe run to a basin can be extended from 1.7 m to 3 m without needing to increase the pipe size from 32 mm. It also makes it easier to install slimline pedestals, as the compact product can be installed 'in-line' vertically, allowing the waste pipe to drop in a straight line from the appliance outlet. In addition, traditional secondary vent pipes or additional branch ventilation may not be required.

Many homeowners wish to maximise storage space under the kitchen sink by installing an integrated waste bin, so a compact waterless trap is ideal for opening up the space. In addition, a greater number of appliances can be connected without risking pressure fluctuations and operation can be silent, even under abnormal pressure.

Compact waterless traps can provide an ideal solution for freeing up space and offering an array of design choices for housebuilders in modern housing developments. They also offer a proven and highly-engineered practical alternative to traditional water-based traps which provide an equivalent service life.

Tim Wootton is manager of technical design at Wavin

Enq. 177



"Standard water traps can compromise space in turn limiting design freedom or leading to possible issues on site"





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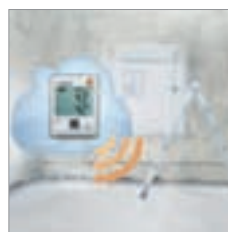
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Enq. 178

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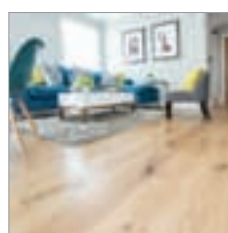
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01420 544433 www.testolimited.com

Enq. 179

F. Ball used in major London development



High performance subfloor preparation products from **F. Ball and Co. Ltd.** have been used in a major housing development in London. Contractors were appointed to prepare and install new floors, which comprises of 9,000m² across five blocks of flats and four blocks of houses. The job was completed using F. Ball's Stopgap

Green Bag and 114 liquid, a protein free smoothing underlayment. Stopgap Green Bag 114's fast setting and high strength properties made it ideal for this development as it dried quickly and was strong enough to withstand heavy foot traffic once work restarted.

Enq. 180



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Enq. 181



Flooring is the foundation

Adrian Crow of Insulslab explains the theory behind delivering a foundation up to finished floor level – and how this can pay dividends from both a commercial and performance perspective.

While the flooring package is traditionally treated as a separate concern to the groundworks and foundation construction, housebuilders are increasingly recognising the benefit of adopting a simplified approach that combines the two.

Foundation methods typically fall outside of the Part L compliance remit. This is because traditional systems – such as suspended slabs, beam and block floors or raft foundations – are classified in groundworks packages and do not form part of the exterior envelope. By contrast, fully integrated foundation systems can deliver the foundation up to ground floor level, which as part of the envelope contributes to building performance against Part L requirements and SAP calculations.

Going to ground

When seeking to improve the overall thermal performance of a building through the use of a fully integrated foundation system, the highest U-values are achieved by using products that incorporate insulation within their design. For example, some systems are constructed using expanded polystyrene (EPS) pods. These lightweight pods are simply laid in place in a prepared formation and then steel fibre reinforced concrete (SFRC) is poured over them to deliver the foundation and slab up to finished ground floor level. This type of build-up can typically achieve U-values as low as 0.10-0.13W/m²K (depending on P/A ratio).

In contrast, for traditional floor build-ups to achieve the same level of thermal performance, the insulation layer with a lambda value of 0.022 W/mK on top or below of the foundation would need to be approximately 160 mm to 180 mm thick. As well as representing a significant increase in insulation material cost, such a thickness of floor depth will negatively impact on the foundation depth.

The key to the performance of super-insulated foundation systems is that insulation is inherent in the design. As well as providing high levels of thermal insulation, the pods form part of the foundation structure, which ultimately helps reduce the foundation weight and utilises the established waffle slab construction technique.

Driving efficiencies and performance

Beyond the proven thermal insulation benefits of such highly insulated and integrated foundation systems, housebuilders are increasingly adopting this modern method of construction thanks to its speed of installation and the cost savings that can be achieved.

For example, compared with traditional build methods, the nature of an integrated foundation system means a simplified installation process and ultimately helps makes site programmes more efficient. Less time is needed to prepare the ground for construction, as no trenches are

required, and the system itself is quick and easy to install. These factors can culminate in a cost reduction, both on materials and labour.

In addition, the minimal excavation translates into reduced spoil to cart away, as well as less site traffic. Finally, the lightweight pods and use of SFRC, which eliminates the requirement for steel reinforcement, minimise manual handling on-site and contribute to a positive health and safety environment.

At a glance

Given the superior thermal performance of integrated systems that incorporate EPS pods within their design, developers often favour this build type when higher levels of insulation are required. However, cost and time savings are increasingly prevailing factors during the specification and procurement processes. The table on the following page provides a quick comparison of the relative benefits of fully integrated foundation systems with traditional techniques.



Case Study: Pebble Beach

Bovis Homes adopted an integrated foundation system when it was contracted to build 222 two, three and four-bedroom homes at Pebble Beach, Seaton, Devon.

The geology of the site, a former caravan park, consisted of salt marsh deposits overlying Branscombe Mudstone Formation. To remediate the ground in preparation for build, a significant enabling works operation was undertaken, which involved raising site levels through importing marine-dredged sand. This involved a period of time for settlement and a programme of surcharging the site. Subsequent site investigation and geotechnical analysis confirmed a suitable bearing pressure of 50kN/m².

Based on the geotechnical profile, Bovis specified a semi-raft foundation to meet the load bearing pressures of the ground. Ordinarily this is a more costly foundation technique than trench or beam and block; however by using a fully integrated and super insulated foundation system, Bovis was able to realise the performance benefits of a traditional semi-raft construction – with additional time and cost savings.

Douglas Mobbs, engineering manager at Bovis Homes explains: “We needed to improve on a traditional raft solution and by re-evaluating the options were able to arrive at a design which exactly addressed our requirements. It worked

Comparison of fully integrated foundation systems with traditional techniques

Beam and Block on Trench Fill or Piled Ring Beam	Raft Foundation (Traditional)	Fully integrated and super insulated systems
Low U-values achieved only by increasing the depth of insulation	Low U-values only achieved by increasing the depth of insulation	Low U-values are easily achieved providing future proof performance toward zero carbon housing
Cluttered sites, with trenches – results in health and safety implications	Costly design, supply and fix of reinforcement bringing health and safety implications	Clean, clutter free site, with no trenches
Spoil to be removed	Spoil to be removed	Minimal spoil to be removed
Can have restricted access for follow on trades	Can have restricted access for follow on trades	Quick access for following trades
Screed required	Screed required	No screed required
Potential difference between design depth and actual depth required, deeper trenches increase exit costs beyond estimation	Exit costs can be higher than anticipated due to varying mound sizes, requiring over and above concrete	Flexible system overcomes many on-site challenges, with full design support service available with most systems

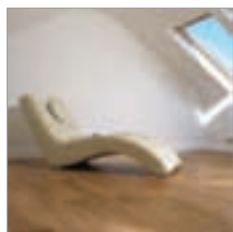
well with the overall development programme and allowed the smooth placing of orders and efficient supply of materials. The careful planning and effective coordination between parties ensured the foundations were constructed

well ahead of the superstructure programme, which ultimately allowed the development to progress at an excellent pace.”

Adrian Crow is technical manager at Insulslab.

Enq. 182

Introducing Timbflor and new product guide



A new Engineered Hardwood flooring collection has been added to the extensive range offered by **Timbmet**. Timbflor®, sourced from flooring specialists Kahrs, takes place in Timbmet's new Flooring Guide. Timbflor® is made from Engineered Oak with a locking joint and is available from stock in a choice of six lacquered finishes plus one brushed oil

finish. Compared to a traditional solid wood floor the Timbflor® range is 75 per cent more stable. It will resist buckling and cracking and, as such, also works well with underfloor heating.

01865 862 223 www.timbmet.com

Enq. 183

Unleash your Bohemian side with Osmo

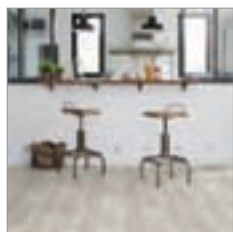


Osmo UK has been proudly partnered with rustic European oak flooring specialists, ESCO. The collection includes nine solid oak flooring styles that are available pre-finished with Osmo's renowned wood finishing product, Polyx®-Oil. Osmo's ESCO collection is favoured by architects and interior designers. The combination of ESCO's

special rustic wood style and Osmo's smooth finish makes it one of the most popular flooring choices in the range. Available in eight colour options, including Cognac, Natural white to Stone Grey, this stylish flooring will suit any interior scheme.

Enq. 184

Texline is dedicated to housing



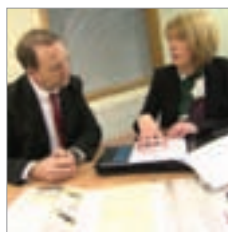
Gerflor's Texline flooring is a Gerflor Fibre Technology (GFT) loose-lay, luxury sheet domestic vinyl, which unites decorative trends with cutting-edge technology to provide fresh solutions for housing projects. The exclusive combination of its GFT textile backing system and compact balancing interlayer permits up to 35 sqm, adhesive-free fitting

over concrete and most existing smooth floorcoverings. Texline also lowers remedial work for common post-installation issues and manufactured at ISO 14001 certified production sites.

01926 622620 www.gerflor.co.uk

Enq. 185

Designer Contracts trains for the future



Designer Contracts has developed an extensive training programme for all employees at its offices and warehouses in the UK. The programme kicks-off for new starters welcomed into the company with a full induction plan. Extensive instruction is delivered on products the company sells together with features and benefits ensuring effective advice

and guidance is given. Tailored to the individual job role, training covers aspects appropriate to each employee to help them carry out their job effectively.

01246 854577 www.designercontracts.com

Enq. 186

OPTIM-R installed on sustainable housing



The Kingspan OPTIM-R Flooring System has helped a new residential development in Battersea Village to meet its strict sustainability goals. 111m² of the Kingspan OPTIM-R Flooring System was specified for the townhouses due to its high level of thermal performance. The system comprises two layers of 40mm Kingspan OPTIM-R vacuum insulation

panels with a 3mm Rubber Crumb underlay and a 3mm Geficell overlay. Kingspan OPTIM-R flex infill strips of the same thickness were then fitted around floor edges to complete installation.

01544 387 384 www.kingspaninsulation.co.uk/optim-r Enq. 187

New retrofit underfloor heating system



Maincor are pleased to introduce Overboard for retrofit underfloor heating applications. Ideal for projects such as extensions, kitchen refurbishments or upgrading domestic heating systems, the system is quick and easy to install, offering an energy efficient solution and a comfortable internal environment for building occupiers. The underfloor

heating pipes are laid within the 18mm thick pre-routed Overboard panels offering a low profile solution which lends itself to situations where minimal floor height adjustments are desired.

01455 555930 www.maincor.co.uk

Enq. 188

SikaBond® wood and laminate cleaner



SikaBond® wood and laminate floor cleaner from Everbuild is a ready-to-use floor cleaner designed to make light work of keeping your wood and laminate floor looking as good as new. Spray applied, this cleaner is suitable for use on laminate, wood, ceramic, polished stone and vinyl floors and is ready to use with no need for dilution in just three easy steps. Simply

sweep the area, spray SikaBond® Wood and Laminate Floor Cleaner directly onto the floor and wipe with a mop or cloth to leave behind a clean and smear free finish.

0113 240 3456 www.everbuild.co.uk

Enq. 189

New-build is first to use Ecodan QUHZ



A new-build home in Leicestershire is demonstrating how anyone can achieve a highly efficient property that provides a comfortable environment. The Ecodan QUHZ 4kW air source heat pump by Mitsubishi Electric has been designed with new-build standards of insulation and lower heating loads in mind. It is MCS-Approved and straightforward to

install, delivering water at 70°C to a packaged 200 litre thermal store. From this thermal store, mains water is heated directly up to 65°C via Mitsubishi Electric's plate heat exchanger.

01707 276 100 www.mitsubishielectric.co.uk

Enq. 190



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Enq. 191

Kingspan launch lower lambda products



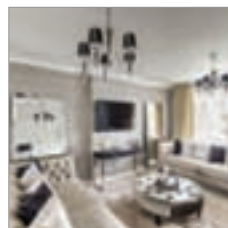
The future path to energy efficient buildings will be revealed when leading manufacturer, **Kingspan Insulation**, launches four advanced, low lambda insulation products for floors, walls and soffits. Kingspan Kooltherm K103 Floorboard, K110 and K110 PLUS Soffit Board, and K118 Insulated Plasterboard feature an advanced, fibre-free insulation

core, enabling them to achieve an outstanding thermal conductivity. As a result, the products can facilitate buildings to be built to the upper levels of fabric performance with minimal thickness.

01544 387 384 www.kingspaninsulation.co.uk

Enq. 192

Lovell Homes – Cherry Hill, Larkhall



Residential construction specialist Lovell Homes brought in **Designer Contracts** to add its interior design expertise to the show home at the developer's Cherry Hill site. Designer Contracts was instructed to create a scheme that would appeal to families and young professionals looking for a luxurious and elegant home environment. This has resulted in a chic,

sophisticated interior design reflecting the high-quality build and featuring a neutral palette of rich creams and taupes, highlighted with glamorous gold and pewter metallics.

01246 854577 www.designercontracts.com

Enq. 193

SIG360 provides insulation support for residential project



An innovative offering by **SIG Insulation** has provided cost and space savings for a new residential project. The technical experts at SIG360, who offer energy efficiency expertise for new build and retrofit projects, have provided insulation guidance for the four-bedroom family home in Wellesbourne, Warwick. Appointed by the project's developers, the SIG360 Technical Centre was tasked with ensuring the building met the Approved Document Part L of the Building Regulations without using products that would add to the width of the walls, reducing the internal living space available. Due to the 100mm cavity width already in the property, SIG360 was required to find a solution that would ensure the correct U-Values were achieved, without using thicker insulation products. By specifying a new fulfil Celotex 100mm cavity wall insulation product, the energy experts were able to guarantee the house met its desired thermal performance without adding to the cavity width, maximising saleable floor area. Neil Harrison, of Harrison Project Ltd said "By working with the SIG360 Technical Centre who recommended a new type of cavity wall insulation, we were still able to achieve the required U-Values without having to use thicker insulation and compromising on floor space."

0114 285 6300 www.siginsulation.co.uk

Enq. 194

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Enq. 195

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Enq. 196

Silva branches out with yellow cedar



Silva Timber Products has expanded its product range by becoming one of the UK's first supplier of yellow cedar shingles and shakes. Yellow cedar is one of the world's most durable woods and its consistent grain structure means it is a good species for carving, joinery and carpentry. Silva already supplies western red cedar to the UK market. Yellow cedar

is its 15th new product line in the past year aimed at consumer and commercial markets. It has advantages over western red cedar, as it is superior in stability, strength and weather resistance.

01514 953111 www.silvaimber.co.uk

Enq. 197

Innovation: new industry-leading clay pantile



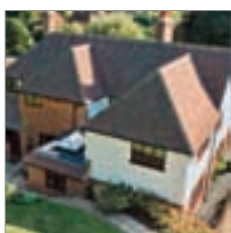
Break through innovation has combined with a traditional aesthetic to meet the needs of UK architects and specifiers with the launch of the Lincoln clay pantile from **Marley Eternit**. Lincoln features a classic s-curve profile and thin leading edge, while also benefitting from a unique design making it easier and faster to install than traditional pantiles. The Lincoln

pantile was developed following extensive research by Marley Eternit, which showed the need for a traditional clay pantile that could be installed without the need for specialist roofing skills.

01283 722588 www.marleyeternit.co.uk/lincoln

Enq. 198

Canterbury clay tiles the perfect match



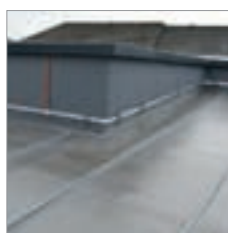
A complex and sensitive re-roofing project in Surrey is amongst the first to use the Canterbury handmade clay tile range from **Marley Eternit**, which was re-introduced to the market to help contractors achieve a genuine handmade finish when creating traditional clay roofs. Built in 1928, the original handmade tiles were still on the roof and in need of replacement. Antique-

coloured Loxleigh Canterbury clay tiles were specified for the large 270m² roof, which was a complex design due to the interaction of multiple slopes, swept valleys and hips.

01283 722588 www.marleyeternit.co.uk/handmade

Enq. 199

Engineered solution to regeneration



Engineering excellence is returning to the Clyde with the building of a new social housing scheme. CRGP Architects has reflected the engineering heritage in the design and construction, and turned to **Protan** for a state-of-the-art engineered roofing solution. Thus the 6 no. low pitch, monoridge interconnecting four-storey blocks that house 40 apartments are all

roofed with 1700m² of Protan SE1.6mm single ply PVC membrane. Protan's prefabricated option, welded in its and mechanically fixed in place with Omega extruded steel profiles.

01925 658001 www.protan.co.uk

Enq. 200



Seminar exposes industry knowledge gap

A survey following a series of in-depth presentations at the recent Housebuilders' Fire Protection Seminar – hosted by **SIG plc** – has revealed that there may be a knowledge gap among housebuilders regarding the correct specification and installation of fire-stopping measures. The event saw SIG joined by the Children's Burns Trust, the Chief Fire Officers Association and the Association for Specialist Fire Protection (ASFP) to speak about the threat of fire in residential buildings. The topics covered included fire protection best practice and looking at the consequences of non-compliance. Paul Gordon, managing director of SIG Distribution asked the audience whether they believed their projects had appropriate fire-stopping, repeating the question once the event concluded. The number of attendees that agreed shifted from 72 per cent at the beginning to just 40 per cent at the end, showing the current knowledge gap.

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Enq. 203

New wireless fire alarm panel



This month sees the launch of a new fire alarm panel for **Bull Products'** successful range of Cygnus wireless fire alarms systems. The new CYG6 fire alarm panel has been designed for smaller construction sites, where it can connect up to 32 devices in one zone. Like all Cygnus systems, the product is CE marked and is used in conjunction with a choice of units

including fire alarms, smoke detectors, heat detectors, carbon monoxide detectors and first aid call points. The new CYG6 has been developed from Bull Products' original Cygnus CYG1 to be a cost-effective option for smaller construction sites.

Enq. 204

Fall arrest cushions accredited



The market leading **Impact-Bull** fall arrest system has just been upgraded to cater for the increased working at height demands in the housebuilding industry and has passed the British PAS 59:2014 accreditation. Designed to protect against falls inside a building during the construction period, the system protects anyone whilst working on scaffold, joists

or trusses. They can be used in brick built properties, concrete structures, and unlike some others can be used in timber frame developments too. Each cushion is filled with 'sealed for life' air pockets and are extremely lightweight and durable.

Enq. 205

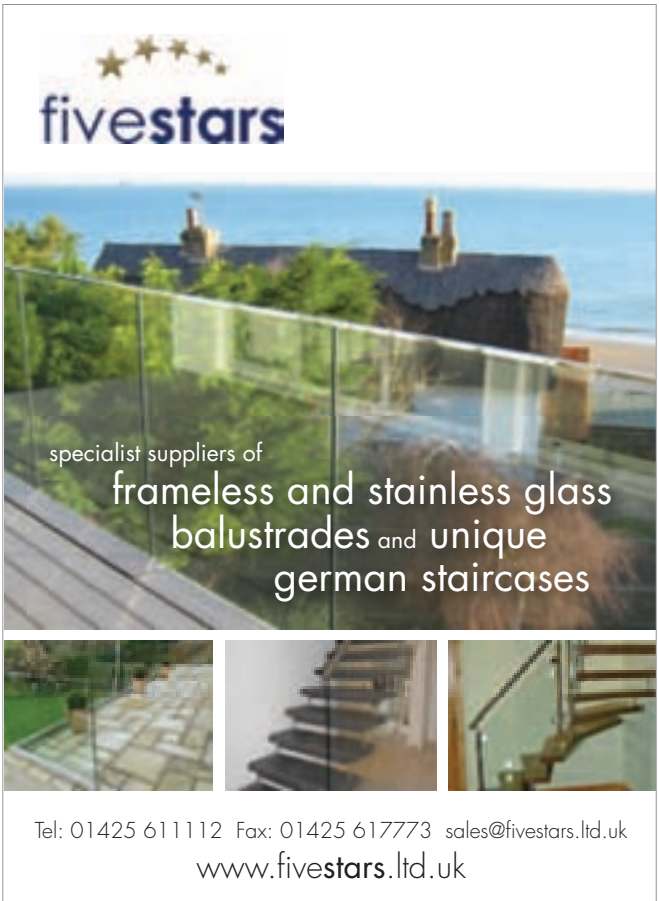


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Enq. 207

Comprehensive Schöck range meets Embassy Gardens demands

Stretching along the Thames from Battersea to Vauxhall, Nine Elms will see 20,000 homes built over the next ten years, along with schools, parks, a pedestrian bridge over the Thames and two new underground stations.

The heart of this huge development is Embassy Gardens, London's new diplomatic riverside precinct, which forms the backdrop to the new US Embassy. Blocks are arranged around raised courtyards, with differing building heights to minimise overshadowing and overlook. The first release of apartments is the Ambassador Building, comprising six distinct cores, which house residential apartments boasting high ceilings and abundant natural light. A key feature being the wide variety of balcony types. Each is governed by unit size and orientation – and the minimisation of any possible thermal bridging problems at these points is crucial.

Schöck has the ideal solutions to these differing demands with its comprehensive range of Isokorb load-bearing thermal insulation products. Each thermal break has totally verifiable performance standards, meets full

compliance with the relevant UK building regulations and offers BBA Certification and LABC Registration. Specifically, the thermal breaks used at the Ambassador Building involved firstly the Schöck Isokorb type K, for concrete-to-concrete connectivity. The type K units were incorporated into cast in-situ cantilever balconies on the road-facing external elevation; and where a shear force transfer element was required, also involving concrete-to-concrete loggia's or supported balconies, the Isokorb type Q was installed.

A further variation, Isokorb type K-WU units were also used as slab-to-wall thermal breaks. The Isokorb type KS for concrete-to-steel were used on the internal courtyard balconies; and to assist the structural engineer in keeping the transverse beam continuous between the external columns, Schöck SLD dowels were also used to support the propped cantilever walkway externally.

In addition to providing highly effective connectivity solutions for concrete-to-concrete and concrete-to-steel thermal bridging situations, the Schöck Isokorb range also offers



a modular product for steel-to-steel applications and even a maintenance free alternative to wrapped parapets.

For a free copy of the Schöck Thermal Bridging Guide and/or the Thermal Bridging Solutions brochure – contact the company or visit the website.

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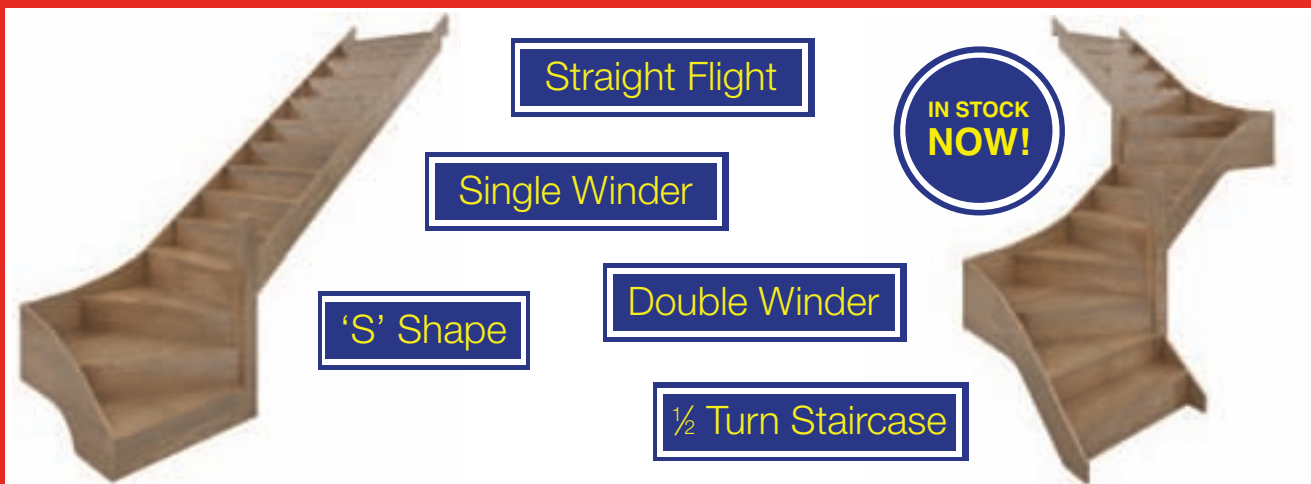
Enq. 208



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Enq. 209

Step up your interiors

Paul Martin from stairparts specialist Richard Burbidge discusses how selecting the correct stairparts can add real impact to the entrance of a property.

When it comes to interiors, installing a show-stopping bathroom or kitchen may be high on the list of priorities. However, there is one other feature that makes a real style statement and can add significant value to a property, yet is often overlooked: the staircase.

Instead of opting for standard stairparts, make a conscious effort to select the most appropriate style for the property to create instant 'hall appeal', increasing the perceived value of the home and ensuring the first impression is a lasting one.

The hallway should be a real focus if the desire is to add character and value to a project, as it plays such an important role in setting the tone for the rest of the house. The defining element of the hallway is the staircase, but in many projects the entire hallway tends to get overlooked. However, carefully chosen stairparts will dramatically improve the look and feel of a house. Planning this area of a property at the early stages of the interior design process will allow for the creation of a grand entrance that complements

the rest of the interior.

There are a wide variety of styles to choose from, so selecting the ones that are right for each individual project is key. Consider the defining characteristics of the development and then select the most appropriate stairparts for the size and style of the property.

Light and bright

In a smaller property the aim will be to maximise available space and light as much as possible. Large, imposing designs can overshadow the architecture of smaller homes, so simple, slim-line spindles offer a more practical option, creating a high-end feel in properties where space is limited, without overpowering the hallway or making it look darker.

Installing glass panels can also make the hallway appear brighter and more spacious, reflecting light and adding instant appeal to the property to create that all-important good first impression. A sleek and modern alternative to more traditional stairpart styles, the glass panel design makes an undeniable style statement, giving any property the 'wow-factor'.

Period style

If the interior of the project will be more traditional in style, or if renovating a period property, installing a standard, white painted balustrade may not complement the rest of the interior, or could lessen the impact of any painstaking efforts that have been taken to restore the original features.

Traditional stairpart designs lend themselves well to period style properties, adding warmth and depth. However, to mix old with new and add a contemporary flourish, incorporating other materials can create a high-end, luxury and unique feel. For instance, using black iron, twisted spindles can create drama and turn a



functional staircase into a striking centrepiece that lends itself well to both traditional and contemporary style interiors.

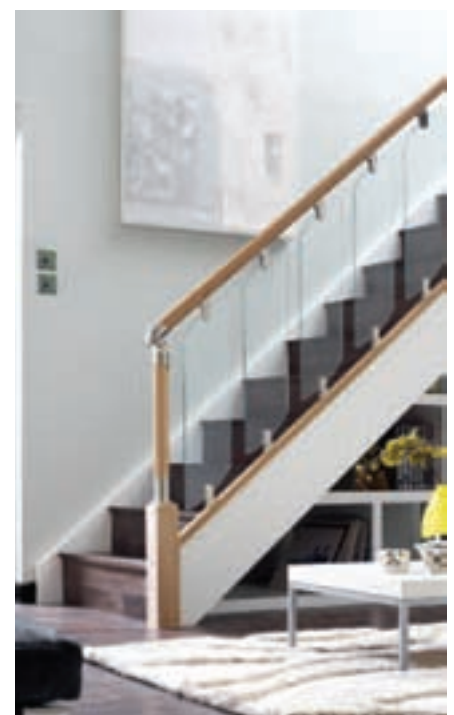
Stylish, contemporary & unified

If cutting-edge and contemporary is the desired style it pays to be adventurous, and the use of finishes such as chrome or brushed nickel alongside striking glass panels and light-coloured wooden handrails offers a stunning solution, resulting in a modern finish and a stylish focal point. Using the hallway to make a strong statement will increase the perceived value of the property and add a touch of distinction.

When selecting the type of wood to be used for construction of a property's staircase, specifiers need to consider the materials used



"The staircase is one feature that makes a real style statement and can add significant value to a property, yet is often overlooked"



elsewhere in the property. For example, white oak is a popular choice for flooring, doors and kitchens so, if this is the case on a particular project, continue the theme throughout by selecting the same wood for the stairs. Such attention to detail will create consistency throughout the house, resulting in the unified look and feel many buyers will look for when trying to identify their ideal property.

“Mixing old with new and adding a contemporary flourish by incorporating other materials can create a high-end, luxury feel”

Time saving

There is a misconception that installing stairparts can be a sticking point when it comes to the progress of the project. If stairparts need painting or varnishing for example, work on both upstairs and downstairs would have to stop temporarily to wait for the varnish to dry, ensuring dust and contaminants do not affect the finish. However, ready-painted or varnished stairparts are available to purchase that allow the installation to progress without any disruption to work on the rest of the project, saving both time and money. There are also pre-drilled handrail and baserail systems available that come with pre-cut spindles, so in many cases stairparts can be installed in less than a day.

Updating the stairs is one of the simplest solutions when it comes to adding perceived value to a property. Making a grand entrance with a striking staircase can improve a property's marketability, create a stunning centrepiece and ensure a home has that instant 'wow-factor'.

Paul Martin is group product marketing manager for Richard Burbidge

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Enq. 211

High energy efficiency for high-rise flats

SenerTec's Gary Stoddart explains the role that combined heat and power (CHP) can play in increasingly popular new build communal heating schemes.

In communal heating schemes (sometimes referred to as community heating, district heating or heat networks), heat is supplied to individual properties from centralised plant, with the heat being delivered through a single pipework distribution arrangement. The concept is something that is being more widely seen, particularly in multi-occupancy high rise schemes such as apartment blocks.

Heat interface units (HIUs) – also known as heat boxes – will generally be used to provide the heating, or heating with domestic hot water, to individual properties. The householder will then control their supply with a room thermostat, a separate programmer or individual thermostat radiator valves. Importantly, HIUs also record the heat consumed for accurate energy billing; further guidance on metering can be obtained from The Heat Network (Metering and Billing) Regulations 2014.



In high rise developments centralised schemes can offer benefits over the more traditional solution of installing separate heating systems (which would typically comprise gas-fired combi boilers or a form of electric heating) in each individual property. For example, efficiencies can be increased and fuel consumption can be reduced. In fact, centralised plant systems are particularly well positioned to help developers meet their required targets in a cost-effective way. For more information, visit the BSRIA website (www.bsria.co.uk).

Using centralised plant also reduces the issues associated with supplying gas to multi-dwelling, high rise buildings. It decreases the risks surrounding gas distribution pipework and eliminates the need to fit numerous flue terminals, plume displacement kits and condensate drainage systems, hence reducing capital installation and whole life costs. Installing HIUs in each property rather than individual boilers further reduces installation costs and boiler size is also reduced, as individual boilers such as combis are generally oversized for the hot water capacity.

In the situation that the dwellings are to be

rented rather than sold, it makes servicing and maintaining the heating equipment much easier, and removes the need for legally required landlord gas appliance checks to be carried out in each individual property (providing there are no other gas appliances in the dwellings).

In addition, with centralised plant, a number of different fuel sources can be used – and if low carbon technologies such as CHP are adopted, energy costs and carbon emissions can be reduced even further. In its 2013 document *The future of heating: meeting the challenge*, the Government suggested there is great potential to develop heat networks so that they can play a part in the move to low carbon heating.

CHP units generate electricity while also capturing usable heat produced during the process. On-site CHP is approximately 30 per cent more efficient than relying on traditional heating plant and electricity supplied solely from the grid, and can cost up to four times less, according to the Energy Saving Trust (www.energysavingtrust.org.uk).

When thinking about specifying CHP for a communal heating scheme one of the most



When SenerTec is assessing a site to see how feasible CHP is, the company firstly looks at the base load for heat and electricity. On a Dachs Mini-CHP unit the heat produced is between 12.5kW and 15.5kW (depending on the return temperature to the unit) and the electrical output is 5.5kW. If the base load is above these figures then the CHP will run continuously and the heat and electricity will be used in the building – which is the ideal situation.

The key to ensuring CHP delivers savings is to keep it as small as possible. Unfortunately in too many cases specifiers and consultants are being given poor advice, and the '10 per cent for luck' rule is applied, meaning that many buildings have larger plant than required. If the heat demand is not present, oversized CHP will not run, and the anticipated electricity will not be generated.

"The key to savings is to keep CHP as small as possible"

A CHP unit supplements existing boilers and/or water heaters, so in a properly designed and commissioned system, the heating and hot water equipment within the building will draw on the CHP first, before demanding additional supply from the boilers. This ensures that the building gets maximum output from the CHP

and the boilers only run for the shortest possible time – reducing gas consumption and carbon emissions as well as extending their operating life.

For a CHP installation to be successful, it's fundamental for all parties to work together at the early stages of a project. It's also essential for the CHP supplier to be involved throughout the design and installation process and beyond – if they can continually monitor the system after commissioning they can ensure the technology is being used correctly, continues to perform efficiently and delivers savings.

Consideration should also be given to long term maintenance. CHP engines are maintained on a running hours basis; for example the maintenance period for the Dachs Mini-CHP is 3,500 operating hours. If the CHP unit is monitored remotely through a modem it will inform the end user and the service team before a service is due.

In recent times there has been a trend towards centralised plant being used to deliver heating and hot water to individual properties in multi-dwelling developments such as apartments. This approach offers many benefits for developers and installation teams – including improved efficiency. Incorporating CHP into a centralised plant scheme means carbon emissions and energy costs can be further reduced.

Gary Stoddart is general manager at SenerTec.
Enq. 212

important things to consider is that while there is no minimum operational period per annum that has to be met, savings will only be achieved if the CHP unit is running – so there must be a reliable, genuine need for the heat and electricity being produced (for new buildings, energy demand data can be obtained from design data or benchmark data from similar buildings).

Making the case for CHP should be based on a building's individual energy needs, but the diverse thermal loads offered by multi-occupancy accommodation often present an attractive demand profile.

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www.firmanglass.com



Toughened Glass Bends

Firman Glass new toughening plant includes two bending chambers which work alongside the standard flat bed.

The smaller chamber will bend glass from 5mm to 12mm thick to a maximum size of 2850mm x 1000mm bent and with the following minimum radii.

5mm, 6mm = 450mm

8mm, 10mm = 1000mm

12mm = 1200mm

The large chamber will bend glass from 6mm to 19mm thick to a maximum size of 2850mm x 3600mm bent and with the following minimum radii.

6mm = 1500mm

8mm, 10mm = 1800mm

12mm, 15mm = 2000mm

19mm = 2500mm



Working in conjunction with the flat toughening facility to a maximum flat size of 2850mm wide x 5000mm long. Firman Glass can now offer the Architect, Designer and Contractor a complete service for multiple uses such as balustrades, partitions, shower screens, revolving door enclosures, full height barriers, partitions and shopfronts.

Curved Glass can be processed as with flat glass and can be decorated by sandblasting and back painting.

To find out more visit www.firmanglass.com

Firman Glass, 19 Bates Road, Harold Wood, Romford, Essex RM3 OJH

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