

Keyhouse

HOUSEBUILDER NEWSLETTER

I S S U E 1

Good advice pays dividends

Leading Sustainability Consultant Jon Bodington advises on responding to the Part L challenge

Smart choice for Redrow

Redrow agree exclusive supply deal with Smartroof



Crest Nicholson's
vision for the future of last years housebuilder of the year



Taylor Wimpey's
John Gainham on the future of offsite for housebuilders



Redrow's
Gary Markham on BIM and its benefits to housebuilders



A letter from the chairman...

The Keystone Group is responding to housebuilders' needs in terms of delivering products quickly from stock and further improving on our industry leading service for bespoke products.

We are acutely aware of the major challenges facing housebuilders such as the well-publicised skills shortages driving up UK construction costs. The Keystone Group are responding to that challenge by looking at new ways to reduce the need for skilled labour on site.

This is an exciting prospect for us and to date we have launched innovative solutions from top to bottom of the build.

Above all, the Keystone Group is an innovative company and we welcome opportunities to work directly with housebuilders to identify new solutions for your challenges in construction.

We are waiting on your call!

Sean Coyle
Chairman, Keystone Group

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FEATURED



RIDING THE CREST OF A WAVE

Darren Dancy and Ian Johnson from Crest Nicholson reveal what makes Crest Nicholson Housebuilder of the Year 2015 and what the future plans are for the company.



BIM - A HOUSEBUILDERS PERSPECTIVE

We spoke to Gary Markham, the Group Account Manager for Redrow Homes about how they use BIM and the benefits to house builders. BIM not only helps housebuilders with modelling, it also offers other additional benefits such as consistency and quantities.



RESPONDING TO THE PART L CHALLENGE

When it comes to Part L, more and more builders are realising that the right advice pays dividends. Find out what a leading energy consultant has to say.



SMART CHOICE FOR HOUSEBUILDERS

Peter Nordon, Managing Director for Smartroof tells us how this exciting product is changing the world of traditionally built roofs and the key benefits it brings to house builders.

VOX POP

What do you see is the future of offsite for housebuilders?
We asked some leading housebuilders what they see is the future of offsite, here's what they think:



JON MOSS
Group Technical Manager
redrow.co.uk

One of the reasons traditional construction continues to be so popular is that it allows the volume national developer maximum control over the process (e.g. production speed, programme, WIP, cash flow, subcontract labour).

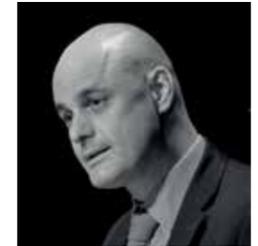
However Offsite can play a part in a thriving market and it offers many solutions that can contribute to an improved building performance, not to mention intricate architectural detailing where trade skills are unavailable.



JOHN GAINHAM
Divisional Managing Director
taylorwimpey.co.uk

We have commenced "Project 2020" which aims to explore and evaluate new innovations and trends in design, architecture, technology, materials and build methodology, fully reflecting the ever evolving customer lifestyles and expectations.

Numerous trials are underway with alternative build methodologies including offsite prefabrication. Smart Homes technologies are also being reviewed. Working with our supply chain partners we are keen to understand their approaches to future proofing and we remain receptive to jointly developing and trialling new products.



OLIVER NOVAKOVIC
Technical & Innovation Director
barrattdevelopments.co.uk

Today we are concentrating on getting the basic systems such as timber frame, roofing systems, floor cassettes, etc ready for roll out to support our divisions and give them additional choices and support.

Over the coming year we will be looking at additional offsite technologies including bathroom pods, light weight cladding and panelised systems built using steel and concrete materials.

News |

The Keystone Group sponsor Best Refurbishment Project at the Housebuilder Awards

Keystone is delighted to sponsor the award for "Best Refurbishment Project" at the annual Housebuilder Awards for the second year running.

This award is for builders who have displayed outstanding results when refurbishing or renovating an existing structure to produce a residential development of imagination and

excellence in overall design. Derrick McFarland, Managing Director at Keystone Lintels, said: "The Housebuilder Awards are highly acclaimed, being judged and supported by some of the biggest names in the industry."

The Keystone Group is delighted to be associated with this event

for a second consecutive year, celebrating the achievements of many of the house builders who we work with so closely."

The awards will be presented at the Tower Hotel in London on 3rd November 2016.



Riding the crest of a wave

In this edition's builder talk, we hear about the latest developments at Crest Nicholson



Darren Dancey
Group Technical & Quality Director



Ian Johnson
Group Procurement Director

2015 was a huge year for Crest Nicholson, winning Housebuilder of the Year and having record sales. However there are still bigger things to come from this housebuilder with new house types, innovative new products and a new drive for premium quality. We met Darren Dancey, Group Technical & Quality Director and Ian Johnson, Group Procurement Director to discuss their plans.

What were the key Highlights for you in 2015?

DD: Ultimately achieving the targets we set ourselves back in 2013 in this key transition period from private company to PLC. Quality has really jumped to being top of our agenda and we now have internal quality assessment at a group level of all projects. This internal team is focused on helping us to deliver the standards required to be a "five star" builder.

So what's happening at Crest Nicholson in 2016?

DD: We are designing a brand new set of house types from scratch, these are not just updates, we have genuinely started with a blank piece of paper. Our process included interviews with leading architects to understand their "blue sky" thinking. This design process will ultimately influence the next 10 years' worth of products, so potentially up to ten thousand new homes.

How does innovation impact on your role?

IJ: My role as Group Procurement Director involves looking at a wide range of new products and different

methods of construction. We have been trawling Europe, looking for innovation along with the BRE to find alternative products and new ways of building.

Regardless of whether it's masonry or timber frame or SIPS or other construction methods, we want to find companies who can grow with us and are willing to work closely to find further advances in the build process.

What are the benefits of new technologies to house builders?

IJ: From a procurement point of view, we obviously look for products which perform better and more competitively. Also technologies which offer a better way of running a house; assuming of course that the process can be applied at the scale required by a volume house building business like ours.

DD: Technical and Procurement functions really need to work hand in hand when assessing new technologies as they each bring different expertise. There is no point in writing the world's best technical spec if it's not viable and similarly there's no point in having a commercial spec if it doesn't meet regulations or customer demands. We involve our staff from each region along with external consultants to sit on an interview panel where we decide on new products or a new supply chain, so each region participates in group discussions.

How would you like to see manufacturers engage with you on new product development?

DD: For me it would be to discuss the ideas early, before they are in manufacturing.

IJ: It's about getting involved at the beginning, ideally at the concept stage rather than after you have designed it and then found out that it's going to cost you a lot of money to build. If we are able to discuss the practical issues early then you can design around them, which makes life a lot easier for everyone in the long run.

How can house builders really improve on quality?

DD: At Crest Nicholson, we have written a bench mark quality inspection which is about 250 items long. Our quality process looks at the design and the procurement to

make sure these are the same, then we check construction to ensure it's inline with the design and our quality manual. We introduced a really vital stage where my team reviews the first plots built on each house type. This includes the architect, technical manager and the site manager, so it's an interactive day where the site team get a chance to feedback what's working and what's not so the design or processes can be amended for the rest of the plots.

This has been a real step change for us over the last 12 months and we are continuing to tweak the process for further improvement. So far we have had really good feedback from site managers.

Matching the built performance to the design is something a lot of people talk about and for us it's a process of learning that every single junction and material has an impact so we can

make those incremental changes to close that performance gap.

What areas have Crest Nicholson Implemented offsite?

DD: From the simplest terms we have done floor cassettes and roof trusses but we also have a portfolio of over 20% timber frame now. We have used SIP panels and we have built several hundred plots with a light gauge steel frame. So we have done a good bit of offsite but we have not yet got involved in volumetric, modularised, or panelised build.

IJ: Quality and staff shortages are the biggest issues at the moment. If we can use offsite and get houses finished quicker then our cash investment is being returned, 10 or 14 weeks quicker which has to be attractive to any business.



The lintel that won housebuilder Product of the year



Keystone Group are leading the market with an award winning lintel innovation which is designed to tackle the non-repeating thermal bridging which traditionally occurs in lintels over doors and windows in every house.

Keystone Technical & Specification Manager Richard Kinloch explains why Hi-therm is proving so popular with house builders.

What makes Hi-therm so efficient?

The Hi-therm lintel is 5 times more thermally efficient than a standard steel lintel and creates a thermal break which radically reduces non-repeating thermal bridging by up to a third, creating a "fabric first" solution perfectly in-line with the demands of Part L.

Hi-therm is the only one piece lintel which achieves the appendix R value for steel lintels within Part L 2013. This is a vital part of its success in its provision of a low cost route to reduced carbon emissions and an improved Fabric Energy Efficiency.

What makes it attractive to builders?

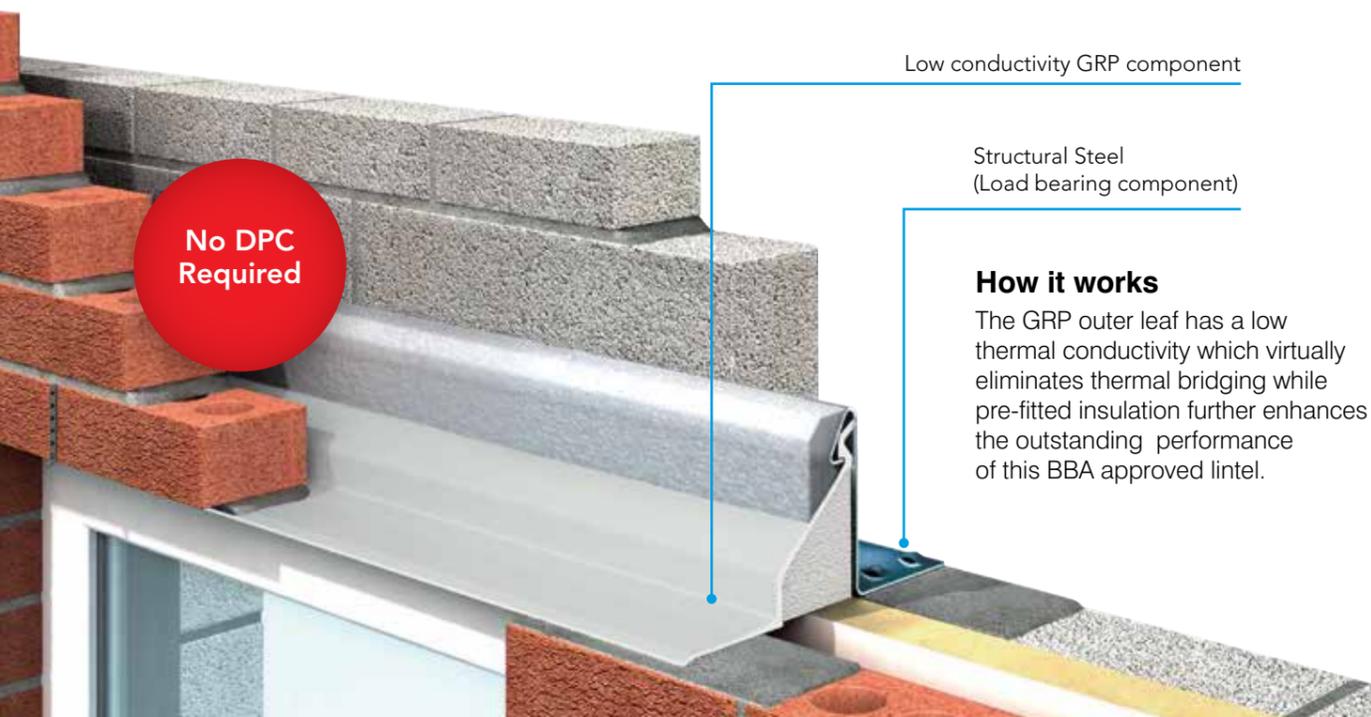
Quite simply, Hi-therm is highly cost effective when it comes to achieving the targets within Part L. Hi-therm often enables house builders to reduce the width of their wall cavities or avoid the cost of other sustainable technologies such as PV panels or heat recovery systems. The other big advantage is that Hi-therm is maintenance free, unlike mechanical systems which will require service and replacement over time.

Is it easy to install?

Easy installation is one of Hi-therm's key benefits because it is fitted in one piece and uses traditional building practices so the builder can be confident of efficiency onsite, in fact in most cases a DPC is not even required.

What support do you offer?

We assist the housebuilder with Psi values for their preferred wall construction to demonstrate the valuable savings that can be made by using Hi-therm.



Look who's using hi-therm lintels...

Why Barratt Homes used Hi-therm?



The Hi-therm lintel was proved to offer a cost effective option as part of a suite of specification upgrades.



Why Wrekin Homes used Hi-therm?



Hi-therm saved more than £200 per plot and dramatically improved the fabric performance without any specialist build techniques.



Why Crest Nicholson used Hi-therm?



Specifying Hi-therm significantly reduced thermal bridging on all house types.



Why Lychgate Homes used Hi-therm?



The use of Hi-therm saved £1000's by negating the use of costly alternatives.



Award winning innovation

The unique patented design of the Hi-therm sustainability lintel has impressed industry experts leading to success at a host of awards.



HOUSEBUILDER AWARDS
2013



HOUSEBUILDER PRODUCT AWARDS
2013 & 2014

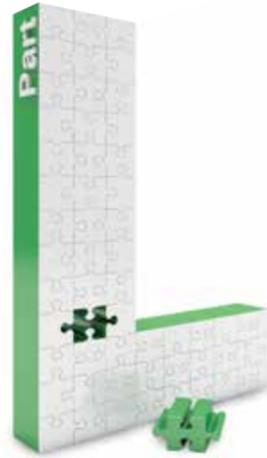


CONSTRUCTION NEWS AWARDS
2014



BUILD IT AWARDS
2013

Responding to the Part L challenge



Good Advice Pays Dividends

When it comes to Part L, more and more builders are realising that the right advice pays dividends. While there is an upfront cost of investing in the services of an energy assessor, Part L has made this a fact of life for most builders.

With Part L threatening to add a raft of extra costs on housebuilders, the right advice at the right time can deliver considerable savings. We asked leading Energy Assessor Jon Bodington to give his case for the defence.

What do you think is the Energy Assessor's role in building design?

The energy assessor's role is seen in various different ways depending on who you speak to in the industry. Some in the industry would just see their assessor as a necessary evil because of the legislation they have to comply with. An energy assessor is the individual that carries out a SAP calculation to assess whether the design and specification complies with Part L of the Building Regulations and produces the Energy Performance Certificate (EPC) so that the property can be rented or sold.

However, others in the industry recognise the valuable consultancy role the energy assessor can play. We differentiate ourselves in the market place from some other assessors by offering a more holistic service, combining the energy assessment with a broad range of other energy and sustainability services. Because we see our role as having a much broader remit we can assist the developer in the value engineering, providing solutions that suit the individual developer, not only to meet their legal requirements but also help to demonstrate their corporate responsibility.

What benefits can a consultant bring to the project?

For housebuilders that are open to consultancy, there is a massive benefit in engaging early with a knowledgeable consultant to review and refine the design and specification. We can assist with cost reduction, improving quality and streamlining production.

Housebuilders may want, or need, to go beyond Building Regulations, or they might just want to meet the Building Regulations at the lowest cost. Whichever approach the developer wants us to take, we can assist.

A SAP calculation to us is not a tick box exercise - we don't cut corners and we always factor in any future changes to minimise risk for our clients. It's about understanding our client's requirements, along with any funding, planning and legislative requirements. We bring all of this together to assist the client and design team to develop the optimum, cost effective solution.

We deliver value to our clients by ensuring they achieve what they need to, as efficiently as possible. The only way we can do that is to continuously train our team so that they have an in-depth knowledge of the National Calculation Methodology and the impact of any changes made to the specification. We also have an open door policy when it comes to manufacturers.

New products coming to market such as the Hi-therm lintel can have a significant impact on the energy performance of a property - it delivers significant improvement in terms of thermal bridging. However, it needs to be considered along with all the other elements that go into a building. We need to have the most up to date information on all products and construction methods in order to be able to advise our clients on the most appropriate route for them.



Jon Bodington
Managing Director of
AES Sustainability Consultants





What do you believe are the benefits of using the “fabric first” methodology?

Fabric first builds energy efficiency into the life of the property, whether it be a house, a block of flats or a commercial building. So it’s really building in the energy savings for the whole life of the property rather than adding on technology that will only assist in improving the energy performance for the lifespan of that particular bolt-on, which is inevitably far shorter.

What is your view on renewable technologies that rely on serviceable items.

I’m supportive of technology, it definitely has its place. However I wouldn’t compromise the fabric of the building by introducing technology as an alternative to achieve energy targets. I would always encourage a fabric first approach but fabric can only go so far, especially where there are site-wide renewables targets. Then you have to look at the available technology like photo voltaic, solar thermal, heat recovery systems, and the list goes on.

I’m always supportive of innovation, especially innovation that leads to an energy demand reduction.

“Fabric first is always the method we would advocate initially because it delivers a benefit for the lifetime of the property”

Fabric first is not reliant on mechanical solutions that tend to have a far shorter lifespan. Most technologies require some level of maintenance in order to function efficiently and will need replacing at some stage, meaning further cost for the homeowner.

In terms of air quality, there’s a lot of development in this market with heat recovery systems and ventilation systems that are innovative. They definitely have a place, especially with the way we are building much more thermally efficient and air tight properties. Whilst this is positive on one hand in terms of energy reduction, there’s a risk we could be storing up problems for the future in terms of air quality and the potential for ill health in this country. The other major issue is the risk of overheating which is something that we deal with on a daily basis. We advise on overheating risks, helping the design team factor in mitigation measures.

What do you rate about the Hi-therm lintel?

The way that we measure heat loss in any property has evolved considerably over the last 10 years and one of the things that has long been a problem is the heat losses through continuous linear thermal bridges as opposed to repeated thermal bridges. However this has been addressed in Part L and is now included in the way we carry out assessments.

Now we are looking at the majority of the bridges between the construction elements and the two main areas where heat loss occurs through that bridge would be floor junctions and lintels. If you have a standard steel lintel that’s bridging the cavity you’re going to have a significant amount of heat loss at that junction.

“The Hi-therm lintel, in the way it has been designed and manufactured, dramatically reduces that heat loss, so as a standalone product I think it’s fantastic”.

The Hi-therm lintel cannot on its own meet the requirements of the overall property in terms of the heat loss calculation. It’s part of a solution, whether it be lintels, construction elements, insulation or boilers. They can all form part of the solution - they aren’t the solution alone.

What do you see happening in the industry in the next 5 years?

The Government has set a very tough target in terms of its ambition of achieving the one million new properties’ by 2020. This is going to be a real challenge for the industry.

You’ve got Europe on its journey to Nearly Zero-Energy so 2019 to 2021 is going to be a very interesting period; we were supposed to have a new Part L in 2016 but that’s not happening now.

If we’re really serious about doing something to tackle climate change the Government has to be very clear and provide strong leadership in terms of the direction that the industry needs to go in.

What we are going to do as a company is continue to invest in our people, training and recruitment, to help educate customers in terms of how they can achieve not just legislative requirements, but go beyond legislation, cost effectively. It is achievable.

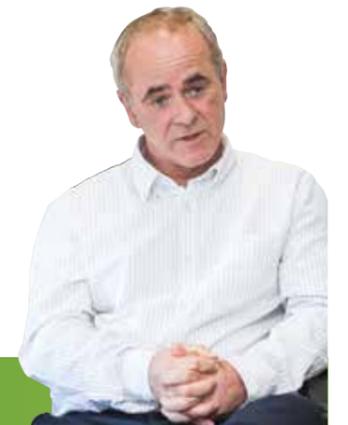
What is your role within AES?

My role is to ensure we’re like a sponge and soak up all the information that’s available out there. I try to steer the company in the direction the industry needs to go and to assist both our team and our clients on that journey. So my role is really about keeping close to Government and industry, ensuring we’re up to speed on what’s going on so that we can continue to provide the right solutions for our customers.

What’s next for AES Sustainability Consultants?

We’re keen to increase our customer base of regional developers as well as commercial developers. I believe regional companies can really benefit from our advice and the service we deliver. We can really assist them in understanding current legislation and what’s coming, what direction the Government is taking, what direction the main developers are taking, what’s happening in Europe, passing that knowledge on through our consultants.

We have a very strong service offering and have proved time and time again that we can save our clients considerable amounts of money without compromising quality.



Who is Jon Bodington?

Jon Bodington is the Managing Director of AES Sustainability Consultants, who have been trading for 11 years.

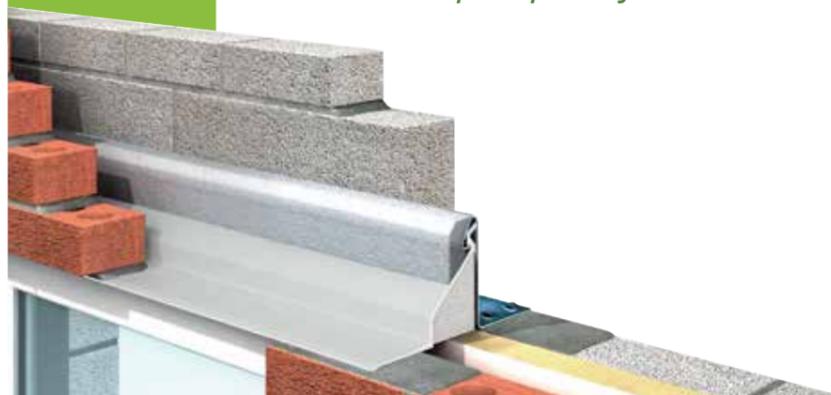
Jon previously worked as a National Business Development Manager for an insulation manufacturer and spotted a gap in the market for a consultancy business in response to the changes in legislation in 2006. Part L 2006 was a really significant and ground breaking change, far more stringent than developers had

ever known before in terms of carbon compliance and the conservation of fuel and power. Jon set up AES to offer independent advice on the ramifications of that change and the impact that it was going to have on developers in terms of the way they built houses and tested them.

So from starting the company in a garden shed to today, with an office of around 3000 square feet of floor space and over 20 employees, AES has proved to be a success.

Year on year, even through the recession, AES has continued to grow. Jon has continued to invest in the company, the people and training, to enable his team of expert consultants to provide the high quality services they provide today.

Jon Bodington
Managing Director of
AES Sustainability Consultants



The “Fabric First” roof window

Research shows that most roof windows are being purchased without their recommended separate thermal collars which are supplied at extra cost by manufacturers.

Now Keylite have developed a unique solution which guarantees there will be no gaps left uninsulated during installation thanks to an innovative expanding thermal collar which is built into every Keylite roof window as standard.

Failure to insulate this gap exposes the outer edges of the frame to the cold exterior temperatures causing a cold bridge with inevitable heat loss and energy inefficiency.

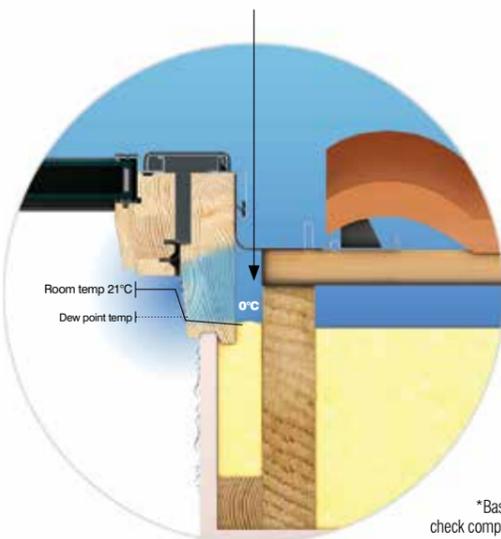
All Keylite Roof Windows include an integrated thermal collar that expands to fill and insulate the gap for guaranteed roof window insulation.

A fabric first solution designed for Part L compliance

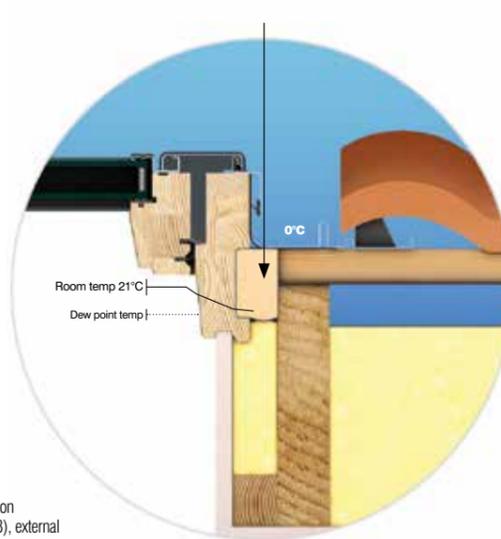
These new roof windows were inspired by the need to maximise the thermal efficiency of a building’s fabric as an aid to achieving Part L by reducing thermal bridging and heat loss.

In addition to the assurance of thermal performance, Keylite have enhanced the exterior aesthetic appeal by enabling their roof windows to be fitted lower as standard for a more streamlined appearance in the roof.

 **The Gap**
fitted without a thermal collar
GAP = CONDENSATION RISK



 **No Gap**
fitted with Keylite’s expanding thermal collar
NO GAP = NO CONDENSATION RISK



*Based on surface condensation check completed to (BSEN ISO 13788), external temperature 0°C, internal temperature 21°C, typical UK Relative Humidity conditions.



Did you know?

97%

of roof windows are installed without a proprietary thermal collar.



Nobody likes gaps!

Keylite’s successful marketing campaign focussed on the issues caused by the gap around a roof window.



Proud suppliers to:



EXPLORE ONLINE

Explore our latest technical tools online



BIM Models

Keystone Lintels are now offering all standard lintel profiles in Revit format. We are aware that BIM offers enormous gain and time saving as changes and amendments to the design are automatically altered and accounted for in quantities without lengthy calculations.

Our BIM objects also embed key product and asset data and a 3D model that can be used for management of information throughout the entire project lifecycle – from first concept through to operation.

2D AutoCAD drawings will continue to be available for the foreseeable future and, in the case of bespoke steel lintels; BIM models are available on request to ensure that we can fully assist design teams, engineers and architects with their requirements.

BIM objects are available to download directly from our website on www.keystonelintels.com/bim-downloads

Hi-therm Psi-value Calculator

The Hi-therm Psi value calculator is designed for technical departments and their energy assessors who specify products and value engineer specifications to meet regulations and code of sustainable home requirements.

The key benefit of the Psi Value calculator is that you can obtain a Psi value with a few clicks of a button – FREE OF CHARGE.

Generally this information takes a specialist company a few days to turn around with typical costs between £200 and £400 per detail. You can now directly input the lintel Psi value into their SAP calculations and view the performance benefit. Specifically calculated Psi values will help lower the y value within the sap calculation assisting Part L compliance. To ensure accuracy, all Psi-values calculations have been generated by trained thermal modellers using Physibel Trisco software which is also by BRE.

You can view the Psi value calculator via www.keystonelintels.com/psi-value-calculator

For further information on BIM, BIM technologies and 3D modelling, or Psi-value calculator, please contact our technical team on.

T: 01283 200150

2015 was another successful year for Redrow and the company achieved excellent half year results (for the six months to December 31, 2015). Redrow completed almost 2200 new homes in the period, 18% up on the previous year, leading to record first half profits. Redrow also increased the average number of active developments by 20% to 121 and hit record numbers of employees at 1818, up almost 1200 since 2009.

In 2016 Redrow Homes's business continues to grow in response to strong demand for more homes and Redrow will be launching several large-scale new developments

Gary manages the CAD software across all 14 divisions of Redrow, and nearly 200 CAD users. With over 15 years of experience in Redrow's Group Design & Technical department, Gary was able to bring expert technical know-how into this position.

BIM



A housebuilder's perspective

We spoke to Gary Markham, the Group CAD Manager for Redrow Homes about how they use BIM and the benefits of BIM to House builders.

When did Redrow first start BIM?

In 2012 we were tasked to look for ways to deliver improved efficiency. We had been pushed to use Autodesk Revit for many years, but in 2012 we had a bit more time, and we went for it. We soon realised it had a lot more potential and started to explore it's BIM element. We used it initially, not as a piece of 3D designing software but as a tool for scheduling quantities from the 3D model. So now, rather than sending house type designs on to our Group Commercial Team and expecting our QS's to schedule from scratch, we are able to use this piece of software to provide scheduled quantities directly. We can show how many bricks, how much mortar, how much timber is required in a building, even down to the level of how many meter lengths of floor tape is required to seal the floor decking together. So that's where it started and it's now becoming our first question, what can the 3D model do for us?

How has the BIM been rolled out at Redrow?

It has been rolled out initially in headquarters with our Group Design & Technical team, as it is here that we do all of our standard designs. The take offs are then done by Group Commercial. The divisions receiving those take offs will initially not be aware of any significant difference but in time they will see the value of the consistency in the information that BIM is delivering to them. It's a slow process rolling BIM out at a divisional level but we are just on the cusp of that process at present.

What do you see as the benefits to housebuilders in general with BIM?

One of the major benefits to housebuilders is its consistency, we are building standard products going through standard systems and once we implement a new detail we want that to be implemented exactly the same in other house types. With BIM we get this consistent information flow raising the quality of our output which then improves the build and improves designs. I think another big thing is it's saving in time. We used to design a full house pack on CAD in two weeks, then we would go out to other external suppliers like Keystone for their input.

“We can now design a like for like full house pack in half the time”

With Revit we can now design a like for like full house pack in half the time, though we use the difference in time to add additional data, in Revit and other systems. From a 3D modelling point of view we can now see any issues that might happen onsite and adjust it before we reach that stage, which is a major advantage for a builder of our size.

What are the barriers to housebuilders achieving BIM?

Cost first, then expertise, these are the initial barriers. You have got to invest time in training people,

so the total cost is in people, plus the machines and software have to be accounted for. It's also very important for the Technical Team to have a clear vision of how they want BIM to benefit the business and this needs to be supported by senior management. At Redrow we have that clear directive; we want to stream-line our processes, to make us the best in what we do. I hope BIM will play its part in achieving this.

What do you see as the manufacturer's key role with BIM?

Manufacturers must understand that product placement is key and the starting point is the creation of BIM items for their products. Ideally for Redrow these should be provided in an .ifc, .rvt or .rfa formats so they can be used with our systems.

How would you like to see manufacturers engage with you on BIM?

Talk to us and tell us you are BIM ready, I think that's the big thing. We really value manufacturers who have an in-house BIM expert that we can speak to if something isn't working, or if we need to do something different or bespoke. Because we now work in BIM, manufacturers that can provide their models in BIM have a key advantage.

How do you see BIM developing over the next three years?

I would like to see Redrow continuing with a steady progression in using BIM, now that we have passed the first stages and have hit some of the targets we set ourselves. We are always looking at ways to improve our products and this is the same with the use of BIM in the widest sense, via even further integration, right from the initial design to the final sale to the client. With Redrow pushing ahead with BIM I feel we can be market leading in this sector and capitalize on our BIM processes and information utilizations.





The **new** word for offsite

To reflect our expanding range of offsite products and improved services, we have changed our brand name from IGGRP to IG Elements. Discover our range of offsite solutions



BETTER BUILT OFFSITE

Focus on OFFSITE

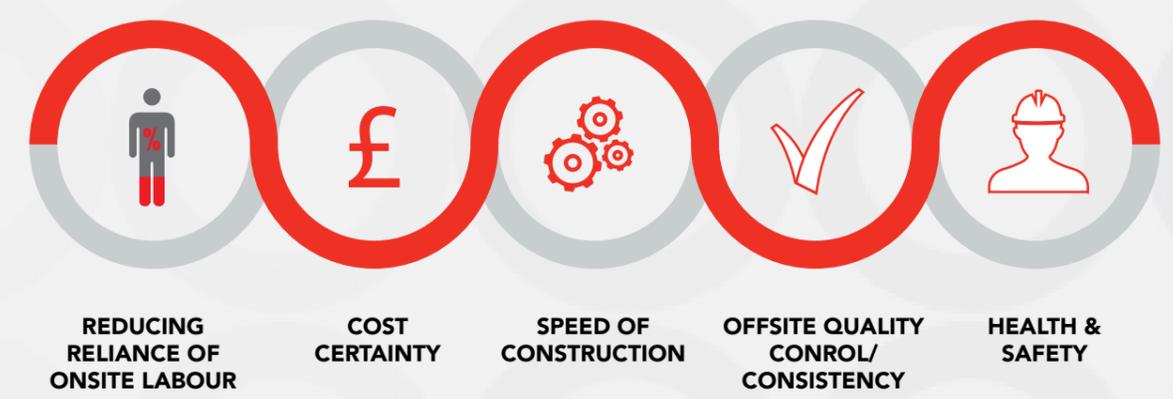
We look at the latest **offsite** solutions available to house builders.

The offsite construction sector accounts for 7% of total construction output in the UK, worth over £1.5bn to the economy.

Offsite technologies have the potential to address some of the most persistent challenges facing the industry, including the demand for new housing and the low carbon agenda

Political pressures to construct affordable quality housing have prompted the first moves towards prefabrication. With the UK requiring 250,000 new homes to be built each year to meet demand - and just 141,000 constructed last year, offsite construction offers a clear solution. Skill shortages coupled with an ageing workforce have driven private housebuilders to look at offsite solutions.

Advantages of **Offsite**





The smart choice for house builders

We spoke to Peter Nordon, Managing Director at Smartroof, to find out what the Smartroof system can offer to house builders.

What is Smartroof?

Smartroof is a panelised roofing system aimed at national and large regional house builders. It's an ideal solution for volume building and those house builders who use similar house types and build in multiples.

What are the key benefits to the house builder?

The key benefits to the house builder are that we can give them certainty on cost and because we build in a factory we can guarantee the thermal efficiency of the roof. There are also significant health and safety benefits because we reduce the time spent working at heights and overall we radically alter the speed of construction.



"We are typically reducing the build time on the roof, down from 12 days to 1 day"

We can work on supply only or supply and fit as an additional option where we take entire responsibility from delivery of the roof to the actual installation including arranging lifting plans and finally installation.

What challenges are Smartroof solving in the market place?

Labour seems to be a huge challenge - the availability of a qualified tradesman. The construction industry hasn't yet fully recovered from the recession, there hasn't been enough apprentices coming through so there's a major skills shortage. By transferring all the work in-house and offsite we can reduce the builder's reliance on skilled labour.



How does Smartroof affect the Part L performance?

One of the benefits of our product being produced offsite is that we can guarantee the thermal performance of our product and we can do in-house thermal modelling so we know exactly what our roofs achieve and we know from our customers exactly what they are trying to achieve.

What is different about Smartroof?

The unique thing about Smartroof is that we are the only panel system that runs gable to gable. This effectively means the housebuilder has a clear open space within the attic to configure whatever way they wish. They are not constrained by any supporting walls.

What's new in Smartroof?

We are focusing on innovation now to drive the thermal performance of the roof even higher to meet future regulations. Our Prism programme will deliver these enhancements but we don't intend to launch them until 2018 when we see demand coming on stream for higher performance solutions. However in cases which currently require higher levels of performance we can offer the new Smartroof SIP roof which has been developed as part of the Prism programme.

Look who's using Smartroof...

Why Redrow used Hi-therm?



"Smartroof offer an innovative, thermally efficient system which helps us meet strict building regulations."

Why Taylor Wimpey used Smartroof?



"Produced offsite in a factory controlled environment, Smartroof can guarantee improved build quality."

Why Bloor Homes Homes used Smartroof?



"Smartroof removes significant risks caused by erection of scaffolding, manual handling at height and falling blockwork gables whilst maintaining consistent quality."

What type of projects benefit most from a Smartroof?

Projects with large build programmes, and those on a tight deadline will benefit greatly as Smartroof can guarantee a quick turnaround.

What's next for Smartroof?.

Why not a Smart house! We are developing floor cassettes for the second floor level to be installed at the same time as the Smartroof. We are also investigating other factory built structures that we could combine into a comprehensive offsite house solution. We already have a crane and an installer team onsite for the roof installation so additional components could be installed quickly, making it easier again for the builder.

Is there anything else you think house builders need to know about Smartroof?

Come and speak to us, we have significant design capabilities and can look at different roofing solutions, in fact we have orders in for a new mansard Smartroof which is a first for us. Despite being a challenging design we are confident that our system will deliver the same advantages to the builder in a mansard format also.



The ideal first step to experiencing the benefits of **offsite**



IG elements produce a range of offsite components designed to deliver real benefits to the house builder.

Our new name reflects that builders can now source specific building elements from us including dormer units, chimney stacks, bay roof or door canopies and surrounds. By taking the joinery and construction of these elements offsite and by using the latest GRP composite technology we are able to offer the builder a highly efficient alternative to traditional methods.

The main benefits widely accepted from offsite elements include;

- ✓ Speed of construction
- ✓ Build quality
- ✓ Consistency of appearance
- ✓ Enhanced thermal efficiency
- ✓ Reduced working at heights

Managing Director, Liam Kelly commented

"As the housing market is driven towards offsite solutions for construction we have evolved to meet this demand. With our advanced manufacturing capabilities and improved services, we aim to help house builders experience the benefits of offsite."



IG Elements Range



CoverLite
CANOPY



Redi
DORMER



Rapid
STACK



PreForm
SURROUND



Easy
BAY

GallifordTry Choose **IG Elements**

Galliford Try is the latest house builder to recognise these benefits and have signed a supplier agreement lasting until February 2018 for all GRP components for Galliford Try Partnership and Linden Homes.

"We are delighted to welcome IG Elements to our supplier list. This progressive manufacturer provides forward thinking solutions which we feel will benefit our supply chain process and installation teams' onsite. We look forward to building a successful partnership over the coming months."

Andy Fysch,
Group Procurement Supply Chain
Manager Housing, Galliford Try

IG Elements launch innovative onsite App

IG Elements have launched a new innovative Installation App, designed to provide key information on-the-go for site agents and installer teams. Content within the App is tailored to meet customer requirements with the inclusion of PDF installation guides, step-by-step installation videos and extensive product range information. Additionally, the IG Elements App is live and web-based, meaning there will never be a need for it to be updated or reinstalled.

Liam Kelly, IG Elements Managing Director commented:

"In the past few years we have enjoyed significant growth in traffic to our website with a notable percentage of traffic from mobile and tablet devices. With the nature of our customer base, we recognised the difficulty in accessing a desktop computer while working with our products. With our rebrand and subsequent launch of our new website, we felt it was a natural step to develop an App that provides improved access to installation information for our customers."

The app is available for download from our website via mobile or tablet at igelements.com



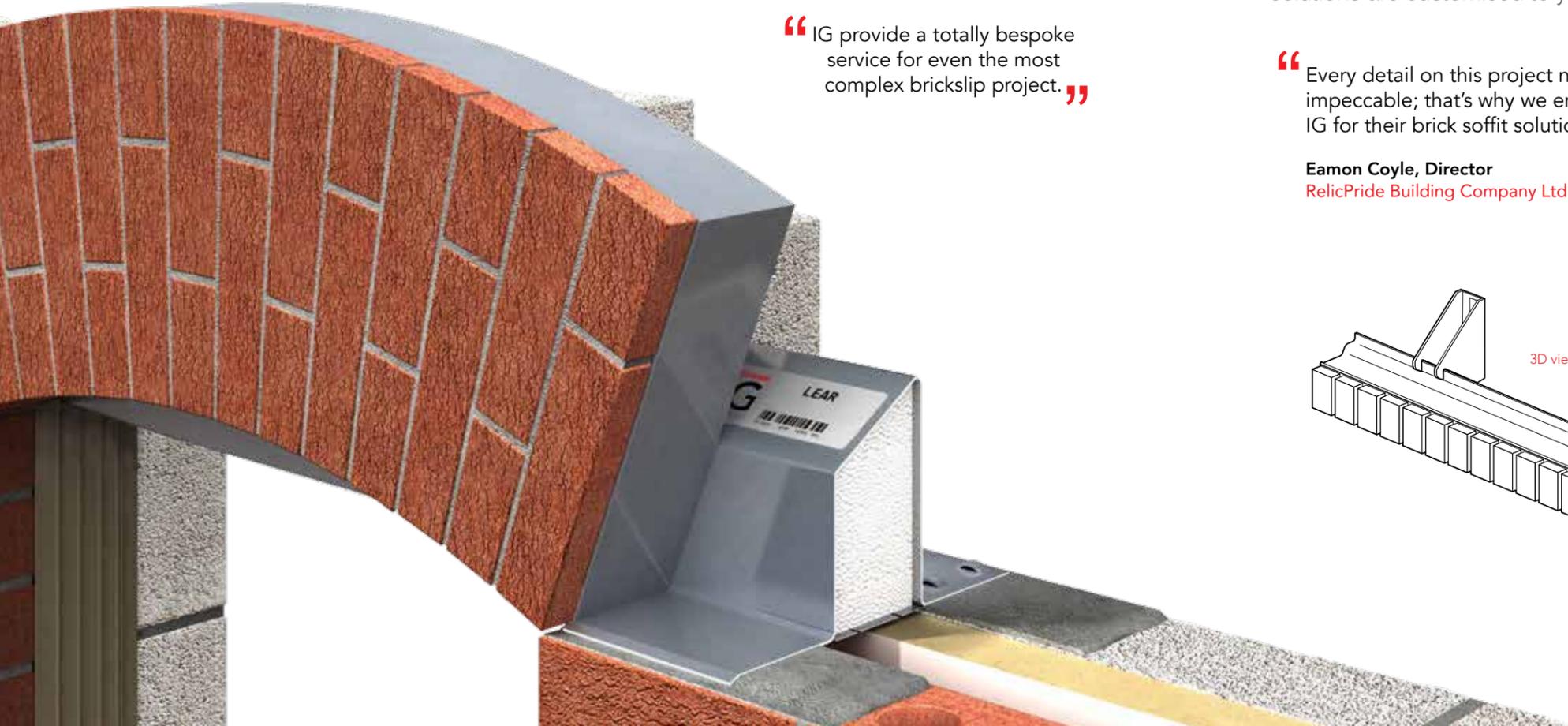
Why do builders love our Brick Slip Feature lintels?

Builders love the extensive range of brick slip installations from IG which can be manufactured bespoke to order, achieving even the most challenging architectural designs.

The main benefits to using IG Brick Slip Feature Lintels include:

- Customised to your requirements
- Precision cut bricks
- Load bearing lintel
- Lightweight for fast build programmes
- Optional centre stone feature
- Optional insulation

The Brick Slip Feature Lintels are produced offsite as a one piece prefabricated unit, the patented IG system ensures maximum performance thanks to the unique adhesive system. The finished Brick Slip Feature Lintel joins seamlessly with the already constructed brickwork.



“IG provide a totally bespoke service for even the most complex brickslip project.”

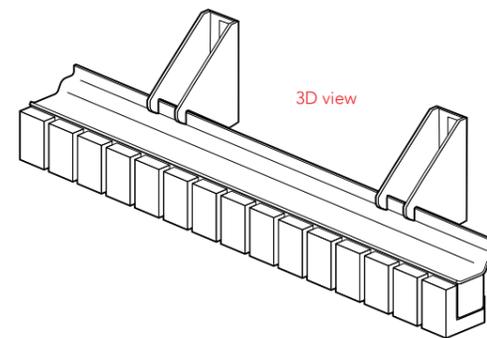
IG | Masonry Support

IG's ground-breaking Masonry Support & Brick Slip Bolt-Up Technology combine to produce the Brick On Soffit System

IG's Brick On Soffit System Range, is an extension of our Brick Slip Masonry Support Range. The Brick On Soffit System Range allows for more adjustability onsite in comparison to IG's standard Brick Slip Masonry Support product. All solutions are customised to your requirements.

“Every detail on this project needed to be impeccable; that's why we engaged with IG for their brick soffit solution.”

Eamon Coyle, Director
RelicPride Building Company Ltd



Redrow agree exclusive supply deal with Smartroof



National house builder Redrow Homes have awarded Smartroof an exclusive contract to supply roofs for all 2.5 storey dwellings until June 2017

The first roofs for house types within the Heritage and the Abode ranges have already been delivered.

Redrow chose Smartroof following a number of highly successful trial installations on sites across the UK, enabling the company to grow their relationship with Redrow leading to the signing of this significant deal. Stephen Horridge, Senior Buyer at Redrow Homes commented.

“We chose Smartroof because as a progressive company they offer an innovative, thermally efficient product which helps us meet strict building regulation requirements”.

Smartroof have proven themselves to be a trustworthy and efficient supplier. From the design process right through to installation, they have worked alongside our teams to deliver a hassle free service and we are sure this partnership will be a great success.”

Smartroof’s Managing director Peter Nordon said “Redrow Homes builds over 2,200 houses per year nationwide. So naturally, we are thrilled to have the opportunity to demonstrate the health & safety, thermal efficiency and installation benefits of our roofs at sites across the UK.

All Smartroof systems are factory produced offsite and installed in just hours, creating an internal space completely free from structural supports. Unlike traditional truss roofs or alternative panel systems, Smartroof provides total design freedom including fully vaulted ceilings and extended floor area in the eaves.



The Keytruss Attic “Room in a Roof” Product has been developed through a strategic partnership

Sean Coyle, Keystone Group Chairman commented “Wyckham Blackwell have a fantastic heritage in the UK roofing market and there are many potential synergies with the Keystone businesses that we can progress together positively”.

Stephen Thompstone Wyckham Blackwell’s Managing Director stated “This is a great opportunity for us to expand and grow our Keytruss business with a dynamic and forward thinking company”.

The **key** advantages for housebuilders of using **keytruss** include:

- Significant installation time savings over traditional methods of construction
- Manufactured from PEFC Certified fully sustainable graded timber
- The potential to eliminate steel beams from the roof structure
- The ability to accommodate large and complex roofscapes into the design
- Can incorporate CE Certified integrated Metal Web Floor and Rafter solutions
- Maximises useable living space in the property
- Spans of up to 18m can be manufactured
- Can be designed with integrated Gable and Spandrel Panels to reduce internal blockwork
- All Trusses and Panels can be pre slung for improved Health & Safety of crane unloading
- Factory treatment option to give a 60 Year guarantee against fungal and insect attack
- Five Day FASTRACK Premium delivery service available

Keytruss uses the latest design software for Attic Trusses to create light, open and comfortable rooms. In 2017 Wyckham Blackwell will be celebrating 50 Years of designing and manufacturing Roof Trusses and Keytruss is the summit of the evolution of this hugely flexible product.





Hi-thermTM

LINTELS

Remarkably advanced

Hi-therm, the single most cost efficient solution for lowering carbon emissions within SAP.

WINNER

BEST BUILDING FABRIC PRODUCT 2013 & 2014
NATIONAL HOUSEBUILDER AWARDS

New

Psi value calculator available on: hi-thermlintels.com

Available from:
Keystone
LINTELS