



*Richard Ogden,
Chairman*

I have recently returned from something of a whistle-stop visit to New Zealand as a guest of Howick. Let me stress this was not a “jolly”, although it was certainly a privilege and a pleasure to have been invited to support Howick, and also to promote Buildoffsite at a major steel frame innovation conference and exhibition in Auckland. It was also good to see Tekla – another Buildoffsite Member – presenting at the conference.

Howick is New Zealand based and without doubt one of our smallest SME Members, but also one which competes in a global market place. Buildoffsite has always welcomed into Membership forward looking organisations and businesses no matter where they are based, because we believe that by working together the knowledge shared and the collaborations struck makes us collectively much better informed and stronger. It also serves to remind us that there is a world of opportunity out there and, if we are serious about working to make the UK construction industry the best in the world, then we must reach out to the best that the rest of the world has to offer.

It is some years since I have been on a business trip to New Zealand, but what struck me was the similarities between the construction market there and the market in the UK. For those who may be unsighted ... the New Zealand economy is in the doldrums, and unlike its close but much more substantial neighbour, the economy is not being buoyed up by frantic activity in the extractive and mineral industries, nor from anything like the same level of inward investment from Asia.

The Christchurch Earthquake

The magnitude 6.3 quake struck at 12.51pm on Tuesday 22 February 2011. The epicentre was 10 kms south east of Christchurch, New Zealand's second city. The City Centre and the Eastern Suburbs suffered significant damage with the cost of rebuilding estimated at NZ\$20–30bn. It is estimated that 10,000 homes will need to be demolished. Globally this was the third most costly earthquake on record.

Steel framed buildings performed well and this is likely to encourage the use of steel as a frame solution rather than timber or traditional masonry solutions.

The challenge for the local construction industry in New Zealand is in large part a mirror image of how things are in the UK. There is a need for substantial investment in infrastructure to build and sustain a modern built environment, along with the additional requirement to recover from the Christchurch earthquake of a year or so ago. The challenge of course is that traditional construction methods are simply incapable of delivering the increased value and productivity that almost every client is looking for.

The people I met from business and from Government circles all seemed very receptive to the use of offsite construction methods, and without exception indicated that they regarded the UK as being well ahead of the curve in terms of knowledge sharing and access to market leading solutions.

Currently there is no equivalent of Buildoffsite in New Zealand, but given the enthusiasm that exists I suspect that this gap may not stay unplugged for much longer.

Discussions with the team from Howick and with the people I met brought home to me the reality of what it means to be part of a global market place. A market in which products will increasingly be traded internationally, and where professional services and technical collaboration will also be traded as never before. Howick is a brilliant role model for what it can mean in practice for a small SME, which for

sound business reasons has no option but to look outside of its domestic market for sales and growth. Currently the company is trading in 55 countries, and has just signed a substantial licensing arrangement for its speedfloor products with Jindal Steel and Power – one of India's industrial giants.



The experiences are not all positive and it is a truism that some markets are a hard nut to crack requiring expert local knowledge and persistence. However, I suspect that any alternative strategy will not ensure the scale of operation that can sustain the leading edge innovation that Howick bring to their product range to keep their manufacturing solutions ahead of the competition.

During my trip I believe that I gained some real understanding of where the UK construction industry may be in just a few years. Frankly, I do not see the pressure of international competition weakening any time soon, and as the UK and wider European economy starts to gain momentum, that pressure can surely only intensify. I say this as I see it – there is I believe absolutely no point in looking to buck a global trend or to bury one's head in the sand. Certainly such a shift in the patterns of trade will bring challenges, but just as certainly – as Howick has experienced – can bring considerable commercial opportunities.

Although I would be the first to accept that I am partial, I find it impossible to accept that traditional methods of construction are going to provide any plausible strategy to

“protect” the UK domestic industry from global competition. Do we really believe that the craft and project management skills available in the UK are superior to those available in the developing world? Is there a scrap of evidence to suggest that productivity levels in the UK are so far ahead of the rest of the world that competitors will not be able to gain traction in the market? Do we believe that the education and training of UK operatives can't be matched? Sorry folks, no matter how you look at this I just can't see that sticking with the status quo makes any sort of business sense.

So what about design I hear you say and I would absolutely agree that in the UK we have some of the world's best architects and engineers. Without doubt, this is a UK success story, but just ask yourself where our brightest and best are now working ... the reality is that they are now competing and winning work internationally. Although all of us would like the UK market to be stronger, it is surely a positive thing for UK skills to be in demand internationally. Personally, I suspect that this wider perspective of business opportunities will change even when the UK economy recovers.

For the domestic construction industry what does seem to make sense is to learn the hard lessons from the UK auto industry, which after the product and performance debacle in the 1970s now produces more cars than ever to an unbelievable quality standard by adopting the techniques of the world's best in class. There are tangible reasons why the UK motor industry is continuing to attract massive overseas investment. Assembling vehicles from a set of precision made components, standardising platforms, stripping out waste in all its forms, building quality in from the outset, and regarding any faults that arise as learning points for the manufacturer and not as something to pass on to the customer as an additional cost, has been a massively successful approach.

To apply this formula to construction is the Buildoffsite challenge, but I believe



that the sustainability and economic tide is running with us. The reality of international competition will I believe create internal pressure within the domestic construction industry to embrace the use of offsite solutions, and to build the design, management and production skills to make this work in practice. If the UK industry can respond positively to this challenge, then there is the prospect that the sector will be well placed to take its range of new skills, competences and product offerings to the global market from a position of technical and production excellence. To do this effectively we will need to build relationships with overseas partners who are able to support the UK in the role in which we have always excelled – the role of global traders.

If you think this is a bit far-fetched, then just consider the example of Howick, who are delivering on this strategy every day of the week. If they can embrace the wider market, then so can you!

New faces on the Buildoffsite Executive Group

The Buildoffsite Executive Group is responsible for steering Buildoffsite's work programme and for ensuring that the organisation operates in accordance with the principles of good governance. It is important that the Membership of the Executive Group is regularly refreshed with additional appointments, to ensure that in developing the organisation we are able to draw on top construction industry talent, and at the same time keep the organisation on track to deliver its strategic and tactical ambitions in support of a substantially improved construction industry.



Giles Price



Terry Stocks

We are delighted that Terry Stocks and Giles Price have agreed to join the Executive Group. Terry is Head of the Project Delivery Unit at the Ministry of Justice, and Giles is the BAA Group's Technical and Quality Director and also Chairman of BAA Building Control Ltd. Having two such respected figures from significant public and private client organisations joining the Buildoffsite Executive Group will help to maintain the organisation's focus on delivering contemporary client requirements.

The new line up for the Buildoffsite Executive Group is shown on page 4.

Buildoffsite Executive Group



Richard Ogden (Chairman)

buildoffsite

formerly
McDonald's
M4I



Bill Healy

ciria
formerly
ATKINS



Cal Bailey

NG Bailey
formerly
accenture
High performance. Delivered.



Roger Bayliss

SKANSKA
formerly
BAA



John Miles

UNIVERSITY OF CAMBRIDGE
ARUP
haloIPT



Giles Price

BAA



Terry Stocks

Ministry of JUSTICE
formerly
HMPS
Maurice
Baguley and
Partners



Nigel Fraser

buildoffsite
formerly
BAA
GOODRICH
TRW



Ian Pannell

buildoffsite
formerly
bre
BIS | Department for Business
Innovation & Skills
M4I



Keith Blanshard

buildoffsite
formerly
Shepherd
Group
Portakabin



Nick Whitehouse

buildoffsite
formerly
Terrapin



Anna Whiting

buildoffsite

New members

Brock Carmichael Architects LLP

Brock Carmichael Architects 
member of the **octagon** partnership
liverpool | london | hong kong | beijing | chengdu

We believe our strength lies in our stable core team and a collaborative approach to design. We invest time and resources in assembling project teams to align with our clients and contracting partners' values and management structure. Listening to and understanding others, is a prerequisite that permeates through the culture of the practice. We value humility, honesty and integrity, and recognise construction as a social process that requires strong leadership and timely decision making, led by clearly defined shared objectives.



Martin Watson, Partner

Our interest in offsite technology stems from our belief that the process and product are inextricably linked. As executive architects for One Park West we worked closely in partnership with contractor Laing O'Rourke, façade sub-contractor GIG Fassaden and concept designers Pelli Clarke Pelli to develop and refine a bespoke unitised curtain wall assembly. The building's signature is a striking 18-storey cantilevered tapering corner rising to a fixed point 58m above the ground with an elliptical edge. 14,000m² of façade comprising 2,100 panels were installed in less than nine months, compared with an estimated 15 to 17 months for on-site curtain wall assemblies. A six month pre-commencement design development period for collaborative learning and problem solving resulted in an early completion.

Brock Carmichael is currently involved in social housing, commercial development,



education, urban regeneration and planning, culture and heritage, transport, hotel and leisure, and specialist conservation. Through the Octagon Partnership we share knowledge and resources to drive and execute global sustainable projects with offices in London, Liverpool, Hong Kong, Beijing and Chengdu.

Our Hong Kong partner is associated with the Centre for Housing Innovation at the Chinese University of Hong Kong. This is a research and development unit supported by the Ministry of Construction of China, established to achieve high quality, affordable urban housing for mid to high-density development in China.

For more information, please contact Martin Watson on:

Tel: 0151 242 6222/Mobile: 07734 228764

Email: watson.m@brockcarmichael.co.uk

Website: www.brockcarmichael.co.uk

Premier Interlink (Waco UK Ltd)



Premier Interlink (Waco UK Ltd) is a specialist off-site manufacturer of steel and timber framed buildings, available for sale or hire. With over

50 years' experience in delivering modular buildings, we have a proven track record in providing innovative and highly cost-effective building solutions in a wide range of sectors.



At our large manufacturing facilities in Brandesburton, East Yorkshire, we can manufacture and deliver over 200 modules a month. In excess of 7,000m² of buildings per month from four purpose built factories, typically halving on-site construction time and minimising site disruption. Extremely energy efficient with many low carbon features, the Premier range of modular buildings have excellent acoustic performance and are fully compliant with all relevant building legislation.

At Premier Interlink, we pride ourselves on attention to detail. Our flexible, customer focused approach gives us the edge when it comes to meeting the unique challenges presented by each project. Client requirements are assessed individually. Premier Interlink is able to work as principle contractor or specialist subcontractor. Each building is subject to rigorous quality controls, and our dedicated design team offer accommodation solutions with a purpose-designed and fully warranted building solution, delivered on time and on budget. Our buildings are already in use in the



retail, commercial, construction, healthcare, education, leisure, MoD and MoJ sectors.

Premier Interlink is a wholly owned subsidiary of Waco International Ltd, a global company with a turnover in excess of £200m and employing over 4,000 people. This allows us to take on multi-million pound projects with the backing of the group. Our employment of key individuals and purchase of the Intellectual Property for Britspace Modular Buildings and Gateway Pods, a company with a long history of delivering high quality buildings/pods with a wealth of knowledge and expertise, ensures two great names are consolidated under one banner.

The Premier range of buildings can be easily relocated, extended or modified as required. We believe that our buildings speak for themselves, as we continually provide the highest quality solutions to meet customer requirements.

For more information, please contact:

John Drake, Divisional Director (hire)

Tel: 01964 545006

Email: john.drake@waco.co.uk

David Harris, Divisional Director (sales)

Tel: 01964 545032 or 0800 316 0888

Email: david.harris@waco.co.uk

Website: www.waco.co.uk

SealEco



SealEco is a rapidly growing organisation. Although a fairly new company, it has a history of over 100 years in rubber-based products and is currently one of Europe's largest EPDM manufacturers with offices in the UK, Germany, Belgium, Poland and Sweden, where production facilities are also located. With a strong stance on low environmental impact products for the

building envelope, the scope for innovative, engineered, prefabricated systems is at the core of future business development.

SealEco's focus is to work with clients, partners and specifiers to educate and change current thinking, to show how waterproofing and green roof systems can be engineered and prefabricated off-site, improving efficiency and durability, reducing time on-site, risk and associated costs all with environmental product advantages.

Applying extensive historical R&D expertise means that SealEco's systems have the potential to completely change waterproofing and green roof applications not only in traditional building, but also in modular and prefabricated construction.

Protection of the building envelope is also covered by the use of SealEco's EPDM market leading membranes in façade and glazing applications, providing waterproofing and air sealing benefits and contributing towards achieving Part L Regulations.

SealEco continually works at "greening" its organisation through corporate social responsibility, ethical and environmental practices, quality programmes and monitored supply chains to provide true sustainability for the future.

For more information, contact:

Ronan Brunton, Managing Director

Email: ronan.brunton@sealeco.com

Ailsa Irwin, Commercial and Marketing Manager

Tel: 01698 464620

Email: ailsa.irwin@sealeco.com

Website: www.sealeco.com

News

Government signs up for modular construction

15 specialist suppliers of modular construction systems have been pre-selected by the UK Government to help deliver increased quality and value for money in UK public buildings.

A dozen modular building specialists have won places on a £200m four-year framework to deliver module solutions into public sector projects. The suppliers will deliver modules across a range of public sector projects, including hospitals, schools and offices.

This is a fantastic development for the industry, and sends out a clear signal that Government recognises the increasingly important role of modular construction systems in meeting the quality, value for money and specific client and customer requirements of public sector construction projects. This recognition will provide an invaluable platform for module suppliers, along with the rest of the offsite supply sector, to make the general case for the use of quality offsite solutions as the construction method of choice for a modern construction industry.

The selected suppliers, which include several Buildoffsite Members, comprises:

- Burdens Ltd
- Elite Systems (GB) Ltd
- Elliott Group Ltd
- Extraspace Solutions (UK) Ltd
- ModularUK Building Systems Ltd
- ModuleCo Ltd
- MTX Contracts Ltd
- PKL Group (UK) Ltd
- PKL Healthcare Ltd
- Portakabin Ltd
- Premier Interlink (Waco)
- Roan Building Systems Ltd
- ServaComm Redhall Ltd
- The McAvoy Group
- Western Building Systems Ltd.

Buildoffsite will be publishing Case Studies to demonstrate the tangible organisational and project benefits that modular solutions are contributing to both public and private sector projects.

For more information go to: <http://gps.cabinetoffice.gov.uk/contracts/rm-875>

Buildoffsite Property Assurance Scheme (BOPAS) – the UK’s top mortgage lenders sign-up to ground-breaking construction assurance scheme



Using offsite manufactured systems and other innovative construction techniques in the residential sector has been held back

by the fact that although developers and clients are often keen to adopt and use them, mortgages on the finished homes were often hard to secure – rendering the properties unsellable and the developer somewhat stressed.

This is all set to change following the work of a cross industry initiative: BOPAS – the Buildoffsite Property Assurance Scheme. Spearheaded by Buildoffsite, Lloyd's Register, BLP Insurance, the RICS and the UK's four largest mortgage lenders, BOPAS will simplify and quicken the process of obtaining mortgages on unusual building techniques. Although there are other lenders involved in the process, Santander, Lloyds TSB Group (including HBOS), Nationwide and RBS have all made



a commitment to the BOPAS pilot scheme. Simon Main, Managing Director of BLP explains: "Buildoffsite has done incredibly well to promote offsite and non-traditional construction, and BOPAS is a logical progression for them. The scheme will provide the highest levels of assurance to those who need it, whether it is mortgage lenders, their valuers, homebuyers or housebuilders. Non-traditional construction will become more and more popular, especially in light of the increased regulation relating to carbon emissions and energy performance".

Although the scheme has been some 18 months in the making, the working group reached a significant milestone recently, when the four major lenders involved in the project signed-off on the proposed template for BOPAS. In doing so, they confirmed that any system that successfully completes the process, meets their requirements in terms of durability, maintenance and identification, accreditation of the manufacturers and their constructors, and an acceptable level of warranty cover.

David House, Head of Property Risk at Santander explains the reasons why the scheme is important: "As the building industry strives to meet the challenge of producing carbon neutral homes, it will increasingly look towards the use of new methods of construction and modern materials. Moreover, many consumers are now sensitive to eco issues and sophisticated in their awareness of the need for energy conservation and reducing their carbon footprint. Consequently, Santander UK anticipates that in coming years our customers will want to purchase properties built from materials and to designs unlike any previously seen in the mainstream housing market. As a responsible mortgage lender, we seek to respond to the aspirations of our customers, while mitigating the risks associated with accepting new types of construction for mortgage security. The Buildoffsite Property Assurance Scheme enables us to do this because it provides a framework, which ensures a consistent and rigorous approach to managing the risks associated with non-traditional construction."

The unique structure of BOPAS is that it combines the expertise of three major bodies to create the Buildoffsite accreditation system. Lloyd's Register, one of the world's leading risk management organisations will manage the scheme and hold a database of accredited manufacturers, developers and contractors that have satisfactorily completed the scheme evaluation process. BLP, through its insurance expertise and over 20 years of underwriting non-traditional construction systems has provided the template for durability and maintenance, and scheme specific design and workmanship checks. The last stage of the process will be a database that will provide information on the construction of all homes that have been through the scheme, so that surveyors can be confident that lenders who are party to the scheme have already approved the construction as suitable for lending purposes.

Ultimately, BOPAS will enable surveyors to provide a mortgage valuation on a property built with an innovative form of construction, while confident that it has been built to an agreed standard that lenders have already accepted as mortgageable – subject to the usual conditions.

Philip Santo of the RICS said: "We are now at an advanced stage of creating an industry standard process for the assessment and validation of offsite manufactured systems, and innovative construction techniques that will, when completed, change the construction landscape. We will finally have an agreed process which will enable valuers to complete mortgage valuations, for lenders to be confident about financing and for buyers to purchase with confidence knowing that, even though the construction is not conventional, the property has been built to a recognised standard. The pre-fab buildings of the mid-20th century gave non-traditional construction a bad reputation, because there were some high profile failures. With BOPAS that could not happen again, as we will have a very thorough appraisal process supported by sophisticated (but elegantly simple)

databases and registers that instantly show whether the manufacturer or supplier has met lenders' stringent criteria."

For further information contact David Osrin, Business Development at BLP:

Tel (mob): 07889 978803

Is offsite sustainable?

For those individuals and organisations in the vanguard of innovative construction, it is unlikely that there would be any need to ask this question. It would have no more relevance than to ask if the modern automotive industry should



Alistair Gibb

assemble cars and trucks using a set of assemblies and standard components. It is how that particular sector and indeed just about all other modern manufacturing sectors operate – across the globe. Not wasting material, not wasting labour, failure rates that are measured in parts per million and the use of standard components to create a wide range of models customised to meet client requirements are all a "given" and by any measure would score as a sign of a sustainable industry. However, when it comes to the construction sector, there are still many who would choose to challenge whether offsite construction methods are indeed sustainable.

Buildoffsite is hardly going to be seen as impartial when it comes to the sustainability credentials of offsite solutions, so set out below we have reproduced an article addressing this subject that has been prepared by Alistair Gibb, Professor of Construction Engineering Management at Loughborough University. Alistair is one of the most respected UK academics working on construction research

Offsite manufacture, sometimes called prefabrication, modular or industrialised building, is an approach to constructing

the built environment that has been at the leading edge of innovation for many years. Put simply, offsite is manufacturing and assembling whole buildings or substantial parts of buildings prior to installation into their final location. The work almost always takes place in a factory environment. The offsite spectrum includes non-volumetric units such as panels and building services modules, volumetric units such as toilet or kitchen “pods”, and whole building solutions, often known as “modular buildings”. Offsite is a strategy that affects the whole project, rather than just the application of ad-hoc products or technologies. Government-prompted reports have extolled its virtues, manufacturers have publicised its benefits, developers have worried about its cost and architects have debated its worth. Notwithstanding, offsite is here to stay as a valuable part of the built environment.

But, is offsite sustainable? The vision of many of the early exponents fits the sustainable culture very well: Buckminster Fuller’s goal in the middle of the last century was to “touch the earth lightly” and his Dymaxion Dwelling Machine – or Wichita House was his realisation of this ambition. However, like many such experiments, the Wichita house was ultimately destined to become a museum exhibit. Kieran Timberlake’s Loblolly House sees the minimum impact of the construction process through offsite as part of its sustainable credentials, along with the widespread use of recycled and local materials, such as locally quarried stones and sustainably harvested wood windows.

So, are today’s offsite solutions sustainable? Yes they are, or at least they should be!

Offsite is sustainable because factories can control energy and emissions more easily than construction sites. Several offsite manufacturers are also looking at alternative, renewable methods of producing power for their manufacturing and assembly plants. Construction sites have made significant strides forward in recent years in reducing waste and

recycling, driven in part by the increased taxes on landfill. But factories are still much better able to reduce waste and recycle unused materials than sites. The WRAP report, Waste reduction potential of offsite manufactured pods, compared GRP and light steel framed toilet pods to *in situ* constructed toilets. WRAP found that “in overall terms, the production of composite pods produces less than one per cent of wasted material, most of which is either recycled or reused, which is a significant saving when considering waste arising from site activities. Also, once delivered to site, the pods are directly installed into their final position and do not require any extra work, generating no waste on the construction site.” From a social perspective, manufacturing and assembly facilities can be located in areas where there is currently high unemployment, thus providing viable work for suitable operatives. Many of the manufacturers use multi-skilled workers and often draw these from non-construction backgrounds, such as other manufacturing sectors. However, it should be noted that an increase in offsite solutions in a country such as the UK will lead to an overall reduction in the number of people employed, due to increased automation in the factory environment.

While life cycle performance depends heavily on good quality design, it is clear that in the more easily controlled factory environment, elements are much more likely to be produced in accordance with the specification and design intent. For instance, the airtightness of buildings produced in a factory is much better than those built on site. Reducing unplanned air leakage is an essential part of reducing energy loss, as well as reducing draughts. However, some form of mechanical ventilation may be required to provide control of stale air. Notwithstanding, to date limited data exists regarding the through life performance of offsite solutions and this is an area where more studies are required.

Some have claimed that maintenance is more problematic with offsite produced units, arguing that work done in the factory affords much better access, which is

then not possible after installation. But this is, once again, an issue of careful design, where access for maintenance must be a key consideration. Also, a study of maintenance of bathrooms in student accommodation at Loughborough University showed that both offsite GRP and pre-cast concrete bathrooms cost considerably less to maintain than the in-situ constructed options.

Offsite solutions require less on-site work than traditional techniques, resulting in less local disruption through dust and noise, and fewer health and safety risks for workers. In particular, offsite can eliminate the need to work at height, which is the main cause of construction fatalities and major accidents. However, the changing risk, such as increased craneage, must still be managed.

Transportation is another “old chestnut” that is often given as an excuse not to use offsite solutions. However, like cost, offsite transport is transparent and there is no evidence that the environmental impact is greater than all the “white vans” attending traditional construction sites. Also, most *in situ* projects don’t currently consider the carbon miles of all the materials being transported to the local builder’s merchant from where they buy their materials. Many offsite manufacturers are considering local assembly facilities and some are using flat-pack alternatives to volumetric modules to avoid “transporting air”.

So, is offsite sustainable? Most certainly yes!

Make it in Great Britain Campaign

**MAKE IT IN
GREAT BRITAIN**

The Department for Business has launched a campaign to celebrate manufacturing excellence in the UK economy. The campaign is open to all industry sectors, including construction. The manufacture of innovative offsite construction solutions has been identified by the Department

as an emerging sector that may wish to participate in this campaign.

The exhibition formally runs from 24 July to 9 September, to align with the London Olympics. An exhibition of selected examples of innovative manufacturing will take place at the Science Museum.

In addition to the planned exhibition, manufacturing sectors are being encouraged to:

- provide case studies of exciting products manufactured in the UK that are making a real difference to the market they are aimed at
- there are opportunities for people who are interested in holding an event at the Science Museum during the period of the exhibition
- provide news items about positive developments in companies or in terms of products to which the “Make it in Great Britain” theme can be linked
- arrange visits to their operations.

There may well be other actions that individual companies could consider to both connect with this initiative, and to promote their own products and services. For example arranging visits to their operations or visiting schools to promote to school children the opportunities that exist in manufacturing.

Although aimed at individual companies, Buildoffsite has also been invited to consider ways in which the offsite sector may wish to respond. We do have some reservations about a time limited campaign, when we believe that the need to promote construction industry achievements should be a permanent activity, but we also recognise that some of the activities that are routine for Buildoffsite also happen to fit with the ambitions of this campaign. In particular, the identification and promotion of case studies featuring construction projects where the inclusion of offsite solutions has delivered tangible business and project benefits is something that we

undertake through a rolling programme. Arranging visits to company operations is also something that we do as a matter of routine through our Discovering Offsite programme. Promoting news of positive developments is something that we regularly feature through our Newsletter. These activities can be promoted as a positive Buildoffsite contribution to the campaign.

Buildoffsite will be exploring the details of any opportunity to host an event at the Science Museum during the summer period. However, we already have a significant programme of events scheduled for 2012 and we will need to work out how an event at the Science Museum might contribute to Buildoffsite objectives. We believe that it is now too late for the offsite sector to offer to contribute a display for the exhibition, but in any event we are unsure that this would provide an appropriate focus for the Membership, given the anticipated audience.

If Members have additional proposals for case studies, company visits or news items that have been inspired by this campaign and that have a particular focus on manufacturing achievements, then we would like to hear from you. Please contact Anna Whiting, Buildoffsite, on:

Tel: 020 7549 3306

Email: anna.whiting@buildoffsite.com

Members will want to consider if they are able to support the “30 under 30” scheme and whether to take part in a programme of visits to schools.

Buildoffsite will seek to ensure that the campaign organisers are briefed on relevant Buildoffsite activities, in order to secure wider promotion within the market place and among politicians.

For more information go to:
<http://makeitingreatbritain.bis.gov.uk/>

Business opportunities – international high value construction projects



Although the UK and wider EU construction markets are struggling, the international market place is awash with commercial opportunities. United Kingdom Trade & Investment (UKTI) has compiled a listing of the top 50 international projects which Government regards as offering particular opportunities for UK business. Not surprisingly, the majority of these building and infrastructure projects are taking place within the emerging markets in South America, the Middle East and Asia.

The listing is downloadable from the Buildoffsite website:
www.buildoffsite.com/news.htm

For more information on particular projects, enquirers should contact the identified UKTI business specialist.

Business case studies

You will recall that the Buildoffsite Review for 2012 published at the end of last year included a set of 17 case studies based on material provided by Members that demonstrated tangible business and project benefits attributable to the use of off-site construction solutions.

These case studies were drawn from eight industry sectors, covered new build and refurbishment projects, and included work in the UK and overseas.

In part, this relatively small sample set was being used to demonstrate the relevance of



off-site solutions to the construction market at large.

What was unique was that fact that each featured project included actual benefits recorded against one or more of the following categories:

- project time
- project cost
- project quality
- sustainability
- health and safety.

These are all really important criteria against which client and project value can readily be assessed. Criteria that help make the case for a shift in favour of off-site solutions becoming the method of choice for a modern construction industry.

The case studies will be promoted through the Buildoffsite website, at Buildoffsite and industry events, in presentations to leading industry clients and decision takers, and so on. This exposure is a significant member benefit, and we are keen to increase the number of case studies in order to keep the reference set fresh and topical in a fast moving market place. To do this we need your help.

If you think that you have a potential case study, or if you would simply like to talk things through, then please contact Anna Whiting on 020 7549 3306. We do not want to put you to any further work, and in most cases we will be able to work with the marketing and promotional material that you will already have available. We would also like to hear from you if you feel that your projects demonstrate additional aspects of project or organisational improvement. For example, we anticipate that the value of off-site solutions in contributing to process efficiency gains will emerge from initiatives such as the Government drive for BIM compliance.

On the following pages are two new case studies from Portakabin and Premier Interlink. Further case studies are in preparation.

Case study: Hull Royal Infirmary, Clinical Skills, Dermatology and Ophthalmology Unit, Hull Royal Infirmary

Benefits

Cost: a cost saving to the client as a result of the reuse of refurbished modules already in the Trust's ownership

Time: a six month reduction in construction time on site

Sustainability: the on-site dismantling, refurbishment and reuse of 50 existing modules already in the ownership of the Trust rather than opting for a wholly new build solution led to a considerable saving of resources and capital and also minimised waste to landfill and transport costs.

Client: Hull and East Yorkshire Hospitals NHS Trust

The project

Hull and East Yorkshire Hospitals NHS Trust needed a new state-of-the-art outpatients and medical training facility at Hull Royal Infirmary for up to 90,000 patients each year, as part of a £7m investment to help meet the increased demand for its services and replacing some out-dated buildings. The project, which involved a very constrained site, required the construction of pile foundations and also the removal of asbestos.

The new building required an ophthalmology department on the ground floor, dermatology services on the first floor and a clinical skills centre that provides



high quality training facilities for doctors on the upper floor.



Key requirements for the project were to incorporate the structure of an existing two-storey modular ward block (50 modules) into the new scheme, to minimise disruption to the adjacent hospital building, and to deliver the facility in the shortest possible timeframe to the benefit of patient care.

Portakabin was appointed design and build contractor by the Trust with design by HLM Architects. Portakabin developed a bespoke design solution for the project, taking responsibility for:

- design, including bespoke structural design and space planning
- planning submission and approvals
- refurbishment and relocation of the existing modular building
- ground works, including foundations
- off-site manufacture
- M&E design and installation
- fitting out
- final commissioning.

The innovative and highly flexible approach from Portakabin combined 50 specially manufactured steel-framed modules with 50 units from the modular building that had become surplus to the Trust's requirements. Portakabin recycled and fully refurbished this structure, which included stripping out each module and installing new windows, upgrading the floor and re-lining internal walls.

This approach to recycling and reusing an existing modular structure for a completely new, purpose-designed facility made the project both highly sustainable and cost effective – and demonstrates the flexibility of modular construction when a building is no longer required.

The Portakabin solution successfully reduced the programme time, which then minimised disruption to patient services. This is a key issue for the Trust because of the close proximity of the scheme to the main hospital.

Portakabin delivered the 3000sqm (200 room) facility to a challenging programme, handing it over after just seven months on site.



A sustainable building solution

In addition to its partially recycled structure, the scheme has several other sustainable features, including:

- a central atrium, which runs the full length of the building, maximising natural light and ventilation and reducing the reliance on artificial lighting while creating a high quality and welcoming patient environment
- heating and hot water for the ground and first floor provided by an existing steam system
- windows to all perimeter rooms to allow natural ventilation
- movement and daylight sensors to control the high frequency lighting



- air source heating and cooling pumps for the first floor
- partial heat recovery ventilation
- internal solar shading to every window to reduce heat gain
- hard wood from sustainable, certified sources
- a Building Management System (BMS) to monitor and control the building's M&E services for optimum energy efficiency
- the modular approach ensured fewer vehicle movements to site and less material waste to further improve the building's carbon footprint.

The Trust's perspective

Duncan Taylor, Head of Estates, Hull and East Yorkshire Hospitals NHS Trust said: "Speed was the principal reason for using modular construction for this project, which enabled us to reduce the programme time by around six months. The Portakabin solution also allowed us to reuse the structure of an existing modular ward building, minimising both cost and waste sent to landfill.

"The result is a really excellent scheme with facilities we are very proud of. Feedback from staff and patients has been extremely positive since the building opened."

Contact

Martin Green

Email: martin.green@portakabin.com

Tel: 0845 401 0020

Websites: www.portakabin.com

Case study: Education Leeds, Basic Needs Framework, Leeds City Council

Benefits

Cost: on time, on budget.

Time: buildings were manufactured off-site and delivered with all internal fixtures, reducing on-site construction time and minimising site disruption.

Sustainability: energy efficient with many low carbon features and excellent acoustic performance.

Quality

Health and safety

Client: Leeds City Council

The project

As part of a four year "Basic Needs Framework" agreement with Leeds City Council, new teaching facilities have been provided to four of Leeds primary and nursery schools. Leeds City Council's education policy objective is to increase primary school places by providing comfortable, attractive and most importantly, affordable accommodation, which can be delivered on time and on budget.

Working in conjunction with the schools' management team and Leeds Children's Services, Premier Interlink provided a full design and build service. Key requirements for the framework projects were to make maximum use of the available area and overcome difficulties with the various site logistics. Some of the buildings were



constructed in split-levels to accommodate sloping site levels.



Key facts

- buildings were located on restricted sites with limited access and severe logistical constraints
- large amounts of soil were removed on one site and relocated for use on the schools playing fields
- Ireland Wood School: the new modular extension was linked to the existing school building at the first floor level
- Horsforth New Laithes School: located on a split-level site
- New Bewerley School: designed to allow for a second phase, so all facilities were capable of being easily extended when required and the external appearance was designed to match the design of the award winning existing school
- turnkey solutions included the provision of car parking facilities, play areas, covered patio areas and foundations
- careful management of the relevant safety issues was required
- all the buildings were to be completed in school term time, avoiding the usual requirement to undertake construction work during school holiday periods, which eliminated extra costs
- each high quality, fully warranted modular building was completed on time, on budget and met all of the council's exacting standards.

Design features

- specialised fascia to match the appearance of an award winning, existing school and to allow for future expansion
- split-level construction
- two wheelchair passenger and platform lifts to accommodate differences in floor levels
- full height glazed screening
- large atrium type skylights installed in circulation areas to provide natural daylight and ventilation
- vaulted ceiling providing ventilation and light at high level providing excellent cross ventilation throughout the building



- 1 The building at New Bewerley School comprises of a single storey, double classroom with a composite panel cladding including a specialised fascia to match the appearance of the award winning, existing school and to allow for future expansion. A retaining wall was installed around the perimeter.
- 2 The Swarcliffe Nursery single storey building was also designed to match the appearance of the existing school, with a composite cladding panel in a terracotta finish, and has a translucent entrance

canopy, a main open plan teaching space for thirty children together with toilets, office, stores, a reception area for parents and an outside fenced play area with a covered patio.

- 3 The 667m² two-storey building at Ireland Wood Primary School has a split level construction, designed so that the first floor of the new modular building links into the ground floor of the existing school building. A large amount of soil was removed to accommodate the new building and then utilised on the schools playing fields. The internal construction contains six classrooms, a sensory room, toilet facilities and a two wheelchair passenger lift to accommodate the different floor levels. Extra car parking and play areas were provided for the increased pupil and staff numbers. The external finish of the building was a mix of glazed screening, brick slip and insulated composite panels.
- 4 The two-storey extension at Horsforth New Laithes School comprises of 17 split-level bays to match existing floor levels with a brick slip external finish. The building's design had to take into consideration the sloping site which had a two metre drop between levels. This was overcome with a link unit containing stairs and a platform lift. The design created space for four new single and one double classroom, hall, group rooms, office and toilet facilities. Large atrium type skylights installed in circulation areas provide natural daylight and ventilation for the large, multi-purpose open plan area.

As a result of the excellent design and performance on the supply of the above projects, Premier Interlink has been appointed by Leeds City Council to carry out three more prestigious projects in 2012, worth around £8m. One of these is the Roundhay School project. The school is to be a two form entry, stand alone school, which means that a child will start and end their entire school career at this school. Premier Interlink is the main contractor providing a full turnkey package with the clearance of the site, all

groundworks and landscaping. This nine month programme is to be completed in two stages. The building itself will be two storeys and comprise of 40 bays, and will include a design feature of a vaulted ceiling. This will provide ventilation and light at high level, providing excellent cross ventilation throughout the entire school.

Contact

Ian Astley

Tel: 01964 545000

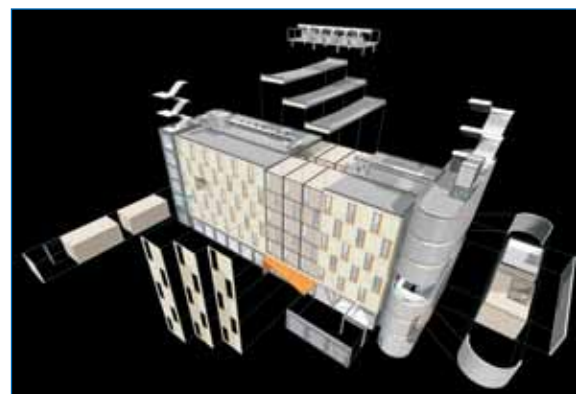
Email: ian.astley@waco.co.uk

Website: waco.co.uk

Guide to modular construction

Modular approaches to building are among the fastest growing and most promising areas of the construction sector. There is a rich and long history of designers pursuing a vision of efficient industrialised construction. Their aim was to revolutionise the way that buildings were procured and advance the construction industry by adopting principles used successfully in almost all other areas of manufacturing. Recent developments in modular construction are perhaps the first true realisations of this long-held vision.

The *Studio guide to modular construction* is a succinct and focused resumé of the current state of the art and the technologies that have been witnessed. It focuses particularly on light-framed construction as used and developed in the UK. The guide has been developed in collaboration with Oxford Brookes University, LightSpeed Construction, Buildoffsite and KKA Architecture.



Trimble to acquire StruCad Business from AceCad Software to extend Tekla's structural steel industry presence.

In December last year, Trimble (NASDAQ: TRMB) announced it had entered into a definitive agreement to acquire the StruCad and StruEngineer business from AceCad Software to expand its construction solutions. The addition of the software products is expected to extend Tekla's industry leading Building Information Modelling (BIM) solutions for structural steel contractors to automate project estimating and management, modelling and detailing. The acquisition is expected to close in the first quarter of 2012. Financial terms were not disclosed.

StruCad is a complete 3D structural detailing system for steel detailers and fabricators. StruCad provides an environment for rapid detailing automation, automatic fabrication shop drawings and computer numeric control (CNC) machinery production deliverables. The software allows effective collaboration between engineers, detailers and fabricators. This enables them to derive more value when executing structural steel projects through reduced steelwork design, fabrication, construction schedules and costs.

StruEngineer is an engineering software enabling 3D steelwork modelling and construction management for engineering companies. Fully compatible with the StruCad steel detailing system, StruEngineer compresses the structural engineering layout and connection design in the conceptual phase to also support more rapid and accurate estimating.

"We are excited to bring together market leading BIM solutions for the structural steel space," said Risto Rätty, vice president of Tekla Corporation, a Trimble company. "At Tekla and Trimble, we are focused on delivering constructible solutions to the AEC industry to help our clients improve project delivery. Together with the StruCad and StruEngineer business teams, we can provide deeper, richer solutions that enable improved productivity for our structural

steel clients and offer them the opportunity to take advantage of our portfolio of tools."

In addition, Tekla will be partnering with AceCad Software to integrate its BIM structures solution with AceCad's StruM.I.S. enterprise resource planning (ERP) system. StruM.I.S is a steel fabrication management information system that connects the information flow and work processes through the steelwork contract between departments, suppliers and clients, from estimate tendering, through procurement and production and into construction. The software is used by engineering and fabrication companies to implement a dedicated fabrication management information system to manage across all departments including multiple sites or even across supply chains.

"We are pleased to be partnering with Tekla to create a seamless workflow for our customers," said Richard Brotherton, executive director of AceCad Software. "Integration with Tekla's BIM solution will further enable model and fabrication data to be processed through production."

The StruCad and StruEngineering business will be reported as part of the Trimble's engineering and construction segment.

The guide can be downloaded from:
www.lightspeed-construction.co.uk/downloads.html

There are also a limited number of hard copies available to members. Please contact Anna Whiting, Buildoffsite, on:

Tel: 020 7549 3306

Email: anna.whiting@buildoffsite.com

About AceCad Software

Established in 1986, AceCad Software Ltd is a leading supplier of software solutions to the international structural steel industry and a member of the international RDS Group, a global conglomerate of engineering, fabrication and software companies. AceCad develops a range of engineering, detailing and fabrication management products that create

significant benefits for users who rely on superior productivity to remain competitive.

AceCad pioneers solutions for the architectural, engineering and construction (AEC) and plant sectors, based on the industry leading fabrication information modeling (FIM) methodology for structural engineering.

With over twenty offices and partners supporting over 30,000 software licenses in 80 countries, AceCad is a market leader. Privately owned, AceCad delivers sustainable and advanced competitive advantages to our valued international client base. AceCad's trained industry experts are on hand around the clock to assist with your technical software requirements and to offer first class product support.

For more information, go to:
www.acecadsoftware.com

About Tekla

With its software, Tekla drives the evolution of digital information models for the construction and infrastructure industries. Tekla has customers in nearly 100 countries, offices in 15 countries and a worldwide partner network. The company was established in 1966. Tekla Corporation became part of Trimble in 2011.

Tekla provides an accurate, detailed, and data-rich 3D BIM (Building Information Modeling) software environment that can be shared by contractors, structural engineers, steel detailers and fabricators, as well as concrete detailers and manufacturers. The highly detailed as-built structural models created, combined and distributed with Tekla Structures enable the highest level of constructability and production control. Centralizing building information into the model allows for more collaborative and integrated project management and delivery. This translates into increased productivity and elimination of waste, thus making construction and buildings more sustainable.

For more information, go to: www.tekla.com

About Trimble

Trimble applies technology to make field and mobile workers in businesses and government significantly more productive. Solutions are focused on applications requiring position or location – including surveying, construction, agriculture, fleet and asset management, public safety and mapping. In addition to utilising positioning technologies, such as GPS, lasers and optics, Trimble solutions may include software content specific to the needs of the user. Wireless technologies are utilised to deliver the solution to the user and to ensure a tight coupling of the field and the back office. Founded in 1978, Trimble is headquartered in Sunnyvale, California.

For more information, go to:
www.trimble.com

McAvoy Group celebrates being appointed to Sport England Framework



McAvoy Think Smart Build Smart, the UK and Ireland's leading offsite permanent modular construction firm

are in for a slice of a potential £15m spend to supply sports' pavilions to publicly funded sports organisations in England.

McAvoy is one of four organisations appointed to the Sport England Framework for the design and construction of innovative or modular building solutions in locations across England, many of them 2012 Olympics' legacy projects.

The overall funding under the Inspired Facilities programme will be spent over a four year period with eligible sports' organisations being encouraged to match pound for pound the Sport England budget which totals £7.5m.

Each round may deliver up to £2m of projects inclusive of partnership funding. Awards for each round will be initiated



Orla Corr

in several tranches through to March 2014.

The requirements include visiting sites, surveying sites for condition and suitability, preparing feasibility reports including outline design proposals, consulting with local planning and building

control departments, preparation and submission of necessary planning and building control applications, developing detailed design solutions for drainage and services connections, enabling works, foundations and access, fencing, access, developing a cost plan, and delivering works to completion including commissioning, certification, provision of operating manuals, and handover to client.

Orla Corr, Business Development Director with McAvoy, welcomed the news.

“This is strong recognition of our ability to deliver high quality projects and our place on the roster has been secured after a robust selection process.



“We have already secured significant new business for the supply of accommodation to a range of cricket, rugby, sailing and tennis clubs in England. This Framework is important because of the direct access to contracts which fit within the Sport England funding criteria and the fact the Framework can be used as a procurement vehicle capable of saving time and money for the

selection of offsite permanent modular contracts for other ineligible projects.”

McAvoy is the UK and Ireland’s leading permanent offsite and modular construction firm. It is part of the McAvoy Group which has locations at Dungannon, Lisburn, Dublin and London.

McAvoy’s core operating areas are in education, health, hospitality, retail and sport.

The Group employs 150 staff and has a turnover of £24m.

For more information contact David McCavery of SERIOUS on:

Tel: 02892 616840/Mob: 07739 631540

Yorkon awarded public sector framework agreement for the supply of modular buildings for the next four years

Off-site construction specialist Yorkon has been awarded a major framework agreement by the Government Procurement Service for the supply of modular buildings across the public sector. The four-year framework is for the supply of bespoke modular buildings for applications such as nursery, primary, secondary and further education facilities, office schemes, healthcare buildings and patient accommodation.



By avoiding costly competitive tendering, the new agreement will substantially reduce procurement time and cost for Yorkon’s customers in the public sector.

Government Procurement Service, an executive agency of the Cabinet Office, is the largest professional buying organisation in the public sector, delivering cost savings by centralising procurement for Government departments, including health, education and local government.



Commenting on the framework, Simon Ambler, Director of Yorkon, said: “We are very pleased to have been successful and to be appointed on the framework. This follows a rigorous, independent assessment of our off-site building system and services, as well as assurance of supply, our quality management procedures, regulatory compliance and commitment to innovation, as well as costs. The framework gives our customers in the public sector an alternative method of procurement that will substantially reduce procurement time and deliver significant cost savings.”

Yorkon is a market-leading supplier of off-site building solutions across the public sector. Recent contracts include:

- a challenging project to double capacity of the cardiac catheterisation unit at Lister Hospital in Stevenage, which involved adding a new storey on to the roof of the existing unit that was provided by Yorkon in 2004
- a two-storey classroom building at Ninestiles School – a high performing academy in Birmingham
- construction of a new purpose-built satellite haemodialysis unit for Plymouth Hospitals NHS Trust for the delivery of renal services out in the community in line with the Government’s health strategy.

Yorkon provides bespoke steel-framed buildings, which are manufactured off site in significantly less time, with less disruption and less impact on the

environment. Its projects have been recognised by numerous independent awards and accolades for design, build quality, project performance and customer service excellence.

Over the past six years Yorkon has delivered 96 per cent of its building projects on time and 94 per cent on budget, rising to a staggering 99 per cent for the last two years – well in excess of construction industry averages.

Yorkon is part of the Portakabin Group. For more information about Yorkon off-site building solutions:

Tel: 0845 2000 123

Email: contact@yorkon.co.uk

Website: www.yorkon.info

Caledonian Modular named “Developer of the Year” in New Energy Awards



Offsite construction specialist, Caledonian Modular, has been named “Developer of the Year” in the annual New Energy Awards, which recognise the highest levels of commitment to alternative sources of energy across the industry spectrum. Caledonian Modular picked up the prestigious prize for its innovation and contribution to sustainability and reduced carbon emissions in the modular building sector.

The 2012 New Energy Awards were presented on the 29 March at the Science Museum in London. This was a fitting venue for an event that rewards innovators and adopters of ‘new’ energy solutions, from Smartphone technology developers and major retailers such as Marks and Spencer to companies like Caledonian Modular, which puts sustainable manufacturing and construction at the heart of its business operations.



Mal Culverwell, Caledonian Modular's Environmental Manager, comments: "We are very proud to have won this Award, which reflects our hard work and commitment to maintaining good environmental practice in everything we do. It marks an important step in the right direction as the construction industry strives towards its ultimate goal of zero carbon building." As a result of winning the Developer of the Year category Caledonian Modular was also nominated for Company of the Year – a significant achievement in these national Awards.

Offsite modular construction is widely recognised as a highly sustainable method of building, utilising carbon-efficient design and manufacturing methods that minimise waste and involve fewer site deliveries. At Caledonian Modular, 25 per cent of module components are from recycled sources, and 96 per cent of factory waste is diverted from landfill by recycling through a MRF (material recycling facility), reusing or converting to energy through a RDF (refuse derived fuels) plant. The company has achieved ISO14001 status and has previously been a finalist in both the WRAP awards and Building Magazine's Sustainable Manufacturer of the Year.

In addition to achieving excellent environmental standards in its own operations, Caledonian Modular buildings are designed to deliver high energy efficiency in ongoing use, from schools and hospitals to hotels and residential apartments. Typically, buildings achieve air tightness results below 3m³/m²/hr and modules are designed and built to meet enhanced insulation requirements. Even

after their useful life, modular design also enables maximum reuse and recycling of materials at deconstruction stage. Modules can be lifted out of position and returned to the factory to be deconstructed into constituent parts or to be refitted for reuse.

About Caledonian Modular

Caledonian Modular is a synergy of two great brands – Caledonian and ModularUK – one company with offsite modular construction expertise in every building sector from classrooms, health facilities and offices to medium and high rise hotels, student halls and residential blocks, as well as specialist barracks and custodial accommodation. Established in 1996, Caledonian Modular has four factories on a 42-acre site near Newark in Nottingham with the capacity to produce 800m² of modular accommodation units every day or a 120-bed hotel in a single week. The company also has three production units in East Yorkshire where it focuses on specialist, fast track offsite modular construction for larger-room buildings for the education, healthcare and commercial sectors.

Caledonian Bathroom Pods is the Group's new division specialising in offsite construction of complete, ready-to-connect bathrooms for traditional build hotels and accommodation buildings.

For more information go to:
www.caledonianbathroompods.com

For more information contact Rebecca Collin on:
Tel: 01636 821 645
Email: rcollin@caledonianmodular.com
Website: www.caledonianmodular.com

Premier Interlink completes the contract for £2.1m Simpson Birthing Centre, built to meet the maternity needs of Edinburgh's new baby boom



Births in Edinburgh and the Lothian area have been rising by over 10 per cent per annum. The £2.1m contract for a 650m² new

Birthing Centre was recently completed by Premier Interlink (Waco UK Ltd) to meet the demand for extra maternity services. The contract was awarded by Consort Healthcare, working for NHS Lothian, as part of a multi-million pound investment in maternity care.

This new midwife led centre has a capacity to treat an extra 1,500 expectant mothers in what is an extension to the main hospital building. This is the biggest and busiest maternity unit in Scotland with over 6,000 babies being born there every year and the new facilities have been built to give more mothers a bigger choice in the birth of their baby.



The Birthing Centre building comprises of 27 PremierPlus bays to create six state-of-the-art birthing suites with en-suites and birthing pools, administration areas and a first floor plant room. All equipment is stored in high-tech Mediwall built-in

cabinets when not in use to comply with HTM specifications. The exterior is clad in attractive laminated Cedral cladding, which is low maintenance to complement other buildings in the hospital complex.



Premier Interlink was the main contractor throughout the project, and sourced any required services and plant using specialist contractors. The project was a total D&B contract, which is DDA compliant and was designed and built to comply with HTM specifications. From ground works to completion took a scheduled 28 weeks, which ensured that the project was delivered to budget.

PremierPlus is the steel framed, permanent building solution that provides clean, modern and comfortable healthcare environments in a significantly shorter time compared to traditional build – up to 50 per cent faster than a conventional building and at a highly competitive price. Premier Interlink's building systems have long-term warranties with a design life exceeding 100 years, excellent acoustic performance and standards of thermal efficiency that exceed building regulations- can radically reduce energy and maintenance costs.

It's now clear to see why these modern methods of construction are fast becoming the preferred solution for hospitals, maternity units and healthcare buildings.

Alex McMahon, NHS Lothian's deputy director of strategic planning and modernisation, said: "Lothian is thriving area that's attracting a lot of people from the rest of the UK and abroad here for work. We want to reflect the views of expectant mothers and others on the sort of care we should be providing, from pre-conception advice through to post-natal care."

The new birthing centre is large enough to cater for up to 1,500 births a year, while facilities at the Livingston hospital are also enjoying a substantial upgrading.

About Premier Interlink (Waco UK Ltd)

Waco UK Ltd is a wholly owned subsidiary of Waco International Ltd. Established since 1958 Waco are at the forefront of the development, manufacture and installation of off-site constructed timber and steel-framed building systems. Waco work in several industry sectors including construction, commercial, education, healthcare, MoD, MoJ and petrochemical sites, offering both temporary and permanent buildings.

For more information about Premier Interlink:
Tel: 0800 316 088
Email: sales@waco.co.uk
Website: www.waco.co.uk

Foremans appoints new Managing Director



Foremans Relocatable Building Systems, the UK's largest supplier of recycled and refurbished modular buildings, has appointed Mike Williams as Managing Director. Previously General Manager for the Hire Division of sister company, Portakabin, Mike joined the Shepherd Group in 1977, during which time he has held several commercial positions. He has more than 30 years' experience in the modular building sector.

In his new role, he will continue to develop Foremans' business in the education, healthcare and commercial sectors, for both its sales and hire operations.



*Mike Williams,
Managing Director*

"Foremans is the UK's largest supplier and purchaser of pre-owned modular buildings," said Mike. "We have ambitious plans to grow the business. Our recent expansion and investment, which has included our strategically-located southern operation in Hemel Hempstead, means we are well placed to continue to increase market share and move into new markets, particularly in London and the South East. We believe recycled modular buildings have a significant role to play in the current economic climate, offering innovative construction solutions for clients looking for best value. This is also a very environmentally sound alternative to the demolition and disposal of modular buildings in landfill sites. We can recycle the building structure which allows other organisations in both public and private sectors to benefit from the speed, quality and lack of disruption of off-site construction, whilst also reducing their carbon footprint."

Foremans' buildings are supplied in single and multi-storey configurations and can be designed and refurbished for a wide variety of uses, including offices, teaching blocks, transport depots and hospital ward accommodation.

Foremans will also purchase quality steel-framed modular buildings which have become surplus to requirements and will undertake the safe dismantling and removal operations with the minimum disruption.

Operating from its headquarters and 30,000sqm production centre in East Yorkshire and its southern regional centre in Hemel Hempstead, Foremans offers a full range of construction services, including

planning advice and submissions, Building Regulations approvals, funding options, and all aspects of the building design, space planning, project management, groundworks, fitting out, delivery, site installation, testing and commissioning.

For more information about recycled and refurbished modular buildings:

Email info@foremansbuildings.co.uk

Tel: 01964 544344

Website: visit www.foremansbuildings.info

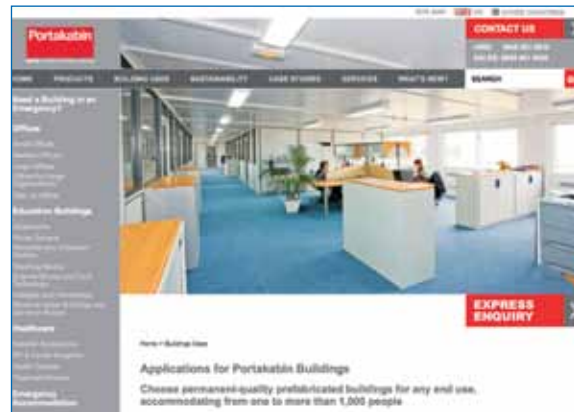
Portakabin launches new website to change perceptions of modular buildings



Quality - this time - next time - every time

Portakabin has launched a new website as part of its campaign to change the perception of modular building and to demonstrate just what is now possible with this highly innovative and flexible approach to accommodation for interim and permanent uses. The new site has several key features, including:

- more than 2,000 images across the site to illustrate the almost limitless design possibilities of this modular approach
- a 32-page photo gallery, which showcases some of the most innovative applications of Portakabin buildings from across the UK and Europe for both interim and permanent use
- clear and simple navigation to allow specifiers to access information more quickly
- more than 150 comments from users of Portakabin buildings that are automatically refreshed, demonstrating the benefits of the approach to organisations across a diverse range of sectors



- 100 layout drawings, so potential users can visualise their own accommodation
- the locations for the 50 Portakabin Hire Centres are now linked to Google Maps, so visitors can obtain customised directions
- an easy-to-use contact form system, so visitors to the site can download as many free industry reports or information requests as they require, while only having to submit their contact details once
- a new section for the Portakabin Hire Emergency Response service, which can provide buildings in a matter of hours in the event of a crisis situation
- expanded sections for Portaloo, showcasing its range of toilets, showers and changing rooms, and for Portakabin Events services, which provide facilities for major events such as T in the Park and Edinburgh Hogmanay.

Commenting on this latest investment, Robert Snook, Director and General Manager of Portakabin Hire, said: "Our research has shown that many organisations are just not aware of how far modular buildings have come in recent years, and of the scale, design flexibility and quality of working environments that are now available – for interim as well as permanent use. Our aim with the new website is to showcase the best applications from across the UK and Europe, to provide visitors with really useful information to help the procurement process, to add value to our building services and to change perceptions."

Applications for interim modular building solutions are diverse, and include open plan office accommodation, security buildings, canteens, training suites, teaching blocks, shower and changing rooms, clinics and decant ward buildings.



These facilities can be supplied and installed just days from receipt of order complete with fire and security systems, access ramps and furnishings, and can remain in use for as long as required. Modular accommodation can also be easily extended, reconfigured or relocated to meet an organisation's changing needs.

Portakabin buildings:

- can easily accommodate more than 1,000 staff
- are manufactured to permanent building standards and in line with the latest Building Regulations
- can feature floor-to-ceiling glazing to maximise natural light, creating attractive and productive environments
- use a technically advanced building system with no internal columns for ease of space planning
- are available in single and multi-storey configurations to meet specific project requirements.

Portakabin has the widest network of hire centres in the UK, with 50 locations from Inverness to Plymouth. It also has the resources to deliver both bespoke projects and standardised accommodation solutions to organisations in public and

private sectors, in the most challenging timescales, with less disruption and less impact on the environment.

Go to: www.portakabin.co.uk

For further information about modular buildings for permanent and interim applications:

Email: information@portakabin.co.uk

Tel: 0845 401 0010

Website: www.portanews.co.uk

Miletus Group first off-site design-build company to go carbon neutral



Miletus Group, the architecture firm that specialises in sustainable onsite, prefab and modular solutions, has become the first off-site design-build company to achieve carbon neutrality in all of its production facilities and offices. The achievement has led the company to strive for net zero emissions by 2030, in accordance with the AIA 2030 Commitment program. To this end, Miletus Group has partnered with The Nature Conservancy to support The Tensas River Basin Project, the not-for-profit organisation's first voluntary carbon offset project.

The initiative has its roots in 2009 when Miletus Group began converting its production plant into a green facility to become as energy efficient as possible. The undertaking proved a challenge, since the plant was originally built in the 1970s. To achieve the ambitious goal, Miletus Group, under the direction of President, AIA, James B Guthrie, undertook internal energy-monitoring measures and implemented



office policies that called for heightened awareness of energy consumption on a companywide individual level.

The key to individual involvement, Guthrie points out, was educating staff on the purpose behind the goal: “This led to greater participation by everyone, which led to the realisation that small savings add up. Now everyone checks every night to make sure the coffee maker and copier are shut off.” Energy consumption analysis of tools and equipment, in addition to climate control monitoring in offices and production facilities – which includes a 40,000 sq ft off-site factory – was an integral component in achieving the goal, according to Guthrie, who points out that the factory’s roof was recently coated in a white “green” solution.

Corrective measures were taken wherever and whenever possible. For example, inefficient, energy-consuming pneumatic tools in the plant were immediately repaired or replaced. Highly energy efficient lighting was installed throughout the company. Winter heating in the facility was also closely scrutinised, where older heaters were replaced with new, more energy-efficient units. Also, energy conservation in terms of climate control during company off hours was practiced as a matter of course.

While the production facility saw the bulk of the energy savings, the company’s offices also played a vital role in achieving complete carbon neutrality. To facilitate the thermal performance of office buildings, remodels, which included additional insulation and the installation of rain-screen façades, were performed. Once energy consumption was reduced as much as

possible, while maintaining just enough to operate, the company re-evaluated its energy profile.

It was when the energy savings were calculated that Guthrie and his team realised they were within reach of achieving carbon neutrality. Once the goal was set, the company sought to partner with a voluntary carbon offset program and found The Tensas River Basin Project through The Nature Conservancy. “We looked for a serious program that was passionate about global conservation and one with a connection close to home,” said Guthrie, who points out that the natural, freshwater drainage from the company’s headquarters and production facility in North-Central Indiana ends up in the Tensas River basin on the Lower Mississippi River before eventually running off into the Gulf of Mexico.

Revenue from voluntary carbon offset contributions, such as those from Miletus Group, supports land purchases in the basin, the planting of trees in order to restore the region’s natural habitat, which has been destroyed by human encroachment, and the monitoring of the carbon benefits. “We are pleased that our contribution to The Nature Conservancy’s first carbon offset project is helping toward the effort to clean our planet’s air and waters,” said Guthrie, adding that Miletus Group can offer the same level of energy consumption and savings analysis that earned the company its carbon neutral status to its clients during the design and post-construction stages.

The analysis service offered by Miletus Group to its clients would provide recommendations for reducing carbon-based energy consumption through building design and operations, and then address methods of reducing the remaining carbon footprint to zero. “I believe being green is one of the key components in creating good architecture in the 21st century,” opines Guthrie. The company’s long-term commitment to reducing energy consumption and greenhouse gases is evident in its recent joining of the AIA 2030 Commitment program. The program’s

objective is to commit all architects to reaching carbon-based energy free designs by the year 2030. “We are well on our way to meeting that goal,” states Guthrie.

About Miletus Group:

Miletus Group Inc is an architecture firm that specialises in sustainable building practices in onsite, prefab and modular off-site systems. Under the direction of James B Guthrie, AIA, President of Miletus Group and Board of Trustees Immediate Past Chair for Modular Building Institute Educational Foundation Inc, the team at Miletus Group provide a range of design, building and development services that include site selection analysis, project programming, entitlement services, urban and architectural design and documentation, architectural modularisation, sustainability design and energy analysis, cost analysis, and onsite and off-site construction. Educated at University of Illinois at Urbana-Champaign, Guthrie has lectured and written extensively about modular architecture. He is currently writing a book on the subject entitled *Modern modular architectural prototypes: a world survey of the state of the art*. At Miletus Group, Architecture is the sum of design + build + develop.

For more information:

Tel: 001 260 399 6175

Website: www.miletusgroup.com

Rethinking the build process

The Government is to invest in new research and development to encourage building developers and construction contractors, collaborating with their supply chain, to radically rethink the build process, transforming supply chains to deliver low-impact buildings cost effectively, in volume, at speed and with very low levels of defects.

The Technology Strategy Board will invest up to £4m in a collaborative R&D competition that will fund up to 15 research projects. The projects will give the

opportunity to explore and test the viability of new integrated ways of working, novel process tools, products or contractual arrangements, and to demonstrate that these improve build consistency, cost-effectiveness, speed and sustainability.

The competition is targeted at construction contractors, developers and other major procurers of buildings, collaborating with their supply chain. It will encourage them to undertake a fundamental rethink of their current design, procurement and construction processes, identify opportunities for a significant step change in improvement, develop novel, more integrated ways of working and then to trial these on a new construction project.

Organisations are encouraged to apply as a consortium – working together to find innovative solutions to shared challenges. Successful consortia will receive between £150,000 and £1m, constituting up to 50 per cent of the research costs. Both domestic and non-domestic new build projects, or programmes of projects, are eligible. Funding will vary depending on the degree of innovation and range of issues tackled, not the size of the construction project.

The competition opens on 8 May 2012 and expressions of interest must be submitted by 13 June 2012. After assessment by independent experts, the consortia who submitted the strongest expressions of interest will be invited to submit full applications.

For more information about the Rethinking the Build Process competition for collaborative R&D funding, go to:

www.innovateuk.org/content/competition/rethinking-the-build-process.ashx

Events

Lean project management workshop

Date: Tuesday 8 May 2012

Time: 9.00am to 3.00pm

Location: Aldgate House, 33 Aldgate High Street, London EC3N 1AG

Lean Thinking Ltd, in collaboration with Buildoffsite, ISG and the Ministry of Justice, is delighted to announce the spring 2012 workshop. The workshop will be delivered by Ali Mafi of Lean Thinking Ltd. This workshop will include contributions from the Ministry of Justice, drawn from their experiences of applying the lean project management system on their projects.

Objectives

The Workshop will provide delegates with the overview of the most advanced project management system utilising Lean Thinking philosophies in conjunction with methodologies such as Theory of Constraint, Systems Thinking, Self-managing Teams, Integrated Planning and 6 Sigma. Each new learning point will be illustrated with reference to some of the UK's leading clients and contractors. The tangible business benefits of this unique system will also be demonstrated.

At a time of unprecedented economic challenge for the industry the workshops will demonstrate the best system for radically improving performance and increasing value to clients and at the same time improving competitiveness and profitability.

The workshop will provide an overview of how to:

- radically improve delivery against key criteria of time, cost and quality simultaneously and without trade off
- maximise the predictability of contract completion date

- optimise the project duration
- compress time and in turn reduce cost and maximise competitive advantage
- absorb impact of delay without effecting the end date
- radically improve integration and team working across the supply chain.

Delivery

This unique interactive workshop will be delivered by Ali Mafi of Lean Thinking Ltd. For more than 10 years, Ali has been working with some of the UK's leading construction clients and their supply chain partners to help deliver substantial improvements in project completion time while achieving significant cost reduction.

Who should attend?

The workshop has been developed for senior managers and decision takers from organisations representing clients (public or private sector), architects, consultants, contractors, subcontractors, SMEs, modular manufactures and suppliers. To date these workshops have attracted more than 1,200 senior managers and executives from across the client and construction community.

For more information and a booking form, please contact Anna Whiting, Buildoffsite, on:

Tel: 020 7549 3306

Email: anna.whiting@buildoffsite.com

Buildoffsite breakfast briefing

Institutional residential equity investment – the new show in town! Opportunities and threats for Buildoffsite



Date: Thursday 10 May 2012

Time: 8.30am to 10.30am

Location: Buildoffsite, Classic House, 174-180 Old Street, London EC1V 9BP

A Breakfast Briefing led by Dennis Seal, Director Kier residential regeneration, together with leading representatives from an institutional investor fund and registered provider



Dennis Seal, Director

Context

The UK is heading for a perfect storm in terms of housing provision. The population is growing rapidly, the number of households is also increasing and a substantial number of properties are either in poor condition or otherwise no longer meet the needs of occupants. In many parts of the UK affordability is a challenge for those wishing to become owner occupiers and the new build market is flat. Government's ability to invest in social housing is severely restricted with no reason to suppose that this position will change any time soon. There are however some innovative funding mechanisms that have the potential to make a real difference to the state of the UK housing market. This breakfast briefing will review these mechanisms and examine the implications for offsite methods of construction.

Agenda

Context – new models for a changing marketplace

- drivers for change
 - house-building recession
 - London and the Mayor
 - housing and mortgage availability/affordability
 - the decline of new social housing
 - the planning system and political demands
- specific programmes/areas of investment
- new projects coming to the market
- new players in the market
- government programmes
- flexible tenures
- the opportunities and threats for Buildoffsite
- action required by Buildoffsite
- discussion.

To book your place

Attending this breakfast briefing is free of charge for Buildoffsite Members. Non-Members may attend but a fee of £50 +VAT will apply.

Those wishing to book for this briefing should contact Anna Whiting, Buildoffsite, on:

Tel: 020 7539 3306

Email: anna.Whiting@buildoffsite.com

Buildoffsite breakfast briefing

Maximising R&D Tax Relief

Date: Wednesday 13 June 2012

Time: 08.30 to 09.30 (registration and refreshments from 08.00)

Location: Buildoffsite, Classic House,
174–180 Old Street, London EC1V 9BP



We all know that the business environment at present is very challenging and the construction sector is under particular strain.

In these circumstances

no organisation can afford to waste money or for that matter miss out on opportunities to recover expenditure where tax credits are available. An obvious concern is that construction businesses should be taking maximum advantage of the opportunities for R&D tax relief.

Companies involved in the development of off-site solutions and other forms of innovation will be investing money in research and development (R&D) but may not be maximising the benefits available under the UK tax system. This is your opportunity to find out if you could be recovering more of your investment.

In support of its Members and guests Buildoffsite is pleased to host a special business breakfast briefing on *Maximising R&D Tax Relief* featuring Gareth Edwards of ela8. This is your opportunity to find out if you could be recovering more of your investment.

Key Issues:

- exchange up to 25 per cent of your losses for cash
- reclaim your corporation tax, or reduce future liability
- immediately claim 100 per cent of your capital spend against tax
- claim for the last two years

- significantly enhance your existing claims
- “above the line” tax credits for large companies – can now claim cash if loss-making
- get tax relief on revenue due to patented technology
- to find out more join us at this Buildoffsite breakfast briefing.

Presented by Gareth Edwards, ela8.

Gareth Edwards is a life-long R&D professional and entrepreneur, with extensive experience of putting together and supporting R&D tax relief claims for a wide range of companies, from multinationals to start-ups – gained while working as a Director for the award-winning Deloitte & Touche R&D tax services group. He has presented at numerous public forums on the benefits available, and how to set about claiming. His deep interest and insight into technology means he can talk effectively with your technologists, quickly extracting the scope and basis for your claim and presenting this in a way that the tax authorities will understand and accept.

This workshop will feature:

- an introduction to R&D tax relief and the latest budget changes
- what activities and expenditure can be eligible
- examples of eligible projects
- question and answer.

A notional charge of £50 + VAT is payable for each delegate place to cover administration costs. There is no charge for Buildoffsite Members.

To register for this breakfast briefing, please contact Anna Whiting, Buildoffsite on:

Tel: 020 7549 3306

Email: anna.Whiting@buildoffsite.com

Discovering offsite tour

Premier Interlink (Waco UK Ltd)

Date: Wednesday 20 June 2012

Time: 10.00 to 14.00 (registration and refreshments from 08.00am)

Venue: Premier Interlink (Waco UK Ltd, Catfoss Lane, Brandesburton, East Yorkshire, YO25 8EJ)

Host: David Harris, Divisional Director

Description of the tour



View offsite manufactured buildings currently in production for Leeds City Council and others. See the innovative construction

techniques that offer real value for money solutions with a high quality build in a dry and safe environment.

With a tour of the facilities visitors will be able to see exactly how the buildings are constructed and installed and get an honest feel for the superior quality of a Premier Interlink building. They will also learn how Premier Interlinks offsite construction systems can improve their budget for their particular building programme.

Tour programme

- 10.00–10.30 Arrive, meet and greet, refreshments
- 10.30–10.45 Introduction by Buildoffsite
- 10.45–11.30 Presentation by Premier Interlink
- 11.30–12.30 Tour of Premier Interlink head office and factory facilities
- 12.30–13.30 Lunch
- 13.30–14.30 Question and answer session
- 14.30 Depart

A notional charge of £100 + VAT is payable for each delegate place to cover administration costs. There is no charge for Members of Buildoffsite.

To register for this event, please contact Anna Whiting, Buildoffsite on:

Tel: 020 7549 3306

Email: anna.whiting@buildoffsite.com



Buildoffsite breakfast briefing

CombiCycle whole-life cost and sustainability prediction program – comparator and BIM application

Date: Thursday 14 June 2012

Time: 08.30 to 10.00

Venue: Buildoffsite, Classic House, 174–180 Old Street, London EC1V 9BP

Speaker: Bernard Williams FRICS

IFPI and some Buildoffsite members have been further exploring the potential application of the *CombiCycle* program as an off-site v traditional comparator.

CombiCycle is a new web-enabled DIY tool for in-depth site-specific prediction of the whole-life cost and sustainability of buildings from project feasibility stage onwards.

This work-in-progress will be presented by the developers and members' views on the implications and practicalities of moving the project forward will be sought.

A notional charge of £50 + VAT is payable for each delegate place to cover administration costs. There is no charge for Members of Buildoffsite.

To register for this event, please contact Anna Whiting, Buildoffsite on:

Tel: 020 7549 3306

Email: anna.whiting@buildoffsite.com