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App aims to support mental health

In the UK and Ireland, stress, anxiety and depression currently account for a fifth of all work-related illness, and the Office for National Statistics has found them most acute in construction. A confidential Construction Industry Helpline app has therefore been launched by software firm COINS, online portal Building Mental Health and industrial charity the Lighthouse Club, and is available free of charge on Google Play and the App Store.

The Lighthouse Club also runs a confidential 24/7 industry helpline on 03456 051956, available to all construction workers and their families in the UK and Ireland.

constructionindustryhelpline.com
buildingmentalhealth.net

New PII run-off criteria set

Changes to RICS requirements for professional indemnity insurance (PII) run-off cover come into force on 1 April and apply to all registered firms. These have been made to allow annual premium payments to remain possible for commercial work, and to guarantee that firms have access to run-off for consumer-facing work. There will also be a run-off pool to expand availability and help eliminate risks of gaps in cover.

consultant appointment forms revised

RICS has updated its forms of consultant’s appointment for clients considering appointing surveyors in the built environment. There are three separate forms – standard, shorter, and for specialist services – designed to be used with the relevant schedule of services and explanatory notes. The forms are only for use in England and Wales at present, but Scottish and Northern Irish versions are due.

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Warren Buffett

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Green light

An overwhelming ‘yes’ from our membership means RICS can move forward with its plans for the future of the profession, as the chair of the Standards Transformation Project Implementation Advisory Group details.

Justin Sullivan

In November 2018, Governing Council asked the profession to vote for a modernised, future-facing form of governance fit for a 21st-century professional body. The result was announced at the AGM on 27 November. Of those who voted, 86 per cent favoured this modernising agenda. The proposals for change have been ratified and sent to Privy Council for formal approval. This positive step will structure RICS to continue building a global professional body that is ready to equip the profession for the challenges and opportunities ahead. It will also enable RICS to meet the changing expectations of stakeholders, clients and the wider public.

The vote also allowed for the formation of a joint board to create and regulate standards, replacing the previously separate regulation and standards boards. RICS has been piloting the joint board for the past year, and the interaction between its professionals, regulators, staff and laypeople has been fascinating to watch. The standard-setters and regulators are all passionate about their remit: differences are debated and outcomes altered to ensure the standards we create are fit for purpose.

Governing Council has also reconfirmed its support for changes to the professional group board structure. We will be working with the active existing boards over the next year as they move away from their traditional single-discipline function to a cross-disciplinary, collaborative structure, focusing on market insight and standards creation and enforcement.

We have already run several successful leader forums — a key function of the new structure that brings together clients, fellow professionals from RICS, government departments and other market influencers. We aim to pilot a new digital community this year as well to reflect the activities of the standard-setters. This will be managed through an app, enabling much more interaction between the profession, RICS and the market. The new model will also enable better collaboration with the regional structure of RICS.

Overall, the aim is simple: to encourage active members of the profession to stay involved, and for more of you to take part in shaping our profession’s future. To keep up to date with the changes to the structure of RICS, visit rics.org/professionalgroups.

Justin Sullivan FRICS is chair of the Standards Transformation Project Implementation Advisory Group standards@rics.org

Modernised, future-facing governance

- A smaller, more diverse council
- Equipping the profession for the future
- Meeting the needs of clients, stakeholders and the public
- Changes to the professional group board structure
- A joint standards and regulation board
- Leader forums
- A new digital community
Circumstances alter cases

RICS hosted the first Built Environment Leaders Forum in Parliament Square in July 2018 where key stakeholders debated how to effect much-needed change in the industry

Steph Fairbairn

The Grenfell Tower fire and the demise of Carillion are two key events that have highlighted recurring challenges in the built environment: productivity, fragmentation, delivery and process waste, and communication. Combine this with globalisation and technological advances and the demand for change in the industry is reaching a crescendo. The industry is inherently aware of this — how could it not be when £13bn is reportedly lost in construction projects in the UK due to poor communication alone? But it is proving difficult to harmonise fragmented and polarised perspectives from key stakeholders in order to begin addressing these challenges and changes.

There is hope for change with huge potential in technological developments, opportunities to learn from other industries and some of the changes proposed in the *Industrial Strategy: Construction Sector Deal* (bit.ly/CSDJuly) — but will these be enough? The objective of the Built Environment Leaders Forum was to reflect on this, encouraging wide and insightful debate and in turn gaining and sharing insight to provide thought leadership and guide the development of standards.

The proposition for debate was: ‘Digitisation and industrialisation are just the latest construction industry management [attempts at] panaceas: what is really needed is structural transformation of the industry including new concepts of being a client, professionalism and contracting.’

Structural transformation

The argument in support of the proposition stated that while digital developments are important, these cannot flourish without structural transformation. It was argued that in order to achieve this, seamless communication is required, as is a change in attitude towards the concept of cost. An understanding of cost and use of the correct terms is imperative: cost is what the manufacturer pays for supplies, price is what the product sells for, and value is what it is worth to the buyer. Each figure should be higher than the previous, and each is intrinsically linked. It is wrong to ignore the contextual nature of costs, price and value.

This understanding will contribute to better models of procuring and contracting, in turn letting digitisation and industrialised building thrive — something that they cannot do in a cost-based contracting process because there are too many contractual interfaces. The fact that these interfaces are only used once an agreement is made means that anyone brought into the process through a contract has to put a price to a scope that has been defined already. They therefore have no incentive to innovate. We need to reduce the number of interfaces rather than coming up with more techniques that merely seek to cope with them.

A move towards performance-based costing is required. Ultimately, this means procuring for value and would require redefining the commercial roles and business models in some parts of the built environment. The process should be less contractually oriented and fragmented. The providers of technology should contribute to investment in the longer-term operation of the building, meaning that they, as the supply chain, would no longer be mere box shifters but project influencers.

This approach would mean the sector had some commonalities with the manufacturing industry. For example, in industrialised building one firm owns the entire supply chain and, therefore, has removed the contractual interfaces from the process. It understands the end users as it has direct contracts with them, and the innovation and productivity levels are remarkable.

The end users are key to the structural transformation of the industry. Clients must take a lead on the change, as Heathrow
Airport has done with its off-site construction hubs around the UK, and in turn create a more holistic system. The outcomes for the client should also be our focus: integration, communication and commercial management are key. The industry is fundamentally broken and requires change — we must disrupt it ourselves.

**Digitisation**

Against the proposition, the argument was made that digitisation and industrialisation are the key to improving productivity, creating skills and acting as the enabler for the future. It was argued that to do so, a new blueprint for the built environment is needed, driven within the UK by the government’s commitment to increase research and development spending to 2.4 per cent of GDP.

The key question is whether our industry can move faster than its clients and its environment. In reality, the architecture, engineering and construction industries are sheltered from change, partly by their own inertia and partly by their clients — the construction methods used to build the Parthenon more than 2,000 years ago are still being used today.

Change can’t be institutionalised and the industry is resistant to it, but low profit margins and low barriers to entry mean it is ripe for external disruption. That is, we should be adopting the technologies that are helping other industries rather than trying to devise our own solutions to problems; tools that have proven effective elsewhere can help us effect change. The fact that the industry is slow to adopt new ways of working draws attention to wider issues.

Perhaps the new concepts of client, professional and contractor are backward—rather than forward-looking. We must consider whether the contractor and professional should be separated, and how we integrate our systems. Above all, the end users are the main priority — they are the owners of the value, and their role in a project is the most important.

Green construction is also an important consideration. Prefabricated buildings are an environmentally friendly solution, cutting waste and reducing room for human error. We must invest in this if we are to achieve the targets set by the Construction Sector Deal.

The world is demanding change, we are in danger of becoming an industry that is outrun by emerging technologies. We must act to integrate digital into all of our processes, rather than evolving in a fragmented fashion. Digital tools will bring greater transparency and predictability which will drive our industry forward.

**Moving forward**

Despite differing views on the proposition, the forum agreed on a number of points.

- The need for change is undeniable.
- All elements of the proposition are interlinked.
- The client needs to be the driver of change.
- There is a lack of leadership and therefore responsibility in the construction industry.

Other ideas discussed included whether professional bodies should be leading the way in terms of integration by merging, whether construction is in fact an industry or a collection of industries, whether sponsorship for construction projects could be a way forward, and how we interpret all of the data we collect.

In terms of professional development, we need new minds with new thinking, professionals with better soft skills to enable better management and integration, and recognition of a longer tail of specialisms to cover the challenges presented by new technology and industrialisation.

What was clear in the first Built Environment Leaders Forum was the commitment from those in the industry to find a way to overcome the many issues that we are facing. With so much change to effect, such commitment is key, and RICS will continue to facilitate these conversations through future forums. We’d welcome your contribution.

**Steph Fairbairn is editor of the RICS Construction Journal**

sfairbairn@rics.org

**What do you think?**

Are digitisation and industrialisation just the latest construction industry management attempts to find panaceas? Is structural transformation of the industry what is needed? Let the editor know what you think.

sfairbairn@rics.org
Listening to feedback from those we work with can only help us to improve the quality of service we provide. In the first of a series of articles, we speak to an infrastructure client about his experience working with project managers and quantity surveyors.

Geoff Gilbert

**Q:** What is your experience of working with project managers and quantity surveyors?

**GG:** I am part of the client team delivering major infrastructure schemes at HS2, as I was at London Underground. The majority of professionals in the construction industry are probably most familiar with conventional built environment client–consultant models. Infrastructure organisations tend to use a blended project teams model. This means the delivery team comprises both direct employees and people from external organisations. Certain tasks are procured as a service contract from construction consultancies.

**Q:** Which qualities and skills do you look for when appointing or working with a project manager?

**GG:** From a technical perspective, I seek knowledge and experience of the built environment, and an ability to lead and manage both a multidisciplinary team and a supply chain to achieve the client’s required project outcomes. Soft skills such as patience and the ability to communicate and manage people effectively are also needed, both upwards in the organisation and in the delivery team and supply chain. Clarity in communication is important.

The most difficult part, of course, is the ability to anticipate the issues and uncertainties that arise in complex projects. It’s difficult to anticipate them all, but quick action is necessary to mitigate or avoid any you do. It’s also important to keep the client informed about the emerging issues, their impacts, and what’s to be done about them. Above all, quality of service must be a given.

**Q:** Can you give any examples of good or bad practice?

**GG:** Bad practice is not acknowledging problems and issues. One of the most important aspects of leading is to listen, understand what you’re being told, reconcile the different views and decide on the appropriate course of action. Otherwise issues snowball and result in a host of problems, including losing clients’ trust. This most often occurs when clients exhibit poor behaviour themselves; for example, being unwilling to acknowledge or accept any bad news.

Good practice is a strong strategic approach, problem-solving capabilities and coming up with better ways of achieving the project objectives. There are various examples of project managers collaborating and deliberating to devise different delivery and procurement models that are more suited to the nature of certain projects, particularly in large and complex infrastructure projects.

**Q:** How do you see the role developing in the future?

**GG:** There is a great deal of professional guidance from various
organisations in the form of templated processes and approaches. However, if you don’t change something when it doesn’t work, then you’re going to get the same outcomes. There are many examples where the conventional approaches result in poor project outcomes. I therefore think project managers are going to need to be more thoughtful and adaptable to new ways of working. They’re certainly going to need to be able to capitalise on the digital tools available to help manage projects. An increase in the amount of accessible data often makes the decision process more difficult because there’s just so much of it to sift through and understand. Project managers will need to be equipped with the analytical skills to be able to do that.

Q: Which qualities and skills do you look for when appointing or working with a quantity surveyor?
GG: Technically, the important skills are estimating and cost planning, although they seem to have less prominence in the skill set of quantity surveyors now than they did when I was training. It is absolutely critical to have these skills to carry out commercial roles in infrastructure projects. In turn, cost management is becoming increasingly sophisticated, particularly on complex projects. Clients need to know exactly where they are against their budgets at regular intervals, and quantity surveyors need to know what the pressures, issues and uncertainties are with those budgets.

Procurement is also important: being able to procure a supply chain for the project in a way that is aligned to your client’s objectives, and then managing the contracts and the relationship with the supplier. I put the two together because there are a lot of people who can manage contracts, but administering a contract is just one aspect of managing supply chain performance. The contract allocates responsibilities, but it’s important to take a proactive approach in managing supplier relationships so that they understand what you want to achieve, what a good outcome looks like and how the parties will work together. You need to be able to understand the supplier organisation’s sensitivities and maintain a collaborative and productive working environment. An ability to understand how differences are resolved is equally important.

In terms of behaviours, cooperation, collaborative capability and flexibility are key. Collaboration takes many forms, including the ability to work effectively in a multidisciplinary team, and to work in an integrated supply chain team. Communication skills are important to achieve this: written, presentational and verbal.

Trustworthiness is also key — in the sense that individuals and organisations can be relied on to give a good service. And finally, a degree of honesty and professionalism in providing advice and services is vital. Again, quality of service is paramount.

Q: Can you give any examples of good or bad practice?
GG: Good practice is knowing the nature of the client organisation that you’re working for and what it is trying to achieve. You’re then better able to provide the kind of service clients are looking for. This knowledge is often difficult to acquire when dealing with large client organisations, and they need to do more to help with this.

Bad practice is the unthoughtful promotion and application of standard processes or overly complicated strategies and methods without sufficiently considering their appropriateness. Consultants can sometimes be too willing to please their customers; being brave enough to tell the client what it doesn’t want to hear makes you a trusted adviser. Good client relationships at all levels are critical.

Q: How do you see the role developing in the future?
GG: To a degree, quantity surveyors started their life as the quality assurers of designs. In the early stages of my career, there were often lengthy exchanges with designers and project managers, issues were identified and fed back to designers and then corrected. Different approaches are required in the digital age. Quantity surveyors must embrace the digital tools increasingly available, but also understand the risks that come with adopting them.

Producing tender documentation and bills of quantities is almost redundant now that computer-aided design and building information modelling have enabled those to be done automatically. However, the ‘rubbish in, rubbish out’ principle still applies: if the design information in the building information models is inadequate, then the tender documentation is going to be wrong. An ability to look directly into the models and check the automated documentation is right is a skill quantity surveyors need to acquire.

An ability to provide strategic advice to clients on commercial issues is also important. Despite all the automation and digital tools, thought still needs to be given to the way in which supply chain strategies are developed and implemented. Finally, interpersonal skills are increasingly important as we live in an increasingly collaborative world, particularly in the delivery of large and complex infrastructure.

Cooperation, collaborative capability and flexibility are key; collaboration takes many forms and communication skills are important to achieve it

Geoff Gilbert is head of commercial for Area South at HS2 and formerly held a similar role at Transport for London. He is a chartered quantity surveyor with 25 years’ experience in infrastructure, the past ten as part of the client team. The views expressed in this article are his and not those of his present or past employers geoff.gilbert@hs2.org.uk

Related competencies include: Leading projects, people and teams

Further information: To provide feedback on these questions or take part in a future article, please email sfairbairn@rics.org
As many of you know, Dame Judith Hackitt, former Chair of the Health and Safety Executive (HSE), was appointed to lead the Independent Review of the Building Regulations and Fire Safety in 2017, and published her interim report on 18 December that year.

RICS was heavily involved in the lead-up to this, engaging with Dame Judith’s team directly and collaborating with the Construction Industry Council to ensure that the report was based on sound factual evidence and that sector interests did not dominate. We wanted to be certain that an industry often described as fragmented came together.

In the early part of 2018, work groups were established by Dame Judith’s team to give their input into the final report, which was published on 17 May (bit.ly/HackittRev). RICS again deployed experts to these six working groups and was the only professional body to have representatives on most of them. Round-table meetings with the Secretary of State for Housing, Communities & Local Government, the Home Secretary and many professional bodies ushered in a new spirit for all involved in construction and fire safety to collaborate in the public interest.

Lost public confidence
The interim report had already been pretty damning of the industry — referring to ‘a race to the bottom’, a culture of doing things ‘as cheaply as possible’ and a ‘systemic regulatory failure’, as well as describing competence as ‘patchy’.

It was also clear to us in RICS that the public had lost confidence in the construction industry to provide fire-safe buildings, a fact that was picked up internationally. We began to hear anecdotes of investors being cautious about UK standards and, with Brexit looming, a reluctance to finance projects.

We have had a dedicated group working with Dame Judith’s team and the Ministry for Housing, Communities & Local Government (MHCLG) Building Safety Programme following the Grenfell fire on 14 June 2017. We are the only professional body to have sufficient resources to interface extensively and directly with these parties and enable many of the meetings of industry experts, and to ensure we work together in the public interest by showing leadership on this important topic.

Dame Judith’s final report made 53 principal recommendations, and more sub-recommendations, including:

• a stronger and tougher regulatory framework for higher-risk residential buildings (HRRBs), which are ten storeys or more in height
• a proposed new Joint Competent Authority (JCA) comprising fire and rescue authorities, LABC and the HSE to oversee better management of risks in these buildings through safety case reviews across their entire lifecycle
• introduction of a safety case approach and permitting regime that will only allow demonstrably safe buildings to be constructed and occupied
• clear responsibilities for ongoing, active life safety management during occupation
• mandatory incident reporting for HRRBs, with confidential reporting on structural safety to be used for all other buildings to cover every safety concern
clearly established key roles and responsibilities, including tackling poor procurement practices
a fundamental overhaul of guidance, making it simpler, clearer and easier to use, to support a systems approach to building safety with more rigorous requirements where needed
digital records to be kept for new HRRBs from initial design intent through to construction, including any changes that occur throughout occupation
a stronger enforcement and sanctioning package, with criminal sanctions for non-compliance and large fines
more effective leadership and assessment of competence among key roles to ensure building safety
stronger testing, labelling and traceability of construction products that are critical to building safety
empowering residents and giving them a voice in the system.

Next steps
Almost immediately after publication of the final report, the most important question was ‘What next?’ Many of the recommendations are being worked on behind the scenes, with RICS giving expert advice on these workstreams.

The change for approved inspectors was expected in some quarters, since Dame Judith says no organisation should be able to choose its own regulator. In future, the combination of the HSE, fire and rescue services and LABC in the form of the proposed JCA will oversee any plans for design and construction of HRRBs, as well as managing existing buildings (see the executive summary and Appendix E on competence in Dame Judith’s final report).

Golden thread
The golden thread of fire safety that Dame Judith recommends – deploying digital safety case files, with gateway approval points from inception to handover to management in use – is an important step in enabling transparency and accountability.

Under the recommendations, there will be new sanctions for non-compliance, bringing criminal courts into the process, and the concept of residents’ voice will be introduced, reflecting concerns that residents of Grenfell Tower knew what was happening with the management of their own building but were being ignored.

The role of building safety manager is being created for HRRBs, the description and competencies of which are being scoped out as we go to press.

An example of the many workstreams now under way is the MHCLG Industry Response Group (IRG), which has in turn set up a competence steering group, and I represent RICS on this steering group. It has been charged with reporting to the Secretary of State for Housing, Communities & Local Government quarterly since its inception in May 2018 on the competencies that all actors in the planning, design, construction, refurbishment and management of HRRBs will have to demonstrate, making its final recommendations later this year.

There is some controversy over the definition of HRRB – a new term that emerged in the Hackitt Review – as a higher-risk residential building more than ten storeys high. However, the rationale for the narrow scope is simply that the new regulatory system will apply to an estimated 2,000–3,000 residential buildings, which will in itself be a significant undertaking.

While we do need to broaden this definition to include hospitals, care homes and student accommodation of any height as well, to do so now would bring the construction industry to a standstill. So the proposed new model will be put in place, tested and refined, before – we hope – being broadened out to other higher-risk complex buildings in time.

The competence of all actors including planners, architects, designers, building control surveyors, building surveyors, project managers, firefighters, installers, site supervisors and building managers will be scrutinised in future as the common framework develops and the defined competencies are checked by an overarching body that will come into being.

RICS has an established pathway and competency framework for fire safety, and we are ensuring in the IRG competency workshops that what emerges is workable and achievable for our members. We have already taken steps to enhance the importance of ‘Fire safety’ as a competency. What we have been most concerned about, however, is whether anyone who is not a member of any professional body can demonstrate education, training and competence in life safety in the future.

As we all know and recognise, the fragmented, subcontracted nature of the construction industry does not lend itself easily to recognising and checking competencies by formal accreditation; but for all higher-risk buildings in future, such competency will have to be demonstrated by all in order to earn the right to work on these buildings, with a quest for construction quality and building management quality driving culture change.

Gary Strong FRICS is RICS global building standards director gstrong@RICS.org

Related competencies include:
Fire safety

It was clear to us in RICS that the public had lost confidence in the construction industry to provide fire-safe buildings

RICS.org/journals 13
The SR 99 Tunnel is the result of the Washington State Department of Transportation’s project to replace the central waterfront section of the State Route 99 Alaskan Way Viaduct. Investment in transport infrastructure such as this can be critical to social mobility and increasing opportunities for underprivileged communities.
The eyes of investors, both domestic and global, are trained on the US infrastructure sector. It is one of the world’s most exciting markets at present, second only to China in terms of its planned spend (bit.ly/OxEconomicsGIO). But there is caution too: investors want to be convinced that conditions are right for them.

In 2018, President Trump announced a $1.5tr plan to repair and improve the nation’s infrastructure, $200bn of which would come from the federal government. The American Society of Civil Engineers thinks it should go further; in its latest assessment, it estimated that the USA needs to invest $4.59tr between 2016 and 2025 to get its roads, bridges, water, power and communications networks up to a reasonable standard (infrastructurereportcard.org).

It is now widely understood that investing in infrastructure can provide a powerful boost to GDP, allowing individuals and companies to be more productive. In the right locations, spending on infrastructure – particularly transport and communications – increases social mobility and widens opportunities for underprivileged communities. However, with 80 per cent of funding for the administration’s infrastructure plan expected to come from non-federal sources, project sponsors must look to alternative sources of investment. Already, projects are being procured through public–private partnerships, as well as state and local taxes raised directly to fund them.

Whether would-be investors are local, domestic or overseas, what happens in the earliest phases of a major project is vital. The need for a robust business case at the earliest point is critical to making sure the investment decision has considered the project’s strategic, economic, commercial, financial and management requirements. Get it right and you’ll build confidence in the market and investors; get it wrong, and the project could flounder or fail.

Given the sheer scale of infrastructure investment ahead, the USA cannot rely solely on home-grown talent and resources. Infrastructure projects must attract consultants and suppliers from a global market, alongside local players, and provide and nurture specialist expertise where necessary. This means US infrastructure will be competing with other major projects around the world for resources. The continuing development of construction-related academic courses is therefore important. Integrating good industry practice and common worldwide standards into the curriculum will give students the tools to become high-performing practitioners.

Lessons can also be learned from other countries that have failed to attract enough students into the industry. With baby boomers now approaching retirement age, there is potential in the USA for a significant shortage of skilled resources due to the rapid growth of other sectors such as technology.

To succeed in a global market, infrastructure projects must prepare themselves from day one. Instead of thinking project by project, owners need to develop a project management mentality,
With 80 per cent of funding for the US administration’s infrastructure plan expected to come from non-federal sources, project sponsors must look to alternative sources of investment

Looking at the market and its suppliers strategically, putting mechanisms in place for learning lessons and improving from one project to another, and taking a proactive attitude towards risk. The five steps described below, as listed in the box (p.15), will help major projects get fit for investment and give confidence to the market.

First, long before the design process begins, it is crucial to establish a strong vision for the local and regional infrastructure programme. This should look at quantifiable benefits such as improved journey times, the boost to the local economy or cost reduction, as well as less easily measured impacts such as increased resilience, lower environmental stress and improved health and well-being. It is important to consider negative as well as positive impacts at this point too. There are many stakeholders connected to an infrastructure project, any one of which could potentially derail it or at least slow its progress.

Only when there is a clearly defined vision can the project team start to communicate what that is. Never underestimate the power of local people and communities: a well-supported vision is a far more attractive investment proposition than one surrounded by protests and negative press.

Second, you should be ready to embrace risk. A proactive attitude to risk management, rather than a box-ticking approach that looks to minimise or transfer risk, can add value to a project and an organisation. There isn’t a one-size-fits-all approach to risk management. Instead, it is necessary to look at issues such as the complexity of the planned projects, the expertise and availability of contractors and suppliers, trends in materials and labour prices and, importantly, the organisation’s appetite for risk, as they are ultimately accountable for all of the risk all of the time. It is also important to remember that risk management is not a one-off activity: risks and opportunities change over time.

Third, completing a programme of works, whether it is a series of new pipelines, upgrades to highways or new metro lines, requires the right structure, and should not be considered business as usual. A project exists for a defined period of time and has specific goals, and the end of the process should be planned for. This has different demands from an operational piece of infrastructure.

Trying to run a project team in the same way as its parent company is rarely effective. Teams must have some autonomy and the flexibility to make decisions, accountably and within certain limits, otherwise decision-making is bottlenecksed and the project and budget will suffer. By the same token, managing projects requires a different skill set to everyday activities. An early priority should be to assess the capabilities an organisation has, what it will need over the course of a project, and how it will find the right people at the right points along the way.

Fourth, as there is no point in choosing a procurement route that only attracts a couple of bidders, you should talk to the market. Engage with suppliers early to find out what their order books look like, what their risk appetite is like and what forms of contract they find familiar. This becomes even more important in a healthy market. The best suppliers are able to choose projects that fit their risk profile and will enhance their reputation and reference list. It is worth noting that the process of engagement gets more complex when projects are looking to attract suppliers from further afield.

The fifth and final step is to take a long-term view. Procurement decisions have historically been made on the basis that the lowest bidder wins, but more mature organisations are considering the asset’s whole-life cost. Can a case be made to increase capital spend to manage maintenance and operational costs more effectively over an asset’s lifetime? This can be challenging, given legislative and political restrictions. However, we are seeing new forms of procurement emerging, such as progressive design and build, and public–private partnerships, that aim to harness innovative ideas from the supply chain to add more long-term value.

As organisations develop a whole-life cost for an asset, they needed to understand the relation between the available budget and the required performance of the asset. In addition to capital expenditure and operating expense costs, a robust whole-life cost model requires the inclusion of calculated asset risk cost. This is a direct output of applying and comparing the budget and performance analysis to the definition of risk, looking at the likelihood of failure versus the consequences of failure.

Those overseeing major infrastructure projects often assert that the most challenging phases came well before the contractors and their equipment arrived on site. From gaining political and public approval to navigating the burdensome regulatory environment to securing funding, the first years of a project are inevitably gruelling.

A robust approach to setting up a major infrastructure project decreases the chance that this effort will come to nothing. Ensuring the right capabilities are ready, that risks have been considered and managed and that long-term impacts have been identified will increase confidence among stakeholders. There are examples of success around the world, and major US infrastructure projects have the chance to take that best practice and make it their own.

Murray Rowden is regional managing director, Americas and global head of infrastructure at Turner & Townsend @turnertownsend

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Reversing the charges

A major change to the way VAT in the construction supply chain is accounted for will come into force from 1 October. What are the implications for contractors and subcontractors?

Julian Potts

HMRC says that so-called missing trader VAT fraud in the construction industry is an issue that costs it many millions of pounds a year in lost revenue. Such fraud occurs when a subcontractor provides services — usually labour only — to another contractor, charging for those services with VAT at 20 per cent and, rather than paying that VAT on to HMRC, the tax and the company concerned go missing.

In order to combat this, the government is introducing a domestic reverse charge (DRC), which represents a major change in the way that VAT is accounted for in the construction supply chain, specifically in relation to subcontractors. This new measure will affect all VAT-registered construction companies undertaking building work.

The current position, as seen in Figure 1, is that a subcontractor will generally charge VAT at 20 per cent on its works, and the customer — for example, a main contractor — will pay the price for those works plus the VAT component. The subcontractor will then pay the VAT it has collected from its customer to HMRC in its next VAT return, while the main contractor will reclaim the VAT it has paid in its own return. The overall effect for the subcontractor, contractor and HMRC is nil, assuming there is no missing trader fraud.

Once the new measures are introduced, as seen in the lower half of Figure 1, the subcontractor will no longer charge VAT on its invoice for works, so it will have no VAT to pay to HMRC. In order to maintain the integrity of the system, the main contractor will record the transaction in its VAT return as if it has paid out and simultaneously reclaimed the tax — the result being a nil effect on cash flow.

Under this mechanism, no VAT will pass from the main contractor to the subcontractor to HMRC and then back to the main contractor, and the opportunity for it to go missing is therefore removed. Essentially, the VAT becomes a compliance and accounting point for the customer of any subcontractor.

Scope of services

The DRC will apply to the provision of most construction services, including any materials supplied along with those services. It will only apply to payment that is standard- or reduced-rated and not to zero-rated supplies, and will not apply to payments for the separate supply of building materials or for professional consultants such as architects or surveyors.

The scope of services affected is set by reference to that covered by the already well-established Construction Industry Scheme (CIS) (bit.ly/govConstruIS). The CIS is relevant to income and corporation tax as the DRC scope is defined by reference to the scheme’s definition of construction operations. It is another anti-fraud measure, which can require contractors to make deductions from the payments to subcontractors and give this money to HMRC as advance payment of that subcontractor’s tax bill.

The DRC will also not apply where:

- construction services are supplied to the
end user, such as the property occupier, or directly to a property developer that sells a newly completed building to the customer; this will vary depending on a contractor’s contractual relationships—

- the recipient makes onward supplies of those services to a connected company
- the supplier and recipient are landlord and tenant or vice versa.

HMRC provides a flow chart in its guidance to help taxpayers establish whether the DRC applies (see Figure 2).

**Effect on construction firms**

The proposed changes are significant in terms of the way VAT is collected, and will require contractors to familiarise themselves with an involved set of rules as well as amending their invoicing and accounting processes.

Other issues to be aware of are:

- subcontractors will suffer a loss of cash flow where VAT is no longer collected and held before paying it to HMRC
- main contractors will get a cash flow benefit as less VAT will be paid out
- the recipient contractor applying the reverse charge and subcontractor will still need to consider whether supplies made are zero-rated or reduced-rated, as this affects the content of the VAT return and the invoicing detail
- contractual agreements may need revising to reflect the new contractor—subcontractor relationship and whether any party is an end user and thus not subject to the DRC.

In summary, contractors and subcontractors should prepare for change and disruption as these measures are implemented. They will need to be much more aware of the nature of their suppliers and customers to ensure they are not charged VAT incorrectly, and that they do not charge it themselves unless their customer falls outside the DRC regime.

**Further information:** The VAT reverse charge for building and construction services guidance note is available at bit.ly/govVATreverseGN, and the DRC procedure at bit.ly/DRCprocedure.

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**Figure 1. DRC mechanism**

**Current position**

- **Subcontractor** Makes charge of 20% on invoice and pays VAT as output tax to HMRC
- **Contractor** Pays 20% VAT to subcontractor and recovers this as input tax from HMRC

**DRC applies**

- **Subcontractor** Does not charge VAT, instead quoting DRC
- **Contractor** Will self-account for VAT: 20% output tax, and 20% input tax. Payment and repayment cancel out on VAT return

---

**Figure 2. HMRC flow chart for VAT reverse charge for building and construction services**

```
Q1. Are any of the supplies you are making within the scope of CIS?

   YES
       Q2. Is the supply standard-rated or reduced-rated?

       NO
           NORMAL VAT RULES APPLY

       YES
           Q3. Is your customer VAT-registered?

           NO
               NORMAL VAT RULES APPLY

           YES
               Q4. Will your payment be reported under CIS?

               NO
                   NORMAL VAT RULES APPLY

               YES
                   Q5. Has your customer provided confirmation that it is an end user?

                   NO
                       NORMAL VAT RULES APPLY

                   YES
                       DRC VAT APPLIES

```

**SOURCE:** HMRC

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Julian Potts is director at Landmark PT julian@landmarkpt.com
Making the most of your capital

If properly understood, capital allowances can bring considerable cash flow benefits for building projects.

Jeremy Chapman

As quantity surveyors and project managers know all too well, the cost of refurbishing a property, building an extension, constructing a new build or contributing to any building project can be substantial.

In the UK, there is generally no relief for depreciation charged to the profit and loss account on an annual basis. However, tax relief in the form of capital allowances is available on certain elements of the capital expenditure in a building and for plant and equipment. Contrary to popular opinion, capital allowances relate to far more than just mechanical and electrical installations.

As part of a larger fit-out, for example, a company recently equipped a new research facility for which the research and development (R&D) allowances equated to more than 25 per cent of the building costs. The cost of construction was therefore effectively reduced by around five per cent thanks to the tax relief claimed.

Identifying all assets qualifying for allowances is thus an important exercise. The key reliefs available for non-residential new-build projects and how to make the most of their benefits are described below.

Contaminated land remediation
Expenditure on remediating contaminated land and buildings is generally not allowed to be considered as capital expenditure. However, a specific relief allows for companies only to deduct 150 per cent of the qualifying additional remediation costs in the year that they are incurred.

Where the costs relate to a development for sale – for example, where houses are built – the relief is 50 per cent instead, because such projects receive relief for the first 100 per cent of the cost already. The other difference is that developers will receive the relief in the year the property is sold and not the year that the work is paid for. This effectively puts both developers and investors on an equal footing.

Qualifying costs can include employment costs, materials and subcontractors. However, to maximise this relief a detailed understanding of the contamination and the impact on any subsequent building design is required. Qualifying remediation work may include asbestos removal or the on-site treatment of Japanese knotweed.
The company claiming the relief must be subject to UK corporation tax, and usually hold an interest in the land being remediated. It is also possible for loss-making companies to claim a 16 per cent tax credit on qualifying expenditure to improve cash flow.

**Green technology**
A significant number of capital projects will include expenditure on an energy-saving or water-efficient plant that is eligible for 100 per cent enhanced capital allowances (ECAs) in the year of installation. In order to qualify, the particular make and model of the product must usually be included on a technology list. Examples include:
- pipework insulation
- refrigeration equipment
- boiler equipment, heat pumps, radiant and warm-air heaters
- automatic monitoring and targeting equipment
- heating, ventilation and air-conditioning zone controls
- lighting
- technologies that reduce and monitor water consumption or improve water quality, such as grey water recycling or rainwater harvesting
- solar thermal systems and collectors
- combined heat and power (CHP) schemes.

The value of the expenditure eligible for the 100 per cent tax relief is uncapped, so this is particularly useful in a tax year with a high capital spend.

Loss-making companies can claim a tax credit, currently at the rate of 13 per cent of the loss created by ECAs on expenditure on green technologies, which will improve cash flows. Some technologies such as CHP and waste-water systems require certification by specific bodies, such as the Department for Environment, Food & Rural Affairs or the CHP Quality Assurance programme. Note that this relief will end in April 2020.

**Research and development**
This 100 per cent relief is specific to businesses undertaking R&D in their properties, which can include product improvement and process improvement alike. It can be claimed on both buildings and equipment used in them in the year the expenditure is incurred. This relief is for capital expenditure on fixed assets and is often underclaimed.

There is a related relief called R&D tax credits that can be taken for eligible revenue expenditure. This can apply to construction companies and architects developing innovative construction methods.

**Plant and machinery**
This relief allows partial tax relief of 18 per cent to be written down per annum on a reducing balance basis, thus spreading it over a number of years. For example, £1m of eligible expenditure is given relief of £180,000 in year one, at 18 per cent of £1m; £147,600 in year two, at 18 per cent of £820,000; £121,032 in year three, at 18 per cent of £672,400; and so on.

Identifying items of plant and machinery at an early stage is key to maximising tax relief. Common items qualifying for allowances are:
- machinery
- manufacturing or processing equipment and storage equipment, including cold rooms, refrigeration and cooling equipment
- displays, counters, checkouts, advertising hoardings and signage
- white goods and sanitary ware

**Key reliefs**
- **Contaminated land remediation in year 1** 150%
- **Green technology relief until April 2020** 100%
- **Year 1 R&D allowance** 100%
- **Annual plant and machinery allowance** 18%
- **Allowance for special rate expenditure** 6%
- **Annual investment allowance in year 1** 100%
- **Yearly structures and buildings allowance** 2%
- **Property repair and capitalised revenue expenditure** 100%
A detailed capital allowances claim should be done by a tax adviser as the provider must be officially registered

• hoists
• IT hardware and software and other communication installations
• protective systems including sprinklers, surveillance, burglar and fire alarm systems
• some moveable partitioning
• gas and sewerage systems that meet the requirements of the trade.

Special rate expenditure
This relief operates in the same way as plant and machinery allowances above, but with a reduced level of relief — six per cent — being written down each year. For example, £1m of eligible expenditure is given relief of £60,000 in year one, at six per cent; £56,400 in year two, at six per cent of £940,000; £53,016 in year three, at six per cent of £883,600; and so on.

This relief applies to expenditure on certain specified assets, as follows:
• electrical systems, including general wiring and lighting systems
• cold water systems
• space- or water-heating systems, powered ventilation, air cooling or purification
• lifts, escalators and moving walkways
• external solar shading
• solar photovoltaic panels
• long-life assets, that is those with a useful economic life of more than 25 years from new; some exclusions apply.

Note that this relief was eight per cent until April this year.

Annual investment allowance
Annual investment allowance (AIA) provides a 100 per cent deduction for the cost of plant and machinery or special rate expenditure in the year the expenditure is incurred up to a particular limit. This limit is changed regularly by the chancellor, and from 1 January 2019 to 31 December 2020 it is £1m per annum, reverting to £200,000 per annum after that date.

For expenditure in excess of the AIA, writing-down allowances are available at 18 per cent per annum on plant and machinery and, currently, eight per cent on special rate expenditure. It is therefore beneficial to plan the timing of expenditure to fall within the AIA, otherwise tax relief will be far slower.

One way of doing so is to ensure that expenditure qualifies for ECAs, which can be claimed in addition to the AIA.

Structures and buildings
This is a brand-new relief of two per cent per annum, not to be confused with industrial buildings allowances. This applies to all non-residential structures and buildings contracts that have been agreed after 28 October 2018 where the costs do not fall under another of the reliefs detailed above. If the property is sold before 50 years of relief is taken, the balance will transfer to the new owner.

At the time of writing, primary legislation has been enacted but secondary legislation is still awaited.

Repair and capitalised revenue
The first question to ask in a refurbishment project is whether any of the expenditure would qualify as a like-for-like repair of part of an existing property, such as replacement windows; if this is the case, then it may be possible to secure 100 per cent tax relief for such expenditure when it is incurred. However, substantial refurbishments or improvements to an asset will often be treated as capital.

It is also possible to take relief for expenditure that is revenue in nature, such as training costs or spare parts, even though it has been treated as a fixed asset in the accounts because relief is given as the cost is written off to the profit and loss account. For example, if you capitalised training costs this may be written off over three years, so relief for the capitalised cost will also be taken over this time frame.

To avoid deferring relief in this way, it is advisable under UK tax law to review capitalised expenditure annually. This will ensure that any capitalised revenue expenditure is transferred to the profit and loss account to take the full relief in the year that the expenditure is incurred.

Staying informed
It’s advisable to use a capital allowances specialist wherever possible. A detailed capital allowances claim should be done by a tax adviser rather than by completing a template issued by the client, as the provider must be registered with a body such as the Institute of Chartered Accountants in England and Wales, the Chartered Institute of Taxation, the Law Society or HMRC to comply with government money laundering regulations (bit.ly/govmoneylaundering). Many construction firms are not registered.

The key challenge with capital allowances is staying up to date, because they can change every year. For example, the Office of Tax Simplification held a consultation in October and November 2017 on whether capital allowances should continue, but within 12 months a whole new tax benefit in the form of structures and building allowances was created. Staying informed of changes will put you in the best position to benefit from capital allowances.

Jeremy Chapman is head of capital allowances at PKF Cooper Parry jeremyc@pkfcooperparry.com

Related competencies include: Capital allowances, Construction technology and environmental services, Design economics and cost planning, Project finance
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Standards

‘With growing globalisation comes the expectation of common standards, in managing health and safety risks especially’

Anthony Taylor and Jeffrey Tribich


It first published a document covering the subject in 1991, having begun work on this in April 1989 when it issued a discussion document. It was an initiative of the RICS Building Surveying Division, as was, and grew out of surveyors’ need to be aware of the risks they faced when visiting properties. It was a simple and relatively short list of matters, together with a brief description of legal duties.

There was subsequently an entirely redrafted version, followed by a number of iterations in the early 2000s. These editions covered the general requirements of the Health and Safety at Work etc. Act 1974 and focused heavily on keeping safe on site, gradually broadening their remit with each successive publication.

Over the years the RICS Health and Safety Advisory Group has consulted on how best to promote health and safety to the wide group of professionals in its membership. Consultation with industry groups revealed a wish and need to cover more areas and to treat each in greater depth, resulting in the publication of a considerably expanded Surveying safely in 2011, the first edition that had guidance note status.

With growing globalisation, there is an increased expectation of common standards, not least in respect of health and safety risk management. Many organisations, both national and international, expect the highest level of compliance across their real-estate portfolios. In light of these global changes and trends, RICS has published a new edition; as the revised name makes clear, it concentrates on principles. All references to UK law have been removed, allowing it to be published as a global guidance note in line with RICS’ development as an international professional institution. Thus, wherever RICS has influence across the globe, health and safety standards are steadily improved.

The new edition includes a chapter on fire safety, although necessarily it cannot deal with it at any length, and short chapters of relevance to RICS professional groups and residential property surveying. The latter refers to the RICS Health and safety for residential property managers first edition guidance note, published in January 2016 (rics.org/resihealth). It also includes some additional material; for example, property visit procedures have been tightened up and chapter 3, on risk, includes a new diagram and an explanation of the risk control hierarchy.

Member organisations expend much money, time and effort on health and safety training, but there is no agreed standardised material for this. The RICS Health and Safety Advisory Group has been working with the training team to develop easily accessible, high-quality training materials that will ensure more consistent information. The group is looking into setting up accredited online health and safety training courses and testing, with the possibility of online examination to pre-qualify APC candidates. All of these will be based on the Surveying safely guidance note.

Anthony Taylor is director, group health safety at GVA, chair of RICS Health and Safety Advisory Group and co-author of RICS’ Surveying safely second edition guidance note anthony.taylor@gva.co.uk

Jeffrey Tribich is lead health and safety consultant at Malcolm Hollis, member of RICS Health and Safety Advisory Group and co-author of RICS’ Surveying safely second edition guidance note jeffrey.tribich@malcolmhollis.com

Related competencies include:
Health and safety
Ground for development

The Gravity Pioneer project aims to improve the way we detect and monitor objects below the ground, in turn reducing the risks and costs of development

George Tuckwell

Our ability to detect and monitor objects on land, in the sea, around buildings or in space has been enhanced in recent years, yet our ability to detect those beneath the ground has not improved significantly. When attempting to locate a forgotten mineshaft, determine the extent of a sinkhole or assess the quality of infrastructure, we still often resort to digging or drilling holes.

This is costly as road networks are dug up, oil wells are drained and brownfield land is left undeveloped, which affects project risk, cost and timescales and contributes to some of the main reasons for project delays: poor planning, lack of information and changes to specifications.

Existing ground investigation techniques include ground-penetrating radar, classical microgravity and seismic technologies, but these can be limited in sensitivity or depth penetration. For more than 30 years, academics have therefore been exploring the effects of quantum superposition to measure gravity with significant sensitivity.

Using a process called cold-atom interferometry, the wave–particle duality of a rubidium atom is compared with the phase of a laser beam to detect minute changes in the way other atoms fall freely in a vacuum. Changes in this freefall can be used to determine the local strength of gravity. If this measurement is sensitive enough it can be used to tell whether there are voids, pipes, tunnels or oil or gas reserves in the ground beneath your feet.

A group of scientific and engineering companies has joined forces with universities and organisations currently engaged with quantum technologies in the UK for the Gravity Pioneer project. The aim is to develop a tested blueprint for a commercially viable gravity instrument.

公司 RSK 是引领 12 位项目合作伙伴，包括组件制造商、仪器开发商和用户，覆盖供应链中的服务提供商和仪器和组件制造商。项目的重要组成部分是研究与创新部在 2018 年宣布的 600 万英镑量子技术先驱基金中的成功竞标。这笔钱是为了开发可以用于未来传感器、消费电子产品和数字服务的原型而设立的。

有了这笔资金，项目将在一年内开始工作，目标是在两内完成性能的两倍改善和测量速度的十倍改善。要做到这一点，团队将考虑以下几点：

- 消除现有设备中的系统性测量误差
- 探索和实施新的方案来创建和操控冷原子，以提高信噪比
- 改进元件性能
- 解决某些组件（如激光系统）的关键供应链风险

目标是在一年内实现一个工作原型，在接下来的 18 个月内改进其实际性能。

一旦量子冷原子传感器的高级性能得到证明，其经济和社会效益将显著增加。主要设计人、项目经理和计量师将拥有提供前所未有的地表图像的技术，从而大大降低不可预见的地表条件影响项目成本和进度的风险。

George Tuckwell 是 RSK 的地质与工程部门的总司理和 Gravity Pioneer 项目的负责人

tuckwell@rsk.co.uk

相关领域包括：

- 建筑技术
- 环境服务
Construction Risk management

Your word is your bond

With a more detailed understanding of construction bonds, practitioners can manage risks for all parties involved in a project

Elliot Patsanza

Construction bonds, or surety bonds, are security instruments that mitigate risk for clients, developers, contractors and their supply chains. They are formal agreements involving three parties:

- the surety: usually a bank or insurance firm
- the project owner, beneficiary or client: the named beneficiary
- the principal or performer: normally contractors, consultants, subcontractors and suppliers.

The surety guarantees to make a predetermined payment to the project owner or client should the principal fail to perform or fulfil their contractual obligations (see Figure 1). Surety bonds broadly fall into two categories: conditional, and on-demand.

Conditional bonds
The beneficiary has to prove that the principal has failed to meet their contractual obligations, and as a direct result they themselves have incurred financial losses. Some conditional bonds will only be honoured if all of the conditions are met; most beneficiaries are therefore reluctant to accept some conditional bonds, and often ask the legal teams involved to revise the terms to be more equitable.

Conditional bonds typically take the form of a retention bond, which is issued by the surety to a specified client to guarantee and pay an agreed sum in the event of non-performance or principal insolvency. This improves the principal’s liquidity, and safeguards retention payments to the supply chain should it become insolvent.

On-demand bonds
With these bonds, the beneficiary simply has to submit the bond and demand payment from the surety. It is not obliged to provide any evidence that the principal has breached or failed to fulfil its contractual obligations, so most principals are therefore reluctant to sign up to terms and conditions with on-demand clauses.

On-demand bonds typically take one of the following forms.

- Bid bond: this is issued by the surety to guarantee that a bidder will enter into a formal contract if its bid offer is accepted. If not, the surety will pay the client the sum mentioned in the bond. Such a bond is normally applied to cost- and schedule-sensitive bids, and ensures only committed tenderers participate in the process.
- Advance payment bond: at times clients issue advance payments to suppliers and service providers, and this bond will safeguard these in the event of the non-performance or insolvency of either. The bond helps minimise risks associated with inflation, securing fixed commodity prices during hyperinflation, as well as risks associated with currency movements for materials procured from abroad, and helps the principal to accelerate service provision.

As construction procurement models continue to evolve we are likely to see more hybrid forms of bond dominate the markets.
• **Payment bond**: the surety guarantees to reimburse an agreed sum to the client in the event of performance failure or the principal’s insolvency. It is ideal for helping principals to accelerate progress on a project, as well as reducing the client’s financial risk.

• **Roads and drainage bond**: principals – usually developers – take out a bond in favour of the client – often local authorities – that guarantees a prescribed sum be paid in the event of a failure to hand over roads and drainage services in a condition that fulfils Building Regulations. The bond lowers the client’s financial risk exposure.

• **Off-site materials bond**: this is issued to guarantee payments made to the principal for off-site materials, commonly when a substantial portion of the work has to be completed off site and the beneficiary needs to minimise exposure to financial risk if the principal or supplier falls into liquidation. The off-site materials have to be handled as the conditions in the bond agreement specify.

**Alternatives and variations**

We have recently witnessed the emergence of a third category of bonds that is yet to gain a formal nomenclature, but which share traits of both conditional and on-demand bonds. As construction procurement models keep evolving and now tend to prefer collaborative approaches, we are likely to see more such forms dominate bond markets as their terms and conditions are often equitable and more palatable for beneficiaries and principals alike.

These bonds typically take the form of a performance bond, which is issued by the surety to guarantee performance by the named principal. In the event of performance failure, the named client will be paid the prescribed amount, usually ten per cent of the contract sum. This reduces the client’s financial risk as it is able to fund the cost to replace the principal with the bond payment.

Different forms of contract also have different provisions for construction bonds, as some examples from the UK demonstrate.

• **JCT**: the contract particulars contain provisions for using performance, retention, advance payment and bid bonds. These particulars are drafted by the beneficiary, so tend to be on-demand bonds. The principal’s failure to produce the specified bond is deemed a serious breach and may lead to contractual termination.

• **NEC**: secondary option clauses for bonds under this form of contract are the X13 performance bond, X14 advance payment bond and X16 retention bond. Bond conditions are specified in the works information section of the contract; failure to provide the bond on the project manager’s instruction will lead to the withholding of a quarter of payment due and, eventually, to contractual termination.

• **ICC**: these conditions require the contractor or supplier to provide performance security bonds under clause 18. The bond specifications are outlined in the appendix and the form of bond annexed to the conditions of contract. Provision of the bond is deemed a condition precedent to any obligation the employer has to make payments that might otherwise be due under this contract.

Bond wordings and forms are mostly set by the Association of British Insurers. Internationally, FIDIC is the contract form used on most major World Bank projects. It recommends the use of construction bonds when contracting suppliers and contractors, but discourages the use of surety bonds when appointing consultants.

**Figure 1. The key parties involved in construction bonds and their respective relationships**

**Bond costs**

Costs are determined by many factors, key among which is the financial status of the performer or principal taking out the bond: firms with strong balance sheets and high credit ratings will secure bonds at lower costs than peers with weaker balance sheets and lower credit scores. The cost of surety bonds is also determined by the risk levels associated with:

• the nature and type of the task or contract

• the performer or principal’s performance record

• the industry or sector

• the general economic climate and forecasts.

Bond costs are therefore difficult to estimate. In the UK they tend to vary between one and a half and eight per cent of the bond value, with a flat fee ranging from £700 to £1,500. In some circumstances, performers and service providers tend to be reluctant to issue bonds as the full bond value is marked against their overdraft facility, which can have a detrimental effect on their balance sheet and credit score ratings.

Surety bonds, when correctly understood and used, are tools that can effectively mitigate financial risk for clients and supply chains.

Elliot Patsanza FRICS is director, head of infrastructure cost and management services at Capita Real Estate and Infrastructure elliot.patsanza@capita.co.uk

Related competencies include: Contract practice

Further information: Construction security and performance documents guidance note rics.org/BBconstructionsecurity
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Cover your bases

Whether undertaking the Insurance competency or not, APC candidates should have a solid grasp of the types of cover available

Andrew Smith

Insurance is an APC optional competency on the Quantity Surveying and Construction pathway, to be taken to a minimum of Level 2, for which candidates must demonstrate an application of knowledge and understanding, for example compiling cost data for an insurance claim. Insurance is also an embedded part of other core and mandatory competencies, such as Contract practice, and Ethics, Rules of Conduct and professionalism.

Every APC candidate and chartered quantity surveyor should be aware of the essential cover types and associated terminology. This article details professional indemnity insurance (PII), contractors’ all-risk insurance, public liability and employer’s liability.

Chartered surveyors are at risk of being sued by their clients or other parties that have a right of action, such as beneficiaries of collateral warranties or holders of third-party rights, in the event that negligent advice is given. A professional indemnity policy will meet any genuine claim, protecting the assets of the professional, their firm or both, while also providing funds to pay the claim.

Most construction policies provide ‘losses occurring’ cover, so where the insured event occurs during the policy period it will be covered. PII policies are, however, provided on a claims-made basis, covering the insured against a claim first made during the policy period, not when the event prompting the claim occurred. It is thus important that any insurance procured on this basis is maintained for as long as a legal or contractual liability may arise.

Under rule 9 of the Rules of Conduct for Firms, RICS requires all practising firms or professionals to have PII cover. Run-off cover is also then required once the firm or professional ceases trading, to cover the duration of liabilities: six years for a simple contract made under hand; 12 years for a deed. Note that new requirements for PII run-off cover come into force in 2019 (rics.org/pii).

Contractors’ all-risk or contract works insurance is needed to respond to damage to the works before completion. Such policies are commonly procured on a joint-names basis, with employer, contractor and, if appropriate, subcontractors insured together.

Most building contracts require public liability cover as well, to protect against claims in the event a person or persons is injured or killed and to reinstate damage caused to third-party property. Professionals and firms are advised to carry such cover, even though the risks of harm and damage are lower than for a contracting organisation; the contract will dictate whether this is required.

Employers must under the Employers’ Liability (Compulsory Insurance) Act 1969 also insure employees against bodily injury or disease arising out of and in the course of their employment.

In all cases, the policy cover limit or insured sum must be appropriate. If too low, the insured party will be exposed to the risk of uninsured losses; if too high, unnecessary capacity is being bought. Policies also usually have an excess or deductible, a proportion of the loss that the insured must meet for each claim.

While specialist advice should always be obtained, the chartered surveyor should feel confident in understanding which insurances apply to their practice and to their client’s business requirements.

Andrew Smith FRICS is director of Andrew D Smith Ltd andrew@andrewdsmithltd.com

Related competencies include: Contract practice, Insurance
An understanding of the common causes for negligence claims and risk management considerations can make for better informed decision-making

Greg Harrison

For the past decade, most RICS-regulated firms have enjoyed access to competitively priced professional indemnity insurance (PII). Even so, PII may account for well in excess of five per cent of fee income and can be the second biggest expense after payroll — sometimes more for those firms that are unable to provide evidence of prudent risk management.

PII is commonly seen as a necessary evil and is often only considered a few weeks before renewal, at which point the objective is to renew as quickly and as cheaply as possible. This approach is unlikely to result in an insurance product that, when tested by a claim, performs as it should do.

This article aims to outline the more common causes of claims, along with some considerations for risk management, to enable better-informed decisions.

**Poor audit trail**
Failure to create and maintain adequate records and site notes can be a major problem when it comes to the defence of a claim of negligence. A professional does not have to be negligent for a claim to arise; however, when a claim does arise, the professional needs to be able to give evidence of the way they come to their findings. Otherwise, insurers have little to no chance of making a successful defence.

It has long been said that merely doing a good job is not enough: we must be able to evidence that any survey carried out was done so with the common law duty of reasonable skill and care. The site notes should provide the muscle for the defence of any claim.

**Lack of expertise or resource**
Lack of expertise is one of the most common causes of professional indemnity claims. Competitive spirit can often cloud an honest evaluation of why you have been selected to bid for a certain type of work, and may prevent a reasoned bid or no-bid process being undertaken. As a result,
Doing a good job is not enough: we must be able to give evidence that we have done so with the common law duty of reasonable skill and care

Stay informed
Our advice is to stay in contact with your insurance broker so that you remain up to date with any foreseeable changes in both the insurance market and your own. This should help you to budget for any probable rise in premium and to prepare for the renewal process.

Remain informed about risk: speak to your colleagues, your competitors and your clients and be aware of the events that typically lead to an increase in claims. If you stay informed, you should be able to respond to changes in risk by adapting your processes or by applying caution when taking on new work.

Ensure that the person responsible for buying PII understands the business, understands PII and appreciates how to manage claims efficiently. Use brokers with a demonstrable understanding of the surveying sector. Ask about other firms they act for, and evaluate the quality and frequency of the risk management guidance they publish. How involved and present are they in your sector?

Working with a specialist broker will help achieve a better deal at renewal and perhaps, more importantly, will ensure that you get all the guidance and advocacy required in the event of a claim.

While price is important, the most important rule is to ensure that you are fully aware of what you are buying.

Greg Harrison is a senior account executive in professional indemnity at Howden

Top tips to protect against negligence claims

- Ensure your records and site notes are maintained.
- Decide on and use a basic process to establish whether a tender is worth competing for.
- Consider long-term resourcing to ensure you are able work continuously to a service-level agreement.
- Ensure that you understand the client’s needs, and vice versa.
- Before commencing work, conduct an honest appraisal of why your firm has been selected.
- Speak to your insurance broker, colleagues, competitors and clients to remain up to date with any foreseeable changes in both the insurance market and your own.

Related competencies include: Ethics, Rules of Conduct and professionalism
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Cyber fraud

‘Surveyors are vulnerable to a multitude of cyber risks, which are exacerbated by emerging technologies’

Stuart Mangion
JLT Specialty

Despite the valuable data they possess, surveyors have largely managed to steer clear of cyber criminals. However, there is increasing potential for hackers to exploit weaknesses in surveyors’ systems to access the large amounts of money they hold.

Criminals are becoming more inventive, and increased scrutiny under the General Data Protection Regulation means security breaches can have devastating effects on a company. Consequently, clients are seeking reassurances on security from the outset.

Surveyors are vulnerable to a multitude of cyber risks including identity theft and social engineering, email compromise, or phishing attacks and ransomware. These are exacerbated by emerging technologies such as building information modelling (BIM), as this allows data to be shared by employees at all stages. If BIM is breached, hackers could gain access to client databases, occupier details, information about security systems and other internal controls.

The current trend for short-term, multi-occupier use of space brings other risks. The transient client base, minimal contact with occupiers, the greater number of people accessing the space and increasing use of fully web-based systems increases the risk of security breaches, the theft of personal information and identity fraud.

Everyone has a duty to ensure data is protected. Regular staff training can help employees spot suspicious behaviour immediately and avoid accidentally compromising your data security by:

- clicking on a malicious attachment or link
- giving unauthorised access in a bid to help
- oversharing information on social media
- using one password for multiple accounts
- sending confidential information to personal accounts
- using work devices on insecure networks.

The UK’s certification scheme, Cyber Essentials (bit.ly/UKcybess), can help your staff understand the basics of good practice. For added protection, companies can also employ a third-party security service provider or appoint an internal operational risk manager. The National Cyber Security Centre provides advice for small and medium-sized enterprises, where hiring or appointing a dedicated cyber risk specialist may not be feasible (bit.ly/NCSCsmallbus).

Prioritising the issue and reporting it back to the board can improve ongoing internal communication, as can ensuring staff’s technological knowledge is kept current. A robust cyber security strategy also demands that the latest technology is installed on your systems. Security software can filter urls, scan content and block any suspicious emails or links to reduce the opportunities for human error. Multi-factor authentication and end-to-end encryption can control access to your system, while virtual private networks can ensure that all internal communication remains secure. Cloud-based back-ups can also help with recovery following a ransomware attack.

From an insurance perspective, proactive companies with strong IT defences are a much lower risk. It is essential for firms to show that appropriate controls and procedures have been set up and — more importantly — communicated throughout.

Surveyors should ensure that their professional indemnity insurance coverage is broad enough to cater to their specific needs, particularly third-party liability. If necessary, there are a variety of specialist stand-alone crime and cyber policies that complement your current arrangements.

When assessing your insurance, read the small print. Hacks and outages can amount to potentially bankruptcy-level recovery costs, which can easily exceed minimal limits. There will rarely be the opportunity to negotiate a commercial settlement — will your policy’s indemnity limits really be enough to protect your business? Exclusions can have a colossal effect on your finances when applied broadly; paying attention to and negotiating the wording of these exclusions can make all the difference.

Surveyors must pair robust security controls with fit-for-purpose insurance and improved internal communication so employees at all levels can help minimise the potential impact of a cyber attack.

Stuart Mangion is partner in the professional indemnity team at JLT Specialty
stuart_mangion@jltgroup.com

Related competencies include: Client care, Data management, Ethics, Rules of Conduct and professionalism

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CPR contained a term that required CPR to provide its own insurance. The court found that the parties could not have intended for CPR to benefit from the project insurance in circumstances where it had expressly agreed to take out its own insurance under the terms of the roofing subcontract. The court therefore held that CPR was not covered by the project insurance and Lakehouse was able to sue CPR to recover its losses.

This was the first time that the court had been asked to consider how subcontractors come to be covered under project insurance. The court said that where a policy covers a class of unidentified insured parties such as ‘all subcontractors of any tier’, it is akin to the insurer making a standing offer to all subcontractors to become insured under the policy; the subcontractor accepts that offer when it enters into the subcontract. However, where the subcontract contains a contradictory, express term that the subcontractor is to obtain its own insurance, that subcontractor will never become part of that class of insured parties.

The decision in this case was probably not the outcome that the subcontractor expected. Fortunately for CPR, the liability insurance it purchased pursuant to the terms of the subcontract did respond, and the claim brought by Lakehouse against it was defended by CPR’s liability insurers. However, the fact that the subcontractor unexpectedly found itself unprotected by a key insurance asset apparently taken out for the benefit of all the parties on the construction project is cause for concern. Many subcontractors will have terms in their contracts requiring them to have insurance, but will also expect to benefit from the project insurance and to avoid subrogated claims in the event the works are damaged by their own negligence. The decision in this case was appealed and due to be heard by the Court of Appeal on 22 January. However, the parties settled at the court door, so this case remains good law.
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