

ADJACENT PBC TODAY

ADJACENT PLANNING AND BUILDING CONTROL TODAY

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IN THIS ISSUE: Naomi Luhde-Thompson, Planning Campaigner for Friends of the Earth on the requirement of strong planning practice guidance for renewable energy developments, plus extensive sections covering fire safety, Party Wall etc Act 1996, BIM and asbestos management.



Plan and prepare

The Environment Agency explains how communities can take steps to prepare for flooding



2013 Part L: A challenge still awaits

Dr Michael Sansom, Associate Director of Sustainability, at the SCI explains how the 2013 Part L Approved Documents will enable compliance with current CO₂ emission targets



Delivery through BIM?

Sarah Davidson, Director – Head of R&D for Gleeds examines the varying facets involved in a successful BIM delivery and the challenges that remain

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Introduction

Welcome to the January 2014 edition of Adjacent Planning and Building Control Today, where we are examining and highlighting a host of topics of concern to our varied readership. From the NPPF to CDM and sustainable planning to Part L, we hope to inspire, inform and create debate.

This edition begins with a positive article from John Howell MP explaining why he believes the NPPF is being 'embraced' by local planners. He concedes that co-operation with developers is key to its success, but supports the fundamental elements of the framework as one that provides local councils with the ability to set out their plans. Many may disagree, so we welcome your comments on this issue.

Unless you were one of the lucky ones that managed to escape to a sunny climate over Christmas and the New Year, you can't have failed to be affected in some way by the storms and rainfall the UK has suffered. The resulting floods have, and still are causing major problems across the country, so we have a rather timely article from the Environment Agency discussing what communities and planning authorities should, and can

do to manage what is seemingly now, a common flood risk for many areas.

Turning to building control issues, last year saw many alterations to the Building Regulations Approved Documents (ADs), including amendments to Parts B, L and M, with Parts K and P republished in a way to be more understandable. We examine the changes to Part L in a variety of articles, with Dr Neil Cutland specifically questioning whether the Regulation actually goes far enough to achieve zero carbon homes by 2016. What do you think?

We also look at the new guidance from the HSE surrounding the ACOP L143 "Managing and working with asbestos" and the changes it reflects. In addition, we have extensive sections covering fire safety, CDM, Party Wall etc Act 1996 and BIM.

Hopefully, there is something of interest for everyone in this edition, and as ever, we welcome your feedback, ideas and suggestions for future articles. ■

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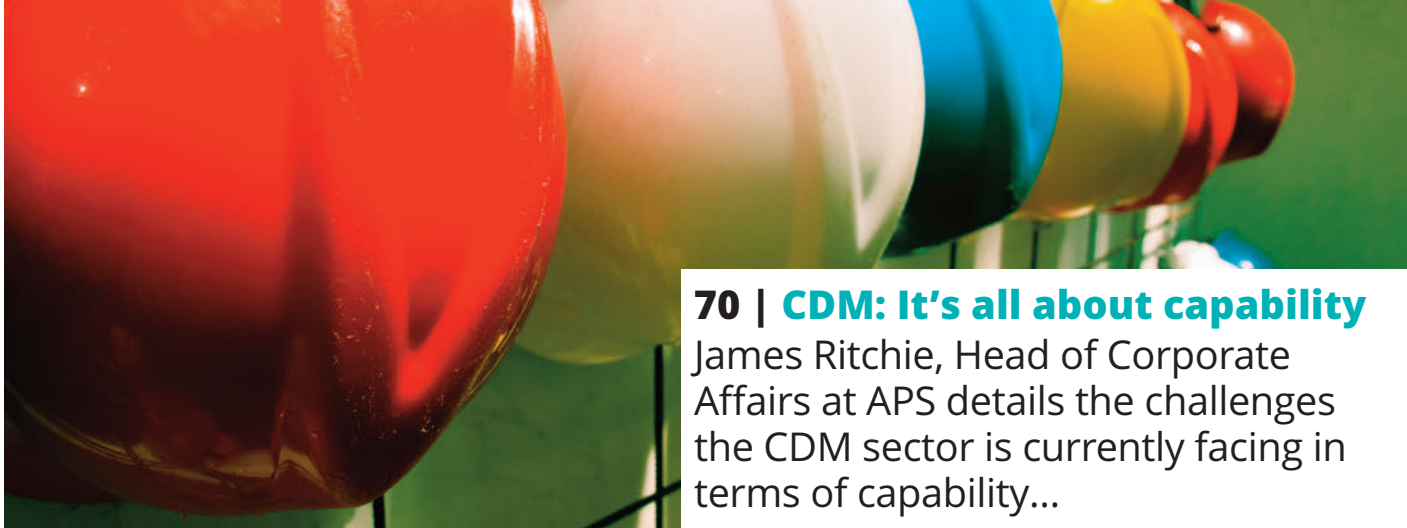
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Sustaining Regeneration

Seeking the right mix

Local authorities have tended to shape their regeneration plans around large-scale developments, persuaded by the size of the investment promised and hoping to transform their town centre in one hit. However, even if you can attract a major player to build in your town, their focus tends to be on the most profitable use of the day, to the exclusion of the other uses that keep a town viable and attractive.

“A proven way to boost town centre trade is to attract more visitors. Only a few centres can do this by offering more and bigger shops – most centres can no longer compete on their retail offer alone.”

To sustain local confidence that a town centre is being regenerated, even small or temporary projects can have a big impact if they bring back variety and activity to prominent sites.

Filling Gaps in the High Street

Traditional high streets have long been under pressure from supermarkets and out-of-town retail parks. Charity shops have helped keep up the appearance of old shopping parades, but the recession has opened up gaps faster than they can be filled, with the extinction of several familiar retail chains that anchored our high streets.

Yet for many organisations, a ground-level shop in a town centre location is far better for serving the public than the commercial

office block or rundown mansion where many council departments, charities and professional services are actually based.

Shop premises offer more scope for full disabled access, and central sites can be close to public transport. In contrast to the cafes and takeaways that most shopping parades now depend on for survival, there would be less demand for late-night use, so less cause to annoy residents of the flats above. Be realistic too, and accept that some shopping frontages are now too peripheral to survive and can be allowed to become residential.

Attracting Visitors

A proven way to boost town centre trade is to attract more visitors. Only a few centres can do this by offering more and bigger shops – most centres can no longer compete on their retail offer alone. Other possible approaches are to promote entertainment, arts or heritage destinations within your town centre. Yet to sustain the flow of visitors, provision must be made for the whole visitor experience, from website information to the parking and toilets. Remember too that a busy evening economy brings its own challenges.

Make Space for Enterprise

It's high time that the local economy received more attention in regeneration efforts. Older industrial premises have been the main casualties of the drive for town centre housing, reducing the scope for new businesses to set up, or for growing firms to stay. What



Alan Piper

survives may be obsolete, or provided as a planning obligation with little thought for the needs of its users. We need to see more councils encouraging craft, creative and media enterprises, and safeguarding the premises for them to operate in.

Enlist Grassroots Support

The local community can be a major resource for renewal. Grass-roots community groups are often bubbling with ideas and have access to funding streams which councils cannot reach, as well as adding “sweat equity” and positive publicity which may attract more investors. Efforts need to be made to involve smaller local businesses – there may even be scope for a Business Improvement District. Many communities are exploring Neighbourhood Planning as a more inclusive approach to regeneration.

Contact Alan Piper for advice on single properties or neighbourhood-level appraisals.

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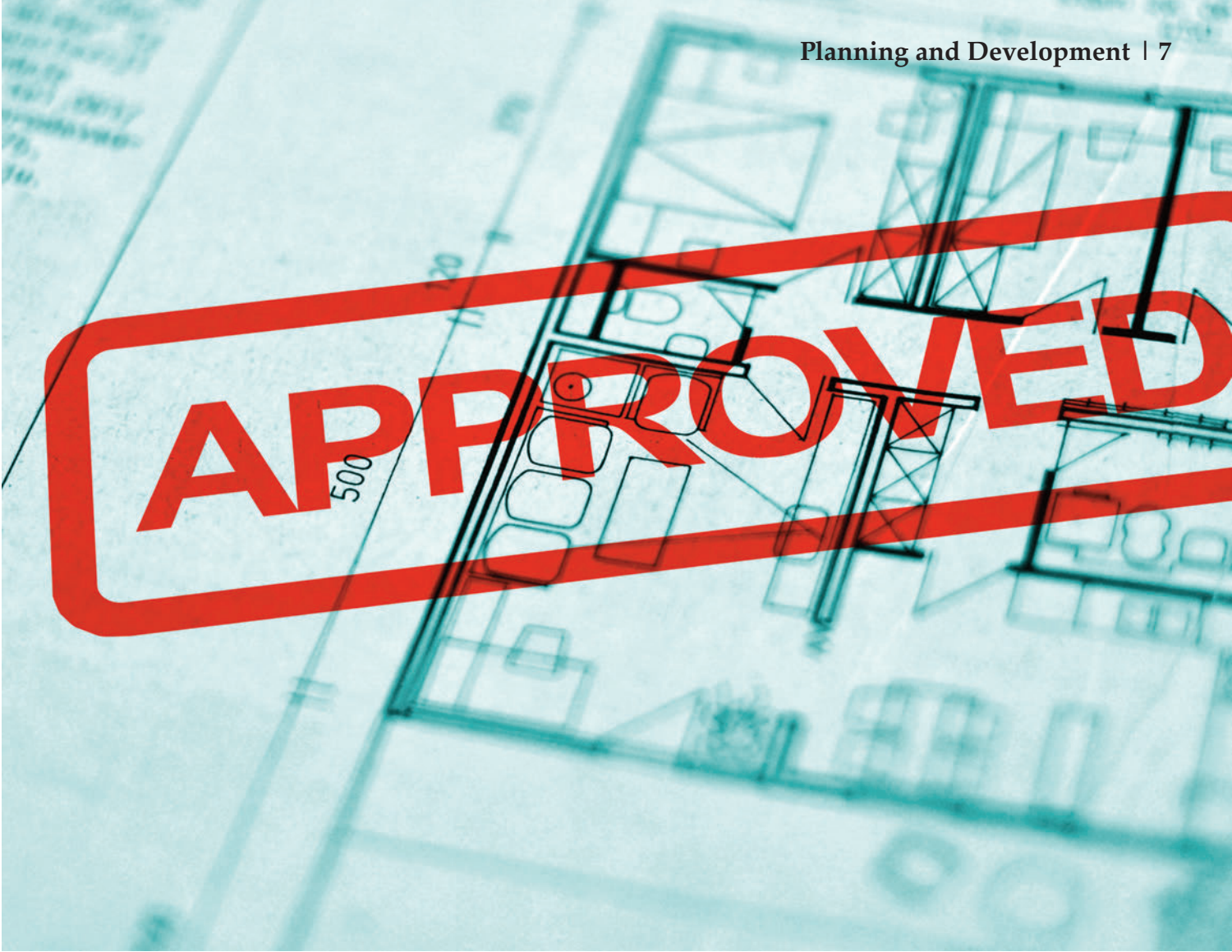
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Welcoming the new policy

John Howell MP for Henley gives thought to why the National Planning Policy Framework (NPPF) has been embraced by local planners...

The last Labour government left us with a dysfunctional planning system and planning policy. The starting point was the regional targets which were set in Regional Spatial Strategies (RSSs). They took the view that Whitehall knew best the appropriate number of houses that should be built in any local area. This was a top-down approach to planning which did no one any favours and it was one we dropped. This did more than simply put the emphasis on local authorities to produce their own plans and their own strategies. It also helped take the sting out of the whole planning system.

The planning system had been highly confrontational. At its heart were a set of national planning policies covering well over 1,000 pages. Understood by few, this was a body largely outside the remit of those it most affected – all of us affected by the planning system. It put the control of the planning system into the hands of those who understood it and the way it worked. The system is still too confrontational. But the way out of this is now clear and we need real co-operation between developers and the people in whose area they are building if it is going to work.

The National Planning Policy Framework (NPPF) pulled all the relevant national policy together in a document just a little over 50 pages in length. It sought to establish a balance in the planning system between the economic, social and environmental aspects of the world in which we live and set out a framework for preparing plans and where required for deciding applications. Foremost, though, was its role in helping to prepare plans. Now some 76% of councils have draft plans in place whereas prior to the NPPF only about a third had done so.

“The last Labour government left us with a dysfunctional planning system and a dysfunctional planning policy. The starting point was the regional targets which were set in Regional Spatial Strategies (RSSs). They took the view that Whitehall knew best the appropriate number of houses that should be built in any local area.”

Rather than become a millstone round the necks of local planners, the NPPF has been embraced as the framework it was always intended to be. The Green Belt is still there and is being protected to maintain its essential role in stopping the spread of towns and cities and their merger into one. Most importantly, local villages and communities have the right to put their own plans together to determine not the amount of housing, but crucially where it should go and what it should look like. In places like Thame, in Oxfordshire, the referendum on the plan was held at the same time as the county council elections. Despite this, more people voted in the referendum than voted at the election proving that when something matters to local people they come out and support it.

The NPPF has been successful in taking national standards and merging them with local capability. It has given the right to local communities and their local planning authorities to work together in a

shared planning system to establish what they want and to deliver it. It imposes a rigorous 5 year land supply to these figures. And so it should. It is essential that if councils plan to do something they also plan to deliver it and the 5 year land supply is the best way of achieving this. That means councils' local plans have to be robust and demonstrably so.

In the absence of a robust and democratically accountable system, the clauses in the NPPF relating to the presumption in favour of sustainable development apply. That should incentivise local councils to get the answers right in their plans. It is by doing this that we achieve balance in the system.

There is still much to do. Few developers have embraced the opportunities of working with neighbourhood plans in a constructive fashion. Few communities have sat down with developers to work out exactly what they want and how they are going to get it. There is still the whiff of confrontation about proposals, but these attitudes are changing. Many developers have seen the NPPF as having 5 years to bed in. If so, it is already doing well. But to do this fully, more needs to be made of the duty to co-operate without it becoming a duty to cave-in. ■

.....
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Plan and prepare

The Environment Agency explains how communities can take steps to prepare for flooding...

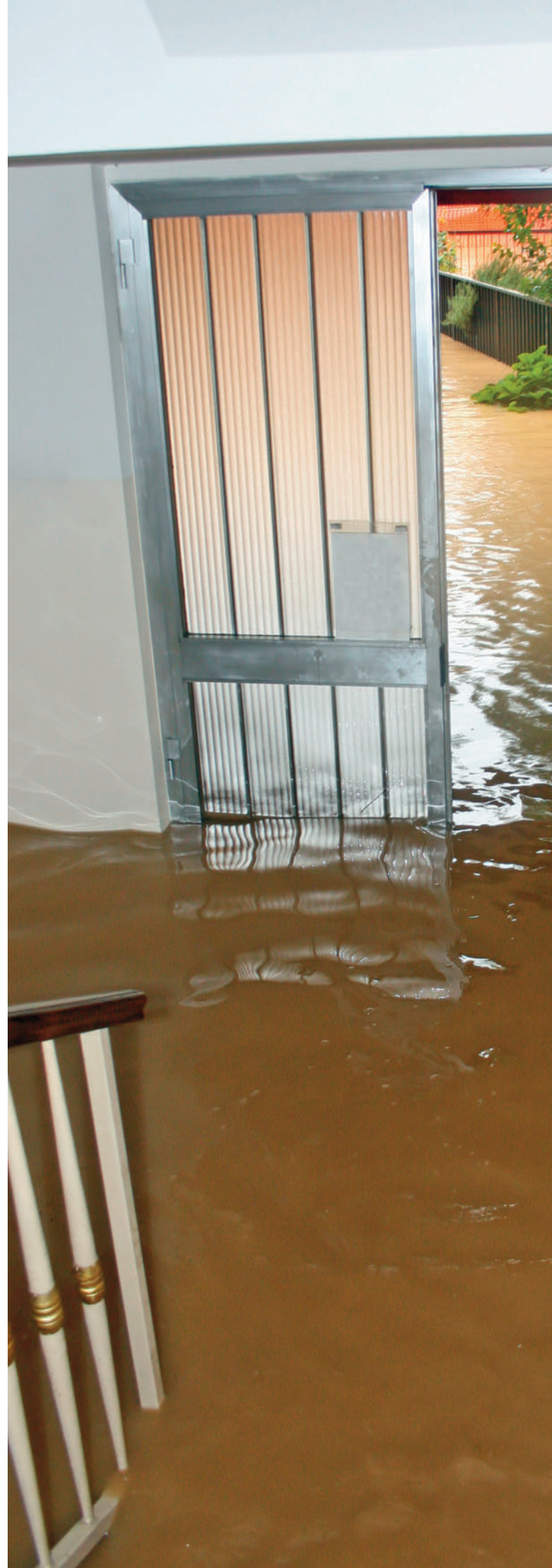
Flooding can be devastating and it poses a risk to life, property and vehicles and can force people out of their homes.

December 2013 was the stormiest since records began and was followed by further gales and extensive flooding in early 2014. It is likely we will see periods of prolonged and intense rainfall more frequently due to climate change, so it is important that we are prepared to deal with whatever the weather throws at us.

The National Planning Policy Framework (NPPF) is clear that local planning authorities, working closely with their communities, should proactively plan to adapt to climate change, taking into account flood risk, coastal change and water supply and demand considerations.

Working closely with communities through regeneration schemes and neighbourhood plans, there is an opportunity to make communities aware of steps they can take to protect themselves and significantly reduce the risk of flooding, both now and in the future. This includes identifying if they are at risk and encouraging them to sign up for free flood warnings, prepare a flood plan and take practical steps to protect their home or business.

Everyone in England can check if their home, or that of a friend, neighbour or family member, is located in a flood risk area by visiting the Environment Agency website or by calling Floodline on 0845 988 1188 – all they need is a postcode.



Those who are at risk can sign up to get free flood warnings¹ for their area by phone, text or email.

Steps communities can take to protect their home:

- There are a number of practical steps that communities and residents can take to help protect their homes. These steps can be taken as part of general home improvement work or maintenance, and also after a flood event to make homes more resilient in the future;
- These practical steps include keeping irreplaceable or valuable items on high-mounted shelves, fixing equipment like TVs to the wall and buying flood protection products such as flood barriers or airbrick covers. It's also a good idea to lay tiles with rugs, rather than fitted carpets and to arrange for non-return valves to be fitted to drains and toilets;
- Suggested steps that can be taken to make properties more resilient during flooding can be viewed on the Environment Agency website at the Interactive Flood House.²

For more information on how to prepare communities and residents for flooding, what they can do during a flood and how to repair their homes afterwards please visit our website www.environment-agency.gov.uk/flood or call Floodline on 0845 988 1188.

¹ <https://fwd.environment-agency.gov.uk/app/olr/home>

² http://www.environment-agency.gov.uk/shell/Flood_house_tips.swf

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Adjacent Planning and Building Control Today comments:

On 17 January 2014, Local Government Minister Brandon Lewis announced a funding package of £6.7m for local authorities affected by recent flooding and severe weather.

This funding is added to financial assistance already available to councils under the Bellwin scheme which enables councils to apply for financial assistance depending on local circumstances.

The costs of repairing flood defences damaged by the extreme weather are currently being assessed by DEFRA and will be set out soon.

Brandon Lewis has said:

"I have been hugely impressed by the efforts of the emergency services, local authorities, voluntary organisations and communities through the recent severe weather and now we are helping areas to recover and see life return to normal.

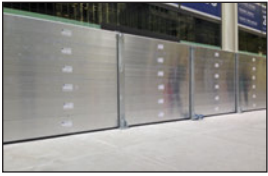
"This extra £7m that can be used to help affected communities, will provide local authorities and their partner agencies additional resources they need to support recovery.

"This will top up support councils can get under the Bellwin scheme to cover the costs of clearing up after severe weather and flooding, and the substantial funding councils already get for potholes.



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Digging in the right direction

Dr Mike Heyworth, Director of the Council for British Archaeology, details the vital contribution of expert archaeological advice to guide planning authorities...

Rarely a week goes by without national media reports of another important archaeological discovery somewhere in Britain. Recently, we have seen huge worldwide interest in the discovery by archaeologists working in Leicester of the body of Richard III, and finds like the Staffordshire Hoard are attractive to the media because of the public interest and enthusiasm for our history and heritage, both at home and abroad.

In recent years, TV programmes like 'Time Team' and 'Meet the Ancestors' have helped to popularise archaeology, and, as a result, far more people have a broad understanding of the work of archaeologists, and the ways in which anyone can get involved in archaeological research. We still have so much to learn about the lives of our ancestors, and archaeology is a quest for knowledge to which everyone can contribute.

What is less well known to the general public is the vital role that expert archaeology advisors supporting local government planners play in this quest for knowledge. Whilst many nationally important archaeological sites in the UK are protected by law as 'Scheduled Ancient Monuments' and 'Listed Buildings', the vast majority of our archaeological sites are only protected through the planning system. When a new development is proposed, at whatever scale, it is crucial that planning authorities are well advised by archaeologists, otherwise sites and crucial evidence can be lost forever to the bulldozer.

This is not just in the public interest, but it is also strongly in the interests of the developers too. The last thing that any developer wants, particularly at a time when profit margins are reduced, is unexpected

costs and delays. It is therefore in everyone's interests that archaeological work is commissioned in advance of the development, funded by the developer under the 'polluter pays' principle. This allows any important archaeological evidence to be recovered in an appropriate manner, without any cost to the public, and ensures that risks are significantly reduced for developers.

Historic Environment Records (HERs)

The bedrock of any archaeology service advising planners is the HER, which should be a comprehensive, accessible and authoritative database of the historic environment of the area. This is not just a tool to inform planning and decision-making, but it is also a resource for communities engaged in neighbourhood planning, as well as providing information for the management and understanding of the archaeological heritage. It is a dynamic resource that needs to be continuously managed and updated to reflect new discoveries, investigations, interpretations and changes in understanding. Across England, there are over 1.5 million archaeological sites recorded in 87 HERs, with newly discovered sites being added at a rate of 2-5% per year. Some 75% of the HERs are accessible online, many via the Heritage Gateway.¹

Expert advice

HERs are managed and developed by archaeologists, who form part of the service available to local authority planning services. These expert advisors not only comment on individual planning applications, but also give strategic advice on development and local plans to ensure that national planning guidance is interpreted correctly to sustain and enhance the significance and setting of local heritage 'assets'. This can include triggering and potentially reviewing

environmental impact assessments, or managing the archaeological implications of major infrastructure development.

Archaeologists work closely with developers and their agents to ensure that planned development can go ahead. It is rarely a block on development and only about 3% of the planning applications put forward each year require some form of archaeological response. Currently, this means about 5-6,000 archaeological projects are undertaken nationally across England (with more undertaken across the UK through similar approaches in Scotland, Wales and Northern Ireland). This work is funded by developers and makes an important on-going contribution to public understanding and appreciation of the past. It is very rare indeed for planning applications to be refused due in any way to archaeology, with less than 150 applications per year being impacted in this way (out of over 400,000 applications currently decided each year).

Potential impact of funding reductions

It is clear that for a very modest public investment in expert archaeological advice given to planning authorities, not only is there enormous public benefit delivered through gains in the understanding of our archaeological heritage, but this is principally delivered by bringing in private funding for the archaeological work.

This investment and private funding, as well as the archaeological knowledge and the public benefit that it delivers, is all put at risk if cutbacks in public sector funding impact on the level of the expert advice that local authorities need. Since 2008, there has already been an 18% fall in staffing numbers within local authority archaeology services – from 400 to 330 – and the rate of decrease continues.

There are dangers that if this decline continues, and if we start to see large numbers of planning applications agreed without any provision for potential archaeological investigation or other protection measures, we could lose forever unique assets, irreplaceable information about our past, and the opportunities to use the distinctive local historic environment of an area to create and enhance special places.

In this type of scenario, there are also major risks

both for planning authorities and developers. These include risks that developments go ahead that may be unsustainable in terms of national planning policy and are thereby damaging to the reputation of planning authorities. They also include risks that developers are inadvertently exposed to delays and extra costs if important archaeological remains are found during the course of construction work – especially if these include human remains or nationally important archaeological sites.

Protecting heritage protection

The concerns of the archaeological sector would be reduced if there was a statutory requirement for all local authorities to have access to a HER service, supported by expert staff that is:

- Accessible to the public;
- Kept up to date and maintained to an appropriate standard as determined by the government;
- Covers all elements of the historic environment, whether visible, buried or submerged;
- Is sufficient to enable plan-making and development decisions to be undertaken in a way that takes informed due account of the historic environment.

In the meantime, we need government to give clear guidance on its expectations of local planning authorities in the implementation of the National Planning Policy Framework.

It is only through a continuation of the key role of expert archaeological advice to planning authorities that we can ensure the public interest in our archaeological heritage is supported and enhanced. Without this advice, we will see damage and destruction of archaeological remains, which is in no-one’s interest. ■

¹ www.heritagegateway.org.uk

.....
Dr Mike Heyworth MBE

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Planning for low-carbon cities

Stoke-on-Trent City Council outlines their involvement in the European energy efficient city project, PLEEC...

As part of the European Union's 10-year growth strategy, Europe 2020 concentrates on 5 vital targets to create the conditions for smart, sustainable, and inclusive growth. Within the targets, the European Commission has set climate change and energy sustainability targets in their Europe 2020 Strategy. While the 20% reduction in greenhouse gas emissions and the 20% of energy from renewables are on target to be delivered by 2020, the 20% increase in energy efficiency is lagging behind.

It is acknowledged that comprehensive knowledge about energy efficiency potentials, particularly in cities, is still scarce. There are a variety of individual strategies and approaches by different cities that mostly tackle specific aspects of energy efficiency, but not as a whole entity for a city. Therefore, a consortium made of 9 universities, 6 medium size cities, including Stoke-on-Trent, and 3 private sector companies have come together to develop an integrative approach to contribute to sustainable and energy-efficient smart cities. This collaborative project covering 13 EU countries is termed "Planning for Energy Efficient Cities" (PLEEC).

The project is funded under the EU Seventh Framework Programme and will consider energy efficiency through 3 main pillars: behavioural change, the planning system and technology.

The PLEEC project will identify what actions a city can take to deliver effective reduction in energy consumption through behaviour change. By targeting key stakeholders such as policy and decision makers, the general public and the private sector, the project will utilise best practice examples and develop edu-

cational techniques to bring about organisational and individual behavioural change to improve energy efficiency.

The main objectives of the project are:

- To assess the energy-saving solutions and potentials to be integrated in a comprehensive city planning;
- To demonstrate how integrative planning is more efficient than separate measures;
- To develop a synergised model for energy efficiency planning by considering the energy efficiency potential of key aspects;
- To create action plans to be presented to decision-makers in the cities;
- To identify the future research agenda on the issue of energy-smart cities.

The PLEEC project also acknowledges that the planning system has a major role to play in delivering energy efficiency solutions. By analysing the planning system within each partner city, the project seeks to identify both successes and obstacles in tackling energy efficiency. The findings will identify the key aspects of urban planning that each partner city should focus on to deliver energy efficient potential.

The potential of new technology to deliver improvements in energy efficiency is a key component of

the PLEEC project. Industry and experts in the field will lead on identifying new innovative technical solutions to address to reduce energy use across each partner city.

“The PLEEC project also acknowledges that the planning system has a major role to play in delivering energy efficiency solutions. By analysing the planning system within each partner city, the project seeks to identify both successes and obstacles in tackling energy efficiency.”

For Stoke-on-Trent, PLEEC aims to deliver an approach for sustainable city planning, in which the goal of energy efficiency takes the centre stage. Scientific expertise and innovative enterprises will be combined to investigate and implement good practice in energy efficiency and environmental matters.

In the city of Stoke-on-Trent, the need to reduce energy use and move towards a low-carbon economy has been firmly set through a number of acts and planning guidance. The message is clear that action is required to help deliver this change to ensure that business remains competitive and opportunities to improve the energy efficiency of the built environment are taken.

In a planning system reliant on an approach supported by local evidence, the PLEEC Project will have an important role to play in providing this strategic direction for energy efficiency in the city of Stoke-on-Trent.

By coordinating strategies and combining best practices, the project will deliver a model for energy efficiency and sustainable planning for each partner city. This will be accompanied by bespoke action plans for implementation and management that will identify the most cost effective method to address the EU goals to reduce energy use by 20% till 2020. The action plan will form a key evidence base document that will be taken forward in the form of planning policy and guidance within the statutory development plan for Stoke-on-Trent.

All stakeholders need to respond to the challenge of reducing energy consumption. Meaningful action cannot be delivered in isolation – but only through co-operation. The PLEEC Project provides this opportunity for a wide variety of stakeholders to contribute towards delivering a vision and help deliver the necessary changes. ■

For the latest information regarding the project, please visit the PLEEC website: www.pleecproject.eu



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A low carbon red tape challenge

Naomi Luhde-Thompson, Planning Campaigner for Friends of the Earth discusses how the government has rigged planning policy to favour oil and gas, while tying the renewable revolution up in red tape...

Renewable energy development suffers from a lack of certainty in England. The new planning practice guidance published in July 2013 does little to improve the situation. This is in stark contrast with unconventional onshore oil and gas development, which the government is pushing ahead with. While new consultation opportunities have been added to onshore wind, some site notifications for onshore oil and gas have been removed.

The renewable and low carbon energy practice guidance places an emphasis on the visual impact of renewable energy proposals, which is particularly unhelpful for community-led and smaller scale projects. The guidance conflates environmental impact with visual impact whereas guidance for onshore oil and gas development barely registers environmental and visual impacts. An interesting comparison is that the word 'visual' is mentioned 22 times in the renewable and low carbon energy guidance, while 'pollution' only gets 3 mentions in the onshore oil and gas guidance.

Renewable and low carbon planning practice guidance

While there is a growing interest and enthusiasm in community energy – for instance the Community Energy Fortnight, and the support from across the political spectrum for community energy during some of the recent Energy Bill debates – there are 3 main barriers to the kind of transformation that other countries have seen. These are finance, grid and distribution access, and certainty.

There is welcome support for community led initiatives in the practice guidance: 'Local planning authorities may wish to establish policies which give positive weight to renewable and low carbon energy initiatives which have clear evidence of local community involvement and leadership.'

The level of ambition for renewable community energy in the UK has to envisage a place where everyone has access to a project – for instance on their own



home, a local share offer, a local co-operative, a school installation, or in local business parks.

Despite the helpful mention in the practice guidance of community-led schemes and heat, planning policy on renewable energy as a whole requires more certainty before community-led schemes will be able to take off as they have in countries such as Denmark and Germany, where the planning system is not a lottery.

It is disappointing that while the National Planning Policy Framework (NPPF) paragraph 97 states: 'To help increase the use and supply of renewable and low carbon energy, local planning authorities should recognise the responsibility on all communities to contribute to energy generation from renewable or low carbon sources.'- the planning practice guidance completely fails to take this further. In paragraph 6 it states: 'The UK has legal commitments to cut greenhouse gases and meet increased energy demand from renewable sources. Whilst local authorities should design their policies to maximise renewable and low carbon energy development, there is no quota which the Local Plan has to deliver.'

Stronger planning practice guidance could have been a great opportunity for local authorities to be proactive in identifying sites and ambitions around renewable energy delivery. Many local governments in countries such as Germany, Denmark and Sweden are setting 100% renewable energy targets and forging ahead with developments that have both micro, and macro, economic and environmental benefits.

Altogether the practice guidance could be much more positive and supportive of renewable energy development, and should have much more ambition, acknowledging and encouraging the scale of transformation that we need.

Onshore oil and gas guidance

In comparison to renewables, the assumption of need for unconventional oil and gas within the practice guidance is directly contradictory to the legal status of climate change mitigation and reduction in the UK. Mitigating climate change requires a strategy to reduce emissions, not a free-for-all. It is a concern that the practice guidance muddies the situation both for councillors, planners and communities, leading to the possibility of legal challenge down the line.

The onshore oil and gas guidance fails to mention the precautionary principle. This is a principle at the heart of environmental law to which the UK Government has committed since the UK signed the Rio Declaration on Environment and Development in 1992. This states (at Principle 15) that:

‘where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation’.

This is further bolstered by Article 191(2) of the Treaty on the Functioning of the European Union which declares that EU policy on the environment ‘shall be based on the precautionary principle’.

There is also growing evidence in the UK and globally of the serious environmental impacts from hydraulic fracturing – or fracking – to ecology, climate, water resources, air quality and seismic activity.

UNEP’s Alert published in 2012 ¹ states that;

‘Fracking should be avoided in areas of water scarcity, in close proximity to densely populated areas, and/or in areas where it can impact on agricultural production.’

It goes on to point out that:

‘Although only very recent, the history of UG (unconventional gas) exploitation already includes instances of water contamination, leakages to soil, wide-scale land clearing and negative health impacts. Furthermore, increased extraction and use of UG is likely to be detrimental to efforts to curb climate change.’

It also cites the need for a very specific regulatory framework for unconventional gas.

Further, the European Commission recently identified water contamination, water resource depletion, air

pollution, biodiversity impacts and noise as high-risk concerns in its August 2012 report ².

Failing to properly consider cumulative impacts and water impacts could lead to unsound decisions – as local planning authorities may not be aware of the full implications when considering applications. Nor can the most adverse effects be mitigated. There are many unknowns with regard to unconventional oil and gas development. In addition the impact of large scale onshore oil and gas extraction would be a contributor to climate change. Groundwater pollution should be strictly avoided – the precautionary principle contained in the Water Framework Directive is that it should not be polluted at all.

Conclusion

Planning practice guidance as a whole should support the Government’s ambition to tackle climate change adaptation and mitigation as set out in the Climate Change Act. This means being clear that developments such as renewables that contribute to mitigation are wholeheartedly supported, while unconventional fossil fuels are justifiably curtailed. ■

¹ (http://na.unep.net/geas/archive/pdfs/GEAS_Nov2012_Fracking.pdf)

² ‘Support to the identification of potential risks for the environment and human health arising from hydrocarbons operations involving hydraulic fracturing in Europe’ August 2012 (<http://ec.europa.eu/environment/integration/energy/pdf/fracking%20study.pdf>).

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Embracing environmental sustainability

BM TRADA explains why over the last two decades, environmental sustainability has been a core concern for the construction industry...

Within the last two decades, environmental sustainability has become one of the core concerns for the construction industry, and all those involved in the complex process of planning, designing, constructing, maintaining and operating buildings.

The drivers for this can roughly be divided into 3 main categories: ethical, relational, and competitive.

The ethical driver relates to an awareness and acknowledgement of the built environment's negative impact on pollution levels and use of resources, and a shared responsibility to minimise those vectors; the relational motivator refers to the desire among firms to improve their brand relationship with different stakeholder groups, including regulators, clients and

the public; and the competitive driver concerns the many commercial advantages that can be gained through the implementation of a sound environmental management system (EMS).

Taking the ethical driver first, there is an ever-increasing awareness within the industry of the significant impact that the construction of buildings and infrastructure has upon the environment – both through the creation of pollutants and waste, and consumption of resources.

According to a report by the construction company Willmott Dixon Group, the industry accounts for as much as 50% of global energy usage, nearly 50% of water usage, and about 60% of the total usage of raw materials – making it one of the least sustainable industries in the world.

At the same time, it is accountable for more than 20% of air pollution, around 50% of climate change gases and 50% of landfill wastes. Other impacts include drinking water pollution, noise pollution and land contamination.

It is only right, therefore, that the industry should take a lead in mitigating its environmental footprint to the greatest extent for the sake of both local and global communities, and the future generations who will have to live with the legacy of our industrial activity.

“According to a report by the construction company the Willmott Dixon Group, the industry accounts for as much as 50% of global energy usage, nearly 50% of water usage, and about 60% of the total usage of raw materials – making it one of the least sustainable industries in the world.”

Thankfully, construction companies of all sizes from multi-nationals to SMEs are now incorporating environmental responsibility into their corporate manifestos – focusing on the minimisation of waste and pollutants, the maximisation of recycling initiatives, and in general working towards the goal of creating sustainable built environments.

This is an internal driver, but there are also external factors involved in pushing sustainability high up the list of today's business priorities – namely social pressures, and the need to remain competitive.

Construction companies do not operate within a vacuum, and the relationships they forge with key stakeholders on the issue of sustainability are imperative to growth and continued success.

In today's environmentally-conscious market, clients want to align with contractors who demonstrate a firm commitment to environmental responsibility, and recognised environmental credentials – primarily ISO 14001 certification – are increasingly becoming a pre-requisite when tendering for new contracts,

especially in the public sector where documented environmental management is expected and UKAS accredited ISO 14001 certification is a must.

Having certification in place, therefore, brings with it a reputational enhancement that can help put a company ahead of its rivals through the opening up of new markets, the retention of existing clients and the development of long-term relationships.

This is backed up by a number of surveys. A 2012 study published in Quality World revealed that 84% of UK organisations believed ISO 14001 had improved their reputation, while separate research found that over 40% of organisations had won new business as a direct result of becoming certified to a standard.

There is also the corporate governance perspective to consider, with construction companies needing to be compliant with current environmental laws and prepared for future legislative, and regulatory, requirements.

Having an ISO 14001 certified environmental management system in place has been shown to help improve relationships with regulators, with companies that implement an ISO 14001 often reporting improved relations with government regulatory agencies, which are said to be quicker to provide technical support and much more supportive generally.

Integrating environmental sustainability standards and systems, then, offers significant potential for improving both internal and external relations, and attracting new business.

Although these benefits may take time to become apparent, embedding environmental sustainability could also deliver immediate wins – through monetary savings.

An environmental management system can improve an organisation's operational efficiency, and lower its

Continued on page 26...

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Continued from page 24..

operating costs through a reduction in waste, the consumption of energy and other resources, and an increase in recycling.

Referring back to the 2012 survey above, the study found that since implementing ISO 14001, 63% of respondents had reported a positive impact on cost saving.

Similarly, it also showed that 80% of respondents had reported an increase in legislative compliance, minimising the risk of regulatory and environmental liability fines such as the CRC (Carbon Reduction Commitment) Energy Efficiency Scheme, which requires organisations to monitor and pay tax on carbon emissions in the UK.

The best way to establish and maintain an environmental management system is through ISO 14001 certification.

Recognised world-wide, ISO 14001 is the international standard of choice for the environmental management of business. According to recent figures, it is now used by over 220,000 organisations in more than 150 countries.

This voluntary certification is suitable for businesses of all sizes and addresses the way companies manage their impact on the environment, and the measures they take to improve environmental performance.

The standard does not specify levels of environmental performance – which means it can be used by organisations at any stage of environmental management – but instead provides a framework for a whole-systems approach to the organisation’s policy, plan and actions, which can be used to meet internal and external objectives for environmental management.

By having ISO 14001 in place, it shows all stakeholder groups that a company is taking its environmental responsibilities seriously and that it is committed to continual improvement and compliance with applicable regulations and legislation.

Furthermore, ISO 14001 is compatible with, and complementary to, other management system standards such as ISO 9001 Quality Management, OHSAS 18001 Health & Safety Management, and ISO 27001 Information Security.

By embracing environmental best practice and ISO 14001 certification, businesses operating within the construction sector are not only working towards a sustainable built environment, but also their own long-term sustainability in the marketplace. ■

For more information about ISO 14001 Environment Management certification, visit www.bmtrada.com

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Installing new standards in homes

National House-Building Council (NHBC) sheds light on the new research guidance on MVHR, and the new standard to improve future installations...

According to analysis, the move towards higher levels of energy efficiency in new homes and improved air tightness has led to around a quarter of new homes built being fitted with Mechanical Ventilation with Heat Recovery (MVHR) systems.

The changes to building regulations have introduced a practical and regulatory need to ensure that the indoor air quality and ventilation provision in new homes are appropriate, as well as designing the home in such a way that reduces the amount of energy used for space heating. MVHR systems work by providing fresh air ventilation, while at the same time recovering heat from exhaust air that would have otherwise been lost.

With most people in developed countries spending an estimated 80% of the time indoors, good indoor air quality is vital for the comfort, health and wellbeing of occupants. Poor indoor air quality can be connected to a wide range of serious health effects, including allergic and asthma symptoms, lung cancer, chronic obstructive pulmonary disease and cardiovascular disease.

An increasing number of house-builders are using MVHR as a practical and cost effective way of meeting ventilation and energy efficiency requirements. It appears likely that the trend to install MVHR will continue, and could well become the dominant form of ventilation for new homes.

Designed and installed correctly, MVHR can offer a number of benefits. But there is a growing body of evidence, based on academic study and practical



observations that indicate MVHR systems are all too often designed, installed or commissioned in such a way that the design performance is greatly reduced.

Research from the NHBC Foundation in 2009, The 'Indoor Air Quality In Highly Energy Efficient New Homes' review, followed by the publication this year of the Zero Carbon hub-led VIAQ Task Group report 'Mechanical Ventilation with Heat Recovery in New Homes', both revealed a number of issues with MVHR systems.

However, with only limited evidence available that is based on monitoring the use of MVHR in practice, the NHBC Foundation has recently published additional primary research that studies ten homes in Slough, built to level 6 of the Code for Sustainable Homes. As well as examining the design, commissioning, and installation of the systems, over the course of the 18-month monitoring, the occupants were also interviewed on three occasions to provide in-use feedback.

The earlier VIAQ Task Group final report did identify that when done correctly, MVHR systems can deliver good performance, but it is clear from this new research assessment of MVHR systems and air quality in new homes, that a number of lessons still need to be learned. Nine of the units had to be re-commissioned and the one remaining unit completely replaced after approximately one year of occupation.

The NHBC Foundation research main findings in connection with the MVHR systems monitored in Slough are:

- It is critical that the overall ventilation strategy is taken into consideration during the design stage when intending to use MVHR systems in homes;
- During the procurement process it is important to seek technical input from the supplier and installer of MVHR systems;
- MVHR systems should be installed by trained and experienced ventilation system installers;
- Commissioning of MVHR systems must be carried out with care and attention; and
- Factors likely to adversely affect the power consumption and thermal performance by MVHR fan units during operation must be considered, such as the size and location of the fan unit, the level of insulation provided and the commissioning.

As a result of this research, and at the request of NHBC's standards committee, it was agreed that a new NHBC standard for MVHR needed to be developed. Following the proven method of engaging with stakeholders, a group of experts from the ventilation and house-building industries was assembled, including representatives from several manufacturers of MVHR systems, a range of house-builders, and academic and industry bodies. This group assessed the use of MVHR in house building, identifying common problems and produced a set of technical standards to address them.



The outcome from this group is the new Chapter 3.2 Mechanical ventilation with heat recovery, which will be included in the 2014 edition of the NHBC standards. It documents new technical guidance that will not only set the standard for MVHR, but significantly raise it to the benefit of homeowners and the industry in general. Key technical issues covered by the new chapter include system design, ductwork, and location of a fan unit and prevention of condensation.

It is critical that when considering MVHR as a ventilation system for new homes that these new benchmark standards are complied with. A well-considered strategy during the design stage – before procurement and commissioning is essential, as is ensuring that the design is followed through to the installation. ■

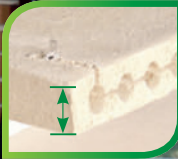
For more information on the NHBC Foundation research, please visit www.nhbcfoundation.org/MVHRsystems and for more information on NHBC Standards please visit www.nhbc.co.uk/Builders/Productsand-Services/TechnicalStandards

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CIL Reform: good news for housing

Marnix Elsenaar, Partner at Addleshaw Goddard explains what the changes to the CIL Regulations will mean...

Another round of changes to the CIL regulations was proposed by the Government in 2013 delivering good news for the housing sector, with the changes expected to become law by the end of January 2014.

Section 106 agreements

The current CIL regulations provide that from April 2014, authorities will not be able to secure contributions to the same infrastructure in more than 5 separate section 106 agreements (pooled contributions). This is being extended to April 2015 to give local authorities more time to get their charging schedules in place.

The regulations also provide that once a charging schedule is in place, it will not be possible to fund infrastructure on the "123 list" through a section 106 agreement but they do not mention s.278 highways agreements. This loophole is being closed and authorities will not be able to have their CIL, and top it up with a contribution under 278, although the change will not apply to the trunk road network.

S.123 list

The 123 list which sets out the infrastructure that will be paid for by CIL, does not form part of the charging schedule. Under the proposed changes, the 123 list will need to form part of the evidence submitted to the examination of the draft charging schedule. It will be important for housebuilders to engage with the rate-setting procedures and lobby for infrastructure needed to unlock development sites to be included on the 123 list; especially where a large number of pooled contributions would otherwise be needed to fund it.

Payments in kind

While land can be provided instead of CIL under the current regulations, a major frustration has been the inability of developers to contribute works, especially highway works, instead of paying the levy. This has been a major headache where infrastructure is needed to enable a development, but the local authority is unable to commit to delivering it within an agreed timetable. The new rules will allow such payments in kind, which is good news. Not such good news is that an agreement will be needed to document the payment in kind which is likely to look similar to a section 106 agreement and security will need to be provided. While a welcome reform, we do seem to be going round in circles; CIL was supposed to make things simpler.

Phased payments

The current regulations only allow CIL payments to be phased for developments that have been granted outline planning permission. The new rules enable schemes that are phased under detailed or hybrid permissions to pay CIL for each phase rather than in one go up-front.

Credit for existing floor space and scheme changes

An element of the current CIL formula that has caused real difficulties is the credit given for existing or demolished floor space, particularly where buildings had been empty for some time. The credit is only provided if the floor space had been in use for a continuous period of 6 months in the 12 months before the development is first permitted. Having proposed a much-maligned "abandonment" test, the government has now come down in favour of



extending the period within which the 6 months' use must have taken place to the previous 3 years. Under the new rules, the 3 year period will end on the date of grant of the planning permission or reserved matters consent for the particular phase rather than, as now, the (later) date on which pre-commencement conditions have been satisfied, again, good news for developers.

“We'll only know precisely what the new rules look like when they become law imminently, but at least we know that some of the greatest obstacles to new development and viability in the CIL Regulations are being removed.”

Scheme changes will also benefit from credit for CIL already paid. While the CIL regulations had already been amended to provide that a planning permission granted under section 73 would not trigger CIL liability unless there was an increase in floor space, the new rules will mean that changes to an existing scheme that require a new planning permission will not attract a further bill for CIL, as long as the changes do not result in a net increase in floor space.

Social housing relief

Social housing relief is being extended to include a proportion of communal and ancillary areas such as corridors and car parks, and the tenures that benefit from the relief are being extended to include the

affordable rent tenure. Local authorities will be able to provide discretionary social housing relief for discounted market homes (which may be helpful to PRS) and the housing industry will want to influence charging schedules where it can, to ensure that such discretionary reliefs are included, particularly where viability would be marginal without the relief.

The new rules will also provide for a re-calculation of the levy liability if the amount of affordable housing provided is varied after site-wide CIL liability has already been triggered; for example after a transfer of part of a site to a registered provider.

We'll only know precisely what the new rules look like when they become law soon, but at least we know that some of the greatest obstacles to new development and viability in the CIL regulations are being removed. It may not be the all-out scrapping that many will have wished for but the changes are a big step in the right direction. Once the new rules are in force, it will be up to us to make them work. ■

Article correct at time of going to print.

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Designing for dementia

Building design can help people with dementia to live safer, fuller lives...

Dementia is gaining recognition as a growing concern within our society. Our experience is that a pro-active approach to building design can make a real difference for people living with the disease.

At About Access we recently worked with a local authority's Adult Social Care department to develop a dementia day care centre and memory clinic for the NHS. The project required all of the partners involved to address some specific requirements, particularly those which arise when a person's impairment is not always visible.

According to the Alzheimer's Society there are currently 800,000 people with dementia in the UK. This will increase to more than a million by 2021 and to 1.7-million by 2051.

Yet the Society also reports that only 43% of people with dementia receive a diagnosis.

Such a scenario, coupled with the fact that different types of dementia can present different symptoms, makes it all the more important to design buildings to help people who have hidden impairments. That is how we approached the dementia day care centre and memory clinic.

The signs of dementia include memory loss, confusion, mood changes and difficulty with such day-to-day tasks as washing, dressing and cooking.

These were at the forefront of our strategy as

we suggested design improvements for the clinic, which was being created within an existing building, to help all users of the facility but particularly people with dementia.

The level of our involvement varies depending on the needs of our client. A simple example might be tap design for WCs, where colour and contrast can be used to highlight and hide certain features, but our involvement in this project began with an access audit of the entire building.

We identified the existing barriers to access to the building, not all of which was to be developed, and then compared the proposed design with our findings.

We began by analysing the accessibility for people as they arrived from bus stops, car parks and drop-off points, from the public highway and from routes within the site boundary.

Inside, we studied the various designs of WCs, the doors, the finishes to the floors and the signage. Having looked at how people enter the building and make their way around we then examined how they leave, because emergency exits need to be identifiable and accessible to lead all people to a place of safety.

Throughout the process we found ourselves giving detailed consideration to the very specific needs of the increasing numbers of people living with dementia, and we are now



applying that experience to new-build and refurbishments for local authorities, health trusts and private companies.

For further information on dementia visit www.alzheimers.org.uk and www.alzheimer-sresearchuk.org

For further information on how About Access can help you and your properties please contact us.

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Delivery through BIM?

Sarah Davidson, Director – Head of R&D for Gleeds examines the varying facets involved in a successful BIM delivery and the challenges that remain...

In 2011, the UK Government partnered with the construction industry setting up the BIM Task Group. Their goal is for all centrally-funded public procurement to be delivered using Level 2 BIM by 2016.

The Task Group sees BIM as a game changer – a way of working that disrupts current procurement, revolutionising collaboration, unlocking new business models, reducing cost, cutting waste and improving delivery programmes. BIM should help the industry to deliver predictable ‘right first time’ assets that are cost and carbon efficient.

Level 2 BIM is not just about representation of design/construction in object oriented digital models (what we tend to refer to as BIMs). It’s also about:

- Sharing data using common information management standards;
- Holding data and information in a single environment;

- Having clearly defined information requirements with a corresponding supplier developed execution plan;
- Comprehensive evaluation of supply chain approach, capability and capacity to deliver the information;
- Having a clear information exchange standard (i.e. COBie).

Two and a half years down, 2 to go

It’s 2 and half years since the publication of the Construction Strategy setting out government requirements for BIM.

Since then, public sector early adopter projects have been released. We’ve seen the publication of PAS 1192-2:2013 setting out requirements for ‘capital delivery BIM’, plus publication of guidance around the Employer’s Information Requirements, BIM

protocol and the scope of works for Information Management.

The CIC has launched the BIM regional hubs and we've seen the release of the RIBA Plan of Work 2013 which is aligned with BIM and PAS 91: 2013 was published capturing BIM in construction prequalification questionnaires.

PAS 1192-3 setting out requirements for 'operational BIM' will be published in 2014 and the Task Group is now progressing with plans to support tool development.

So, is the BIM message getting across?

I would say both 'yes' and 'no'.

Yes, in that there are signs that the industry is becoming more BIM aware. BIM seminars and events are well attended and organisations such as the CIC are working hard to ensure that a BIM focus is retained. More and more tender enquiries make reference to BIM, and there is a wealth of freely available published guidance (such as the PAS documents) to help develop industry awareness.

Software manufacturers also have ongoing development programmes, making their software more flexible, functional and user friendly, helping firms develop their capability.

Is the message being clearly delivered and received? Maybe not.

The principles of Level 2 BIM are defined but only (as far as I can tell, I may be wrong) on page ix of PAS 1192-2:2013. The focus to date seems to be on the generation of BIMs (as in the object oriented digital models) and software but this is only one aspect of BIM; there is still a lot of work to be done in getting the message across about data use and information management. BIM is about effectively managing all of the information (not just the 3D stuff) about a project/asset according to these principles.

But this is probably not a problem just yet. The important thing is that awareness and capability

continues to grow, and the industry's enthusiasm for BIM is retained with the ongoing support of the Task Group. The Government's BIM programme allows for change that is progressive. It also allows for the generation of evidence through the early adopter projects. These projects should demonstrate the benefits to industry so that BIM is not just a theoretical 'good idea' – it's a proven methodology.

BIM obstacles and benefits

The construction industry is steeped in tradition and we tend to do things the way we've always done them. This works doesn't it? The blunt answer is 'sometimes, but mostly no' and the telling evidence is in the many projects that go through post-contract design/construction changes, in order to achieve what is really required. The result is often an increase in construction duration, a change to the agreed contract sum, and sometimes, lengthy claims and disputes.

Changes in requirements are to an extent inevitable, but BIM creates the potential to better communicate what is required, in a timely manner and in a collaborative environment. This means that informed decisions about changes can be made whilst a project is in design instead of when it is on site, significantly reducing the impact of the change (and associated inefficiency).

We also tend to approach a project as a series of tasks (submitting a planning application; achieving budget approval, entering into contract, completion and handover etc.). This restricts information flow, limiting its transition and re-use. Every time we recreate or duplicate information we are inefficient and generate information risk. BIM requires that these tasks (decision points) are considered at the outset of a project with information 'dropped' in stages. This optimises information flow and keeps attention on the project and its information.

Dropping information in stages also means that the information model develops progressively until it reflects the project as constructed. This better supports operation and maintenance of the finished asset.

A further barrier to BIM is our reluctance to share



information in a format that allows other members of the project team to extract and use it. Aligned with this is the training and investment required in the software that creates, extracts and analyses design information. We can't be flippant about this but we all know that 'time is money'. If we can optimise software use, we can start to automate some of the processes we undertake, generating greater efficiency (noting that we still need to instigate checks and balances around the software outputs). We can also look at using information generated by others more effectively. Instead of reproducing it we can refer back to it, or extract and extend it for our specific purpose.

Which takes me back to sharing information. BIMs (the digital models) are another means of communicating information. A Level 2 project will still have documents, drawings, schedules etc. supporting it. The originators of the BIMs retain control of the information held in the BIMs. Level 2 BIM should therefore not generate any greater information risk for the originator than they would ordinarily have. Is there really a valid reason then, not to share information?

What does BIM mean for the construction sector professions?

Level 2 BIM means a change for the better. It gives the professions a means of delivering services more effectively. Not by doing less for less, but by using time and resources better; optimising software to automate some processes so that the right amount of time and expertise can be spent on activities which add value and can't be automated.

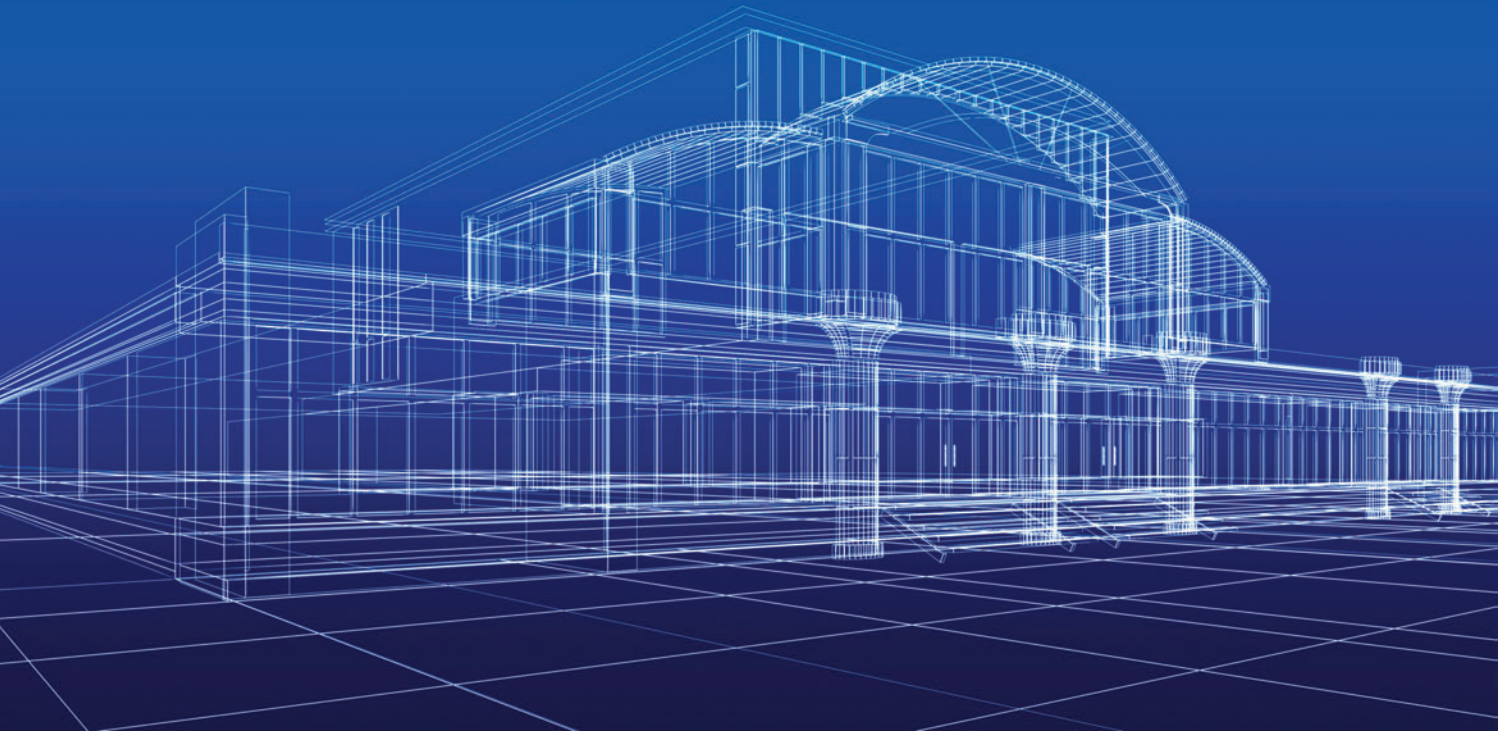
Level 2 BIM also has the potential to change the project team dynamic. It can't force collaboration but it can provide a stable base from which collaboration can develop.

It's reasonable to assume that we all want to be part of a successful project – one that is 'right first time'. A successful project is also one that is predictable, where obligations and requirements are clear and where expertise is recognised with execution of works/activities and risk placed in the right hands. We've always known this but Level 2 BIM gives us a structured basis to achieve the successful project.

There is however a word of warning. A Level 2 BIM project needs to be led with a framework around it in the form of the Employer's Information Requirements, the corresponding BIM execution plan and the BIM protocol creating the contractual obligations for BIM. Without this basic framework the potential for BIM may be limited, with BIMs just forming another source of information. ■

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FutureFit for the BIM challenge

Tim Whitehill, FutureFit expert consultant and Partner details how the South East are embracing a BIM culture...

Regardless of whether your ears perk up at the mention of it, or you try and skulk away and pretend it's not happening, there is one thing that is increasingly becoming clear: BIM will affect each and every one of us in the construction industry.

The government wants all public work to be completed through Building Information Modelling (BIM) by 2016, "WE KNOW" you may be crying out, and yes for many this is old news. But let me ask you this, what happens when we get there? We're on the brink of 2014 and before we know it 2016 will be upon us, and what will that look like? With it being the New Year and all, let's make some predictions: Firstly, those who jumped on the BIM-wagon will be making a lot of money, and if they're not, they are at least alive. Secondly, we will be well on the way to reaping the rewards that BIM entails, in the public sector at least. But thirdly, we will hopefully have had an effect on the culture of the construction industry, not just in the way we construct buildings, but in our behaviour and working practices.

Believe it or not, the government doesn't enforce these initiatives just to give us more work and without thinking them through. There are actual reasons, and when deciding how to shape the future of the construction industry we must look at not only what it can offer now, but what it can offer in the future. We need to grasp the potential with both hands.

It feels as though we are on a digital travelator towards a shared society. Technology allows us to take things from one area and apply them to another – to take, to multiply, to edit, cut, copy and paste, and what's more, anyone can do it. The same is true of BIM, it allows collaboration of people, of ideas and the transferring of skills. But we are not at the end destination just yet.

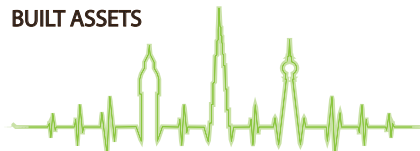
Whether we like it or not, the way we use BIM is changing, and it will continue to change for the foreseeable future. Not because software companies want you to buy their new product, but because no matter how much we say it is the future, it is just

that, the future. It is not completely the now, because it's not perfect right now. Don't get me wrong, it is very good, and perfect to the needs of many. But the reason everyone seems to be all wrapped up in it, is the potential it holds.

BIM is about the creation, exchange and management of information – something we do all the time. The most obvious difference is that it happens in a digital world. But the key to success is early involvement and collaboration. The information collected is reliable and can include all aspects from project information to asset information. But does the vast scope for BIM stop there? No – there's a mountain of potential that people like BIM4Regs are trying to unlock too. Could BIM help to simplify compliance with Building Regulations and planning applications made using 3D computer models? Perhaps to begin with, it's just submitting an extract from the model. But imagine authorities with the ability to log in to view a model through a portal – applications could be processed more accurately, efficiently and more publicly. Now there's a thought for a more joined up industry across the board. How ready are we for that?

With the price that clients are willing to pay falling ever lower and the cost of implementation rising ever higher, the margins in which we survive in are being squeezed tighter and tighter. This not only means less profit, but also increased risk; we can no longer afford to make silly mistakes, and sometimes to even compete in the first place. Not only this, but we as an industry are increasingly being pushed for added value and extra features for the same price and our clients want higher value for less cost. BIM has the capacity to provide that. Take for example climate change and the legislation that tows along behind it. BIM can provide things like CO₂ production and usage evaluation in a fraction of the time it would take an employee to work it out, and better yet, it is intrinsically linked to the model – there are reduced calculations, and re-calculations upon change are automatic.

FutureFit
BUILT ASSETS



EUROPEAN UNION
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It is through programmes such as FutureFit (currently on-going in the South East), that we can be early adopters of BIM, become highly competitive regardless of size, and do so in an ever-changing industry. Part-funded by the European Regional Development Fund Programme 2007 to 2013, FutureFit aims to help SMEs specifically, and offers fully-funded business support with the expertise of consultant partners who provide tailored interventions. This helps those who need it in identifying and making fundamental changes to the way they work to respond to modern challenges. The programme is also working with clients, especially local authorities, and main contractors alongside their SME supply chains to promote integration and collaboration – the key enabler of BIM.

We're making BIM accessible to all, empowering companies to regain control over their margins and decide how they want their organisation to look in the future. FutureFit is not about saying – this is what you need to do now, but about working out what the future will look like and how you can get fit for the challenges, not just technologically, but culturally. Don't just adopt the future, be the future. ■

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BIM: Connecting the content

Ian Chapman Director of The National BIM Library at NBS discusses the importance of organised and connected information for successful implementation of BIM...

Through Building Information Modelling (BIM), the construction industry is undergoing a digital revolution. Tools are developing rapidly, processes are changing and this will all lead to increased value for money and better buildings. Software technology will take care of itself but effort needs to be placed on the all-important 'I' in BIM. Without well organised, comprehensive and connected content, the opportunities available through BIM will not be achieved.

The need for construction information is not new; it has been prepared, shared and used for centuries. What is new is the opportunity to:

- Build-upon information throughout the workflow in a more efficient way;
- Collect information in a standardised manner;
- Use technology to analyse that information more thoroughly.

The amount of information produced by the many parties involved in designing, constructing, using and maintaining a built asset is vast, and more often than not it is created in different ways using a variety of methods.

To achieve data integration, the industry needs a common approach to information supported by protocols and standards. Whilst collecting data is necessary, it is also important to avoid information overload, which is aided by developing methods that allow individuals to focus on the information that really matters at any given point in time.

Accessing and using the right information at the right time is vital. The Government's BIM Task Group labs area is full of help as to the way forward in this regard. There is, for example, the digital plan of work guidance that describes the basis of the new plan of work. Its stages 0-7 are discipline independent and encompass the whole project life cycle.



Ian Chapman
Director of The National BIM Library and
Director of buildingSMART UK&I
NBS (National Building Specification)

The digital plan of work is essentially about defining the information that needs to be created and supplied throughout the life of a built asset, something which is vital to the decision-making process during a project. To illustrate this, the Ministry of Justice created a set of 'plain language' questions that it, as a client, intends to answer at each stage of a construction project. Key decisions such as whether to proceed to the next work stage or not, will be made based upon the answers to these questions.

Defining the question is a good start, what is then needed is a series of properties that can be collected at each stage. Examples of these can be found for various objects such as ceiling systems, structural elements and products in the demand matrix section of the labs area. Collecting information is only half the challenge. Information needs to be reviewed, this is where the COBie testing tools come in: by collecting information in a common format, this information can be readily compared with previous stages and analysed. Whether the ceiling budget has changed from stage 3 to stage 4 can be automatically reviewed, as can measures such as environmental criteria.

The tools on the BIM Task Group labs area give a glimpse of some simple automated checks that can be achieved with tools such as Microsoft Excel. The BIM Technology Alliance (of which NBS is a member) is developing software solutions that will enable much more sophisticated information checking and analysis and research projects covering automated regulation compliance checking are underway.

The electronic coordination of information between disciplines as part of the design process, which has been a regular activity since the introduction of

computer-aided design, is rapidly being surpassed by the need to integrate information. Integration is key now rather than coordination. Project teams that are striving for this integration are standing out from the crowd and winning business.

Supporting these project teams to achieve this integration is where NBS and its BIM content come in. BIM is all about supporting the workflow and the role BIM content plays in achieving this is central. Most built assets start with the site arrangement, massing and form and evolve into designs with increasing levels of geometry and technical detail. These increasing levels of detail represent the choices made at each of the project stages. Site developments such as shopping centres and university campuses become combinations of buildings, roads, payments, bridges and external spaces. As the project progresses, buildings become combinations of activities and spaces which in turn are defined by elements such as roofs, walls and floors. With further design work these elements become combinations of systems, such as blockwork walls, plastering and painting systems. And finally once product selection decisions have been made, these systems become combinations of products.

At any point these objects can be described in generic terms or via proprietary solutions. Also, at any level or project stage these objects can be described in performance terms. The availability of content to support this process is critical to the success of BIM. For BIM content to play its part in supporting the workflow, BIM objects are needed for use at all project stages and this is the approach taken by the content provided by the free to use NBS National BIM Library.

Concept objects can be used for space planning during the early project stages which will then be replaced by generic objects that respond to the various design decisions made so far. Generic objects are valuable as they enable precise solutions to be determined at subsequent project stages.

This deferral of decision making is commonly influenced by factors such as method of procurement and design duties. Generic objects when partnered with performance criteria, are an essential part of the information evolution for a built asset. Once constructed, a built asset is a combination of proprietary manufacturer products and site built products. The availability of manufacturers' BIM objects is an important factor in achieving success with BIM. The number of manufacturers engaging with BIM is rising but this is not fast enough.

“The “I” in BIM is vast and there can never be too much information; it’s making the information work hard that is crucial.”

Integrating BIM geometry information with BIM technical information necessary to achieve useful analysis and NBS plug-ins for applications such as Revit and VectorWorks are starting to show the benefits of BIM. In the past, many project claims were attributable to poor quality information, such as drawings that didn't correlate with the specification. Being able to synchronise and verify a BIM design with the associated technical specification using plug-in technologies is possible now and will bring design and specification activities far closer over the months ahead. Mistakes in the contract documentation, such as objects annotated on a drawing using a reference that doesn't appear in the specification, can now be archived in history.

BIM doesn't stop when a building is handed over however. The government's soft landings project, from an information perspective, is all about collecting

information and analysing it through comparison with the earlier data, for example the design intent. Is the building performing as designed? Collecting lesson learned information from vast estates and feeding this knowledge back into the briefing process for new projects is how clients, design teams, contractors and manufacturers can truly benefit from BIM. Repeating mistakes of past projects can be avoided, and the government is behind BIM for this reason as this is how to improve buildings and create better value.

The “I” in BIM is vast and there can never be too much information; it's making the information work hard that is crucial. BIM is about avoiding information loss and encouraging information accumulation through the normal project stages. In time, the construction sector will move from a focus on information collection to information connection. Connected information will lead to insight, and analysis will lead to prediction. And that's when buildings become intelligent. ■

This is an edited version of an article that first appeared in AEC magazine.

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Ian Chapman

Director of The National BIM Library and

Director of buildingSMART UK&I

NBS (National Building Specification)

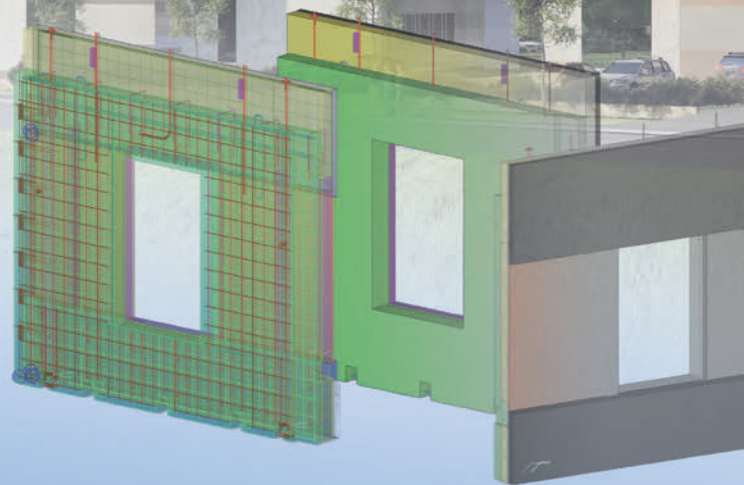
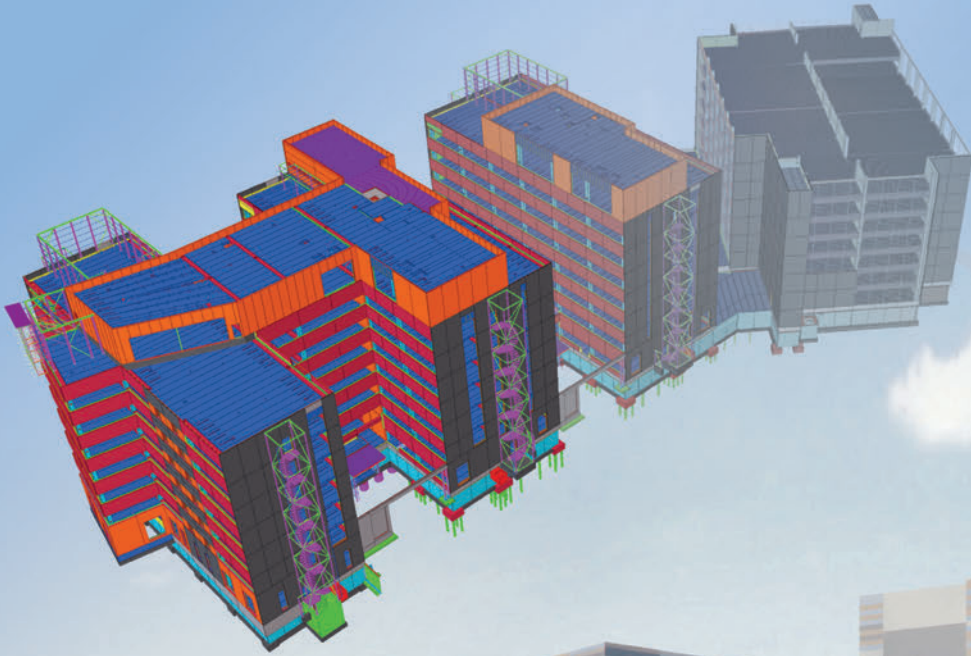
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2013 Part L: A challenge still awaits

Dr Michael Sansom Associate Director of Sustainability, at the SCI explains how the 2013 Part L Approved Documents will enable compliance with current CO₂ emission targets...

The 2013 Part L Approved Documents (L1A and L2A) were published in November 2013. They provide technical guidelines for achieving energy efficient and low carbon new buildings in England and will come into force, with unchanged transitional arrangements, in April 2014.

Government has reaffirmed its commitment to achieve 'zero carbon' new homes by 2016 in the 2013 Budget and Part L 2013 is the next step on the road to zero carbon new homes.

While not as challenging as many might have wished, the new standards are presented by government as a balance between 'green and growth'; continuing on the road to 'zero carbon' new buildings while not hindering growth in construction, particularly house building.

Government remain committed to a tiered approach to achieving 'zero carbon' buildings, as shown in the figure opposite. This approach is underpinned by detailed economic analysis of different measures to reduce national CO₂ emissions.

Part L addresses Carbon Compliance and, in the case of new homes, Part L 2013 includes standards for Fabric Energy Efficiency for the first time. Although unconfirmed, 2016 targets for Carbon Compliance and Fabric Energy Efficiency of new homes have been recommended by the Zero Carbon Hub, however, government will conduct a further consultation exercise before 2016, when Part L is next due to be revised.

The remaining top slice of the triangle is Allowable Solutions, and government has recently consulted

on this important piece of the 'zero carbon' jigsaw. Options being considered include:

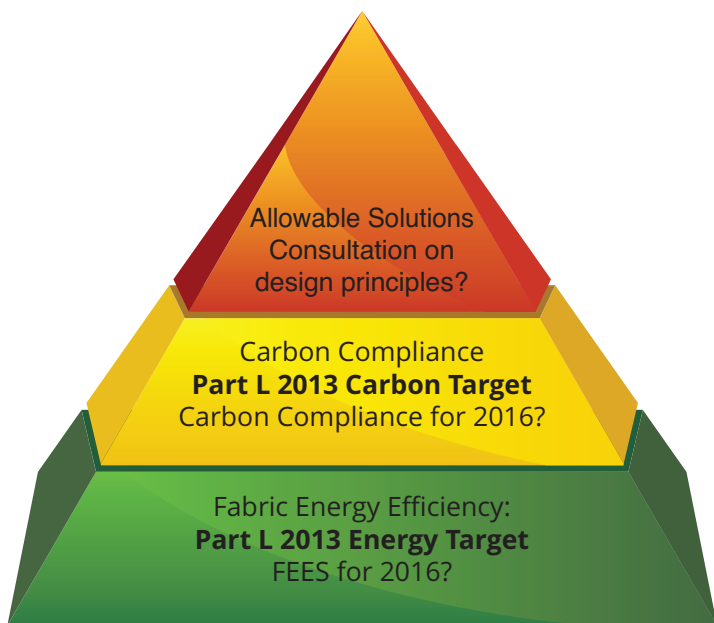
- Additional on-site carbon abatement measures;
- Off-site carbon abatement actions such as improving other existing buildings;
- Contracting with a third party Allowable Solutions private sector providers;
- Payment into a fund to be invested in carbon abatement projects.

The new Part L regulations only apply to new buildings and, as widely publicised, government does not intend to regulate for 'consequential improvements' to existing buildings at this time.

The carbon reduction targets in the new regulations are less than initially proposed during the consultation period. For new homes, Part L 2013 represents a 6% aggregate uplift in CO₂ targets compared to the 2010 requirements. For new non-domestic buildings, the regulations represent a 9% aggregate uplift, significantly lower than the 20% improvement initially proposed.

The most significant change in new regulations is the additional requirement, for new homes, to meet Fabric Energy Efficiency Standards (FEES) alongside the existing CO₂ emissions targets. This FEES target is set at approximately the interim FEES level as recommended by the Zero Carbon Hub.

The 2013 standard uses an 'elemental recipe' approach which, although a compliant solution, is



Zero carbon hierarchy for new homes – Image courtesy of Department for Communities and Local Government

not prescriptive. It provides a reasonable starting point for designers. Key ‘compliant’ parameters for new homes include U-values for external walls of $0.18 \text{ Wm}^{-2}\text{K}^{-1}$, $0.13 \text{ Wm}^{-2}\text{K}^{-1}$ for floors and roofs and $1.4 \text{ Wm}^{-2}\text{K}^{-1}$ for windows together with an air-tightness of $5 \text{ m}^3\text{hr}^{-1}\text{m}^{-2}$. The elemental backstop values are unchanged from Part L 2010.

Although minimum thermal bridge length and psi values at junctions have generally not been changed, some levels have been tightened and may prove harder to meet given the new regulatory emphasis on fabric efficiency, of which thermal bridging forms a key component. Merely meeting ‘default’ thermal bridging targets will now require substantial over-performance in other fabric energy efficiency areas to compensate.

Part L 2013 has again failed to grasp the nettle of quality assurance during construction and ‘as-built’ performance.

Changes in the 2013 Approved Document for new non-domestic buildings (Part L2A) are less radical. The new standard includes a wider range of concurrent notional buildings compared to 2010. As for new homes, a concurrent, notional recipe approach is adopted. The concurrent specification is compliant with CO_2 emission targets but, as for dwellings, is provided as a ‘reasonable starting point’ and not meant to be prescriptive.

The range of non-domestic building types is considered too large to develop absolute or mandatory fabric energy efficiency targets at this stage.

Although the aggregate CO_2 emissions uplift or improvement for new non-domestic buildings is 9%, this varies, by building type, between 3% for small warehouses to 13% for a shallow plan office.

Model designs are provided in AD L2A for toplit and side lit buildings. Parameters of the concurrent specification that meet the CO_2 emissions target (TER) include:

- Roof U-value $0.18 \text{ Wm}^{-2}\text{K}^{-1}$;
- Wall U-value $0.26 \text{ Wm}^{-2}\text{K}^{-1}$;
- Floor U-value $0.22 \text{ Wm}^{-2}\text{K}^{-1}$;
- Window U-value $1.6 \text{ Wm}^{-2}\text{K}^{-1}$;

Air permeability $5 \text{ m}^3\text{m}^{-2}\text{hr}^{-1}$ in side lit and $7 \text{ m}^3\text{m}^{-2}\text{hr}^{-1}$ in toplit buildings for buildings with a gross internal area of less than 250 m^2 – air permeability targets for larger buildings are lower.

Overall, the much delayed Part L 2013 standards hold few surprises and are less demanding than anticipated by many. While understandable in the current economic and deregulatory climate, this makes the next step (in 2016) a potentially large and challenging one. Key challenges still to address include:

- How to implement Allowable solutions efficiently and effectively;
- Transitional arrangements;
- How to improve the performance of existing buildings. ■

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Part L 2013 (or is that 2015?)

Dr Neil Cutland, Director at Cutland Consulting Limited, examines the meaning behind the latest Part L regulations...

Following a consultation which closed in early 2012, and the government's response 18 months later, the 2013 energy standards of the Building Regulations have finally been published. Strictly speaking, approved documents L1A and L2A have been published, but they won't come into force until April 2014. The usual transitional arrangements will mean that we won't see much volume building to these standards until 2015 – 3 years since the consultation – so one does rather question the motivation of our 'greenest government ever'.

Nevertheless, the UK is still committed to zero carbon homes by 2016. The legislative processes alone are likely to push that back to at least 2017, but even so, do the new approved documents take us far enough quickly enough?

Some years ago the 'journey to zero carbon' was mapped out. It required reductions in newbuild carbon emissions of 20-25% every 3-4 years starting in 2005. The journey was planned so that by 2013 we would have succeeded in reducing emissions by 70%, and then it would be a relatively straightforward 'final push' to lose the last 30% to reach zero by 2016. That seemed pretty sensible to most of us. But we had reckoned without HM Treasury...

The government's 'one in, two out' policy for regulatory reform actually refers to the financial impact of the regulations being introduced and cancelled. So for every £1 in costs incurred by an industry as the result of a regulatory change, there has to be a saving of £2 for the same industry. Bizarrely in the case of housebuilding, the calculation cannot include the savings which accrue to the people who live in the

houses. In other words, the sums do not reflect the fact that an additional £1,000 on the cost of building a house could result in a saving of £20,000 in the owners' heating bills over the lifetime of that house.

But so be it: the rule is sacrosanct. Unfortunately, it turned out that the 25% emissions reduction which had been planned for 2013 simply cost too much. So the 2013 Regulations were diluted to achieve just a 6% reduction, leaving us with nearly twice the amount we thought we'd have to cut in the 'final push' to 2016. Can we still make it?

Perhaps surprisingly, I believe that the answer is "yes" – with some caveats. Even the diluted 2013 standard is very close to the Fabric Energy Efficiency Standard (FEES) mandated by the official definition of zero carbon. And fabric is the hard bit. Few would disagree that fabric is the right bit to focus on, but compared to installing photovoltaics or paying into an offsetting fund it's undeniably the hard bit. The 2013 Regulations mean that housebuilders will now learn to build consistently well-performing homes which stretch the fabric standard, so that will probably be enough – for now.

Whether the rest of the journey to zero carbon is achieved by on-site technologies, allowable solutions or both, that's tomorrow's debate. ■

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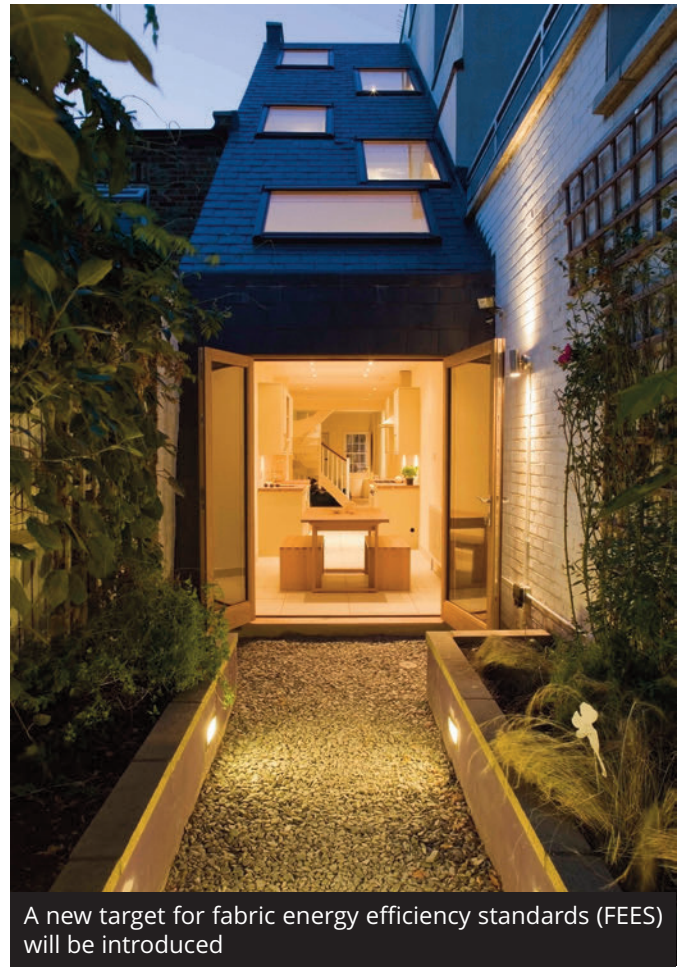
Tony Millichap, Technical Manager at Kingspan Insulation Ltd says it's time to take stock of the new Part L documents...

With the next changes to the Approved Documents to Part L due to be implemented from 6th April 2014 it is time to take stock of the new requirements. At an aggregate uplift of 9% over the 2010 standards for non-domestic and 6% for domestic buildings, the targets are significantly lower than those proposed in the consultation, and leave a major gap to be bridged if the 2016 (domestic) and 2019 (non-domestic) net zero carbon targets are to be met.

There is to be no mandatory Quality Assurance process. However, sections in the document on 'Providing Information' and 'Reporting Evidence of Compliance' make it clearer that an EPC by itself does not demonstrate compliance, and must be accompanied by documentation provided by the builder to Building Control to show that the dwelling meets the required targets (along with specifically how this was achieved). Design stage submissions are needed at least 1 day before work starts and evidence of 'As-built' compliance is required within 5 days of the work ending.

Non-domestic

The 9% aggregate improvement asked of non-domestic buildings means that in many cases the target can be met through improvements to the building envelope and building services alone. A wider set of notional buildings has now been defined, and air permeability has been sub-divided by size to reflect the practicality of achieving greater levels of air tightness in some types and sizes of buildings.



A new target for fabric energy efficiency standards (FEES) will be introduced

Image courtesy of Richard Chivers

Housing

New home builders are allowed a degree of flexibility in how the requirements are to be met in full, but a new requirement for fabric energy efficiency standard (FEES) has been introduced, ensuring that good building envelope performance is the basis of compliance. This means that as well as a Target CO₂ emission rate (TER) there is also a Target Fabric Energy Efficiency rate (TFEE). Both are to be calculated using SAP 2012. TFEE is a lesser standard than TER and therefore further improvements over TFEE will be required for compliance with ADL.



Kingspan Thermataper TT47 LPC/FM helped the Pegasus Theatre in Oxford to gain an A rated Energy Performance Certificate (EPC), in a project combining refurbished and newly-built elements.



Tony Millichap
Technical Manager
 Kingspan Insulation Limited

Refurbishment

The one area for improvement in existing buildings is the replacement of non-domestic building services, which asks for better minimum energy efficiency standards for specific aspects such as air conditioning and lighting.

There will be no change in the required standards for existing homes at this stage, including the current standards for extensions and replacement windows but there is still the potential for future upgrades. Transitional arrangements also remain untouched, so very large quantities of building applications are expected before the April 2014 deadline. ■

There are several factors that affect FEES, and typically all new dwellings will need to be constructed with filled party walls, thermal bridging levels equivalent to Accredited Construction Details (ACDs) or better, airtightness levels of around 5m³/m²/hr @ 50 Pa, and the following U-values (W/m².K):

- Wall 0.18
- Floor 0.15
- Roof 0.13
- Windows & doors 1.40

It should be noted that better fabric performance than that required for FEES will still be one of the most reliable and cost effective ways of achieving compliance. New construction details for thermal bridging should be made available early 2014.

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Surveying the paper trail

Keeping a paper trail of all Party Wall etc. Act 1996 documents is a key element to avoid legal failings, as demonstrated by Alex Frame, Chairman of the FPWS...

I have always taught at seminars and maintained that in all business matters, a properly filed and managed paper trail is extremely important. This might seem blatantly obvious, but very often, a paper trail will not be maintained, and can result in a catalogue of legal failings.

I have learnt the paper trail lesson from bitter experience relating to a building contract, but nothing to do with party wall matters. It may be a jaundiced view, but you have to assume that anything you do might end up in court, and if you bear that in mind, it is most unlikely to happen.

“Unless all of the initial paperwork is in place, then all that follows could be deemed to be invalid, including any Awards that might have been served.”

The administration and implementation of the Party Wall etc. Act 1996 is just as important, if not more

so, to ensure that all the paperwork is in place, simply because the party wall surveyor is preparing a legal document.

I have seen many party wall files where surveyors have not been correctly appointed in writing, or even appointed at all. I have seen many incorrect notices, and not least of all, incorrect names and addresses of the owners given in the award.

Unless all of the initial paperwork is in place, then all that follows could be deemed to be invalid, including any awards that might have been served. This clearly could have a catastrophic effect upon the proposed works and not least a possible legal claim against the surveyor.

The important point perhaps is not so much having a piece of paper, but is the paper worth anything? Or, as one of my colleagues, Jim Jackson very often reiterates in our seminars; “a verbal agreement is not worth the paper it is printed on”.

Continued on page 50...



party wall matters
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The Party Wall etc Act 1996 applies for the following works:

- work on an existing wall shared with another property
- building on the boundary with a neighbouring property
- excavating near a neighbouring building

If you or your neighbour are planning to carry out some work to your property and you would like some independent advice on party wall matters please contact us on **020 8877 0365**.

Continued from page 48...

What precisely are the documents that need to be correctly in place in order to create a good paper trail?

In order to help, I have created a 12 point-plan for party wall surveyors to follow:

1. Check the ownership of all parties to the matters, regardless as to whether which party appoints you. This is easily done (in the vast majority of cases) at Land Registry, for which the cost is extremely small. Open an account with Land Registry as constant use will be made in this respect;
2. Check that the notices served are valid – do they have the correct names and addresses of the building owners particularly? The adjoining owner may be referred to just as the owner at this stage;
3. Check that the notices refer correctly to the works with regard to the drawings received;
4. Check that you have your letter of appointment and have exchanged copies with the other surveyor;
5. Check that you have selected a third surveyor in writing;
6. Check that you have informed the appointing owners with the name and details of the third surveyor, and that they have the right to contact him/her;
7. Check the content of the award again before serving, have you given the full names, correct addresses, genders, pluralities?;
8. Check that you have kept a signed copy of the award;
9. Check that when you serve the award that you have informed the owners of their rights to appeal within 14 days;
10. Check that the other surveyor has served the award – exchange letters that state this;
11. Check that you have proof of postage. (applicable to all documents such as notices, 10 day letters and the award);

12. Check that your costs invoice has been sent to the owner (usually building owner), either from you or via the other surveyor.

If you undertake the above you should have a file containing a good paper trail confirming the required processes of a competent Party Wall Surveyor.

Suffice to say the Act generally works well, as do the surveyors who administer and implement it. The Faculty of Party Wall Surveyors (FPWS) even provide free advice lines that are open to surveyors and the general public alike, to assist in all associated matters.

I leave you with the famous picture of the British Prime Minister Neville Chamberlain who cheerfully waived his piece of paper that he had received from Herr Hitler when he returned to Heston airport in September 1938. What was that worth? ■



.....
Alex Frame
Chairman

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SETTING THE PAICE

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Towing the Party line

Sara Burr of Pyramus & Thisbe Club highlights some of the common temptations and misconceptions in exercising the rights of The Party Wall etc Act 1996...

There are many unscrupulous building owners who get away with not serving party wall notices. Well why not? It can be an expensive process and it can delay works starting. But what if the adjoining owner takes offence and obtains an injunction? What happens then? You panic. Can you serve notices retrospectively? Do you really need a party wall award? What happens when you come to sell the property?

In this series of articles for Adjacent Planning and Building Control Today, I will be looking at the various situations.

So, for a simple side extension or loft extension, why bother serving notices at all? It can't be that difficult to cut a hole into the party wall for a padstone or

excavate a trench and fill it with concrete. Who is going to notice if you undertake the work under the cover of darkness? Well, people do notice and then you are in trouble. Why not change the design so that the work isn't notifiable under the Act? Sometimes that is possible, but if you are going to do that then at least write to the neighbours and advise them that the work you are doing isn't notifiable and give the reasons. If an adjoining owner understands that the excavation won't go lower than the bottom of their foundations or that you have put a post in to support a ridge beam, they may still take advice but it won't stop your work.

A vast number of people don't know what is covered by the Act. Do you need to serve notice for putting up shelves, chasing into the wall for electric cables,

Continued on page 54...



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Continued from page 52...

drilling into the party wall for structural fixings or the removal of a chimneybreast, for example? If in doubt there are guidance notes on the Pyramus & Thisbe Club website, if you are unsure, we always advise that you ask.

Another important consideration is the quality of information you provide, short cutting this will not save you time. You can't serve notice for works for excavation next to your neighbour's house without having a plan and section drawing showing the depth of excavation, as it won't be valid.

What is the difference between a party fence wall and a fence? There is a general misunderstanding that they are the same and that title deeds show ownership. Party fence walls and fences are not the same. Putting a simple fence up does not require party wall notices to be served. Constructing a Party Fence Wall, i.e. a solid wall rather than a fence, however, does require notice and you do not have the right to construct a wall astride the boundary where one did not exist before.

Claiming ignorance is no defence, as many local authorities state on the planning decision notices that there is a requirement to comply with the legislation. Not serving notices can not only be expensive, but can delay works or even prevent them from continuing.

It is advisable to always make sure you leave enough time to serve the notices and deal with the procedures before starting the work. There are statutory time scales for the different notices. Work to the party wall has a notice period of 2 months and excavation notices is 1 month. It isn't as simple as that though. More complicated schemes can take longer to agree – if you are undertaking basement works to a domestic property then you could be looking at 6 months or more. You don't have to wait until you have planning permission to be able to serve notice – you can serve notices as soon as you have exchanged contracts if you are purchasing the property. You should also be aware that notices are only valid for a year, if matters aren't concluded during that period, new notices must be served.



**Sara Burr BSc(hons) MRICS
Member**
National and London
Committees of the
Pyramus & Thisbe Club

Can you serve notices yourself? The simple answer is yes. The Deputy Prime Minister's office has templates, but there can be pitfalls that can invalidate the process. It is also worth noting that just because someone doesn't respond to a notice, it doesn't mean that the works can just go ahead, as lack of response is a deemed 'dispute'. There are timescales and subsequent letters that need to be sent.

However if an adjoining owner 'dissents' to a notice, that means they want their interests to be looked after by means of a surveyors award. Whilst some take that as meaning they don't want you to go ahead with the works, it is quite often used as a tool to frustrate the process. Surveyors deal with resolving the issues to protect the adjoining owners' interests. Once an adjoining owner dissents to a notice, you have to appoint a surveyor to act on your behalf – you can't act for yourself.

I will be revisiting some of these topics in future editions. ■

The Pyramus & Thisbe Club has been established for 40 years this year, and has now acquired the status of Learned Society. There are members across the country – a surveyor local to you can be found on our website.

.....
**Sara Burr BSc(hons) MRICS
Member**

National and London Committees of the
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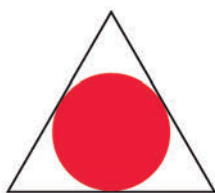
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Party duties

Neil J Dransfield former President of CIAT examines the circumstances of serving a Party Wall notice...

The Party Wall etc Act 1996 (the Act) is applicable to England and Wales and must be followed in certain narrowly defined circumstances. They are basically where planned building work is close to a structure that belongs to a neighbour. Its requirements are quite separate to those of Planning and Building Regulations.

The purpose of the Act is to confer rights on the building owner (the person intending to carry out building work) in exchange for obligations and duties. The Act's overall objective is to bring certainty to both the building owner and the adjoining owner.

Designers, especially Chartered Architects, Chartered Architectural Technologists and Chartered Surveyors, will have a duty to inform their clients about the requirement of the Act.

Where the Act applies

The following are examples of where a building owner is required to serve a formal notice on adjoining owners (notices must be in writing, must show relevant details and are only valid for one year):

- When building work is planned on a boundary with a neighbouring property – Examples are building a garden wall, or the outside wall of a new building or extension, at the boundary. Section 1 of the Act applies and a "Line of Junction Notice" must be served at least one month in advance of the work;
- When work is planned directly to an existing wall or other structure which is shared with another property – This includes party walls, and can include the outside wall of a neighbour's building,

but also covers separating floors between flats and garden walls built astride the boundary. Examples are underpinning or thickening, repair, inserting a damp proof course or flashing, cutting off projections, strengthening and opening up and exposing the structure. Section 2 of the Act applies and a "Party Structure Notice" must be served under Section 3 of the Act at least two months in advance. These notices frequently occur in roof space conversions, building in (or removing) beams, removing chimney breasts, altering chimneys, roofs or floors, demolitions, and sometimes in extensions;

- When an excavation is planned within 3 metres of a neighbour's building or other structure, where it will be to a lower level than the underside of the neighbour's foundation – Examples are foundations to a building or extension, but also includes excavations for drain or services trenches within 3 metres. Section 6(1) of the Act applies: An "Adjacent Excavation and Construction Notice" must be served at least 1 month in advance. These types of notice frequently occur in new building work and in extensions, but can apply to structural alterations;
- When an excavation is planned within 6 metres of a neighbour's building or other structure, where that excavation would cut a line drawn downwards at 45° from the underside of the neighbour's foundation – Examples are especially deep foundations or drains within 6 metres. Section 6(2) of the Act applies: An "Adjacent Excavation and Construction Notice" must be served, again at least 1 month in advance. Again, these types of notice frequently occur in new building work, extensions and structural alterations.



with matters outside the Act, and therefore cannot deal with other work on site.

Once served, both the building owner and the adjoining owner each have a right to appeal the Award in the county court, but only for a period of 14 days. After that the Award is totally binding and shall not be questioned in any court. This is a very powerful provision – it brings certainty to the building work.

Other Items

The Act cannot be used to resolve boundary disputes, and neighbours cannot use it to prevent approved work from being carried out.

The Act deals with many matters not covered above and only the Act should be relied on for the scope and meaning of any item. There are many guides available relating to the Act, but even they should not be relied on in preference to the Act.

A surveyor under the Act would be a professionally competent person and can be the designer, so long as he or she is not a party to the dispute. The surveyor must however be a person, not a firm, with obvious PII implications. ■

References:

The Party Wall etc Act 1996 (published by HMSO, ISBN 0-10-544096-5)

<http://www.legislation.gov.uk/ukpga/1996/40/contents>

The Party Wall etc Act 1996 Explanatory Booklet (published by the Department for Communities and Local Government)

<https://www.gov.uk/party-wall-etc-act-1996-guidance>

.....
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Disputes under the Act

Agreeing to a notice in writing allows the work to proceed. However, if a neighbour does not agree (or even does not reply within 14 days) a dispute arises. Section 10 of the Act (Resolution of disputes) applies. The building owner and adjoining owner must then either:

- a) Agree to appoint one surveyor (an “agreed surveyor”), or;
- b) Each appoints their own surveyor. (Those 2 surveyors then select a third surveyor, but only in case of a dispute between themselves.)

The dispute procedure under Section 10 may well be longer than the period required for the notice, and in complex cases can be several months.

An Award

The dispute is resolved by the surveyors on behalf of the owners, and the result is the service of an “Award” for each dispute. An Award is a legal document describing when, where and how the work subject to the Act is to be carried out. An Award cannot deal



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Promoting Quality in Fire Safety

Green shoots of the fire industry

Graham Ellicott, CEO at the FIA, explains the data behind the increase in business the fire industry sector is starting to experience...

The term “green shoots of recovery” (GSOR) was apparently first coined in the economic context by the then Chancellor of the Exchequer Norman Lamont in 1991. Since then, the term has come and gone in popularity and of course many people have talked over the last year of George Osborne’s GSOR, although many believe that could have been a misprint for GSOH.

So what is the economy doing in general, and the fire sector in particular?

At a macro-economic level, the Ernst and Young ITEM Club reports that UK GDP is set to grow by 1.4% this year, accelerating to 2.4% in 2014 and 2.6% in 2015. This growth is currently being driven by both the consumer, and housing markets. However, earnings and employment are having difficulty in keeping up with inflation, and the consumer will not be able to continuously drive the economy forward for very long without further help. Ernst and Young believe that the upturn risks running out of steam unless there is an increased contribution from exports and business investment, but are optimistic that this will occur in the foreseeable future.

When it comes to the construction sector, the Construction Products Association is anticipating growth of 19% for the £111bn construction industry by 2017. This is an upward revision by £20bn from the summer 2013 forecast, and as it recovers from its worst recession in over 35 years, the construction sector is set to enjoy growth over the next 4 years. This growth will mainly come from private housing, which is experiencing a rapid rise, and from infrastructure, which is seeing more gradual growth.

Indeed the private housing sector is now growing at such a rate that in order to stop it ‘overheating’, the Bank of England and the Treasury have agreed to scale back a scheme designed to boost cheaper mortgage loans, focusing instead on business lending.

After a severe 2012 the infrastructure sector is now recovering in general, and in particular, work on Europe’s largest construction project Crossrail, is expected to peak over the next 18 months. As a result, growth of 7.4% is forecast in 2014.

Moving downstream to fire, in comparison with the previous period, the Fire Industry Association’s (FIA) Market Conditions Review reports that over the last 6 months, the sector has experienced a gradual recovery with the private sector providing most of the low levels of growth. Competition in the sector remains high as the majority of companies report a fall or no change in tender values, while at the same time their suppliers are putting up prices.

In particular:

- Nearly 3 out of 5 of the review respondents reported an increased number of orders, the majority of which came from the private sector;
- Enquiries for new business have increased, with again nearly 3 out of 5 replies confirming this with the private sector dominating;
- The market remains very competitive with just under half of the companies that supplied information reporting that tender prices have decreased, while just over 1 in 6 indicated an increase;



- Three fifths of companies surveyed indicated that suppliers' prices continue to increase, although another fifth confirmed that delivery times have not changed despite the increase;
- Of the companies that replied to the review, 9 out of 10 reported that the level of training supplied to their workforce had either remained the same or increased. Looking forward, just over half of those that replied indicate that they will be increasing levels of personnel training over the next 6 months;
- The recruitment of skilled labour and apprentices remains low, with only approximately 2 fifths of companies reporting an increase in the former and 1 fifth in the latter;
- Nearly a third of companies reported an increase in tenders that require Third Party Certification;
- Nearly 3 quarters of respondents are receiving payments in 60 days or less;
- In the last 6 months the number of FIA member companies reporting a substantial increase in enquiries was nearly 3 times that of non-members.

There were some 'telling' comments from the

companies that contributed to the review notably;

"Whilst the number of enquiries seems higher and the industry is generally busier, there are still a number of fire companies that are willing to take on work at ridiculously low margins. Also, it is apparent that whilst equipment manufacturers are increasing prices, it is becoming more and more difficult to pass these costs on to the end user. I do feel however, that the quality orientated companies will increase market share and become more successful."

And;

"The main concern is trying to ensure that the construction companies that

place orders with us are viable enough to ensure that we are paid in full for the work carried out. Credit checking before accepting orders has now become a normal process for us."

In summary, it looks like at long last that in the main, the economy's "green shoots of recovery" are here. Now it's up to all concerned to see that they don't wither and die! ■

For a copy of the FIA's Market Conditions Review click the link below:

<http://www.fia.uk.com/en/market-conditions-report/>

.....
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Regulate and evacuate

Dr Robert Docherty, Chairman of the Institute of Fire Safety Managers explains various examples of evacuation strategies in compliance with Building Regulations...

The purpose of part B1 of the Building Regulations is to ensure that buildings are safe places with regard to fire and should a fire occur, there will be some provision to give people adequate warning and ensure there is sufficient time for people in the building to escape safely and without injury. These Regulations apply to all new builds, material alterations and to changes of the use of a building.

Part B is set out in terms of functional requirements and then prescribes how these can be achieved. However, these are always the minimum standards and it does take into account alternative approaches e.g. fire engineering, BS9999 etc.

Although Building Regulations set out standards for fire safety in buildings, it is always my adage that buildings are safe from fire until you put people in

them. We know what the functional requirements are and how to meet them, but once people are in the building, and there is a fire, we need to get them out quickly and safely.

Evacuation has to be dependent on the design and use of the building, the means of escape provided, the fire warning system installed and the fire safety management regime for the building. Once a building has a completion certificate and is occupied, all these functions come under the Regulatory Reform (Fire Safety) Order 2005 and the local fire authority is the enforcing body for this legislation.

One of the most important things to understand with evacuation is that there are a number of different strategies that can be put to use in buildings. Knowledge of these is key to understanding why the

means of escape and configuration of the fire warning system is important in the building stage. The evacuation strategy that is proposed for any building will only work if these elements 'fit' that strategy.

An evacuation strategy is just a way of getting people quickly to a safe place in a building and/or out of a building in an emergency. There are different strategies for different uses of a building.

There are 4 main evacuation strategies that we come across. These are:

- Simultaneous Evacuation;
- Phased Evacuation;
- Progressive Horizontal Evacuation/Zoned;
- Stay Put ('delayed', 'defend in place').

Simultaneous evacuation is where everyone leaves the building on the operation of the fire warning system. There can be 2 categories:

Single stage where the fire alarm sounds immediately throughout the building and everyone evacuates to a safe place outside and away from the building, hopefully at a pre-arranged Assembly Point;

Two stage (grace/investigation period) where the fire alarm only sounds at the main panel and/or staff call system so that it can be investigated by staff to see if there is a fire or not. The time period may vary but once it has gone over that time, with no action by staff, then the alarm will go to full alert. Included in this will also be what is commonly known as 'double knock' where if two or more detectors operate, then the system will go to full alert.

Phased evacuation is used in high rise buildings where it would be impossible or impractical to evacuate

the whole building simultaneously and the building is provided with specific design features e.g:

- Stairway approach lobbied or protected or pressurised system in operation;
- Each floor is a compartment floor;
- Over 30m height must be sprinklered;
- Fire Warning System to BS5839 Part 1 Category at least L3;
- Lifts approached via protected lobby;
- Provision of an emergency voice communications system.

The idea behind this strategy is that only the fire floor will go to full alert as well as adjacent floors, normally 2 above and 1 below. This varies and can be configured in a number of ways, but the idea is that those people on the floors where the fire alarm is at full alert, evacuate their part of the building and go to the outside of the building and the Assembly Point. All other floors will go to fire alarm pre-alert which gives an indication that there is a fire in the building but not on those floors, and there is no need to evacuate at that time. However, any disabled people on those floors should start their evacuation routine according to their own Personal Emergency Evacuation Plans (PEEPs).

Progressive horizontal evacuation (PHE or sometime also called zoned) is designed for care homes, hospitals and the like where the nature of the use of the building makes it impossible to move users straight outside simultaneously. This strategy is based on compartmentation of the building and travel distances. The idea is that you move the people at risk from the compartment on fire through to the next horizontal compartment and then move

them further so that there is at least a two-compartment separation. This can continue throughout the whole length of the building, and if it is an upper floor, then it changes to vertical evacuation, through a protected staircase to the floor below, and then start the horizontal movement again on that floor.

Stay put (defend in place or delayed) is used for flats, apartments, sheltered housing and extra care. This strategy has attracted much debate over the last few years, even down to the semantics of the name to 'soften' the meaning, but it still actually means the same. This strategy is based on the flats/apartments etc being a 1 hour fire resistant shell, and the communal areas that provide the means of escape from the building being protected routes.

A stay put strategy is when a fire occurs within a flat and the occupants alert others within the flat to make their way out of the building, and call the fire and rescue service. If a fire starts in the communal areas, anyone in these areas should make their way out of the building and call the fire and rescue service. This does not mean that those not directly involved and who wish to leave the building should be prevented from doing so. It also doesn't stop those evacuating a flat that is on fire, from alerting their neighbours so that they can also escape if they feel threatened.

With a stay put strategy, the most important factor is that the flats/apartments themselves are fitted with some form of fire detection whilst it is not essential or desirable to have a fire warning system in the communal areas unless there is a special case, or the property is for sheltered/extra care housing. ■

.....
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Chairman

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Benefits of sprinklers rising high

Steve Seaber, Senior Project Manager at BAFSA examines the benefits of suppression systems for ensuring life safety in high-rise social housing blocks...

In recent years there have been a number of fires in older high-rise blocks that have resulted in occupant and firefighter fatalities. Whilst only 10% of the population in England live in this type of property, it is reported that 25% of recorded dwelling fires and 23% of fire deaths and injuries occur in this category of premises.

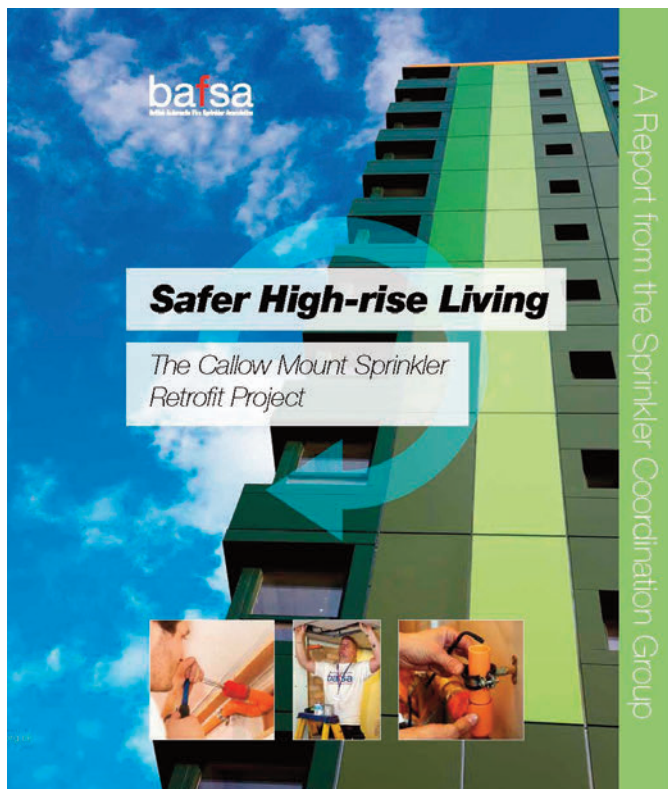
The fire in Lakanal House in 2009 brought into sharp focus the potential risks of rapid and unexpected fire spread in high-rise social housing blocks. These included the safety of residents and firefighters and the difficulties associated with evacuation and fire-fighting when the fire is able to spread beyond the flat where the fire started.

The death of 6 residents with a further 20 being injured, led social housing providers to review the

safety of their own blocks and raised a number of questions as to how such incidents could be prevented in the future. One of these related to the potential benefits of automatic fire sprinklers in protecting residents in such properties. In response, a Department for Communities and Local Government (DCLG) response suggested that retrofitting fire sprinklers to such buildings would not be cost-effective or practicable.

The Callow Mount Sprinkler Retrofit Project

Members of the UK Sprinkler Co-ordination Group (SCG) had long held the view that retrofitting sprinklers in existing high-rise buildings could be cost effective and proposed a pilot project in a suitable housing block in Sheffield, South Yorkshire. The management of the project was delegated to BAFSA with the aim to determine the real costs, both financial and societal



of retrofitting an automatic fire sprinkler system into an unprotected, older, high rise social housing block of earlier design. It also sought to carry out the work without decanting the residents, to identify the problems associated with the installation and to develop the problems of doing so, and developing guidance which could be used elsewhere.

The installation in the 13 storey, 48 unit block was completed in exactly 4 weeks at a total cost of £55,134 which equates to £1,150 per flat. In addition to providing evidence of cost, the project proved that it is possible to retrofit sprinklers into occupied high-rise social housing without evacuating residents. The feedback from tenants and the owners of the building was that the work was carried out with minimal disruption to a very high standard and that they feel that the occupants and the building are better protected.

In addition to enhancing the safety of occupants and firefighters, the report concluded that the retrofitting of sprinklers can:

- Reduce the personal trauma and social impact of fire on individuals and neighbourhoods;
- Reduce the costs of a fire on hard pressed local authorities and other property owners;

- Reduce the financial consequences and other burden of fires;
- Reduce the demands on fire and rescue, police and ambulance/health services in responding to events and aftermaths of major fires in high-rise accommodation.

Coroners Reports

In 2013 the Coroners responsible for the inquest into both Lakanal and the Shirley Towers, Southampton (where there were two firefighter fatalities) incidents forwarded their considerations to the appropriate authorities.

In their Rule 43 letters to the government, the Southampton Coroner Social recommended that housing providers should be encouraged to consider retro-fitting of sprinklers in all existing high rise buildings in excess of 30 metres in height, particularly those identified by Fire and Rescue Services as having complex designs that make fire-fighting more hazardous and/or difficult.

In reply, the government chief fire advisor indicated; that he would ensure that all English fire and rescue authorities are aware of these recommendations. Similarly, officials in the housing directorate of this department will draw the recommendations to the attention of social housing providers in England. He added that it was not policy to seek responses from authorities.

The Coroner for Lakanal House in her letter to CLG identified that retrofitting sprinklers may be at lower cost than previously thought, and with modest disruption to residents, suggested that housing providers of high rise housing in multiple occupancy were encouraged to consider retrofitting sprinklers. In his letter to Southwark Borough Council he recommended that “your authority consider the question of retrofitting sprinkler systems in high rise buildings”.

The response from DCLG was that the suggested advice to local authority social housing providers had already been issued following the recommendations of the Coroner for the Shirley Towers incident.

Southwark BC have since responded that preliminary work has raised issues about the potential cost and other difficulties in carrying out the work. They are proposing to conduct a full feasibility study which will look at the requirements for each of the blocks concerned. It is proposed that they will conduct thorough research and consider best practice and guidance from government and fire authorities and be completed in six months. Southwark have now commenced a survey of all 150 buildings and have included a sprinkler contractor as part of the team responsible for the work.

Cost Benefit Analysis

The findings of the Callow Mount project have provided evidence of the costs and practicality of retrofitting sprinklers into existing high-rise social housing costs. The costs of installation have been confirmed in subsequent installations into 2 high-rise blocks in South Wales and 1 in Gateshead, and also in a number of surveys by sprinkler contractors for other authorities.

In addition to the initial cost comparison between alternative approaches to fire protection, it is important to compare the whole life costs. In the case of Callow Mount, the system has a minimum life expectancy of 30 years, with the annual maintenance cost at 2011 prices being £250 for the whole system.

There are a number of factors which can have an impact on the cost of installing sprinklers as highlighted within the Callow Mount report, and by Southwark Council. However, it is important to recognise that most of these would be issues that would have an impact on the cost of any upgrade or refurbishment of fire protection in a building including:

- The original design construction method and materials used, and those used in any upgrading or refurbishment programme;
- The design of the staircase: Lakanal House utilised a 'scissor' design with 2 storey flats or maisonettes laid out so that a common corridor leading to a shared stairwell serves the lower storey. An internal staircase serves the upper storey. Where the staircase passes over the corridor, it cuts through the enclosure to the common corridor. Due to

breaches in the fire resisting construction, the fire in Lakanal was able to spread through the ceiling void via the staircase;

- Depending on the construction method used it may be necessary to remove ceiling materials which is more difficult if the flats are to remain occupied. This can be overcome by surface mounting the pipework. In Callow Mount the surface mounted pipes were then boxed so as to be unobtrusive;
- Where asbestos is present, appropriate measures may be required to ensure that it is either not disturbed, or suitable arrangements made utilising licensed contractors according to the Control of Asbestos Regulations 2006;
- Whilst most residents of UK high-rise blocks are tenants paying rent to a local authority or housing association, some blocks could contain leaseholders who own their own home. In such circumstances a leaseholder would have to give specific agreement for the work to be carried out, and to contribute a share of the installation costs.

There is a specific potential additional cost consideration relating to the adequacy of water supply required by the sprinkler system. Where the town mains supply is not sufficient, then a tank and pump may be required. This was the case for the installation in Pontypool identified in the Callow Mount report. The cost of this additional equipment was £10,000 which equated to £150 per flat.

Conclusions

Prior to the Callow Mount Retrofit project there was no evidence of the practicality or true costs of retrofitting sprinklers to an existing high-rise social housing block. The outcome of the project has been confirmed by the costs and experience in a number of other installations.

The outcome of the project has been utilised by a number of housing providers in considering the benefits of retrofitting sprinklers in both high-rise and low-rise social housing. It has also been used as an exemplar for fire safety strategies and

campaigns by social housing providers and fire and rescue services.

Coroners for both the Shirley Towers and Lakanal House inquests have noted the evidence and recommended that authorities be encouraged to consider the retrofitting of sprinklers to protect occupants and firefighters.

Housing providers will consider the adequacy of fire protection and fire safety measures in the development of fire safety policies, the outcome of fire risk assessments and major refurbishment programmes. A number have already determined that sprinklers are an appropriate cost benefit solution to the protection of their residents and property. Local authorities and housing associations around the UK have studied the Callow Mount project and taken a close interest in the findings from the Lakanal House tragedy. As a result, more than 80 high-rise blocks in London alone have either had automatic fire sprinklers retrofitted or are being surveyed prior to the work being undertaken.

It is important that those responsible for social housing should consider the cost benefit of both the initial investment and whole life costs of sprinkler systems and other measures when determining their strategy to protect residents.

The UK Fire & Rescue Services are also working towards greater sprinkler protection in their communities through training, incentives and working partnerships with councils and housing associations.

2 examples of action taken by UK fire & rescue services (also BAFSA members)

The UK Fire & Rescue Services are also working towards greater sprinkler protection in their communities through training, incentives and working partnerships with councils and housing associations.

In March 2012, Derbyshire Fire and Rescue Authority (DFRA) supported Chief Fire Officer/Chief Executive Sean Frayne's proposal to provide safer houses for residents of communities within Derbyshire. The proposal was to provide £200,000 funding towards the retrofit of sprinklers in domestic dwellings in the

County of Derbyshire. This is based on the criteria that £20,000 would be offered to each council, borough/district (or housing association/arm's length management organisation, (where the council did not own their own property) on the basis that this would be match funded by them up to the same amount.

Derbyshire Fire & Rescue Service is delighted to announce that 9 of the 10 local authorities in Derbyshire are now in support of the campaign and have committed to match fund with the service, giving a total spend of £360,000.00 towards the project.

Local authorities who have committed include:

- Derbyshire County Council
- Derby City (Derby Homes)
- Chesterfield Borough Council
- NE Derbyshire (Rykneld Homes)
- Bolsover District Council
- High Peak (High Peak Community Housing)
- Amber Valley (Futures Homescape)
- Erewash (Three Valleys Housing)
- South Derbyshire District Council

For each local authority, the funding can be used on retrofitting domestic sprinklers, installing them in new developments identified for vulnerable persons at risk to fire, or for the provision of portable suppression systems until a more permanent provision (if necessary) can be provided.

Suffolk Fire & Rescue Service (SFRS) for many years has presented the case that automatic fire sprinklers protect life, reduce damage to the environment, reduce risk to firefighters, enhance business continuity, mitigate community and societal risk from fire, and protect vulnerable people.

Suffolk County Councillor Colin Spence, who is the Cabinet Member for the Public Protection Directorate that



includes Fire and Rescue has made the promotion of AFS a political priority. He said: "I believe that the case for fire sprinklers has been well and truly made. They protect lives and almost eliminate the social, economic and environmental impact of fire. And it is on these grounds that we have been working hard to convince members of Planning Committees in Suffolk to advocate for their installation in all new buildings".

Aside from any action under Local Acts, this is the first reference we are aware of in a local authority document encouraging the installation of sprinklers. It is under the "Aspiration: Residents and visitors both are, and feel, safe" and includes the action to achieve the aspiration: "promote the installation of sprinkler systems in all new buildings including homes".

BAFSA enthusiastically welcomes this latest example of a forward thinking local authority's commitment to providing the highest levels of safety for its inhabitants. St Edmundsbury is now one of a number of planning authorities that understand the benefits of automatic fire suppression, not only to protect life, but also to minimise the impact of fire in its buildings, economic activity and the environment.

Unique event, London 2014: Fire Sprinkler International 2014

Fire Sprinkler International is the UK sprinkler industry's biannual conference and exhibition. In 2014 it will take on a truly international dimension

when it will be jointly hosted in London by the European Fire Sprinkler Network and the British Automatic Fire Sprinkler Association. Sprinklers are still not used in Europe as widely as they should be and this event is intended to demonstrate best practice and more effective use of sprinkler technology.

This year the event will be held on 20th and 21st May at The Grange Tower Bridge Hotel, London.

Fire Sprinkler International 2014 will provide a unique forum for those who wish to change the attitudes of legislators, regulators and building owners. With an array of international speakers, delegates can be assured that they leave Fire Sprinkler International 2014 informed, inspired and certainly with a broader knowledge of the capacity, capabilities and consistent performance of sprinklers. ■

Visit www.firesprinklerinternational.com or more information contact wendy.otway@btinternet.com

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CDM: It's all about capability

James Ritchie, Head of Corporate Affairs at APS details the challenges the CDM sector is currently facing in terms of capability...

Those who bleat that CDM Co-ordinators are a waste of space, cost us dear and contribute nothing to our industry. Some within the industry are wasting their own, and everyone else's time on paper exercises that have contributed little to improving health and safety in construction.

But those 'bleaters' cannot explain the considerable improvements to our death and injury performance that have been demonstrated over the years since CDM regulations were introduced. Nor can they explain the very considerable gains made as a result of application of construction health and safety risk management during the Olympics construction programme – just one example of projects where CDM has aided better management, better delivery, and lower accidents and injury statistics. The CDM Regulations have, without doubt, proved themselves and proved the value of effective CDM coordination, design and construction risk management.

The major CDM issue is eliminating the "less than competent" practitioners, not removing the work

that needs to be done to co-ordinate and reduce risks. It is exactly the same problem for architects, engineers, project managers and contractors, whereby the vast majority do an excellent job whilst a few let the side down.

The other issue is reducing the bureaucracy that has surrounded aspects of CDM construction risk management – a bureaucracy fed by the legitimate fears that without demonstrable evidence, if things go wrong those charged with offences would be unable to defend themselves.

Anyone who understands the nature and complexity of the construction industry will understand that the specialist knowledge, skills and experience required to effectively provide design and planning, and/or construction phase health and safety risk management and advice, are not always the favoured lot of all designers, contractors or even health and safety professionals. Even design risk management during the design stage, and aspects of construction risk management during construction will often require



a wider range of knowledge and experience than is part of the normal knowledge and skills sets for many designers and constructors. It may well be time to make sure that designers' 'best friends' are available to help them deal with design risk management more effectively than has been the case to date. The need to manage these construction risks requires specialists in these areas; people who are committed in their role so that design teams and contracting organisations can obtain those specialist skills either directly from employees or from consultants.

This is an industry where one size has never fitted all; whichever route is taken, the industry needs to ensure that capable people are available to deliver the required services, meaning those appointing them or working with them, should be confident they are capable of discharging their duties.

This of course must be as a result of a recognised industry with HSE support. It is important that we have a listing of persons or registers of suitably qualified and experienced individuals held by other

organisations (like those already established by the Association for Project Safety (APS)), together with perhaps a job specific interview and evidence of relevant project experience.

The challenge then is to help the industry achieve this. Designers and contractors will need to be able to find, and rely upon competent people to discharge the coordination functions if they do not have sufficient skill, knowledge, and experience themselves to do the job right and avoid potential Fee For Intervention costs if it goes wrong. ■

.....
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The Online Construction Health and Safety Manual

Providing essential advice and guidance for working safely in a loft

The Online Construction Health and Safety Manual, written by industry experts for the industry is a comprehensive health and safety reference manual. It's always up-to-date with the latest legislative changes and guidance; and with clear and user-friendly menus; a simplified menu and search facility for mobile and tablet use; plus the ability to download and print sections as pdf files, it's designed to give you a one stop shop for health and safety advice and guidance.

Take advantage of the 'One Month's Free Trial' and check out the latest advice including the following new guidance for working safely in lofts.

Guidance on Working in Lofts

Working in domestic lofts may arise in new house building and in a range of maintenance activities including loft conversion, loft insulation and installation of central heating or solar PV panels, etc. Unless the loft is permanently boarded so as to create a safe working platform there is a risk of falling between the loft joists and there have been some serious accidents.

Example:

An apprentice electrician who was 18-years-old at the time of the incident was undertaking electrical installation work when he stumbled from a narrow timber walkway and fell onto an exposed plasterboard ceiling which gave way under his weight. The individual managed to grab hold of a timber

joist, but after a few seconds this also gave way and he fell five-and-a-half metres onto the floor below.

As a result the apprentice sustained three fractures to his vertebrae as well as cuts and bruising. These injuries meant he was unable to work for two months.



The hole caused by the individual's fall

Traditionally, much loft work has been undertaken by walking on the loft joists but this is not a safe method as plasterboard ceiling's will fracture under a person's weight and one slip from the joist can lead to a fall.

Work should be done in accordance with the following hierarchy:

- Work from a fixed platform where possible. If the loft has already been permanently boarded out so as to create a safe platform this eliminates the risk. If it has not, consider whether permanent boarding could be fitted prior to the work proceeding. Sometimes, this can be agreed with the home owner as part of the works.

- Where it is not possible to work from a fixed platform (and the loft is of suitable height), work from portable access platforms (crawling boards). There are a variety of proprietary platforms designed for work in lofts but be careful to ensure that the platform(s) you choose are light enough to be installed by the number of people doing the job and that they fit the space between the joists in the particular loft being worked on. This is likely to require them to be capable of some degree of adjustment.
- Where it is not possible to use crawling boards, usually due to the size of the loft, work by kneeling on joists using three points of contact

Inspection Checks

Prior to carrying out work in a loft there is normally a survey or pre-inspection and it is important that this is done safely and that the opportunity is taken to use this inspection to establish a safe system of work for the main works.

Once inside the loft, ensure that suitable task lighting is in place and in use. Place the hatch across the loft opening until it meets the ladder so as to reduce the possibility of falling through.

Carry out a Site Specific Risk Assessment to establish general safety conditions. In particular, check the joists and rafters for width and stability. If necessary, it should be estab-

lished that the joists are stable enough to work on, despite the fact movement around the loft will only be through crawling.

Inspect for the presence of Asbestos Containing Materials (ACM's), vermin, bird droppings, bats etc. and deal with these immediately if identified or suspected.

Ensure that the work area is free from customer's belongings so that, as much as possible, your route of movement is not blocked or hazardous.

Movement in the Loft

Movement in the loft should be kept to a minimum and care should be taken to identify trip hazards and varying joist widths whilst the work is carried out. For effective manual handling it is important to consider the movement of equipment materials before, during and after the work.

Movement by crawl board is done by remaining positioned on one board whilst moving the second board to the next work position.



When carrying out tasks such as pipe lagging, lagging water tanks, drilling gable ends or conducting any significant manual handling, the crawl board can be used as a temporary platform to stand on for the duration of the task.

When using the crawling board, ensure that it is properly located between the joists so as to avoid movement when carrying out the work. Also be vigilant and look out for variations in joist width. Carefully remove the board from the area once the task is completed – being considerate of damage to the loft hatch and decor.

It is now generally recognised that the only safe method to move across loft joists without crawling boards is by maintaining three points of contact in a kneeling position. Crawling on loft joists to access areas or to lay insulation should always be completed by traversing the joists at 90 degrees to direction of the lofts joists.



Acceptable practice looks like this



It is not safe to either crawl on the joists parallel with them like this



...or to walk on the joists like this

In both of these cases, a slip from a joist can result in a person falling through the ceiling below.

“With clear and user-friendly menus, and a simplified menu and search facility for mobile and tablet use, plus the ability to download and print sections as pdf files, it’s all designed to make your life easier.”

It is essential that for crawling access either on boards or across joists, workers are provided with appropriate knee pads.

For more expert guidance on Health and Safety issues why not try the Manual out for yourself? Take advantage of our free trial and discover the benefits of the Health & Safety Manual online now at www.cip-bluebook.com. A Hardcopy and CDROM are also available and are updated every six months, visit www.cip-books.com to purchase your copy.

For more information email enquiries@cip-books.com or call 0870 078 4400

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Risking health and safety?

Dave Carr, MD of Callsafe Services Ltd asks why the Health and Safety Executive (HSE) wishes to remove the CDM Coordinator...

The government policy of 'copy out' from European Directives requires any change to existing Directive-based legislation to comply with this policy unless there are strong arguments for doing otherwise. The Health and Safety Executive (HSE) has stated that the Construction (Design and Management) Regulations (CDM) should be revised based on 'copy out' from the Temporary or Mobile Constructions Sites Directive 92/57/EEC (TMCSO). However, the package should avoid a reduction in standards, retain those aspects that add value or enhance them, particularly in regulating smaller projects.

The concerns expressed here are based on what is likely to be in the revised regulatory package, as the consultation document has yet to be issued. The consultation period, which was due to commence in June 2013, has still not commenced.

It is understood that the earliest that the revised regulatory package will now come into force is in 2015.

Proposed alternative to the CDM Coordinator

It is understood that, along with other changes, the HSE wish to remove the requirement for a CDM Coordinator (CDMC) to be appointed on notifiable projects from the Regulations. Given that the TMCSO requires someone to coordinate the health and safety aspects during design and planning, the proposed regulations need someone to do this, even if it is not a CDMC.

The title of this new duty holder is understood to be Principal Designer (PD). Whatever this organisation/

person is called, they are likely to have similar duties to the existing CDM coordinator.

CDM Coordinator's Current Duties and Role

The duties of the CDMC are primarily to perform the function of the 'coordinator for safety and health matters at the project preparations stage' required by the TMCSO. The CDMC is only required on notifiable projects, where the construction phase is 30+ working days or will involve 500+ person days/shifts.

The main duties, and an assessment of the effect of changing the CDMC to PD, are as follows:

Notify the project to the HSE – could be performed by the client or the CDMC/PD, as it is only an administrative function.

Advise and assist the client with engaging or appointing competent and adequately resourced organisations. It is unlikely that the PD would be in a position to be able to provide this advice without any potential conflict of interest and potential issues relating to competence outside their normal design role.

Assist the client with ensuring that suitable management arrangements are maintained. The CDMC is the client's friend, and assists the client with this monitoring function, providing independent advice on the performance of the designers and contractors. If the replacement for the CDMC is part of a designer organisation, it is not clear how this advice will be independent.

Identify and collect the pre-construction information and provide it to designers, the

principal contractor and other contractors – which could be performed by the lead designer (PD) or the client, but independent advice on what is needed, as supplied by the CDMC, is appreciated by clients.

Advise the client on the sufficiency of the time allocations. Independent advice on whether enough time and other resources have been allowed for by the client, the designers and/or the contractors is also useful for the client and for the efficiency of the project delivery.

Ensure that the design complies with the requirements of the regulations, and that the designers cooperate and coordinate their designs. Lead designers may be in a good position to ensure that the design is coordinated for the designers who are either part of their organisation or a sub-consultant, but what about other designers either directly engaged by the client, or by contractors who have design responsibilities?

If the lead designer is the PD, will they properly ensure design compliance and coordination? There is also the possibility if a design requires changing due to an interface issue, the PD is unlikely to be the designer who effects these changes, due to costs and inconvenience to them.

Ensure that the designers and the principal contractor (PC) cooperate, particularly for any design performed during construction – which could cause conflict between the PD and the PC; which is not the case if the CDMC ensures cooperation.

Assist the client with verifying the sufficiency of the construction phase plan to commence construction and the adequacy of the welfare provisions. If this duty is to be performed by the PD, someone in the designers’ organisation will need to have a better than normal understanding of construction methods and safe systems of work to be able to perform this assessment of the PC’s proposals.

Preparation of the health and safety file could be done by either the PD or the PC, or even the client, but it is a concern that the contractor will just produce as-built, operational and maintenance information

for the file and the designer will just produce design information for the file, as they do currently. This may not fully address the health and safety issues for the future use, maintenance, repair and eventual dismantling or demolition.

Opinion

There has been criticism of the performance of CDMCs in the past, but also some accepted exemplary performances. The HSE seem to prefer to change the name of a duty holder, rather than addressing the real issues of competence and performance of this important function on a construction project.

The HSE propose that the replacement for the CDMC should be either part of the client or the architect/lead designer organisation. This, as described above, may present a conflict of interest.

There also appears to be some reluctance of architects and consultants to take on this duty, due to a reasonable concern that this will involve them in accepting additional criminal liability. Some have also stated that they are concerned about their competence and resources to perform these duties. Due to this, it is likely that if this proposal becomes law, the architects and consultants will sub-contract the performance of these duties to another organisation, probably ones that are currently providing the services of CDMCs.

It is this author’s opinion that the proposal to remove the CDMC from the regulations is a retrograde step and could significantly reduce the health and safety performance of the construction industry. It is also more likely to increase overall construction project costs, rather than reduce them, and is entirely unwelcome during this time of recovery from a protracted recession. ■

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Health and safety training provision

Over 25 years providing effective and efficient health and safety advice and training to the construction industry and others...

Callsafe Services Limited has been providing health and safety advice, assistance and training to our clients, and our clients' projects, since 1987. Our clients have included many central and local government organisations, and private industry clients, designers and contractors.

Consultancy

Our consultants consistently ensure effective communications on projects and within health and safety management systems, with the minimum amount of paperwork produced, continuously questioning why a document is required and whether it is any use in effective management.

We have provided client organisations, archi-

tects, design consultancies and contractors with policies and procedures for compliance with British health and safety law, particularly the Construction (Design and Management) Regulations (CDM); including non-British organisations.

The policies and procedures developed by Callsafe Services Limited are effective in terms of protecting the health and safety of people, protecting the organisation from prosecution and loss of reputation, and the costs of implementation and maintenance.

Callsafe Services Limited have also developed the health and safety management procedures, health and safety rules and

training toolbox talks for the Estates Departments of NHS Trusts.

Due to the breadth and depth of experience and knowledge of our consultants, we are the primary source of advice on health and safety law and its practical application for many organisations; particularly since the removal of the HSE Infoline service.

Training

The training provided by Callsafe Services Limited includes a focus on effective communication and management, rather than just the production of documentation, enabling us to provide a tailor-made service.

Training provided is made as appropriate

and relevant to our trainees, incorporating client procedures and processes where possible.

We primarily supply training in-house, where the trainer travels to our client locations. In-house courses also allow the training to be tailored to the particular work types performed by the delegates and may include our client's specific procedures and examples.

Accredited training is also available as in-house courses and occasionally as public courses. Callsafe Services Limited provides courses accredited by:

- Institute of Occupational Safety and Health (IOSH)
- Chartered Institute of Environmental Health (CIEH)
- Association for Project Safety (APS)
- Safety Pass Alliance (SPA)

The current accredited courses are:

- IOSH Managing Safely in Construction
- IOSH Management of the Construction Design Process in the Republic of Ireland
- IOSH Safety for Senior Executives
- CIEH Level 3 Award in Health and Safety in the Workplace
- APS Design Risk Management
- SPA Passport – Core

Callsafe Services Limited is also the sole supplier of health and safety training to Thomas Telford Limited, the training arm of the Institution of Civil Engineers (ICE), who supply public and in-house training courses.



Our trainers are experienced construction health and safety professionals, with construction engineering backgrounds, so enabling them to provide examples of how the legislation can be implemented for particular scenarios.

The course programmes available can be viewed at: <http://www.callsafe-services.co.uk/training/>. These programmes can be adapted to the particular needs of an organisation.

CDM Co-ordinator (CDMC)

Callsafe Services Limited are a Registered CDM Co-ordinator Practice with the Association for Project Safety (APS), so can demonstrate our commitment to continuous improvement of our, our clients' and our projects' processes.

Our consultants/trainers are all practicing health and safety professionals working within the construction industry, and have extensive experience as health and safety advisors/officer/managers for client, designer and contractor organisations.

Our clients include the Environment Agency and Veolia Environmental Services (UK) plc.

If you need an organisation that understands the requirements of CDM, projects, other health and safety requirements, and how these requirements can be achieved in a cost-effective way, to act as your CDMC, provide health and safety advice and assistance and/or provide effective training; please contact Callsafe Services Limited to discuss your requirements.



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Asbestos: the duty to manage

Adjacent Planning and Building Control Today outline the new ACoP L143 guidance 'Managing and working with asbestos'...

In March 2011, the government set up an independent review of health and safety legislation to make proposals for simplifying it. The review was chaired by Professor Ragnar Löfstedt, and his report; 'Reclaiming health and safety for all: An independent review of health and safety regulation' was published some 8 months later.

The report set out a number of recommendations intended to:

- Reduce legal requirements on business that do not lead to improvements in health and safety;
- Remove pressures on business to go beyond what the law requires, enabling them to reclaim ownership of the management of health and safety.

As part of the recommendations, ACoPs (Approved Code of Practice) L127 and L143 were among several identified for: review and revision; consolidation; or withdrawal.

Following a 3 month consultation period, the Health and Safety Executive (HSE) published the revised ACoP – L143 "Managing and working with asbestos" in December 2013.

Updated to make it easier for employers to understand and meet their legal obligations, it also reflects the changes introduced in The Control of Asbestos Regulations 2012 (CAR 2012) on the notification of non-licensed work with asbestos, and consequent arrangements for employee medical examinations and record keeping.

Highlighting the benefits of the change, Kären Clayton, Director of HSE's Long Latency Health Risks Division, said:

"The two ACOPs have been updated and brought together to help employers find the information they need quickly and easily and understand how to protect their workers from dangers of working with

asbestos. The revised ACOP also provides better clarity on identifying dutyholders for non-domestic premises and the things they must do to comply with the 'duty to manage' asbestos."

Specifically, the main revisions include:

- Material supporting Regulations 2, 3, 9 and 22 has been revised to reflect recent changes to the law on notification of certain non-licensable work with asbestos and consequent arrangements for segregation of asbestos work areas, medical examinations for employees and record keeping;
- Material supporting Regulation 4, previously available in L127, has been updated to provide better clarity in identifying the dutyholders for non-domestic premises and what they must do to comply with the 'duty to manage';
- Material supporting Regulation 10 has been reviewed and updated to help employers understand what they need to do to provide information, instruction and training for employees and to clarify the position on training certification;
- The version of the Control of Asbestos Regulations contained in the ACoP has been updated to reflect the changes made in 2012;
- Specialist terminology has been clarified where possible;
- Information and guidance on the process and administration of the asbestos licensing scheme has been reduced as it is only of interest to a small, specialist group of employers. The information has been moved to an updated and revised "Asbestos licence assessment, amendment and revocation guide" (ALAARG), which will make it easier to update in future;

- References to other organisations, and the guidance they produce, have been reduced;
- Information concerning worker and worker representatives' involvement and consultation has been amended to be consistent with that in other ACoPs.

In response to ACoP- L143, Steve Sadley, CEO of ARCA (The Asbestos Removal Contractors Association) told Adjacent Planning and Building Control:

"The legal duties that the new ACoP provides advice on, and the nature of the method of compliance it describes, are substantively unchanged from the previous version. However, the ACoP has now been brought up to date in as much as it now reflects the Control of Asbestos regulations 2012 rather than the 2006 regulations. In addition, the new ACoP has been formatted in order to make it clearer and more understandable for users, particularly with regards to Notifiable Non Licensed Work with asbestos and the requirements for Information, Instructions and Training." ■

ACOP- L143 Managing and working with asbestos is available for download here:
<http://www.hse.gov.uk/pubns/books/l143.htm>

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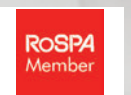
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Avoiding an asbestos breach

Graham Warren ACAD Manager, details the challenges facing local authorities in the management of asbestos...

When it comes to the management of asbestos, local authorities (LAs) and similar organisations are in an unenviable position. Issues are varied, and include a huge variety of buildings under their control as well as the constant turnover of people with responsibility for managing asbestos on a day-to-day basis.

Budgets have been squeezed which creates pressure to opt for the cheapest quote on projects, and when this issue is added to the cutbacks in staff numbers, including the failure to replace staff members retiring or moving on, leads to a concentration of responsibilities on those who remain in post. These pressures can inevitably all come together to create asbestos management breaches, which all too often result in an exposure incident that can, and often do, end in prosecution.

Only the worst examples end in prosecution and a fine, but any breaches of regulations can now leave authorities with a significant bill to pay in the form of the Health and Safety Executive's (HSE) Fee for Intervention scheme.

The HSE can, and do, charge for their time if they identify a 'material breach' of a health and safety law. A 'material breach' is where managing agents have broken a health and safety law and the inspector judges that this is serious enough to notify them in writing. The hourly rate for intervention is £124 – and charges add up very quickly. The HSE budgeted for an income in the 2013 financial year of £17m and planned a 35% increase to £23m in 2014/15.

In my experience of working for LAs, management of asbestos has improved dramatically with a

number of organisations developing and promoting best practice. Unfortunately, due in part to their unique situation, the risk of accidental exposure will always remain.

Exacerbating this situation is the often limited investment in systems and staff. Sending an employee away for a few days' training does not make them competent to manage asbestos, but all too often this is the situation many employees with responsibility for asbestos find themselves in. With this in mind, there is a growing movement for schools to be given a special position in asbestos management, and move to a programme of phased removal instead of the current best practice recommendation to manage asbestos containing materials (ACMs) in situ.

On a wider stage, a resolution on asbestos was adopted by the European Parliament in 2013, calling for the removal of all ACMs from public buildings by 2028 and an information programme for people about the risk of asbestos contamination in their homes. This is a mammoth task. Asbestos remains widespread throughout public and private sector properties and it is against this backdrop that LA asbestos managers operate.

About 45,000 people have died from asbestos-related diseases since Duty to Manage regulations came into force almost 10 years ago.

By now, most organisations have undertaken surveys and developed asbestos management plans for premises under their control.

HSG227 (A comprehensive guide to Managing

Asbestos in premises) provides a seven-point strategy, and the more recent HSG264 (Asbestos: The survey guide) provides a simple flow chart to aid the management of asbestos.

In addition to the published guidance, most organisations also call upon the knowledge and expertise of external contractors to assist with asbestos management. Both HSE licensed asbestos removal contractors as well as surveyor or analyst organisations can offer expert help with this.

But how can you be sure that the organisation, in whom you are placing your trust, is well placed to be providing these services?

You should, of course, obtain suitable references but one solution is to look for ACAD membership and ACAD training. Our trade association is dedicated to the promotion of best working practice and as such is a long-standing member of HSE groups including the Asbestos Liaison Group and the Training and Competency Subcommittees. This close working relationship feeds into our audit activity and training, allowing us to continue to develop services from a long-standing position at the forefront of the asbestos industry.

Being a not for profit organisation, allows for re-investment for any surplus income in the quality of our training and represents all aspects of the industry. All members undergo a rigorous vetting process as part of the membership procedure, passing initial and follow up site audits.

As part of our programme of continual improvement, we are moving to a new phase of unannounced site audits to provide the best learning opportunities for members and an ever-higher level of assurance for client organisations. All our trainers have excellent technical knowledge and represent ACAD at a variety of events and groups including the Joint Union Asbestos Committee (JUAC.)

Underpinning all of our activities is the Technical Committee, containing a number of industry experts, who are held in the highest regard throughout the asbestos and related industries. Members continue to influence current policy, including the recent consultation exercise to produce the new Approved Code of Practice (ACoP) for the Control of Asbestos Regulations 2012.

When you have vetted and appointed an organisation to assist you with the management of asbestos, an often overlooked element to remember is your own development and knowledge base.

To help fill this gap ACAD has introduced a new membership category, designed specifically to help improve clients' knowledge through regular information updates and our trade magazine –TICA Times, published 3 times per year.

Local Authority Membership is FREE to public sector organisations, which do not hold an HSE Asbestos Removal Licence.

ACAD membership is designed to give local authorities the best advice, support and updates to keep pace with the requirements of managing asbestos in their buildings in the 21st Century. ■

.....
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Asbestos – ignorance is not bliss

A coordinated approach to training and educating those involved with asbestos is crucial. Terry Slater, Director at SMH Training & Scientific Services LTD explains why...

In the 3 months from September 2013, around 500 tradespeople will have died of asbestos-related illnesses and this rate is only expected to rise over the coming years, peaking at the end of the decade. In the same period, the HSE prosecuted 10 cases for breaches of the Control of Asbestos Regulations 2006 and asbestos-related failings under the Health and Safety at Work etc. Act 1974, resulting in fines and legal costs totalling well over £280,000.

These breaches cannot be down to a wilful disregard of health and safety legislation – they included building contractors, local authorities, decorating firms and a school – and so we must assume it is down to a lack of understanding of the dangers of asbestos.

Tackling ignorance about asbestos

The HSE's 2008 asbestos awareness campaign, which dubbed the mineral 'The Hidden Killer', did increase public understanding of the threat, but, as the number of prosecutions suggests, exposure to asbestos remains a real risk for tradespeople in Britain today.

In September last year, the British Lung Foundation launched 'Take 5 and Stay Alive', a major campaign designed to raise awareness of asbestos. It centres on 5 questions trades people should run through when about to begin work, one of which asks them to decide if they have had the appropriate training to carry out their job safely. However, the responsibility for training goes much further than the front-line



worker, and must include those who supervise them, those who commission the work, and, perhaps most importantly, the many training organisations working with building and asbestos contractors.

Training to drive change

Training organisations need to be proactive in developing true partnerships with their customers, supporting them towards ever-safer working practices. To do this, they must look to add value beyond simply delivering training:

- **Practical, real-life training:** Training organisations should work hard to make the learning environment feel as much like the workplace as possible, focusing on teaching theory through practical skills;
- **Awareness targeted at all levels:** Awareness training is the most basic level of asbestos training, but it can still save lives – it should be proactively targeted at all those working in the construction industry, from senior management down;
- **One size fits one:** Trainers should move away from off-the-shelf training towards sector-specific training packages with courses designed to suit the needs of individual businesses and systems of work;

- **Relevant refreshers:** A legal requirement, refresher courses should be designed to avoid skills erosion, particularly with more experienced workers, incorporating bespoke toolbox talks or on-site assessments of real working practices rather than simply repeating the initial training;
- **Compliance support:** Training organisations should act as a bridge between theory and practice, distilling and translating legislative changes or scientific research into what they practically mean for tradespeople.

Asbestos-related diseases currently kill more people than any other single work-related cause, but a coordinated approach to training and educating those involved in the industry can begin to change this. ■

Source: All data on asbestos-related deaths and prosecutions taken from the HSE website.

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Terry Slater
Director

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Demolition; a most modern industry

The NFDC provides an overview of the current state of the demolition industry and the challenges it faces...

The term 'demolition' to the layman, or if you prefer, the general public, can evoke such words as dirty, dangerous and demanding. The same words could also be applied to working as a scaffolder, steeplejack, miner, and even wild animal trainer. In reality, they may be none of those things given that each is performed by highly motivated, trained, knowledgeable, and experienced practitioners.

The demolition industry, more than any other sector of British industry, has made enormous strides in occupational health, safety, the environment and methodology over the last 20 or so years. This is in no short measure to the effort given of the practitioners themselves, who have picked up the pace of improvement in both practical and academic achievements, and in meeting the challenges that modern day demolition projects demand.

If this sounds as though we are offering a huge thumbs-up for the sector, consider what the average demolition contractor has to deal with on a daily basis:

- The removal and disposal of all or any type of hazardous substance or material;
- The reduction and clearance of buildings and structures, ranging from simple single storey to complex multi-storey structures of steel, concrete, timber and, or, composite materials. These include working in any environment right across the board of industry, commerce, education, shipping, off shore, nuclear, oil, gas, etc;
- In addition, there is the requirement for segregation, identification, processing, disposal and or reclamation, recycling or re-use of waste materials and the supply of secondary aggregates to the construction and agricultural industries.

In fact, you name it and a demolition contractor has been there, done it, and got the proverbial t-shirt. If we might be starting to think that that's impressive, what will the layman make of taking down the modern iconic buildings of today and those of the future that will inevitably be jammed in between others, and reaching up 60 or more storey's?

To accomplish many of the activities a demolition contractor and his operatives undertake requires a dedication that is not common with other types of industry. Those who work and live the business are generally in it for the long term with some company's having 3 or more generations of the same family involved.

The 2 main organisations representing the sector are the National Federation of Demolition Contractors (NFDC) and the Institute of Demolition Engineers (IDE). The former organisation represents industry trade and is the corporate body, and the latter provides competence and information levels to the individual practitioners. The NFDC has 170 corporate members who undertake approximately 95% of the demolition work carried out in the UK today. The IDE has 350 members whose occupations encompass the whole range of activities associated with the industry sector. In addition to these bodies, the National Demolition Training Group (NDTG) administered by industry practitioners, and based alongside the NFDC at their Hemel Hempstead offices, provides the main thrust for operative and manager training with bespoke training and assessment schemes unique to the sector. The NDTG is recognised for its efficiency and expertise by the enforcing authorities and the larger construction industry that award much of the work carried out by contractors.

This is an industry that owes much to the expertise of its workforce, as the necessity to adapt and change to such diverse working environments is unlike any other traditional workplace. Over 20 or so years, the mode of working has swung from manual to machine operations employing an equally diverse range of equipment. Such equipment in use today

is invariably bespoke and manufactured by the worlds leading manufacturers. Visitors to a modern demolition site will be witness to robotic, high reach and traditional rigged machines, as well as a full range of mini, micro and materials handling plant. Gone are the days when a demolition contractor's plant and equipment left much to be desired, it now stands on an equal footing and/or betters that of the constructors.

A relatively new initiative for NFDC in particular, is the production of industry guidance that is targeted to address many of the issues relevant only to the demolition sector. The importance of this process cannot be marginalised if one considers that all previous types of guidance have been produced for the greater construction or building industry and have had to be adapted to fit the needs of this sector. Whether legislation can also be produced as bespoke to the demolition industry is a matter of conjecture, but major changes could be on the way to re-position demolition as part of the waste industry rather than construction. With the legal definition of waste describing that which has been discarded or intended to be discarded as waste, there can be little doubt that demolition contractors are waste handlers not constructors.

So what is the future for the demolition industry? What can practitioners and the public expect of this sector that has shown how adaptable and innovative it can be? Well, for starters, contractors will continue to demand the best that manufacturers can produce, and that the plant and equipment of the future will almost certainly be electronically and robotically controlled, and even wearable by operatives for finger tip control having little or none of the vibration or ergonomic problems associated with manual handling of materials and tools. New processes for the actual demolition and processing of structures will come on stream with microwave technology a front runner, having been proved in controlled tests to be extremely effective in breaking concrete, brick, stone and mortars. Laser demolition has also be trialled on concrete and proved to be equally effec-



tive, and if both types of technology can be properly harnessed and made safe, it would revolutionise the way we manage materials handling. However, addressing the practicalities of the operational processes can only be truly efficient if all other aspects have been reviewed and adjusted to maximise performance.

The demolition industry has proved how adaptable it can be in terms of recycling, but it continues to struggle to maximise a once flourishing salvage and re-use market that has diminished year on year. This malady is as a result of poor quality building materials currently removed during demolition in which many are manmade composites with no resale or re-use value, and are invariably costly to dispose of. Recognising that recycling opportunities are waning for what were traditional building materials such as stone and brick, with the increasing use of composites, foams, laminates and other potentially hazardous mixtures, the NFDC have developed an interactive materials identification and recycling tool – DRIDS. The DRIDS system uses cutting edge internet technology to ensure that all possible demolition materials are not only effectively identified, but outlets are also efficiently sourced geographically to reduce transportations costs.

In the respect of salvage and reclaim, the future will continue to look bleak unless end of life cycle

philosophy is engaged to ensure that these issues are addressed at the inception of a new development. Life cycle costing should be evaluated not only for energy efficiency and a reduction of carbon usage during the build, use and maintenance periods, but right through to end of life and the demolition or dismantling of the structure. DRIDS will at least, for the foreseeable future, provide the demolition contractor an industry toolbox and opportunity to ensure recycling levels are maintained.

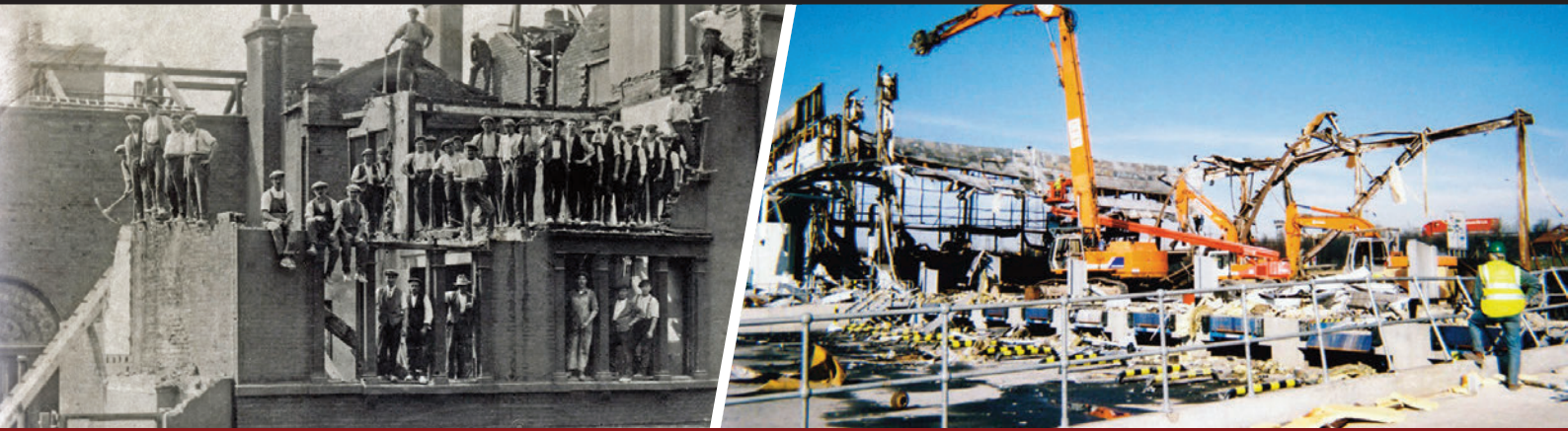
Developers, architects and product designers may wish to use the Government’s built environment initiative, Building Information Modelling (BIM) to address end of life cycle assessments and to develop a greater understanding of the value of ‘design for deconstruction’. This should also help to galvanise change and focus perceptions of waste as being a commodity and not a cost. ■

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NFDC (National Federation of Demolition Contractors)

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Engineering the stars of our future

The Construction Plant-hire Association discuss the benefits and the importance of apprentices for the construction, mechanical and engineering sector...

In May 2013 at the inaugural PLANTWORX construction equipment exhibition, the Construction Plant-hire Association (CPA) hosted the 'Stars of the Future' plant mechanic apprenticeship awards presentation at a star-studded ceremony full of young engineers, who took part in the competition from colleges nationwide. Presenting the awards was Richard Noble OBE – a land speed record holder and the pioneer of the Bloodhound SSC project.

The Stars of the Future competition is an annual award scheme devised by the CPA to recognise talented youngsters on plant mechanic apprentice schemes in colleges across the UK. In the inaugural competition there were a staggering 489 entries, making judging very tough. There were separate prizes for Level 2 and Level 3 trainee mechanics and college tutors monitored their students throughout the academic year both in their college and working environment and revealed their 2 'Stars of the Future' apprentices.

The awards recognise and reward outstanding apprentices who not only bring ability and commitment to their learning and work, but who possess additional capabilities and stand out as not only being the foundations of the future of our industry, but also potential leaders.

Richard Noble OBE, when speaking at the event explained that there is currently a huge shortage of engineers in the UK, with many firms finding it difficult to enlist young engineers. He said: "There is a serious problem finding engineers in the UK. The majority that we do find are in their 40s to 60s – we need new blood, and Stars of the Future is a good start."

Haydn Steele, training manager at the CPA was responsible for organising the event. He said, "It was amazing to see so much support for the Stars of the Future which encapsulated the ethos of the industry, employers, trainers and the next generation of engineers. We have set a very high benchmark but we intend to make the scheme even bigger and better next year."

Why are 'Stars of the Future' and other apprentice schemes vital to our industry?

A recent survey published by PwC has highlighted just how important apprentice schemes like this are. PwC economists have predicted that there could be as many as 100,000 jobs on the cards for industry sectors by 2020. These new jobs could include 50,000 new UK manufacturing jobs, 40,000 jobs in transport and 17,400 new jobs in construction.

Another published report from the Chartered Institute of Personnel and Development (CIPD) suggests that there will be 13.5 million job vacancies in the UK over the next 10 years, but only 7 million school and college leavers.

Of particular concern to the construction sector are leavers with professional level grades, everything from field service people to manufacturing employees, in addition to the beating heart of our industry; machine operators and plant mechanics, which keep our machines on the move.

Graham Black, Editor Earthmovers said: "If anyone is in any doubt about the quality of machine operators and plant mechanics required in the future, just look at modern agricultural tractors and excavators. With

CVT transmissions, auto steering and enough buttons to fill the bridge of the Starship Enterprise, would you trust your investment and the project's success to a temporary minimum wage employee?

"The Stars of the Future scheme is a good start in attracting more young adults into our industry and I hope entries top this year's impressive 489 – Earthmovers is behind the scheme 100%."

Nick Ground, president of the Construction Equipment Association (CEA) and MD of GKD Technik is in agreement with Mr Black he said, "The construction equipment sector is as advanced as aerospace and offers engineers of all disciplines the opportunity to be involved in the creation of advanced vehicles. What surprises me is the number of our sector CEO's that were once apprentices. Surely that is attractive to future engineers?"

JCB is another forward thinker where apprenticeships are concerned. As part of the Young Talent programme, the company launched the brand new Advanced Apprenticeship in Engineering Manufacture in 2013 – a first in the UK. It is a Level 3 qualification with newly designed elements to reflect the importance of support functions needed by successful global businesses. The Apprenticeship will be run in conjunction with the JCB Academy and is aimed at 16-year-old school leavers.



Womenomics: Think Pink and fill the Construction Skills Gap

As an industry we cannot survive and prosper by only employing men; we must widen our net – at the sharp end of the industry, a female employee is a rarity but women can fill the constructions skills gap. The CPA's 'Stars of the Future' scheme is actively attracting more young women into our industry, as are other employers and colleges.

Yana Williams is the Principal at Hugh Baird College in Merseyside and is confident that women can be every bit as successful as their male counterparts in the construction industry – but only if more are actively encouraged to look seriously at the opportunities.

The Further Education College in Bootle runs construction and engineering courses for both school

leavers and those already working in the sector, but the majority of those applying for places are still male.

Ms Williams said: "There are tremendous opportunities for women to make a career in construction but many never even consider the prospect. Frequently we hear girls say construction is 'man's work'. The industry however is hungry for skilled workers, male or female, to bridge the current shortfall. And it is not just female 16-year-old school leavers who are failing to exploit a need in the market. Women looking to retrain often do not consider the engineering sector at all."

"The construction equipment sector is as advanced as aerospace and offers engineers of all disciplines the opportunity to be involved in the creation of advanced vehicles."

Jacqui Miller MBE, sales and marketing director at Miller International is a familiar face, well known throughout the international construction and quarrying industry, and a perfect example of how women can succeed and indeed fly high in the construction industry. As a committed, determined and inspiring businesswoman, Jacqui takes her responsibilities to the business and its brand very seriously and was recently recognised with an MBE for services to industry and international trade in the 2013 New Year Honours List.

Ms Miller was instrumental in changing how excavators are now used on site every day, not only in the UK, but across most western markets. In addition, she is still heavily involved in the very difficult process of planting the seed of change and changing the mind-sets of other more complicated markets like India, China and Indonesia to name but a few.

Ms Miller said "I'm a huge believer in youth opportunities for boys and girls and being one of the sectors

trailblazers in direct sales and marketing, I would dearly like to see lots more young women get involved in all aspects of our industry, the talent is out there – what we must do is to encourage these young ladies to consider our sector as a REAL opportunity for a fulfilling career."

The message is clear from apprentices on the ground – up to senior level leaders that a lot more needs to be done to encourage more young adults, both male and female into the construction equipment industry and also encourage mature adults, wishing to retrain, that the Construction Equipment Sector IS the place to be. It's the responsibility of employers, schools and colleges to bridge the construction skills gap – what are you waiting for? ■

The Stars of the Future 2014 event will be at Vertical Days, lifting and access machinery exhibition at Haydock Park, Merseyside May 14th. Visit www.cpa.uk.net for more information.

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A large yellow excavator bucket is shown in the process of dumping a load of brown soil. The bucket is tilted upwards, and the soil is falling from it. The excavator's arm and tracks are visible at the bottom right of the frame. A person wearing a white hard hat and a high-visibility vest is visible in the operator's cab. The background is a clear blue sky with some light clouds.

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MEWPs – PAL+ card – New mandatory requirement on UKCG sites from 31st October 2013

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sary training for safely operating the various types of Mobile Elevating Work Platforms (MEWPs) and to obtain a PAL+ card which is now a UKCG mandatory requirement for site entry for steel fixers and net riggers from 31st October.

The course is for trained operators, working in high risk or challenging environments, holding a PAL card in the relevant category for which they wish to upgrade to PAL+. Check online at citb.co.uk/training or call us on 0344 994 4433 for more information

Supporting Nuclear New Build in North Wales – our partnership with Coleg Menai

Our endeavours to set up satellite centres close to large scale projects e.g. London Olympics, have proved massively successful in providing training that directly supports the project and location and cut down on lost time travelling to train. Similarly in North Wales, in partnership with Coleg Menai, we are now delivering heavy plant training to equip local people with specific skills to support the up-coming prestigious, high



Chris Blake, Key Account Manager (Plant),
National Construction College

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More Plant training at TUCA

To support demand in the London area we have created a small plant training area at TUCA in Ilford. The Crossrail project has identified the Skid Steer loader as a critical plant category. Ride on Roller will also be accommodated with a normal service of training or test only routes available.

Our CPCS A68 no load specific engineer and transporter operator assessments are still very much at the forefront of NCC delivery with Volvo Construction Equipment being one such company who are benefitting. Linda Gemmill, Health and Safety Manager for Volvo Construction Equipment commented "At Volvo CE we understand that for our customers' evidence based competence of contractors is essential. Working with the CITB we have been able to ensure, through the effective delivery of the new A68 module, that our engineers have the right demonstrable level of competence."



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The equipment challenge

Rob Oliver, Chief Executive at Construction Equipment Association considers if the UK's prospects are unequivocally on the up for those manufacturing and supplying in the construction equipment market...

When the balloon went up and the markets went down in 2008 there were real worries as to whether and how the construction equipment market would cope with the fallout from the global financial meltdown. Five years plus on, and we have seen much cost cutting and re-engineering of supplier companies but we have not seen the wholesale outbreak of mergers, acquisitions and bankruptcies that were predicted - certainly by me. Most of the headline brands of construction equipment and their component and accessory suppliers are still in business having negotiated the rocks and boulders in their path. Along the way they have learnt a lot about survival techniques that would make Ray Mears proud. So, with the UK economy now the best performing in the G10, are prospects unequivocally on the up for those manufacturing and supplying in the construction equipment market? No, there are always challenges to the supply chain from raw materials, to manufacture, to distribution and machine operation. Here are some to watch out for.

Google have pioneered the self-driving car. With advances in telematics, the fully automated earth-mover could be the next disruptive technology to hit the market place. Just as the agricultural sector has its precision-farming model where IT competence has replaced the ability to manhandle straw bales, traditionally trained digger operators could be marginalised. It is arguable too that there would have been more market innovation already if OEM's budgets had not been tied up in meeting the increasingly expensive requirements of European directives. Industry estimates suggest that some 75% of Research and Development (R&D) budgets have been diverted to regulatory compliance, with

improvements that might more directly benefit the customer taking the minority share of investment. Investment plans for retail space are on their way down as cyber shopping takes hold. The act of checking out goods in store but buying on line at the best price is affecting the economics of many suppliers of consumer goods. Could the power of the internet also compromise the established distribution channels for new construction equipment? Online auctions are already popular for used machines and will surely grow.

But probably the biggest challenge to the wellbeing of the UK construction equipment market is the British aversion to big construction projects. The Channel Tunnel slipped under the radar a generation ago and the lure of hosting the Olympics was too great to resist. But the "not in my backyard" hullabaloo surrounding HS2 and the lack of runway space in the South East show no signs of abating – and that means more enquiries, more delays and continued inadequacies in our physical infrastructure. ■

.....
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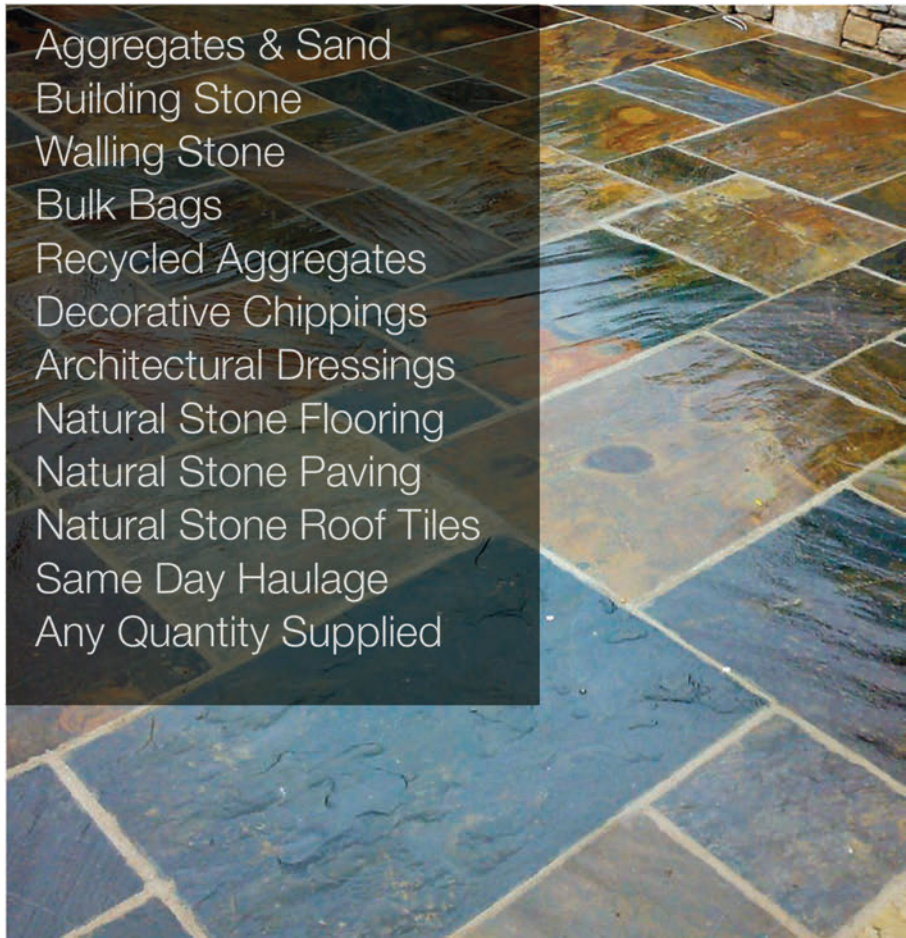
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Plant hire: ahead of the curve

Kevin Minton, Director at Construction Plant Hire Association reports that HS2 could equate to more than £200m of plant hire...

HS2 is a £42.6bn project to build a high speed rail line from London to Manchester and Leeds, via Birmingham, the East Midlands, Sheffield and Crewe, to begin operation in 2026 and be completed in 2032. It was supported by the Labour government after 2009 and has had the support of the Conservative-Liberal Democrat coalition government since May 2010. The Labour Party still supports the scheme but there have been questions as to whether that support will continue unconditionally.

Supporters claim that the line is urgently needed to meet projected future demand; to tackle the capacity constraints on the West Coast Main Line; and to deliver wider economic and regional benefits.

Opponents maintain that these claims are over-stated and that future demand and capacity can be met via other, cheaper means.

“...around 60 million m3 of English geology will need to be shifted, and as current HS2 Chairman Doug Oakervee acknowledged at the recent supply chain conference, earthmoving machine capacity issues will need long term planning.”

The debate around HS2 is only exceeded by the scale of the project: phase 1 to Birmingham will create 140 miles of new railway track, and effectively 4 new stations. The cost of phase 1 is estimated at





Kevin Minton
Director
 Construction Plant Hire
 Association

£17bn, of which construction is around £10bn. That probably equates to some £200m plus of plant hire.

A number of key themes have already emerged from HS2 Ltd – including planning. Frequent mention is made of BIM, or rather of AIM – Asset Information (or integrity) Management. Ray O'Rourke updated the old "measure it twice, cut it once" aphorism by saying "build it twice in digital, once in the field". Modern methods of construction will be fully explored, with an emphasis on building off-site whenever possible.

One thing that can't be done offsite however is earthmoving – around 60 million m³ of English geology will need to be shifted, and as current HS2 Chairman Doug Oakervee acknowledged at the recent supply chain conference, earthmoving machine capacity issues will need long term planning.

HS2 Ltd have stressed their enthusiasm for early supply chain involvement, encouraging potential suppliers to register with CompeteFor. Access to the work will come with some cultural expectations, however. Mr Oakervee made it clear that safety would be HS2's top priority – and although acknowledging the great progress made by T5, ODA and others, said HS2 were looking for a further step change in safety and in health on site.

HS2's obligatory Environmental Statement and its subsidiary Code of Construction Practice recognise that some of the main air quality effects during construction would arise from emissions associated with site plant and vehicles. GLA's Guidance on The Control of Dust and Emissions from Construction

(which is due to be revised in soon) is mentioned as reference point. A supplier who demonstrates compliance with that may have an advantage. Returning to the off-site build theme, the Code also refers to use of tower cranes to reduce vehicle movements.

Another theme that can resonate with progressive plant hire companies is innovation – HS2 Technical Director Professor Andrew McNaughton quoted the example of the excavator equipped with GPS, which was able to create an accurate gradient without tedious marking out. Given the HS2 design's preference for landscape integrity – that is, blending the route into the landscape with rounded embankments, cuttings and other forms that look natural rather than drawn with a straightedge – a company that can supply this capability will have the edge. Or maybe that should be better described as "be ahead of the curve". ■

.....
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Building Regulations

Any person carrying out a building project that aims to create something new, or extend an existing building, has to comply with Building Regulations. The following summarises each regulation and includes a link to each approved document.

Part A – Structural Safety

Part A aims to ensure the integrity and stability of a building: loading, ground movement and disproportionate collapse must be addressed.

Part A covers technical guidance concerned with the requirements in regards to structural safety and incorporating any changes arising as a result of the Building Regulations 2010.

This includes the July 2013 amendments that came into force on 1 October 2013.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/parta/documenta

Part B – Fire Safety volume 1 & 2

This section covers the technical guidance contained in Part B (Approved Document B) of schedule 1 of the Building Regulations concerned with the requirements in respect to fire safety.

Each volume deals with 5 specific areas:

- Means of warning and escape;
- Internal fire spread (linings);
- Internal fire spread (structure);
- External fire spread;
- Access and facilities for fire and rescue services.

Volume 1 – Dwelling Houses

This is the recent edition of Approved Document B – Volume 1: Dwellings. It supersedes the original 2006 edition by incorporating the changes made as a result of the Building Regulations 2010 and Building (Approved Inspectors etc) Regulations 2010. This is Volume 1 of the revised Approved Document B and should be used with Volume 2 for all applications received after 6 April 2007.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partb/bcapproveddocumentsb/bcapproveddocbvol1/

Volume 2 – Buildings other than dwellings

This is the current edition of Approved Document B – Volume 2: Buildings other than dwellings. It incorporates amendments made to reflect any changes arising as a result of the Building Regulations 2010. The changes mainly reflect regulation number changes as a result of re-ordering. There have been no amendments to the substantive requirements in Schedule 1 (ie Parts A to P) of the Building Regulations.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partb/bcapproveddocumentsb/bcapproveddocbvol2/

Part C – Site preparation and resistance to contaminants and moisture

The aim of Part C is to ensure the health and safety of the building's users with regard to the effects of pollution and contaminants. In addition, emphasis is given to resistance to moisture in terms of providing a barrier against ground water and the weather.

This current reprint of Approved Document C – Site preparation and resistance to contaminants and moisture, incorporates amendments made to the 2004 edition. This includes the July 2013 amendments that came into force on 1 October 2013. This reprint further incorporates editorial corrections and amendments.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partc/documentc

Part D – Toxic Substances

Part D examines the potential of cavity wall insulation to release toxic fumes into a building. The Document stipulates that fumes should not penetrate occupied parts of the building, and only where a continuous barrier is used, may potentially dangerous substances be used.

This current edition of Approved Document D (Toxic Substances) has been updated and replaces the previous 2002 edition.

It incorporates amendments made to reflect any changes arising as a result of the Building Regulations 2010. The changes mainly reflect regulation number changes as a result of re-ordering. There have been no amendments to the substantive requirements in Schedule 1 (ie Parts A to P) of the Building Regulations.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partd/approved

Part E – Resistance to the passage of sound

This document deals with 4 major areas including:

- Protection against sound from other parts of the building and adjoining buildings;
- Protection against sound within a dwelling house;
- Reverberation in common internal parts of a residential building;
- Acoustic conditions in schools.

This current edition of Approved Document E – Resistance to the passage of sound, has been updated to incorporate amendments made to reflect any changes arising as a result of the Building Regulations 2010.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/parte/approved

Part F – Ventilation

The Part F document states that ventilation is the removal of 'stale' air from a building and replacement with 'fresh' outside air. This of course assumes that the outside air is of reasonable quality.

The Document states that ventilation is required for one or more of the following purposes:

- Provision of outside air for breathing;
- Dilution and removal of airborne pollutants including odours;
- Control of excess humidity (arising from water vapour in the indoor air);
- Provision of air for fuel-burning appliances (which is covered under Part J of the Building Regulations).

This 2010 edition of Approved Document F – Ventilation has been updated and replaces the previous edition.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partf/approved

Part G – Sanitation, Hot Water Safety and Water Efficiency

New requirements set out within the document include:

- Cold water supply;
- Water efficiency;
- Hot water supply and systems;
- Sanitary conveniences and washing facilities;
- Bathrooms;
- Food preparation areas.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partg/approved

Part H – Drainage and Waste

Part H states that adequate drainage systems must be provided in order to promote both personal and environmental health. Also highlighted, is the importance of a working sewerage infrastructure and maintenance, along with pollution prevention.

There are 6 main sections to Part H:

- Foul water drainage;
- Wastewater treatment systems and cesspools;
- Rainwater drainage;
- Building over sewers;
- Separate systems of drainage;
- Solid waste storage.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/parth/approved

Part J – Heat producing appliances

Part J is concerned with all heat producing appliances that could produce health and safety hazards such as fire, explosion and carbon monoxide poisoning. Appliances such as boilers, room heaters and oil tanks are included, with the addition of liquid fuel storage systems.

There are 6 main sections to these regulations:

- Air supply;
- Discharge of products and combustion;
- Protection of building;
- Provision of information;
- Protection of liquid fuel storage systems;
- Protection against pollution.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partj/approved

Part K – Protection from falling

Part K is concerned with the health and safety aspects of areas such as stairs, ladders and barriers and also addresses the risk from falling. This edition has been updated by combining Approved Document N: Glazing and also some overlapping guidance that is in Approved Document M: Access to and use of buildings respectively.

This document deals with 6 main areas including:

- Stairs, ladders and ramps;
- Protection from falling;
- Vehicle barriers and loading bays;
- Protection against impact with glazing;
- Additional provisions for glazing in buildings other than dwellings;
- Protection against impact from and by trapping doors.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partk/approved

Part L – Conservation of fuel and power

Part L specifically refers to thermal efficiency standards and affects insulation and heat loss, aiming to improve the low-carbon efficiency of buildings. The changes listed in this document for Approved Documents L1A, L1B, L2A, L2B are made to take account of a recast of the European Energy Performance of Buildings Directive (Directive 2010/31/EU).

This document has 4 different parts to it:

- L1A – Conservation of fuel and power (New dwellings)
- L1B – Conservation of fuel and power (Existing dwellings)
- L2A – Conservation of fuel and power (New buildings other than dwellings)
- L2B – Conservation of fuel and power (Existing buildings other than dwellings)

To view all the documents click below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partl/approved

Part M – Access to and Use of Buildings

Part M aims to provide inclusive access to, and circulation within all buildings, giving particular emphasis to the requirements for facilities and disabled people.

It covers 4 main areas:

- Access and use;
- Access to extensions to buildings other than dwellings;
- Sanitary conveniences in extensions to buildings other than dwellings;
- Sanitary conveniences in dwellings.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partm/approved

Part N – Glazing – Safety in relation to impact, opening and cleaning

Part N deals with all aspects of safety relating to glazing, with added requirements related to safe access for cleaning windows aimed to reduce the risk of injury when cleaning glazed surfaces, and the safe opening and closing of windows.

The 4 main areas deal with:

- Protection against impact;
- Manifestation of glazing;
- Safe opening and closing of windows, skylights and ventilators;
- Safe access for cleaning windows etc.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partn/approved

Part P – Electrical safety – Dwellings

Part P aims to reduce the number of domestic accidents, deaths and fires arising from electricity. It is also seen as a way to improve the competence of those undertaking electrical work.

This edition:

- Reduces the range of electrical installation work that is notifiable;
- Installers who are not a registered competent person may now use a competent person to certify work as an alternative to using building control;
- The technical guidance throughout now refers to BS 7671:2008 incorporating Amendment No 1:2011.

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/partp/approved

Building Regulation 7 – Materials and workmanship

This document requires that any building work shall be carried out with proper materials and in a workmanlike manner. It reflects the full implementation of European Regulation 305/2011/EU-CPR covering construction products referred to as the Construction Products Regulation, from 1 July 2013

To view the document – click on the link below

www.planningportal.gov.uk/buildingregulations/approveddocuments/workandmaterials/approved



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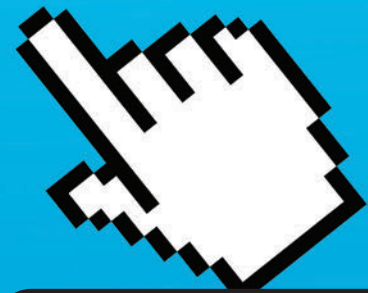
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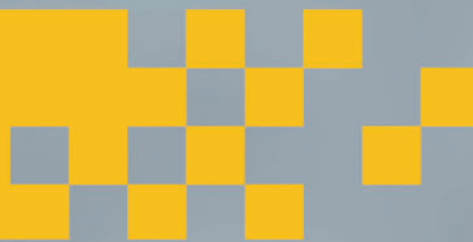
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Our Suppliers Guide contains all key contacts within the planning and building control sector.

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