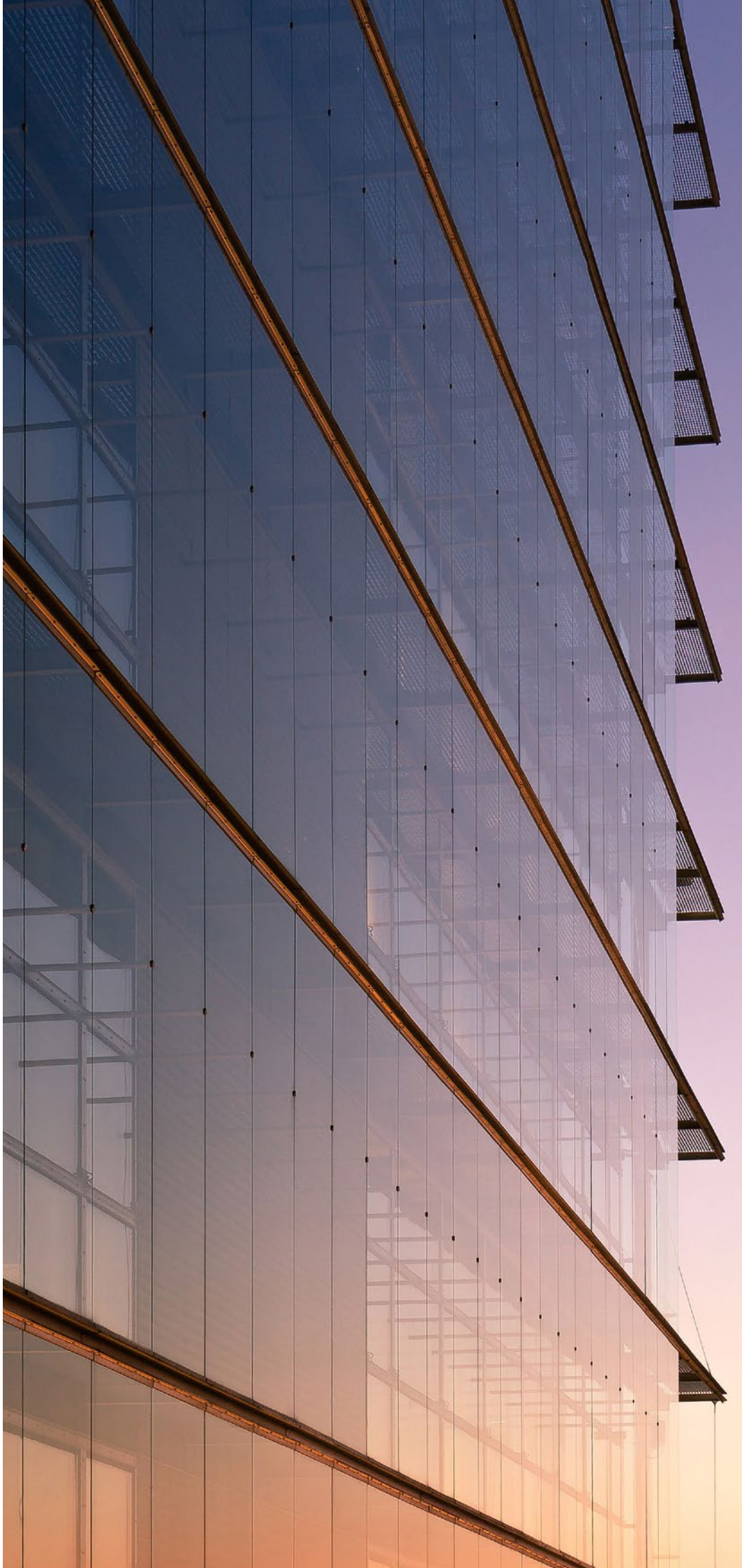
Architectural Technology Journal



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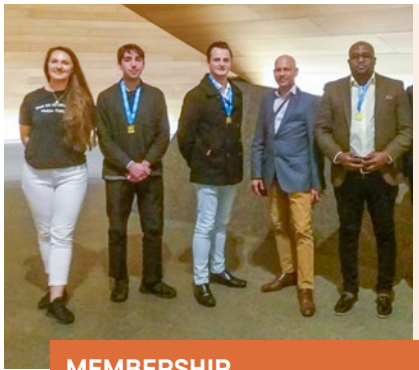


ISSUE #135 – AUTUMN 2020

A warm welcome to the autumn issue of *AT Journal* – this issue should have been showcasing our winners from the AT Awards 2020. However, worry not, these will be appearing in the next issue after the announcement of them at the AT Awards event and digital showcase on 3 December – make sure this date is in your diaries for what proves to be an exciting virtual event. It will be hosted by our resident MC, Matt Allwright. Please see the back cover for further details.

I believe that I am now classified as a 'Corona survivor' and what a six-months it has been! I still await the return of my taste senses, which have been on holiday since March, but this has not deterred my dedication to the world of Architectural Technology. Whilst it is often easy to look at the negative impact of COVID-19, there have been some remarkable moments for members, the discipline and the Institute.

One of these moments happened at the start of this month with the launch of the protected descriptor 'CIAT Chartered Practice' for our Chartered Members who are on the Register of Practices. This is a remarkable achievement and I wonder how many imagined that this could be possible 55 years ago when the Institute was founded? Further details can be found on page 50.

Our President has been touring the Regions and Centres virtually, meeting members and affiliates and gaining first-hand knowledge as to how COVID-19 has affected both the industry and individuals. This will allow Executive Board and Council to steer the Institute accordingly to ensure that support and needs are addressed and your Institute remains relevant to you.

At the Council meeting on 5 September, Kevin Crawford MCIAT was elected as President Elect, a role that he will take on after the AGM on 14 November. Kevin has always been, and remains, a very passionate Chartered Member about both his Institute and the discipline. We look forward to finding out more about Kevin's plans over the next year and these will be featured in the Journal. Talking of elections, we have the next set of Honorary Officer positions – Honorary Secretary, Vice-President Education and Vice-President Practice – find out more and how you could become involved or to nominate someone on page 43.

Included with this issue are the Resolutions for the AGM along with the *Annual Review* which is a round-up of the year by your President, Eddie Weir, alongside the summary of accounts for the year ending 30 April 2020. If this is missing from your issue then please do email me for a copy (editor@ciat.org.uk)

I would love to hear from you regarding anything in this edition or if you have any ideas for future articles – this is your Journal and I welcome all ideas and feedback – please do get in touch and email me at editor@ciat.org.uk

Until winter

Adam Endacott
Editor

Correction for Issue 134
On pages 34-35, we reported on the tenth NBS BIM survey but there was a typo in one of the figures. On page 34, it states '6% among Technologists' and it should say 65% to read '…following a naming convention for all information that is shared (65% among Technologists and 80% among BIM managers).' We apologise for this error.

COVID-19

How will COVID-19 change design for the better?

Words by VATRAA Architecture

It is hard not to pay more attention to the buildings around us, and their practicality, as many of us are working and spending more time at home. We are learning about what we need from design and architecture and how we want our spaces to work and be more functional.

People are looking for more organisation or better sustainability, and technology in design is beginning to evolve to help understand what a building needs and how to meet them. It goes beyond homes – people are re-evaluating designs for public spaces and how we will now use them.

COVID-19 has unchangeably affected every life in a way or another, and we will most probably never go back to the way we were. However, as we move forward, we can look at how to better ourselves from the way we work, to the way we live and to the spaces we live in.

> **Not only are we feeling different about space, the way we are using it has changed.**

Space has become important to us, and also, how we use and interact with and in it. Not only are we feeling different about space, the way we are using it has changed. From private homes, and using them as offices, to public spaces such as gyms and restaurants, and how we will use them, especially in line with social distancing.

The role of architecture and design has always been important and integral to how we live and spend our time, but it has been guided by us, and not the other way around! It is an exciting time for design, with sustainability and practicality driving innovation and ideas. It is no longer the time to follow trends, instead, architecture needs to influence our behaviour, and we need to create functional spaces that meet the new demands of society, and not just our own.

Design will now set the pace and change our perception around practical design. We understand now that the home, for example, can influence your everyday life. Our homes need to cater for both work, and home, and restaurants need to allow us to eat safely, whilst remaining sociable. We need to think on a more permanent basis; this has been a crisis of our time, but it does not mean it will not happen again, so we need to be forward thinking and proactive, rather than reactive to ensure spaces are functional and can be used more efficiently and productively.

Architecture has always been exciting and now we have a unique opportunity to combine practicality and psychology. Rethinking design, how we perceive space and their usage will be a complicated task, but the results will be life changing. We have the potential to make a significant difference to the lives of the people using the spaces we build.

Post-COVID, we believe that the world will look towards architecture and design as a solution to the pandemic or global crisis problem. Commercial spaces, to a degree, already have this mapped out, but the residential market has been left behind. Our hope is that there will be a massive impact on the property market and the way properties are evaluated. Some residential developers have managed to foresee this and have a head start, as they looked to bring homes and flats onto the market that include the quality of architectural design in their valuation.

Developers and designers will start to consider aspects including balconies, and the space they offer, especially on multi residential buildings, or low ceilings, and the link to claustrophobia, and natural light, with window and skylight placement being important.

When the public understands the value of architecture, it can revolutionise the industry. This understanding will mean they are able to intelligently demand more from their property and space. Developers will look to create better quality spaces and architectural practices will be encouraged to develop their design process and leave behind the outdated copy-paste trend. It will also mean that designers can work more closely with their clients and create better spaces following these unprecedented times. ■

COVID-19

Who needs more uncertainty?

Words by Sarah Fox, 500 Words Ltd, Author of *Small Works Contracts in Just 500 Words*

I do not know about you but I definitely do **not** need any more uncertainty in my life right now: whether as a mum to three boys aged 15-20, in my freedom to run or cycle outdoors every day, or in my business as speaker, author and legal consultant. Just adding another pet might be the last straw!

Back in March 2020, the massive uncertainty of lockdown led the doomsayers to predict the end of civilisation as we know it. After a few hours, we came to realise that maybe those commentators were not *quite* correct. Many companies in construction started to dig out their contracts. Of course, finding them was the first hurdle especially when the paper version was locked in an archive to which entry was now forbidden.

To stop or no?

At this point, world leaders were somewhere on the spectrum between completely in control and on top of the science, and making it up as they went along. In the UK, lack of reliable clear guidance left the industry unsure if it was coming (home for the foreseeable) or going (to work on sites). A fortnight later, there was a little more certainty – Scotland implemented a presumption against construction, and Wales created regulations requiring site operators to take all reasonable measures to maintain 2m distancing for staff and in England...there was still nothing concrete.

What did this mean for your project? In England you were left to your own devices. It was rather hit and miss whether your project shut down, stalled temporarily, or pretended to continue with 'business as normal'. It was hard to see that the contracts were being any help at all!

Admittedly, most of our standard form contracts have some sort of clause which was loosely associated with the pandemic – whether it was force majeure, an act of prevention, illegal or impossible acts, change in law (depending on your project's home nation), early or advance warnings, government intervention, failure of a supply chain or something else. Just interpreting these provisions, many of which had not seen this much action since World War II, was a full-time job for many construction lawyers or claims consultants.

Contractual uncertainties

However, it didn't take a zoom full of legal minds for the parties to realise that the contracts were not *resolving* the uncertainties of the pandemic; actually, they were *adding* to them. It was difficult to categorically advise a client, contractor or consultant what their rights and remedies were going to be – not just in the immediate short term but over the course of the pandemic. The very tools that could have been designed for managing the project – the contracts – were hindering the process of revising those deals, and so ended up stoking disputes and providing the doubt needed for claims.

Contractor notices started to fly around, as creative types decided that with the procedural clock ticking, they had better ask for time and money (if not a vaccine) as soon as they could – despite the fact that no contract administrator could predict the next few months and so none would be able to determine the respective merits of the parties' positions. Some contractors decided unilaterally (and in breach of contract) to extend their payment periods to give them breathing space. Others just threw in the towel and the list of construction insolvencies started to grow.

The UK Government, not as a benevolent but disinterested third party but as a major buyer of construction services, decided to weigh in with its guidance on behaving responsibly. The idea was that, without ignoring the strict terms of the contract which continued to apply, the parties would be collaborative, forgiving and trustworthy. The aim was to keep the sector working – it is after all a major contributor to the economy and accounts for 10% of GDP or £110bn annually.

Learning from the mistakes

It's been a rollercoaster few months for the industry. It seems to be far cheaper to learn from the mistakes of others or even the mistakes of our own past. So what have we learnt?

Lesson 1: whatever your contract writer promises, your contract cannot and does not cover *every* eventuality. Even though JCT 2016 DB unamended has over 50,000 words, and JCT states it is intended to be comprehensive, it cannot think of everything. Our familiarity with these standard forms can often blind us to the uncertainties within our contracts – the fuzzy edges which neither party spot. More words does not automatically equate to more certainty.

Lesson 2: that even if you have a contract clause which appears to cover this sort of event, it is critical that both parties agree and follow any procedures strictly. Working from home is not an excuse for missing a time bar or for failing to notify a claim – do not rely on popping notes into the site manager's office informally. Check your contracts carefully and know what you have to do, how, with what information and by when.

Lesson 3: detailed contract drafting can create more uncertainty than simple drafting. For example, change in law may or may not include the public health regulations or government guidance; it is hard to be sure. Your contract's definition of force majeure may exclude reference to epidemics or pandemics, whereas the case law definition includes it. Perhaps we can learn to appreciate the simplicity of phrases like 'events beyond the parties' reasonable control' which in the hands of collaborating parties should be good enough.

Lesson 4: contracts should be an effective tool to identify, respond to and review risks. We have come to rely on the default risk management set out in the standard forms – we rarely even think about what might not be expressly covered and whose risk that means it is. For a contractor or consultant working under a lump sum or fixed fees, if an event does not expressly entitle you to either time or money (or both) then you bear the time and cost risk. And yes, that means even for unforeseeable unprecedented and unpredictable events like this pandemic. In my experience, it is far better for all risks to be clearly identified and set out in the contract – so the parties can properly account for the allocation of those risks in agreeing their respective responsibility for changes to time, cost or quality.

It didn't take a zoom full of legal minds for the parties to realise that the contracts were not resolving the uncertainties of the pandemic; actually, they were adding to them.

Lesson 5: in my view the two key factors in whether the parties to a contract will succeed following the pandemic are (1) the degree to which they were already collaborating and working for the good of the project before lockdown, and (2) their willingness to see the recent events as primarily triggering the change management process under their contract.

Trust is at the core to resolving the uncertainties of the pandemic, from contracts through to government policies. It may not come naturally to everyone in construction – some people will need to be nudged or told. In their article 'Risk assessments for site visits and subsequent impacts on contracts' in the last issue of *AT Journal,* Andrew Macleod and Harry Pangli suggested that parties should *"engage pragmatically with clients to try and reach a reasonable agreement about how the situation can be managed most effectively without causing hardship for one party"*. Government has also encouraged this sort of approach.

Perhaps my siren call is too little too late. But instead of hunkering down into our silos to fight out the inevitable recession, we need to focus our energy on creating strong collaborative relationships, robust change management procedures, and user-friendly contracts. Contracts can help us through a crisis not create a second wave. ■

COVID-19

Building for the future – why the industry needs the IMMUNE building standard

Words by Liviu Tudor, Founder and President, Genesis Property

Rarely has a crisis caused multi-sectored, cross-continental turmoil to the magnitude of COVID-19. Socio-economic infrastructure has faced up to devastation beyond anyone's wildest prediction prior to the emergence of the virus and you must cast your mind back over a decade to the 2008 financial crash to have any remotely relative context to the current volatility of the global economy.

What was clear to see following the global implementation of lockdown measures across the world and the closure of commercial buildings in every corner of the globe was that the property sector was neither prepared, nor equipped, to manage a situation of this nature. As we enhance our immune system, so too we should strengthen the immunity of our buildings by rethinking how they are designed, constructed, maintained and run.

In this context, the framework behind the IMMUNE Building Standard™ (IMMUNE™) was initiated, with a strategy to engineer safer built environments for people and organisations returning to their offices. IMMUNE™ has been developed as a set of measures, technical solutions and facility management practices to certify how built environments can withstand present and future health challenges and minimise the impact of a pandemic such as COVID-19 and other bacteriological or toxicological threats in the most sustainable way possible.

To provide a new global standard as a reference for buildings of all types, we allocated a €1million budget

for prototyping and enlisted an expert team of around 20 multi-sector research and development professionals from the health, technology, real estate, architectural and engineering fields, who borrowed learnings from hospitals and IT industry's clean rooms to develop the IMMUNE™ model. The research and development for building the standard was intricate and paramount. It was during this phase, coupled with additional research and personal expertise of over 30 years in the European commercial property sector, that we were able to draw up 100+ recommended measures for buildings to implement. An authorised building assessor in the field of sustainable building design, development and certification, will evaluate and award a property with one of the three IMMUNE™ labels: Strong – equivalent of 3 stars, Powerful – equivalent of 4 stars or Resilient – equivalent of 5 stars, based on the number of criteria met during the official assessment. The award demonstrates a building's diligence and commitment to implementing the Healthy by Design® approach while considering best practices to achieve the IMMUNE™ standard.

The IMMUNE™ index measures include architectural engineering, technology, design, and two levels of operational practices – perpetual and ready-to-action – and offers a step-by-step guide for anyone involved in the realm of real estate development, including designers, engineers, developers and building owners, with target benchmarks to help them create a resilient future workplace.

We were very aware of the challenge in designing a framework which was achievable across the entire property sector, considering financial capacity, differing building sizes and more. We were very particular in creating a standard which can be applied to buildings at any stage of their life cycle and type, such as new, in-use, or a regeneration project, and which covers multiple building types such as offices, hospitality, retail, residential, health care and education.

Though the IMMUNE™ Standard has been developed as an open-source platform to invite collaboration, support and contributions from a variety of experts for further updates to the criteria, it requires building owners to make viable investments. Depending on the size and scale of the buildings, our estimates suggest it could be around 1-2% of an overall project investment. This is a one-time investment to receive the immunity label as it adds value to a property.

Just as we have fire safety regulations in place when designing and operating a building, an IMMUNE™ standard would be mandated as part of the wider health and safety. This is not just a marketing label; it is a safety standard that will need compulsory investment. Having an IMMUNE™ certified-building will also enable people working there and tenants to trust that their office space would be capable of withstanding future health challenges. Consequently, we expect more building owners to look deep into their tenants' needs and design/re-design their properties with health in mind.

Perhaps more importantly, the standard should be considered by landlords and corporate building owners for the fact it breathes confidence into the workforce. Ultimately the aim of this method of adapting our buildings will be what good companies have always wanted: a safe and productive environment where people can enjoy their work, collaborate with their colleagues, and achieve the objectives of their organisations.

What might a future workplace look like?

As per the recommended engineering and design in the criteria, the workplace of the future could include various unique features established by IMMUNE™ including:

- IMMUNE™ stewards would be deployed within each building to implement and monitor activities.
- The IMMUNE™ quarantine/room – a specially designed, fully equipped and ready to use area in case of an immediate need to isolate any exposed people.
- The Emergency IMMUNE™ Warehouse – contriving a rapid and effective relief logistic system for pandemic-response, containing specific protective materials including PPE. The IMMUNE™ steward will be responsible to maintain the stock materials and to distribute at building level all the necessary to ensure safety to all occupants.
- The IMMUNE™ digital twin – digital screens placed in receptions to display immunity-boosting indicators such as daily improvement of indoor air quality in comparison to outside air, water parameters vs. the water source received from the city network and different measures imposed by the IMMUNE™ steward, relevant information related to the good functioning of IMMUNE™ equipment throughout the building.

Having an IMMUNE™ certified-building will also enable people working there and tenants to trust that their office space would be capable of withstanding future health challenges.

Other elements include:

- Built-in technologies to enhance the sanitisations of indoor spaces in the prevention of bacteria, viruses and toxins spreading.
- Bathrooms to be fully equipped with bio sanitisers – urinal and WC hygiene flushing system.
- Ozone space and water treatment.
- Walls covered with antimicrobial paint proven to prevent bacteria as well as mould and mildew growth.
- Rounded corners to minimise bacterial deposits in toilet cubicles, crowded areas such as meeting rooms, cafeterias or break out rooms to be fitted with high-class filters for the intake air.

For further information, visit immune-building.com ■

COVID-19

How technology can support social distancing

Words by mediaworks

The world as we know it is changing. The bottom line is that buildings are not going to be able to reopen and operate safely without robust post-pandemic planning for pedestrian movement. Real people get confused and break rules. It is one thing to hang signs and tape lines and crosses to the floor, but will people stay in their boxes and comply to the rules? Will they have real fear of proximity? Knowing how to manage your space as guidelines ease, or if the government asks you to double down again overnight in the face of new waves of infection, is vital.

Designing with social distancing in mind

It will come as a relief to learn that raw materials for greater certainty, and the flexibility to keep up with a dynamic situation over the months, and possibly years, are all readily available. The likes of 2D and 3D CAD drawings for your building can be used to render a 3D model of the building which can be populated with realistic, intelligent agents whose behaviour is modelled by pedestrian movement software.

One example of technology that can be used to help map social distancing in a building is MassMotion. It is rather timely that the software world's ubiquitous move towards subscription rather than outright licensing has come at just as professionals across the built environment are grappling with the need to understand pedestrian behaviour in more detail than ever before.

Its proximity modelling tests and visualises scenarios within computer models. Its native 3D design means that crucial potential pinch points like stairs and elevators are also modelled accurately and can be observed in animated visualisations. Its sheer power means that new parameters can be entered into the model and a new simulation will run to test new ideas within minutes. Proximity modelling tools are used to show how close people are likely to get and for how long and highlight risk areas.

Its native 3D design means that crucial potential pinch points like stairs and elevators are also modelled accurately...

Oasys added proximity modelling to its pedestrian simulation software and explained that: "What the team has done is to produce a new set of analytics that can be drawn from the software. We have also accelerated some experimental research to give customers the ability to test personal space preferences."

Technology for existing buildings

Technology such as MassMotion will be crucial in designing and building future structures to ensure social distancing is far more achievable for the building's occupants. How can other technological solutions help

support social distancing measures in pre-existing buildings? After all, spatial awareness cannot be accurately relied upon.

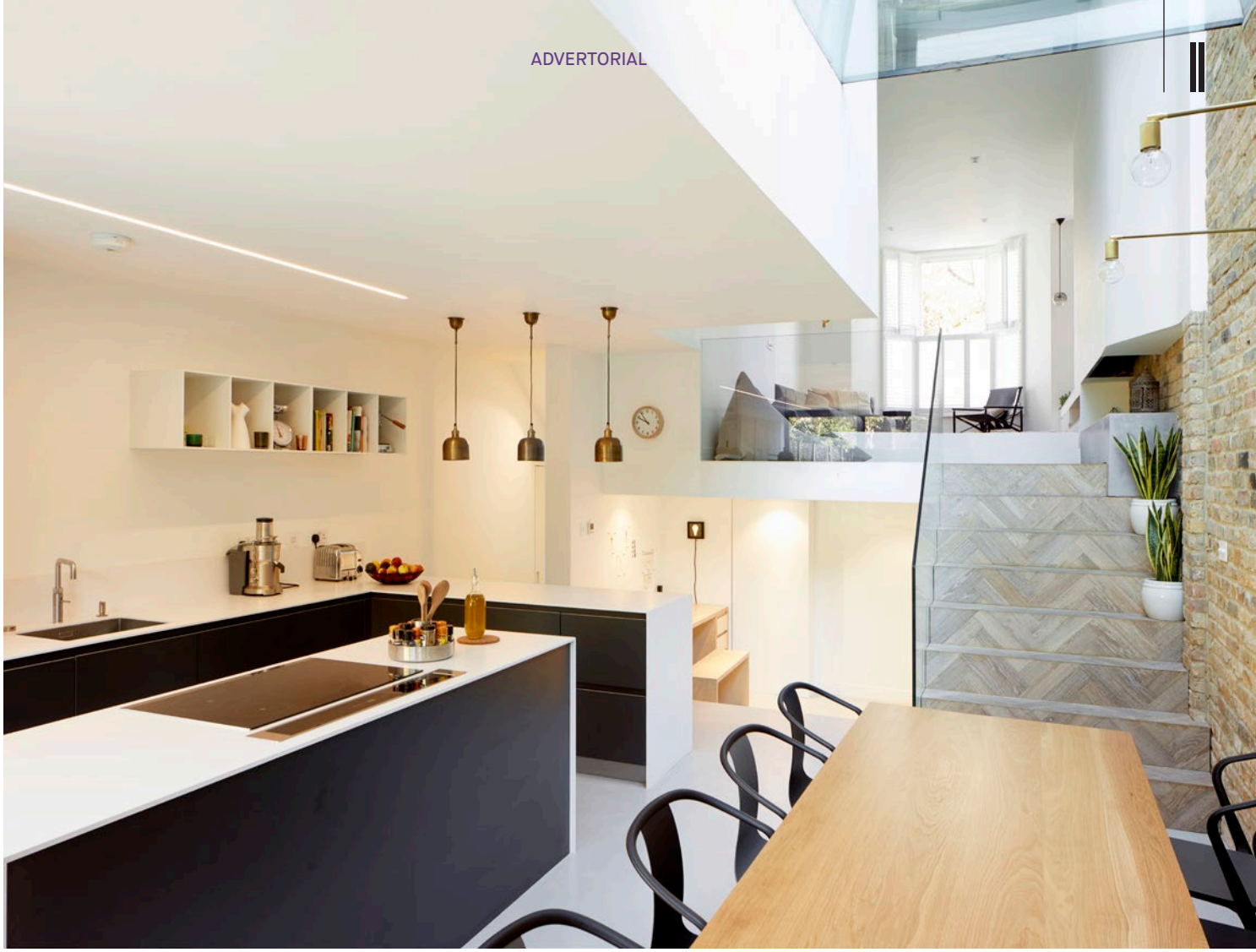
Currently, personnel distancing systems (known as PDS) are being trialled around the country. These proximity warning gadgets can be fastened to a person's arm or belt, or in the case of construction sites, onto a hard hat. The technology can also be added to lanyards or wrist bands. Once the exclusion zone has been programmed, these tags will sound an alarm and vibrate if the wearer gets too close to another wearer.

This technology will be particularly useful in warehouses and shops, allowing staff in a highly mobile environment to focus on their jobs around the building and let the PDS alert them if social distancing measures are being breached.

The future of building management

Understanding and optimising how people use space is increasingly recognised by designers, but can it also inform smart environmental and energy management? As well as wearable smart sensors for people, there had been an innovation of smart sensors for buildings that detect the number of occupants in a space would suggest that there is a growing overlap here.

Pedestrian movement analysis could be a long-term addition to our toolbox, not just an interim response to the pandemic. ■



Preparing for an agile future

Words by Adrian Girling, Managing Director, Graphisoft UK

What a year 2020 has been. When news of a virus in the Chinese city of Wuhan first reached us in January, few of us could have imagined that we were on the cusp of a global pandemic. Cases spread throughout Europe and by the end of March the UK was in a nationwide lockdown.

Construction projects were put on hold, the government-backed furlough scheme was introduced and by mid-August a cumulative total of 9.6 million jobs had been furloughed. The construction industry took an early hit and in recent weeks news stories of considerable redundancies have abounded.

Leading the recovery

With a no-deal Brexit on the horizon and the economy in recession, looking too far into the future can be daunting. However, as students return to schools and universities and many people start to head back to offices, it is expected that the construction industry will be at the forefront of the economic recovery.

In June, the Construction Leadership Council launched its 24-month plan to Restart, Reset, and Reinvent the built environment. This recovery plan sets out detailed proposals to help the sector get back on its feet, within the new COVID-19 guidelines, as quickly as possible. It also takes the opportunity to embed net-zero targets into new housing and infrastructure developments. A focus on increasing exports of professional services, such as architectural technology, is also proposed as way of increasing the competitiveness and market reach of UK firms.

Also in June, the government unveiled its Project Speed initiative, designed to fast track the building of new schools, colleges, hospitals and infrastructure in an effort to help the country recover in the wake of COVID-19. In addition, the government has pledged to prioritise building new homes and regenerating town centres.

A springboard for the future

One key element of the CLC's Reset phase is to increase productivity and strengthen capability. This is to not only help the sector adapt to change, but to enable it to embed good practice such as collaborative business

models as well as increasing productivity. By investing in technologies that can improve efficiencies and productivity, practices will be in a better position to thrive and to take on the challenges of 2021 and beyond, as BSI's Sector-lead Dan Rossiter MCIAT says,

Now is the time to reflect and consider how things can be done better before older, less-productive, norms are re-established

"The investments made by a practice should be considered holistically. By first considering the processes you wish to improve, investments in people and technology can have a significant impact on productivity. Now is the time to reflect and consider how things can be done better before older, less-productive, norms are re-established."

However, the decision to invest in new software, workflows and training can be difficult at this time. With this in mind, Graphisoft has introduced a new programme to help UK and Irish architectural technologists and architects improve their efficiencies by moving from a 2D to 3D workflow and getting trained at the same time.

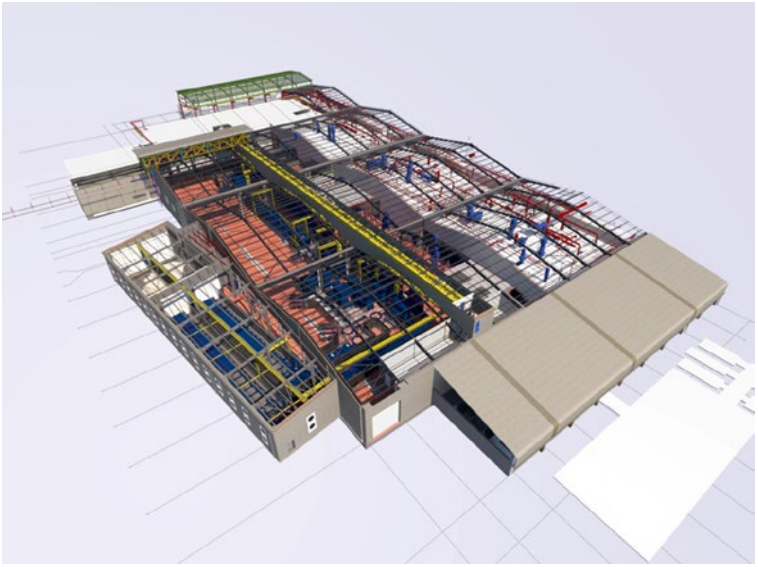
Running from July to December 2020, the **Furlough Your Software Costs** programme gives architectural technologists and architects six months access to new licences of Graphisoft's Archicad software, BIMcloud as a Service and extensive self-paced on-line training, all paid for by Graphisoft. Users also have access to email and telephone support from the UK based support team. At the end of the six months, the free subscription licences can be cancelled or converted to a paid subscription or a perpetual licence.

The programme is open to any new or existing customers who would like to either try Archicad for the first time or add a six-month free licence to their existing usage. And with the UK-based Graphisoft team available to help, you can be up and running in no time.

UK-based support is a huge benefit for many Archicad customers as RDA's director Richard Dudzicki says:

"We love the fact we can talk to real people [at Graphisoft] for technical support. This is a huge advantage for us."

Practices that have converted to Archicad in recent years are already reaping the productivity benefits. As Ran Ankory, director of Scenario Architecture explains, "From design stage to site we're 30-35% faster using Archicad. Once the project gets onsite the time savings grow exponentially."



While there is no doubt that the next six to twelve months will be tough for us all both personally and professionally, taking the opportunity to invest in staff training and new technology that helps practices to work in a more agile way will help to build resilience for the months ahead.

Establishing new working patterns

Back in March, architectural practices and consultancies across the country packed up their lap-tops and shifted to working from home. The architectural industry had to quickly gear up for home working. Graphisoft worked closely with its customers to make sure this was as straightforward as possible and six months on, new working patterns have been established that many people find beneficial.

It's likely that over the coming months, more knowledge-workers will either continue to be based from home, or be expected to toggle effortlessly between working in the office and from home.

This may be because of local lockdowns and further restrictions due to COVID-19 but may equally be a proactive decision to make a permanent change to working patterns.

Many have found the benefits of working from home to be substantial; whether spending less time and money commuting, having more time with family, or a better work-life balance. Many employers also recognised that productivity has remained high or even higher during the recent months, and employers and employees are keen to retain these new benefits.

While we've all become proficient with Microsoft Teams and similar video conference software over recent months, as the expectation to work seamlessly from any location grows, we need access to all our software and business process tools just as easily.

For practices that were already using Archicad when the country went into lockdown, the transition was straightforward. Indeed, many customers commented that they simply unplugged their laptops at work and plugged them back in at home, picking up where they left off with exactly the same functionality.

"Every project is set up in Teamwork and people can work from home with the same functionality as working in the office. Working in Archicad is now second nature to our team, which is testament to the way the software is set up," says Archicad customer Culver Epps, director at Cox Freeman.

Meanwhile Graphisoft's BIMcloud as a Service means that remote teams can work collaboratively, accessing the same project files and working efficiently and securely.

The pandemic has taught us how much we rely on our core technologies to do our jobs efficiently and effectively. The working world may never be the same again, but with the right tools at their fingertips, architectural technologists can be ready to face the new world order head on.

Contact Graphisoft on 01895 527590 and www.graphisoft.com or read about the Furlough Programme online at bit.ly/3jomk4p ■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The Courtyard

Words by James Evans, Communications & Digital Administrator

When Stride Treglown set out to design The Courtyard, a development that hoped to offer retirement properties in Cornwall, they were met with both opportunities and challenges.

The site featured luscious greenery, was surrounded by interesting wildlife (including bats) and offered unparalleled views towards the sea, however the site was a mess. The historic buildings it was home to were dilapidated, it had become a dumping ground for building materials and it sloped down to the sea. In short, they had their work cut out for them.

The practice wanted to restore the existing structures – farm buildings and a Grade II listed clocktower – to their former glory but also offer modern units.

I spoke to Ben Honey MCIAT, a Chartered Architectural Technologist for Stride Treglown, about striking the right balance between redevelopment and conservation. He acknowledged that it had been a challenge but believed they had got it right.

Local stone was used on the existing buildings and they were bought up to the modern standards of building regulations with a dispensation for the walls on preservation grounds. Although the buildings were not listed, the practice was keen to maintain their existing character.

Old farm buildings and a stable now house cottages. New builds on the site include mews cottages, apartments

and houses. There are 38 residences on the site including those in the restored buildings.

Ben told me that it was "very difficult to replicate buildings of that age" so it was decided they would be complimented with modern units. Concrete frames and render were used for these apartments and houses. Render has been used for hundreds of years in Cornwall and compliments the stone of the old buildings.

It was important to keep different parties satisfied as the project progressed. The building inspector needed to see that structures had been made safe whereas the heritage officer wanted to see the existing buildings on site maintain their historical character.

Strides also had to please another key stakeholder: the local community. With the buildings in a state of disrepair and the site having become a dumping ground, residents were happy to see it being worked on. However, they also wanted to make sure the site did not become "overdeveloped".

The practice was ultimately able to please everyone.

Ben is modest and keen to highlight the work of others who were involved. He praised Stride Treglown conservation architect Paul Channing and the landscape architects that Strides worked with. The "balancing act" involved a collaboration between professionals, and this was key to the success of the project.

The buildings on the site have given it a new lease of life, but a lot of thought was put into the natural context of the development. Trees, sunlight, shade and wildlife were all considered. Ben told me that they wanted to maintain as much

There are 38 residences on the site including those in the restored buildings

biodiversity as possible and not disrupt the natural environment.

On the southern boundary, large Cyprus, Turkey Oak and Sycamore trees have been retained even though this restricts potentially stunning sea views from some of the properties. This was a trade-off that the practice was very much aware of, but it believed that it was in the interests of everyone – including future residents – to make. Outdoor space gives residents a space to "not only use but also to share together". They also have access to a wooded area on site through path links. A bat roost has been built on the southern boundary as part of the ecological strategy.

Outdoor space gives residents a space to "not only use but also to share together".

Despite Ben's modesty, having Chartered Architectural Technologists involved in the project was clearly invaluable. They helped with technical design and were also involved in specifying different materials such as breathable render. Having individuals able to help with this kind of detailing was important.

Architectural Technologists were also involved with work on the outdoor spaces, providing advice on levels. This was crucial in the sloping environment. Ben and other Architectural Technologists ensured, for example, that ramps were co-ordinated with key features within the site and complied with regulations. Ben describes this as a challenge but tells me that 'we got there in the end' and once again recognises the work of the landscape architects.

After a COVID-19 related delay, work on site has resumed and The Courtyard is near completion. The bold development not only offers beautiful views but showcases the value of professional collaboration and of course, that of Chartered Architectural Technologists themselves. ■

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There's no BIM like home Part 10

Words by Dan Rossiter BSC (Hons) MCIAT, Chartered Architectural Technologist

AT Journal continues its exclusive access to serialise Dan's blog on how he used BIM to produce an information model of his home.

To make this a successful BIM Level 2 project, I need to export information about my thermostat that I defined at the start of blog when I discussed my model purposes and data requirements. I will need properties relating to condition, warranty and manufacturer information. By looking through the IFC Schema, I can find suitable property sets and properties to include that are structured in a consistent manner. After searching, I came up with the list below:

- Pset_ServiceLife
- Pset_EnvironmentImpactIndicators (for my energy use)
- Pset_Condition (for monitoring until it requires repair/ replacement)
- Pset_Warranty (for reference when being repaired/ replaced)
- Pset_ManufacturerTypeInformation (because it is a manufactured product)
- Pset_ManufacturerOccurrence (because it is a manufactured product)

N.B. I will also need any properties required for types and components to satisfy COBie within BS1192-4.

The problem is that to do this properly, it will take a lot of work. To help, there is a COBie extension for Revit that helps create COBie files from the native file format (a requirement of PAS1192-2). However, it does not create correctly named IFC properties and each property that is created is prefixed with *'COBie.<sheet>.<property>'*. I also found it difficult to control which properties did export and which did not, because of this, I chose not to use the export tool. Also, since I requested IFC as a deliverable within my EIR, I need to make sure that the properties are structured properly; so I have decided to do this the long way.

In order to get a decent looking IFC, I needed to define my property sets. Revit cannot do this. So to do it, I had to create a number of shared parameters and a custom property set definition file to allow them to export correctly using the IFC Exporter. At the same time is also used it to define my COBie properties too (excerpt below).

```
#
PropertySet:    COBie_Type      T       IfcElement
        Category        Text    ClassificationRefForObjects
        AssetType       Text
        Description     Text
        WarrantyGuarantorParts  Text
        WarrantyDurationParts   Real
        WarrantyGuarantorLabor  Text
        WarrantyDurationLabor   Real
        WarrantyDurationUnit    Text
        ReplacementCost Real    Cost
        WarrantyDescription
        NominalLength   Real    Length
        NominalWidth    Real    Width
        NominalHeight   Real    Height
        Shape           Text
        Size            Text
        Color           Text    Colour
        Finish          Text
        Grade           Text
        Material        Text
        Constituents    Text
        Features        Text
        AccessibilityPerformance        Text
        CodePerformance Text
        SustainabilityPerformance       Text
```

Using this file, it moves object properties into the defined property sets. This is important because in Revit you cannot create property sets and because you cannot, all the properties end up under one of the pre-defined categories (I've chosen IfcParameters for many of them). However, this definition file resolves this when exporting.

Left: properties in the Revit file.
Right: Properties in the IFC file

Now here is the exciting bit! Because I have defined the property sets I require including all of my data requirements and COBie properties, I am able to create my COBie data in a number ways including:

- export Revit schedules to transpose into a COBie template;
- export directly from IFC into COBie; and
- install the COBie extension and remap its properties to use my IFC properties.

So whichever method I choose I have a good set of data I can rely on.

I will point out however that it is not all sunshine and rainbows. There are a few problems that I still need to resolve when exporting into IFC:

- I cannot get an object's category to export properly.
- Under my attributes tab, a number of properties have duplicate instances.

Update: I have an issue with my NominalLength and NominalWidth properties, but after contacting Autodesk they have advised me to use 'Length' instead of 'Real' during the property mapping to achieve this. I have now tested it and it works perfectly.

After reviewing how I create my information, I have now developed an openBIM workflow that allows the information I have created in Revit to be exported as an IFC, and this IFC aligned data can be used to create a fully populated* COBie file. Because of this my data is well structured and most importantly consistent with an international schema.

This means that if I apply this process to all of the assets within my model I should then be able to answer this plain language question, and will have all the information I need to have delivered a fully compliant BIM Level 2 information model.

Now that I have started my electrical model, it is time to add other assets such as my lights and fire alarms.

While I have not given it too much thought, when creating new objects I have tried to ensure that I fill them with the information I need to answer my plain language questions about attribute data; for the most part this has been successful.

However, nothing in life comes easy and COBie is no different. Shown below is a screenshot showing that my components have at least successfully transferred over some of their data with them.

Name	ExtSystem	ExtObject	ExtIdentifier	SerialNumber	InstallationDate	WarrantyStartDate	TagNumber	BarCode
DeLonghi_SpaceHeater_Convector:900x600x60mm:700868	Autodesk Revit 2017 (ENU)	IfcFlowTerminal	0$F6Pd5NL3o8ZblssvymOr	None	Unknown	Unknown	None	None
DeLonghi_SpaceHeater_Convector:1000x600x60mm:697579	Autodesk Revit 2017 (ENU)	IfcFlowTerminal	25mad2SOj6$esbMh8IRDHd	None	Unknown	Unknown	None	None
Elster_FlowMeter_G4:Elster_FlowMeter_G4:757495	Autodesk Revit 2017 (ENU)	IfcFlowController	3_PHDktmv5MP2MQ_EgNpad	002528609424	2011-09-09	Unknown	None	G4K50237111101
DeLonghi_SpaceHeater_Convector:1000x600x100mm:701673	Autodesk Revit 2017 (ENU)	IfcFlowTerminal	0ZTlYNxgP1cwWdPf2A9VXE	None	Unknown	Unknown	None	None
WorcesterBosch_Boiler_GreenstarSystem:24i Junior:713178	Autodesk Revit 2017 (ENU)	IfcEnergyConversionDevice	0NZtkezeX5Xv4OA3y6oRiu	5570-105-000129-7716130141	Unknown	Unknown	None	8716111433
Manrose_Fan_XF150B:Manrose_Fan_XF150B:747376	Autodesk Revit 2017 (ENU)	IfcFlowMovingDevice	0reHtV7aHBVf9uMPUll8ZK$	None	Unknown	Unknown	None	None
DeLonghi_SpaceHeater_Convector:800x600x60mm:713502	Autodesk Revit 2017 (ENU)	IfcFlowTerminal	0ymBBlOL4UhnML6LKUBo7	None	Unknown	Unknown	None	None
DeLonghi_SpaceHeater_Convector:900x600x60mm:701698	Autodesk Revit 2017 (ENU)	IfcFlowTerminal	0ml3O2i1f1CQxlkXVYZMcP	None	Unknown	Unknown	None	None
Manrose_Fan_XF150B:Manrose_Fan_XF150B:746390	Autodesk Revit 2017 (ENU)	IfcFlowMovingDevice	0UHxNooyz1gdJdax1h$Wb	None	Unknown	Unknown	None	None
BBH_SpaceHeater_Convector:600x1200x30mm:775585	Autodesk Revit 2017 (ENU)	IfcFlowTerminal	3i5DrSodP4o8tKHoTOoV59	None	Unknown	Unknown	None	None

At this point I have noticed a number of elements work well, and a number of elements work not so well.

The good

As I have used the shared parameters and property set mapping files, many of my properties are exporting correctly, such as: barcode, serial number, material, shape and size. The attribute mapping process appears to be going well.

The bad

I'm afraid that it is not all sunshine and rainbows however as some elements are not working exactly as I hoped. Currently, 'category' properties do not seem to carry despite appearing within the IFC object's properties, and something similar is also happening with 'description'. As you can see below, my IFC file captures this information but when I use xBIM to create COBie the information just does not seem to carry.

Object | Type | Materials | Properties | Quantities

COBie_Component	
InstallationDate	Unknown
TagNumber	None
AssetIdentifier	0NZtkezeX5Xv4OA3y6oRiu
COBie_Type	
Category	Pr_60_60_08_34
Description	Gas fired condensing boilers

Space	Description
001	DeLonghi_SpaceHeater_Convector:900x600x60mm:700868
002	DeLonghi_SpaceHeater_Convector:1000x600x60mm:697579
002	Elster_FlowMeter_G4:Elster_FlowMeter_G4:757495
003	DeLonghi_SpaceHeater_Convector:1000x600x100mm:701673
005	WorcesterBosch_Boiler_GreenstarSystem:24i Junior:713178

The ugly

It gets worse. As the IFC export does not capture data from linked files, I need to create rooms/spaces in each model so that my components can export space information. This means that when I produce my combined COBie file I will need to delete duplicate space instances as I'll end up with three living rooms. In addition, no matter what I do I cannot seem to get an object's 'category' to export and appear within the COBie type sheet (or even other sheets when I tested them too) despite appearing within the IFC. Finally, within my attribute tab, I am getting duplicate attributes. It appears that despite being recorded as an instance or type property, when exporting some properties are coming out as both; making the sheet more difficult to read and much longer too.

Over the next few weeks as I complete the graphical element of my information model, I will also be looking into resolving these issues to attempt to create a bespoke IFC FM Handover that'll include as much information to complete my COBie export as possible, and satisfy my data requirements.

But first, lets focus on the matter at hand. What assets are in my home? Well here is a schedule of all the mechanical assets I am including that fall under the responsibilities outlined within my design responsibility matrix.

DeLonghi_SpaceHeater_Convector:900x600x60mm:700868
DeLonghi_SpaceHeater_Convector:1000x600x60mm:697579
Elster_FlowMeter_G4:Elster_FlowMeter_G4:757495
DeLonghi_SpaceHeater_Convector:1000x600x100mm:701673
WorcesterBosch_Boiler_GreenstarSystem:24i Junior:713178
Manrose_Fan_XF150B:Manrose_Fan_XF150B:747376
DeLonghi_SpaceHeater_Convector:800x600x60mm:713502
DeLonghi_SpaceHeater_Convector:900x600x60mm:701698
Manrose_Fan_XF150B:Manrose_Fan_XF150B:746390
BBH_SpaceHeater_Convector:600x1200x30mm:775585

There you have it, now that I have a schedule of my mechanical assets, I am well on my way to answering this plain language question. This means that subject to ensuring I follow suit my architectural and electrical information models; completing PLQ2.4 shouldn't be far away! ■

To be continued in the next issue.
@DRossiter87

Changes to Building Regulations, Part F: ventilation – a carrot and stick approach

Words by Paul Williams, Domus Ventilation Product Manager

The current Building Regulations Part F, which covers ventilation, has been in place since 2010 but over the years key issues have been identified and concerns voiced over the failure of homes to comply. New guidance from Public Health England on selected volatile organic compounds (VOCs) indoors and World Health Organisation (WHO) recommendations for indoor pollutant levels have meant Part F, as it stands, is out of date.

'The Future Homes Standard: changes to Part L and Part F of the Building Regulations for new dwellings' consultation, which closed in February of this year, is the first stage of a two-part consultation about proposed changes to the Building Regulations. The consultation sets out the UK Government's plans for the Future Homes Standard, which will be introduced by 2025, and focuses on increasing the energy efficiency requirements for new homes. This is one of the measures being taken to reduce all greenhouse gas emissions to net zero by 2050, which has been set in law. The expectation is that an average home will have 75-80% less carbon emissions than one built to current energy efficiency requirements, so it is a big leap and will require big changes.

Increased ventilation

Part L (conservation of fuel and power) and Part F of the Building Regulations are very closely linked. If we are to achieve the type of low energy buildings laid out in the Future Homes Standard, new homes will need to become even more airtight than they are now to reduce energy wastage.

Without sufficient ventilation though, these homes can become overheated and the air uncomfortable and unhealthy to breath. Consequently, Part F will also need to change to ensure the right level of ventilation is supplied to ensure good indoor air quality and user comfort. That change means increasing the level of ventilation.

Mechanical ventilation, in the form of intermittent extract, continuous extract (MEV systems) or supply and extract (MVHR systems), are recognised as the most proficient means of ventilating a modern property. The revised Building Regulations are expected to increase the minimum airflow through these systems to each bedroom by 6 l/s. This has been introduced in concern over insufficient ventilation in bedrooms overnight if doors are kept shut. The other expected change here is an increase in the background ventilation from 2500 mm^2 to 5000 mm^2 in extract-only systems.

Natural ventilation systems, i.e. background ventilation, will remain an option under the new regulations, but only for less airtight homes with a design air permeability of ≥ 5. This is disappointing as it is not an energy efficient way of ventilating a home as natural heat will be lost to the outside, whilst there is no guarantee of moisture or pollutants migrating outside. If housebuilders are not put off by this and are still considering relying on natural ventilation, then hopefully they may be put of by the likely requirement for much larger grilles which are far from aesthetically pleasing. That is because the revised regulations require the size of the background ventilation grille to be determined on a room by room basis, rather than based on the whole property.

One expected change in the new regulations, that has surprised a number of people, is the removal of positive input ventilation (PIV) as an alternative approach. Whilst MEV and MVHR remain the better option, PIV can provide a good solution in new build applications where ducted systems are difficult to incorporate into the build. However, Approved Document F 2020 does make allowance for other systems, such as PIV, *'provided it can be demonstrated to the building control body that they meet Requirement F1(1)';* a BBA Certificate supplied by the manufacturer will suffice here.

Simplification of the Regulations

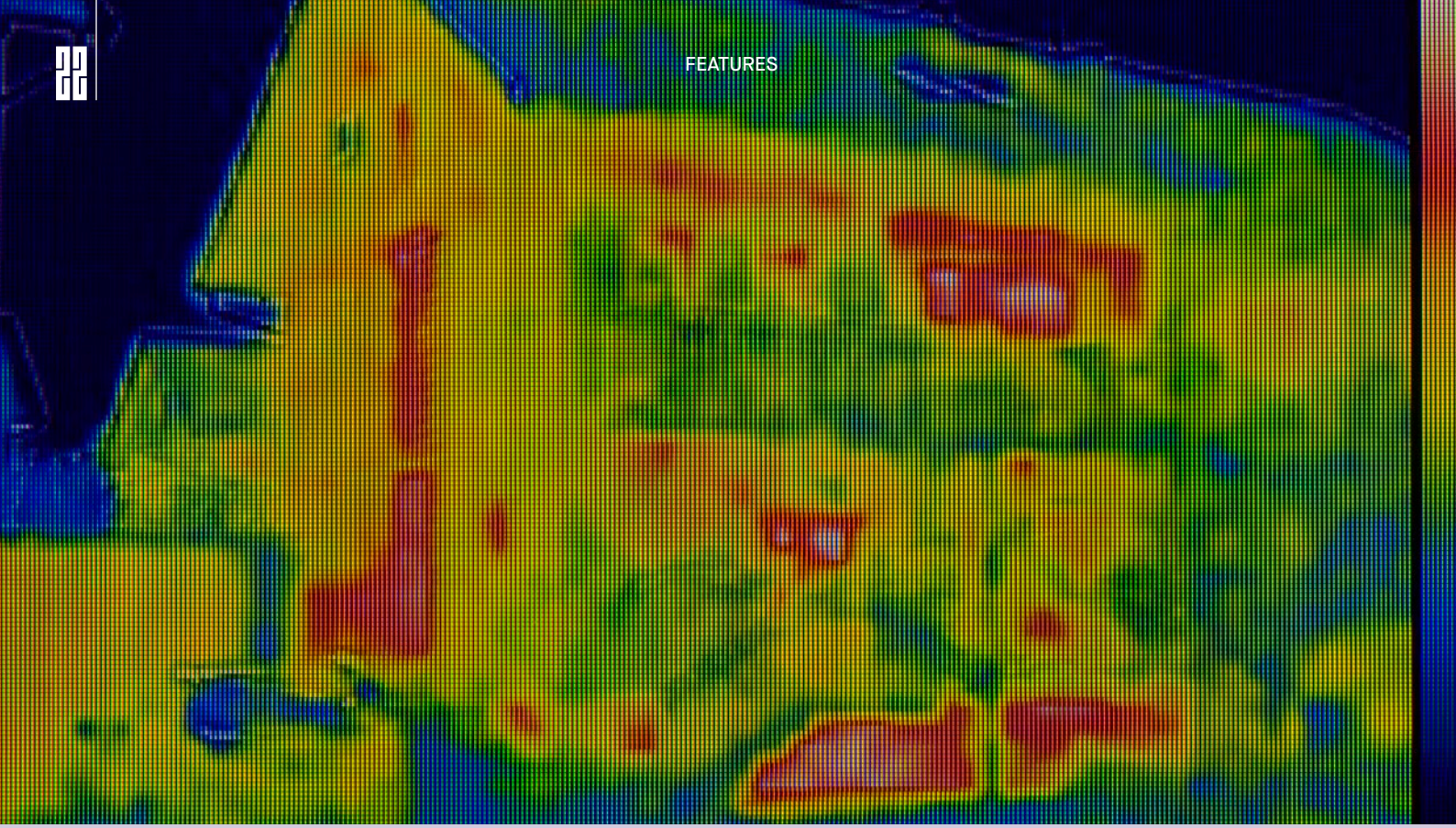
A number of studies, including the UK Government's 'Ventilation and indoor air quality in new homes' paper, have shown a large proportion of homes simply do not comply with the current Building Regulations requirements and poor indoor air quality has been observed in several sample homes tested. So, Building Regulations are either being flouted or are not being understood and implemented. This is something we identified a number of years ago and launched a domestic ventilation installer training course in partnership with BPEC, which is a recognised qualification for relevant competent person schemes.

So, Building Regulations are either being flouted or are not being understood and implemented.

Clearly, if Building Regulations are being deliberately ignored then action needs to be taken to address this through Building Control. However, feedback from industry and building inspectors has indicated that what is more likely is confusion and a lack of understanding of the regulations leading to failure to comply. They have expressed a need for simplified guidance, which would assist designers and help with inspections and sign off.

The result is a simplification of ventilation standards in relation to a property's air permeability through the recommended use of continuous mechanical extract ventilation (MEV) and continuous supply and extract ventilation (e.g. mechanical ventilation with heat recovery – MVHR) for properties with **any** level of air tightness. Whole house ventilation design calculations will now only require the number of bedrooms and floor area to be taken into consideration, removing the need to predict occupancy rates, which removes guess work.

For some, the changes to Parts L and F of the Building Regulations do not go far enough in reducing carbon emissions and energy consumption. For now though, these changes are heading your way and, when it comes to ventilation, it is a carrot and stick approach: it is easier to understand and implement, as the industry has asked; but ventilation rates are increasing and you must supply a copy of the checklist and commissioning sheet to the building owner to prove you have done what is required of you. ■



So which is best – Passivhaus or SAP?

Words by Stuart Fairlie, Technical and Operations Director, Elmhurst Energy

A long-running debate between different groups of green housebuilding experts seems to be reaching a creative conclusion

Energy efficiency is one of those issues which usually means something different to each expert you ask.

Some talk about it in terms of carbon. Others talk about space heating demand and others focus on fuel poverty and the need to reduce overall energy costs.

Consider the design, construction and marketing of green new homes, and you get the same thing. Some are promoted as ultra-low energy, some are 'zero carbon' or even 'carbon positive', and some are celebrated for very low fuel bills.

The law requires the production of an Energy Performance Certificate (EPC) for all new build homes and for existing dwellings at the point of sale or rent. Most people just think of an EPC as the colourful A to G energy efficiency rating.

That rating is basically a cost index which tells you how expensive a home is to run. So far, so good – the housebuilders and estate agents can work with that.

But there is a fundamental problem with EPCs for some experts, as the EPC for a new home is calculated using the Standard Assessment Procedure (SAP). This is a building physics modelling method which has also been at the heart of the compliance framework for UK Building Regulations since 1995.

SAP is regularly and vocally criticised for being inaccurate. It assumes every dwelling is at the centre of the country, somewhere in the east Pennines, so that the climate conditions are always the same. It uses other assumptions to figure out a 'typical' number of occupants and their 'typical' heating patterns.

While there are also an environmental impact rating and an indication of space heating demand expressed in kilowatt hours per year (kWh/year) generated by a SAP calculation and hidden right at the back of the EPC report, these are not considered accurate, they do not cover all fuel uses, the carbon data needs updating, and homebuyers do not tend to pay any attention to those ratings anyway.

SAP is a blunt tool, admittedly, but one that allows us to compare across different dwellings in different locations. So, it has its uses!

In another camp is the Passivhaus community which makes use of the Passivhaus Planning Package (PHPP). PHPP is another building physics methodology which focuses on calculating a kWh/Year rating for a new dwelling and uses very specific local climate data and other inputs to understand how a home will actually perform in use. Organisations seeking to drive improvements in energy efficiency should use this measurement, space heating demand, as the primary metric, say the Passivhaus experts.

So who is right?

Well, all I know is that every year of squabbling between green building experts just leads to more delay in achieving our goals. So three leading organisations in this space – the AECB, Passivhaus Trust and Elmhurst Energy – got together to carry out a detailed piece of technical research comparing PHPP and SAP calculations and outputs to see if they could put the arguments to bed.

It turns out that the two sides are not as far apart as we once thought.

We have concluded, contrary to some rhetoric, that the core of the models is very similar. While PHPP allows a user to enter more data in some areas and considers some elements such as thermal junctions differently from SAP, the physics behind the methodologies that calculate the energy efficiency of the building fabric is very similar.

Perhaps we should not have been that surprised. Physics is physics, after all.

But this work now allows us to move forward on a solution to help housebuilders, designers, energy consultants and other green building professionals. This should finally allow for a direct and fair comparison between all homes, whatever their type or level of energy performance.

Our objective is to learn from the strengths and weaknesses of both approaches, thus improving both. We want to make it easier to demonstrate compliance for both Building Regulation purposes and for those that want to build homes that are above and beyond the minimum regulatory standards.

> **Our objective is to learn from the strengths and weaknesses of both approaches, thus improving both.**

We already have creative ideas about how we could present key performance data for a property in a clear and visually engaging manner, and giving equal prominence to carbon emissions, energy demand, running costs and fabric efficiency.

We think we can provide clarity regarding the scope of the of the energy use covered, such as space heating only, regulated energy or all energy use. We can standardise the units of measurement of a home's performance to allow for direct and fair comparison. We can develop a common energy reporting process capable of being driven by either PHPP or SAP as the starting point.

Energy Performance Certificates go online

A new EPC Register was launched by the UK Government in September 2020 to improve access to all EPCs in England, Wales and Northern Ireland. The new register provides online copies of EPCs, accessible via a link given to the client by the energy assessor once the EPC has been lodged. All existing EPCs are also being moved across to the online format. The Scottish register is unaffected and continues to be provided by the Energy Savings Trust for the Scottish Government.

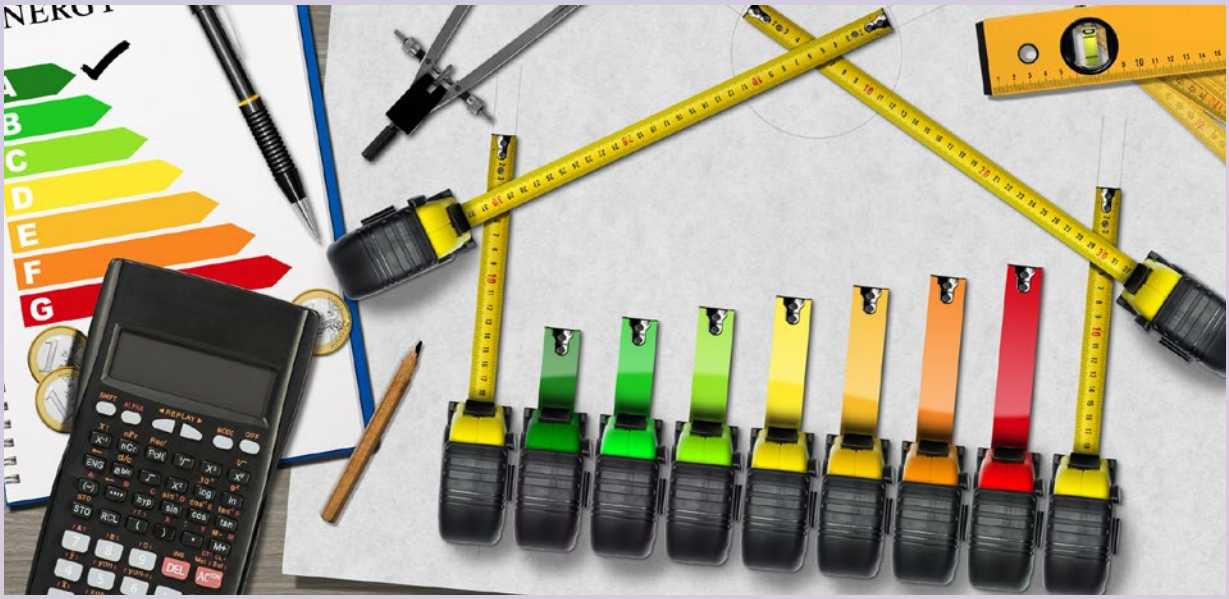
An Energy Performance Certificate is required for properties when constructed, sold or let. It is typically valid for ten years. But as Stuart Fairlie of Elmhurst Energy says: "EPCs should be updated more frequently to reflect the current state of our buildings. Within ten years so much will have changed – not least the energy costs and savings available, but most likely to property itself, with incremental improvements such as the installation of a new boiler or replacement windows. To reflect current fuel prices, an EPC should really never be older than three years to ensure that estimates and recommendations are relevant."

Both SAP and PHPP are effective tools at what they do. It is horses for courses. But bringing them together in some way and aligning with national regulations will make life easier for energy assessors and housebuilders while also presenting consumers with a clear and unambiguous statement of a home's overall performance.

Given a common set of easy-to-understand results, we will all be able to make a fair comparison between homes, and therefore make a choice based on what matters most to us.

At its heart, this is a story of two different approaches, but one common goal. All of us working on this initiative agree that our aims are the same – our commitment is to facilitate the building of more energy efficient homes. What are currently considered to be high performing homes will, very soon, become the norm. By working together that goal will be easier to achieve. ■

Stay updated on this project at elmhurstenergy.co.uk



Putting fabric first is key to building as designed and bridging the performance gap

Words by Simon Blackham, Technical Manager, Recticel Insulation

The Committee on climate estimates UK households are responsible for 40% of the country's CO_2 emissions, a figure that needs addressing if the UK Government is to make good its requirement to be carbon neutral by 2050. Energy profligacy is partly fuelled by thermal inefficiency and failure to build homes as designed. A fabric-first approach to construction and specifying materials which optimise the thermal performance of walls can help bridge the performance gap by creating properties that exceed rather than comply with Building Regulations.

The Future Homes Standard consultation document, which proposes changes to Part L and Part F of the Building Regulations, reported a 'significant difference' between the design intent and measured energy performance of new-build homes. It said poor build quality in particular led to a new home not meeting the intended primary energy rate, CO_2 emission rate or limiting U-values.

To improve performance and compliance for Part L, the report includes proposals to help eliminate the performance gap. These include improving the accuracy of as-built energy calculations and providing clearer information relating to the as-built specifications of new buildings.

Fabric focus

When it comes to a building's design, prioritising the fabric will ensure a property will have an increased capability to perform. The fabric-first process enables homes to achieve lower U-values and improved airtightness without the need to install renewable technologies. This fabric-led approach means a home's thermal efficiency can be significantly improved without radically rethinking the way the building itself is design and constructed.

A key part of achieving this fabric-first approach is through the correct specification of materials and understanding how materials perform with each other. Manufacturers are continually looking at ways to improve buildability, methods of installation and ensure buildings are built as designed.

Effective insulation solution

One example of innovation designed to aid building is the development of polyisocyanurate (PIR) insulation, which is becoming the go-to solution for specifiers in search of a more reliable, durable and sustainable alternative to mineral or rock wool. The panels satisfy two vital factors for designing effective insulation solutions: low thermal conductivity and durable performance.

With a lambda value of up to 0.022 W/mK, PIR insulation panels provide excellent performance. This, coupled with their slim composition, means they require less space to achieve the same U-value as other insulation materials. For mineral wool to attain the same level of thermal performance as a PIR panel such as Recticel's full-fill cavity wall product Eurowall+ – which helps to achieve a 0.18 U-value with a 90mm-thick panel in a 100mm cavity – a much thicker insulation and overall wall width would be required. Once the cavity width grows, wall-tie lengths have to be increased and window and door lintels expanded.

Unlike fibrous insulation, which deteriorates over time when damp sets in, PIR's structural strength enables a consistent performance that will last; negating costly repairs and maintaining its thermal qualities. PIR insulation is renowned for its adaptability.

Innovations, such as the tongue and groove joint which features on all four edges of the Eurowall+, have helped further establish PIR performance levels. The 10mm air gap, which is created by a 90mm Eurowall+ PIR board achieving a U-value of 0.18 W/m^{2}K in a traditional 100mm masonry cavity wall.

Good construction and ensuring a building lives up to the targeted energy performance requires more than just good materials – a high-specification build is crucial. Thermally efficient homes are there for the making, but for this to happen we must ensure to bridge the performance gap. ■

Where does the Building Safety Bill leave product testing?

Words by Nick Atkinson, Director, Ambar Kelly

The UK Government has recently published a draft landmark bill which is designed to improve residents' safety in their homes. The Building Safety Bill, which marks one of the biggest changes to building safety in 40 years, will introduce a new era of accountability, making it clear where the responsibility for managing risks lies throughout the design, construction and occupation of buildings. Ambar Kelly welcomes the new set of rules, which will apply to buildings over 18m. Yet, are there any loopholes? Whilst the Bill provides a framework for accountability and safety, what does it say about risk?

The Building Safety Bill gives residents greater agency when it comes to assuring their security. It will enable them to have access to safety information and give them the opportunity to develop safety proposals if they feel their security is being compromised.

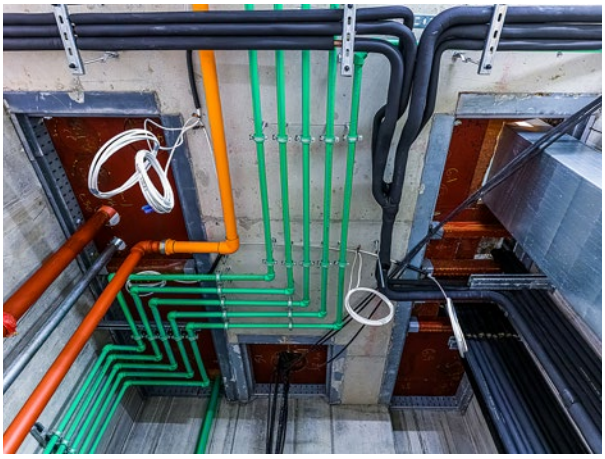
As such, the Bill will introduce tougher sanctions for building owners who fail to meet their obligations. Central to ensuring the regime is effective will be a powerful new building safety regulator housed within the Health and Safety Executive. It will have responsibility for implementing and enforcing a more stringent regime for higher-risk buildings and will oversee the safety and performance of all buildings.

What of product testing?

Although the Bill is an important framework which will hopefully provide greater accountability and safety when it comes to building design, there are some ambiguities. The first and foremost is in regards to testing. Under clause 92 of the construction products section of the draft bill, it highlights: 'The Bill provides powers so that all construction products marketed in the UK fall under a regulatory regime, allowing them to be withdrawn from the market if they present a risk.' Whilst this is important as it will ensure unfit products are not used on building schemes, there is little to no mention of the testing which is needed to ensure these products fit the bill. How are they going to determine which products are a potential risk?

The Bill must place greater emphasis on improving product testing...

In the public inquiry for the fire which tore its way through King's Cross underground station in 1987 it was stipulated that combustible and flammable materials cannot be used on a development. The inquiry came to this conclusion as the cause of the fire was said to be a discarded match which had caught on the wooden escalators that had been in use for over 76 years. We all know that wood is a highly flammable material, so it beggar's belief how that was deemed appropriate for all those years!



The Bill must place greater emphasis on improving product testing as the current framework contains too many loopholes which compromise safety. Ambar Kelly has undertaken evidence-based, independent fire tests in the environment in which our product, RiserSafe® will be employed. Our tests were carried out in the Building Research Establishment (BRE) fire hall in Watford. It was found that when RiserSafe® is used in combination with a fire compound, two hours of horizontal fire protection is achieved. We can make factory-based load tests of up to 2.5 kN/m^2, to ensure that our product works as a barrier to the spread of smoke and flame.

It must be said that the draft Building Safety Bill represents a monumental step-change for the construction industry in terms of safety. It will go some way to inciting change for the better. The main concern is in terms of product testing, an area which the bill has evaded. Testing is of primal importance to ensure construction products hit the mark on safety. If it is not made an essential consideration, where does that leave the industry? ■

Suitable insulation can help preserve the golden sound of silence

Words by Simon Blackham, Technical Manager at Recticel Insulation

The UK needs more housing to solve the ongoing shortage, but suitable land on which to build them is shrinking by the day. It has led to greater housing density at newer developments, as builders look to maximise precious, available space. With so many houses in such a relatively close proximity, it is quite possible that many of us are now struggling to live in peace, as noise from neighbours, increased traffic and other outside disturbances becomes an issue in such heavily-populated environments.

There is no doubt that building design, particularly in relation to largescale developments, is increasingly being influenced by the need to minimise a property's footprint. Space-saving measures include applying fewer materials to walls, floors and roofs, which although may prove cost-effective in the short-term, occupiers risk paying a price in terms of noise pollution. Sound interference is not limited to that generated by road traffic and neighbouring households. If not insulated sufficiently, individual living space can become intolerable due to unfiltered noise emanating from different rooms of the same house.

Mitigate the menace

Although an invisible menace, persistent exposure to invasive noise can have serious consequences. According to a European Environment Agency (EEA) report, one in five people in Europe are subjected to levels of sound considered harmful to health. It estimates that long-term exposure to noise such as busy traffic, railways and aircraft causes 12,000 premature deaths per year in Europe alone. Mental health and wellbeing are also found to be negatively impacted by 'environmental turbulence', whilst the Oxford University reported a correlation between increased levels of traffic noise over long periods of time and obesity.

Silent solution

Having highlighted the real issues noise pollution presents, how can householders protect themselves against its unabating interference? If we want to enjoy our music or TV as loud as we can stand, how is this possible without upsetting the neighbours or other members of the household? Insulation presents a viable and trusted solution to this common domestic conundrum. A proven example being Silentwall®, acoustic insulation panels produced by Recticel Insulation which are designed to prevent exterior noise infiltrating a building whilst providing a barrier to sound transmitting between rooms within the property.

Comprising of a combination of fibres and recycled polyurethane foam, Silentwall® panels provide an 87% sound reduction between walls; a performance which does much to increase the comfort and wellbeing of occupants closeted from incessant, everyday noise pollution. Silentwall's popularity isn't solely based upon its sustainably-inspired composition which results in a slightly thinner, but much better-performing wall from an acoustic point of view; its simple installation is another major benefit.

The bonding process is crucial to acoustic performance, as it eliminates vibration between the two surfaces and dampens excessive sound transmission.

Development

Silentwall® is a signifier of Recticel's commitment to the circular, sustainable economy. It is on a second lifespan and our technical teams will already be looking at ways to adapt upon its current purpose. In terms of what lies ahead for the development of acoustic insulation, its wider use within retrofit applications will likely depend on the adoption of thermal technology as part of its package. This 'best of both worlds' approach would seem the most logical progression. With communities continuing to live evermore tightly together, a sustainable insulation solution which offers an acoustic and thermal seal will be crucial to creating a harmonious environment inside and outside of the home. Silence is golden, according to the well-worn phrase, and we will learn to treasure it even more as the years pass and living space becomes an increasingly precious commodity. ■

The challenge of M&E design in an increasingly electric, low-carbon built environment

Words by Alex Hill, Managing Director, Whitecode Design Associates

With the UK's built environment under continuing pressure to remain on a trajectory towards zero carbon by 2050, how will this impact mechanical and electrical services?

According to the Committee on climate change, energy use in homes accounts for 14% of the UK's total emissions. Part of the largest obstacle is human behaviour and the culture change that is needed to make people aware of how they can be more energy efficient in their homes.

When it comes to M&E design, the technologies are there for the taking. In the journey towards lowering carbon emissions and the use of fossil fuels, there has been a huge drive towards electrification. The 'Future Support for Low-carbon Heat' document, which was out for public consultation between April-July 2020, brings to the fore several low-carbon, efficient heating prospects. One of these methods is air source heat pumps, a low-carbon producer of heat which has been widely tried-and-tested in the likes of Scandinavia and the Netherlands.

Heat pumps

For the UK, heat pumps can be put on the electric grid, which is being decarbonised through the adoption of wind power as opposed to coal. Any sceptics should take comfort in the fact heat pumps can perform, generating three to four units of heating for one unit of energy. This is something that cannot be said for electric panel heaters, which only produce a single unit.

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When looking at which heat pump solution to use on a district system, air-to-water heat pumps are the preferred option to air-to-refrigerant ones. Air-to-water heat pumps for high rises in the UK's cities could at some point be the predominant load. The reason why air-to-water heat pumps are preferential when compared to refrigerant solutions is because they can scale-up. Refrigerant networks are limited to 100m of pipework from the pump to the final dwelling. With a water solution, the distance is infinite, meaning it is better suited to high rise and large network schemes.

Used on a wide scale, heat pumps can increase a site's electrical load. This may raise site power demand by around four times – on some sites this can mean costly off-site reinforcements to the already over-stretched electrical network.

It is undeniable that the demand for low carbon technology is resulting in more electrically-driven solutions to be used on residential schemes. But how do we make these solutions more efficient? What are the other options? Can we generate energy more locally, or is PV technology a potential answer? What can we do to limit the stress on the electrical network?

What are the other solutions?

There are emerging technologies which allow consumers to load share from vehicle charging and these options work well. For instance, if 800kW is required for a particular site, and a substation delivers 1000kW and you only have 200kW spare to be used for car charging, this means traditionally only 28 car spaces could have a point. With a smarter car charging solution, the 200kW could be connected to a significant amount of other spaces. The system then prioritises the batteries in most need and loads share to a greater number of points.

In our journey to low carbon, fossil fuel-free solutions, the industry could consider renewable technologies. A large proportion of our energy is derived from renewable technology, which has driven down the carbon intensity of the electrical network. Being this electrically connected is beneficial and a solution to upholding the carbon neutral agenda. However, it is still placing pressure on the electrical network.

Electricity comes at a higher cost when contrasted to gas 18pkWH compared to 2.2pkWH. PV panels can help offset this cost gap and are very well-known for producing energy in a highly efficient way. PV panels create plenty of electricity during the day when most people are out at work, which means that when people arrive home as the sun goes down, the loads start to run. To make the solutions more robust battery storage can be added to a PV system.

Identifying technologies that will make the UK's building stock more energy-efficient need not be complex. Heat pumps, car-charging stations and PV panels with battery storage are examples of just a few solutions which will go some way to driving down carbon emissions. For more electrically-conscious solutions, renewable technologies such as PV panels are a great answer to alleviating pressure on the electrical network. The challenge is to ensure that all members of a project supply chain are on the right page. Designing holistically from the outset will put us in good stead to create buildings that hit the mark on efficiency. ■

Balancing natural ventilation with acoustic performance to boost sustainability

Words by John McComb, Director Technical Services, Reynaers Aluminium

With the UN projecting that 68% of the world's population will live in urban areas by 2050, the need for comfortable living and working environments in the heart of cities is also on the rise. Alongside this, greater levels of sustainability must also be achieved, pushing the boundaries of modern architecture to ensure performance and aesthetics are never compromised. Building materials play a critical role in creating this balance and delivering desirable city living.

As the buildings of our cities continue to evolve to accommodate the rapid rate of urbanisation, it is critical that the very fabric of these buildings plays its part, not only in their visual appearance and strength, but also in how they stand up to the requirements of modern-day city living to provide greater levels of sustainability and occupant wellbeing.

Having evolved to meet the requirements of modern building design, glass has become a highly desirable construction material and now plays an integral role in modern architecture, transforming a building's character and connecting it with its immediate environment. Buildings such as The Shard and The Gherkin are fantastic examples of how glazing is now used to make buildings completely unique and transform the experience of those living and working in them.

Just as glass has become more important in modern construction, innovations which facilitate greater levels of sustainability are becoming more heavily incorporated into the very fabric of modern buildings. This is something outlined within the Acoustic, Ventilation and Overheating Guide, which suggests that when creating spaces which are both sustainable and comfortable for their occupants, innovative architectural solutions which the aid the management of noise are required. The challenge for architects lies in incorporating these functional characteristics without compromising aesthetics and practicality.

Acoustics and ventilation

Supporting the creation of sustainable and efficient urban spaces, effective ventilation and acoustic design helps to save energy, reduce running costs and make buildings more practical and comfortable for occupants. But, incorporating effective natural ventilation in commercial and residential buildings is a growing challenge, particularly in urban areas where bustling roads and transport hubs generate noise throughout the day. By relying on mechanical ventilation systems, rather than natural alternatives, increased costs and greater energy usage are experienced.

For today's urban buildings to maximise the potential of increased volumes of glazing, as desired in modern architecture, while delivering spaces which are comfortable and sustainable, the choice of materials is critical. With innovative solutions and materials, it is possible to incorporate natural ventilation systems into a building's façade. In practice, this improves a building's sustainability credentials to deliver comfort and practicality, without compromising architectural design and aesthetics.

A noise reducing window

Providing superior performance where acoustics are concerned, aluminium continues to be a popular material in modern architecture which maximises air tightness through its intricately designed profiles. Alongside this, aluminium opens up creative freedom and enables designers to fulfil their aesthetic vision, balancing slim sightlines with greater strength and versatility, in addition to delivering essentials such as safety and security.

As trends like urbanisation continue to heighten the requirements of buildings, this essential material must also evolve. For Reynaers, together with Arup, this has seen the development of MasterLine SoftTone which – through an intelligent combination of materials and design – facilitates effective natural ventilation, while limiting noise ingress from the surrounding urban environment.

Intricately designed for uncompromising performance

As a parallel opening window, SoftTone is able to offer a greater open area per square metre, when compared to traditional windows. In practice, this delivers 0.6 square metres of ventilation gap (on a 2m by 1m window) – effective in preventing a room from overheating without the need for mechanical alternatives.

To limit noise ingress, the aluminium frames have been developed to allow the integration of sound absorption material into the frame and sash. Typically, an open window allows unwanted noise from the surrounding environment to pass through into living and working spaces, creating disturbances for occupants. With the inclusion of SoftTone technology, indoor sound levels can be reduced by as much as 9 decibels when compared to a traditional open window.

With indoor environmental quality being dependent on air quality and thermal and acoustic comfort, often-overlooked but essential characteristics such as effective cooling and ventilation play a significant role in creating comfortable spaces. When a room is warm, the natural instinct is to open a window, effectively cooling and ventilating the room. In urban environments, however, the threat of noise pollution often stands in the way of this natural solution. In the past, this has increased reliance on mechanical ventilation systems – and compromised the sustainability of buildings as a result.

With the inclusion of SoftTone technology, indoor sound levels can be reduced by as much as 9 decibels

By increasing natural ventilation, buildings and their occupants are less reliant on mechanical ventilation systems to cool internal spaces. Together with a significant decrease in noise ingress from the surrounding area, the result is more environmentally friendly buildings which are centred around the comfort of occupants.

SoftTone in practice

At home in urban environments, SoftTone is able to generate tangible benefits for modern buildings. With noise levels and sustainability targets now commonplace in planning regulations, developments must overcome potential problems regarding acoustic risk – particularly in noisy urban areas. To achieve this, without compromising comfort and practicality for occupants, effective solutions are required which enable the creation of modern living spaces.

With the inclusion of SoftTone, buildings – or individual apartments and offices within them – can reduce their level of acoustic risk to zero, when compared with traditional windows. In addition to ensuring compliance with current building regulations, the ventilation benefits offered by SoftTone can allow for the removal of mechanical cooling systems. This can have significant results on the sustainable performance of buildings by creating carbon savings, as well as reducing the operational costs associated with mechanical ventilation systems.

As we look to a more sustainable future for our urban living and working requirements, the buildings which define our skylines must be designed to maximise natural ventilation. Windows are the natural starting point in this journey. Enabling designers to continue to utilise glazing within their designs – which subsequently has a direct impact on practicality, functionality, and occupant wellbeing – this approach allows for modern solutions to be successfully incorporated into façades. In turn, occupants can feel the benefits of comfortable urban living without the common downsides presented by noise, while the environmental impacts of buildings are minimised to ensure their viability.

To achieve the desired results, engaging the technical expertise of material specialists is imperative to ensure a solution which delivers on design and uncompromising performance. ■

For further information, visit reynaers.co.uk

Navigating the complexities of designing healthcare spaces

Words by Stuart Cudmore MCIAT, Chartered Architectural Technologist, Director, Munday + Cramer

There are many industries which require high levels of compliance, duty-of-care and attention to detail. In fact, scrupulous levels of regulation can now be seen across virtually all sectors. There are few areas, however, which need as forensic and meticulous approach to design as healthcare spaces. Taking their cues from leading regulatory bodies such as the non-departmental public body *Care Quality Commission* (CQC), Architectural Technology professionals designing medical buildings face a constant balancing act, factoring in various issues, ranging from the more ostensibly 'serious' compliance and safety considerations, all the way through to a patient's experience and the need, nowadays, for more sustainable design.

Compliance

There is virtually no margin for error in designing healthcare settings (and rightly so – as you cannot cut corners when it comes to a patient's safety and wellbeing). The CQC looks after the entire healthcare sector, from hospitals and specialist clinics, through to care homes, cottage hospitals, GP surgeries and any other clinical space. Their remit covers not only how these spaces are run (with CQC inspections regularly causing the blood pressure of clinicians to rise above those they are treating!) but also the premises, themselves. The CQC hold the power to carry out regulatory action against healthcare establishments, should they be deemed not to have met the body's regulations. In Regulation 15, for instance, it's outlined that healthcare premises should:

- Provide ease of access.
- Include adequate support facilities and amenities.
- Be large enough to accommodate the proposed number of patients.
- Be appropriately located.

Similar advice, guidance and principles can be found in the Government's *Health Technical Memorandum* and the Department of Health's *Health Building Notes.* These documents, regulations and notes all lend clear indications to designers on best practices for designing healthcare buildings.

Patient experience

The user's experience whilst within a space should always factor into that space's initial design. Nowhere is this more the case than healthcare spaces, where people are already entering anxious, unwell or in pain (and, in many cases, a combination of all three). There is no getting around the fact that, traditionally at least, healthcare spaces have been fairly clinical places. For some, even the most routine of doctor's appointments can cause a great amount of mental anguish. Examples of patient-driven healthcare design include:

A focus on spatial planning

By their very nature, hospitals and doctor's surgeries are going to see heavy footfall, in terms of the number of patients walking through the doors. The key here is to create spaces where patients do not feel as if they are crowding one another. When you are already clammy and anxious, the last thing you want is an overwhelming feeling of claustrophobia on top of that. It is because of this, designers have started incorporating not just more open-plan waiting rooms, but a greater number of them as well.

Interiors designed to soothe

The effect that the interior of a healthcare space can have on a patient's state of mind is now well-documented. With that in mind, buildings should be designed to be as

warm, welcoming and non-imposing as possible. Levels of light, for instance, both natural and artificial, can have a drastic impact on the overall wellbeing of a patient. From a design perspective, then, this can take the form of increasing the number of windows to maximise natural light (and reduce expenditure – both financially and from an energy perspective). The overall aim, beyond ensuring a compliant and safe space, should be to provide a calm and comfortable environment for the patient.

Sustainable design

Never has there been such an emphasis on the environment as there has been over the past decade, or so. Both stalwarts of the activism world and newcomers, alike, in the shapes of Sir David Attenborough OM CH CVO CBE and Greta Thunberg, have helped to galvanise societal opinion towards adopting a greener future. The healthcare industry has, traditionally, been a heavy polluter, in terms of both direct emissions (transporting medicines and the constant running of energy-intensive hospital equipment, for instance) and more indirectly (pharmaceutical manufacture, for instance). In fact, it is thought that healthcare industries account for 5% of net emissions, across the globe, annually.

There are several ways in which both the construction and operation of healthcare spaces can be made more sustainable. Hospitals are perhaps the most obvious example of where energy efficiency can be improved. Over the last five or so years, for example, various hospitals from around the world have begun implementing combined heat and power (CHP) plants (cogeneration) where both electricity and heat are recovered and cycled back into the site. In some cases, trigeneration can also be implemented (CCHP – combined cooling, heat and power) to help supply and power intensive air conditioning units. These plants help reduce emissions, as well as saving on operational costs, something which is incredibly important in a sector where finances are often squeezed as tight as they are.

How will healthcare design change because of COVID-19?

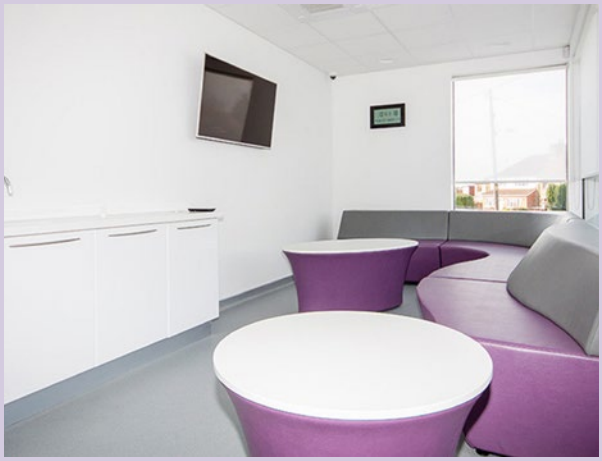
The way in which we interact with the built environment has changed beyond recognition over the past few months, and it is almost inevitable that the way we design our buildings will change, correspondingly, in the months and years to come. Whilst the current social distancing measures may not be permanent, the perennial threat of viruses, whether COVID-associated or otherwise, is more than likely going to affect the way in which designers plan the use of space within their designs.

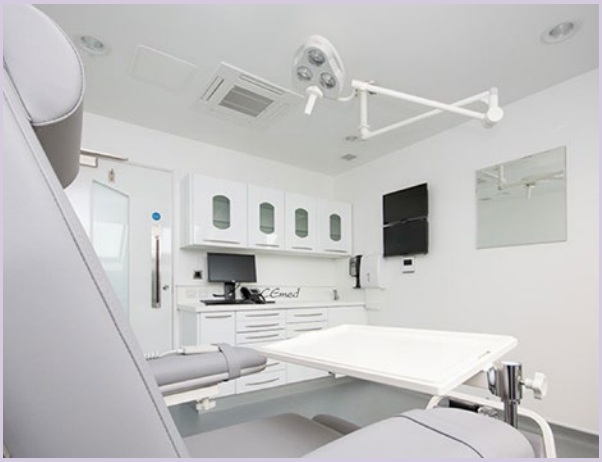
Fortunately, as we established earlier, an increased focus on spatial planning has already become a feature of healthcare environs, in recent times, predominantly for the sake of patient wellbeing. Any changes, therefore, will likely just be improvements or refinements in this area; a greater number of waiting rooms, for example, so that we see fewer contagious people in the same space, at any one time. We may also see a greater emphasis on implementing individual bedrooms for patients, where possible, or alternatively, more versatile, flexible spaces whose uses can be changed, as and when is necessary. A patient bedroom with the ability to be converted into a makeshift emergency/intensive care space, for instance. Pandemics such as the Coronavirus, and the ever-looming threat of bacterial *'superbugs'* are going to be the major health issues, moving forward, and therefore a smarter use of space is going to be what's most desirable, from an architectural perspective.

Whilst the current social distancing measures may not be permanent, the perennial threat of viruses, whether COVID-associated or otherwise, is more than likely going to affect the way in which designers plan the use of space within their designs.

Conclusion

Designing healthcare spaces requires more *'bigger picture'* thinking than most. It is a dynamic, ever-changing discipline, with new branches and considerations sprouting, seemingly all the time. On the whole, however, healthcare architecture is continually transitioning away from creating solely functional spaces, and whilst function will always be paramount in designing a hospital, say, there is a much greater emphasis on patient experience within that, recognising the fact that 'wellbeing' extends far beyond going to get your arm put in a sling, or having an operation. ■





Making a case for the offsite manufacture of brick slip soffit systems and intricate brick features

Words by Jemma Ison, Specification Executive, IG Masonry Support

Offsite construction is by no means a new phenomenon. It has been widely-used and is proven as a time and cost-effective, accurate and sustainable method of building. Whilst there is definitely a place for traditional building processes, these methods alone are not the sole answer to solving the construction industry's drive to quality and its skills shortage. With this in mind, how can the modular, offsite manufacture of products such as brick slip soffit systems reap the benefits and help the industry respond to its biggest challenges?

A quality finish every time

For a designer, the concept of offsite manufacturing – also known as modular construction – might seem to be something of a constraint to their creativity. This is no wonder, as for most the term still conjures images of post-war, homogeneous prefabs; a building approach that served an important economic purpose but overwhelmed the reputation of offsite manufacturing.

In fact, this could not be further from the truth. Offsite manufacturing has been liberated. It has moved on leaps and bounds since the 1940s and 50s, with the development of new technologies that facilitate freedom of design – welcome news for designers. Aspirational aesthetics can be achieved by utilising the latest techniques in offsite manufacturing, particularly in terms of complex brick features. With offsite methods, designers can create intricate brickwork designs that are guaranteed to translate onsite.

As well as offering a high-spec translation, offsite methods ensure the same quality finish every time. IG Masonry Support designed and manufactured five soaring corbelled brick slip feature arches with intricate bond patterns which span the entrance façade of the Hendrick's Gin Palace foyer in Scotland. In total, ten arches featuring on the front elevation were successfully manufactured to the same quality finish in factory-controlled conditions and fitted seamlessly with the brickwork onsite. Internally, three deep soffit arches were also supplied by IG. The same levels of consistency and quality were essential on the Defence and National Rehabilitation Centre (DNRC) project. Over 1000 brick slip feature arches and just under 3km of offsite cornice were manufactured and designed. It would have been a time-consuming, highly-skilled task to create arches and cornice using traditional methods onsite, therefore IG Masonry Support utilised its offsite solutions to create identical arches of various designs and cornice detail that would achieve the designer's desired aesthetic.

The uniformity that was essential to these projects can run the risk of being compromised if traditional trades are employed. However, with modular construction this replication simply is not an issue. Taking the construction of complex brick features offsite into factory-controlled conditions drives the level of quality and consistency that is needed to achieve architectural excellence. Where barriers to creativity are unwanted, offsite construction is a worthy solution.

Tackles skills shortage

Rethinking the way we design, engineer and construct buildings will help deliver projects quicker, better and with a greater degree of precision. Building better with these modern methods of construction plays a part in plugging the skills gap by reducing onsite labour whilst addressing the high demand for new buildings. In recent years, the UK has fallen behind its European neighbours by depending on skilled trades at the expense of any mechanised processes or components that reduce site working. Offsite manufacture provides better working conditions for workers, reduces build schedules and improves environmental performance in the construction process.

The design possibilities which offsite manufacturing offers can, often, reach further than the capabilities of traditional build processes. Whilst conventional methods

are still essential to the industry, on some large-scale developments it simply is not feasible cost-wise to use highly-skilled craftspeople. Besides, if cost is not an issue it might be hard to find these experts; due to the skills shortage they are becoming harder to locate. Yet, with offsite methods this gap can be filled.

What are the other benefits?

In an industry where safety is essential, there should be a collective obligation to select building methods which control risk and assure quality. Designers are well-versed on the heaviness and complexity of installing traditional brickwork and concrete backed systems, especially on large commercial developments and high-rise buildings. Here, designers not only have a responsibility to ensure a design translates onto site. A designer's design choices have ripple effects throughout a project. It is why it is highly important for them to select methods of construction which keep the likelihood of risk to an absolute minimum.

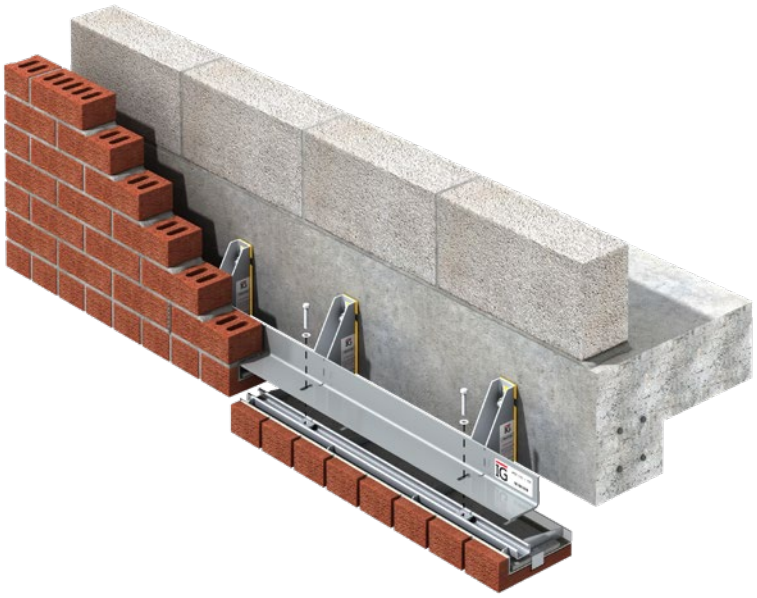
Offsite manufacturing is a potential solution to mitigating risk. With prefabricated products everything is fixed in a factory-controlled environment where quality is guaranteed every time. When it comes to installation, designers can rest assured that their design will be installed quickly with reduced risk.

A bespoke solution for designers

At IG Masonry Support, not only do we understand that designers need to be given creative authority over prefabricated brick features. We also realise the importance of regulatory compliance and quality.

Achieving deep brick soffits and intricate brick bonds around window heads and openings is quick, easy and cost efficient to achieve with our Brick On Soffit Systems (B.O.S.S. and B.O.S.S.+). These tailor-made bespoke solutions are designed and manufactured to meet the client's specification. The systems are highly adjustable, enabling designers to design various shapes and depths of brick soffits whilst accommodating a wide range of bond patterns.

IG designed and manufactured B.O.S.S. units for 57 Broadwick Street and Stonebridge Park, London. On the first project, a combination of curved and straight B.O.S.S. units as well as deep soffit panels were created to achieve a range of deep-tiled soffits, slender brick piers and tile and brick banding on the building's façades. For



Stonebridge Park, London, B.O.S.S. units were designed and manufactured for the intricate corbelled brick feature on one of the buildings main entrances. This design was delivered in separate components that facilitated optimum adjustability so the intricacy of the design could be achieved without compromising the speed and quality of construction.

IG's latest innovation, B.O.S.S.+, is a mechanically-fixed brick slip soffit system. As well as being an easy-to-install, quality system, B.O.S.S.+ was developed to meet with the fire safety regulations highlighted in Approved Document B, Building Regulations for non-combustible materials for use in the external walls of residential dwellings over 18 metres in height. For added security, all the brick slips on this BBA-approved product are attached to the stainless-steel framework with a robust mechanical fix.

With prefabricated products everything is fixed in a factory-controlled environment where quality is guaranteed every time.

IG Masonry Support has combined experience with innovation to design and manufacture the most practical and advanced range of 'patented' stainless steel masonry support solutions, brick slip soffit systems and intricate brick features for the construction industry. We provide comprehensive technical support for all our products and offer a free design service for our range of off the shelf and bespoke solutions.

No matter how ambitious the design, our easy-to-install solutions can deliver significant reductions in installation time by up to 90%. Any higher initial costs can be offset by saving time and money in terms of labour. A quality finish that meets the required aesthetics and blends seamlessly with the surrounding brickwork can also be achieved.

Offering endless creative scope for designers and hitting the mark on quality, offsite manufacturing is a construction process that is here to stay. Although prefabrication is a method which has at times been hindered by its own outdated reputation, the norm is changing and fast. This resurgence is characterised by limitless design possibility. Offsite manufacturing is now synonymous with the ever-elusive quality control, ensuring the same, grade A finish can be translated onsite and achieved every time. ■

Share your knowledge and improve the industry for everyone

Words by Dr Gregor Harvie, Co-founder, Designing Buildings Wiki

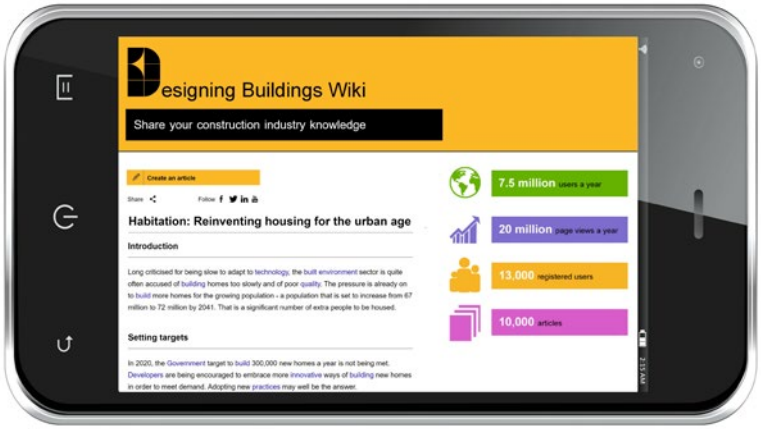
The knowledge gap

The Get It Right Initiative estimates that avoidable errors cost the industry between £10 billion and £25 billion a year, and the Infrastructure and Projects Authority's 'Transforming Infrastructure Performance' identified a £15 billion productivity opportunity in construction.

A significant proportion of this is simply due to a lack of knowledge. Construction is a knowledge-based industry, underpinned by a framework of regulations, standards, codes of practice, research, innovations and guidance which set the standard for our level of performance. But a survey carried out by the Construction Knowledge Task Group in 2018 revealed that more than a third of practitioners do not have easy access to the knowledge they need to do their job. This affects their competence, erodes project compliance and ultimately leads to mistakes and missed opportunities.

These are shortcomings the industry has been forced to face publicly during the last few years, when disasters like Grenfell have made it painfully clear that business as usual is just not good enough.

When practitioners face a new situation, they need easy access to all available knowledge. They need to have a complete understanding of the all the requirements, risks, pitfalls and solutions. They need to be able to foresee problems, find answers, learn from others and approach every situation fully informed.



Designing Buildings Wiki

Designing Buildings Wiki is an open-access knowledge base created to allow the whole industry to come together, put their knowledge on a single platform and make it available to everyone. Launched in 2012, it has grown to become the most popular construction industry website in the UK, used by 7.5 million people a year to find and share knowledge about the planning, design, construction and operation of built assets. It includes more than 10,000 free-to-access articles and is supported, amongst others, by CIAT, ICE, BRE, CIOB and BSRIA.

The 10,000 articles on the site are automatically connected to one another by hundreds of thousands of internal hyperlinks directing readers to related content. This means articles are not just isolated entries, they are part of a growing, integrated knowledge base that allows readers to surf intuitively from one idea to the next. This is great for following a train of thought across multiple resources, and begins to answer the question, 'How do you know there's something you don't know?'

Just like Wikipedia, Designing Buildings Wiki is completely open access. If you want to create an article, just register, click the orange 'create an article' button, type or paste in your article, then click 'save'. That is all there is to it.

Writing articles about things you know is an opportunity, not just to help others, but also to help yourself. You can attach your profile to articles you write, so your name appears at the top, along with a picture or logo and a link back to your website or a social media profile. So, when people read articles you have written, they also find out about you.

90% of the traffic to Designing Buildings Wiki comes direct from Google searches. In the same way that Wikipedia often tops general search results, Designing Buildings Wiki often tops construction-specific search results. So, if you want to share your knowledge and raise your profile, there is no better place to do it.

You can write about almost anything, from best practice, research and innovations, to case studies or reviews of products or technologies you have used. You can write articles giving practical guidance about how to do things, such as construction techniques, design methods or legal issues. Crucially, and unlike more conventional publications, articles do not necessarily have to be long. Sometimes a short definition of just a line or two is all that is needed. Our editorial policy is intentionally broad – if a piece of knowledge could be useful to other practitioners, then it is allowed. Our only requirement is that articles should be neutral and balanced, and not promotional.

So, if you have just trialled a new piece of software, read a text book, completed a project, tried an innovation, researched something or uncovered a helpful insight; share it and help your colleagues.

Smart construction knowledge: delivery plan

The current position

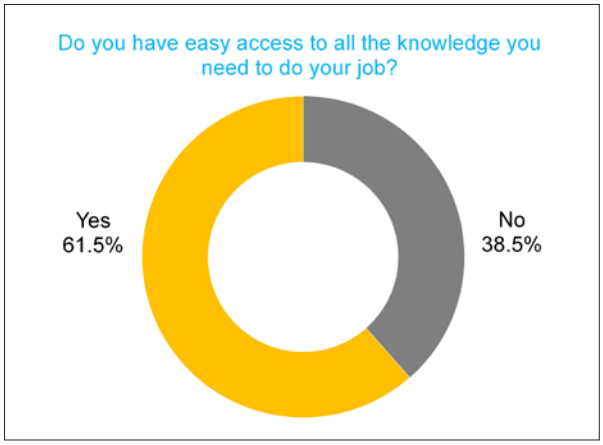
Level 0	Level 1	Level 2a	Level 2b	Level 3
Paper	**Digital**	**Standardised**	**Accessible**	**Smart**
Printed documents sitting on shelves.	Digital versions of printed documents on a multitude of servers, often with access restrictions.	Knowledge definition is standardised so knowledge can be queried, filtered, curated and managed, whatever its source.	All industry knowledge can be accessed using a single log in.	Knowledge can be 'pushed' to practitioners automatically when they need it.
Requirements to move to the next levels:		A standard classification system for construction knowledge. Adoption of the classification by knowledge producers. Tools allowing practitioners to retrieve knowledge.	A protocol for practitioner identification. Adoption of the protocol by practitioners and knowledge producers. Identity authentication tools.	A standard classification for practitioner's context. Adoption of the classification by practitioners. Tools to push critical knowledge to practitioners.

Smart knowledge is the future

Designing Buildings Wiki is a great start in the drive to modernise construction industry knowledge, but it is just the beginning.

Most construction industry knowledge remains firmly in the past. Poorly specified, managed and disseminated, it is unstandardised, fragmented and often inaccessible. Industry knowledge needs to move beyond the limits of individual websites, pdf's and paper documents to become a resource that can be searched, queried, managed and integrated into project and business systems, no matter who produced it, or where it is.

This modernisation of knowledge is as another piece in the jigsaw of digital initiatives that are revolutionising the industry. BIM is transforming the way the industry handles data and information, and there is no reason the same cannot be done for knowledge. We need to start managing knowledge as a resource that can be structured and classified in a standard way, processed automatically and manipulated by industry-wide tools. It should be possible to access knowledge from within the project environment, rather than having to go and look for it. Knowledge plug-ins should be integrated into business systems and BIM models.



If something is important, practitioners should be alerted to it automatically. It should be possible to check that suppliers have the knowledge they need to deliver a project. When specifications, regulations and approved documents list references that must be complied with, systems should be in place to verify that everyone has access to those references.

The Construction Knowledge Task Group has been set up to tackle these issues and apply the same rigour to knowledge that BIM has applied to data and information. A route map has been created to move knowledge from Level 1 (using the analogy of BIM maturity levels), which is dumb 'digital' versions of printed documents such as pdfs, to level 3, which is smart knowledge that can be queried automatically based on the context of individual practitioners and pushed to them at the appropriate moment.

This modernisation of knowledge is as another piece in the jigsaw of digital initiatives that are revolutionising the industry.

The task group has just completed stage 2a, creating the first industry standard for the way construction knowledge is described and tagged to make it more discoverable and accessible. This is the first step on a long journey, creating a vital foundation upon which the next levels can be built. In the long term, the impact on the industry will be enormous.

If you want to make your knowledge more discoverable, you can adopt the new standard now and apply it to any knowledge you create, whether that is knowledge you want to share with the industry, or internal knowledge you want to organise more effectively and consistently. The sooner and more widely the standard is adopted, the faster the industry will see the benefits.

You can add articles to Designing Buildings Wiki at: designingbuildings.co.uk

The construction knowledge standard is available at: https://app.standardsrepo.com/CKTG/MakingConstructionKnowledgeDiscoverable/src/branch/master/1 ■

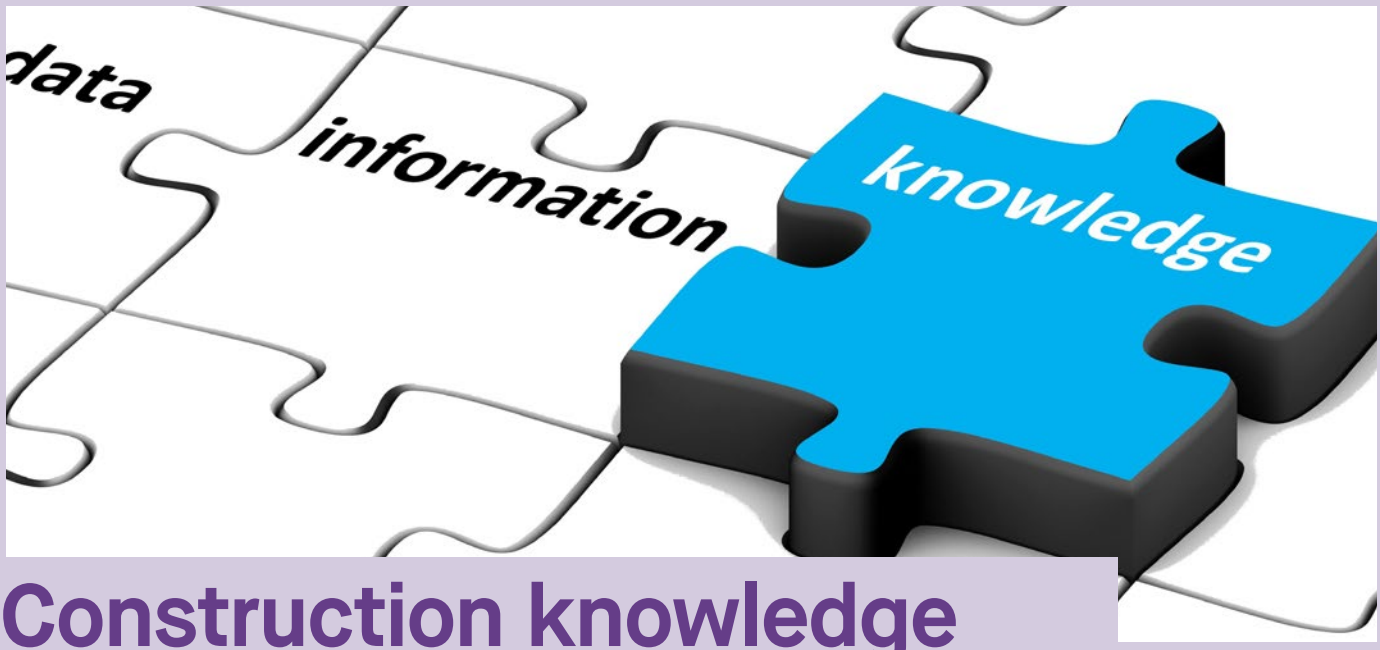
CIAT SHOP

Launched August 2020

Shop@CIAT – the only place to pick up official CIAT apparel and merchandise in our online store.

Take a look at our wide range of CIAT/AT branded giftware available, from mugs to official branded clothing, there is something for everyone!

Visit **ciat.org.uk/membership/ciat-shop.html**



Construction knowledge comes out of the dark ages

The first industry-wide standard has been published to make construction knowledge more discoverable. Developed by the Construction Knowledge Task Group (CKTG), the new standard will help practitioners find the knowledge they need when they need it, making it easier for them to keep up-to-date, follow best practice, adopt innovations and comply with standards.

In the last ten years the construction industry has transformed the way it manages data and information, but until now its knowledge has remained stuck in the past, scattered across thousands of fragmented sources, and in 'dumb', unstructured and inconsistent formats.

In 2018 a survey by the CKTG revealed that 38% of practitioners do not have easy access to the knowledge they need to do their job. This is extremely serious for the industry at a time when it is being challenged to improve its competence, compliance and productivity. If practitioners do not have access to the knowledge they need, how can they meet the standards the world is now demanding?

The CKTG has committed to improving access to knowledge, and the first step is publication of the new knowledge standard. In much the same way that IFC and COBIE have revolutionised BIM and digital engineering, the new standard makes it much easier for users to find and manage construction knowledge.

The standard can be used to identify construction knowledge resources, to define their type, subject and location, and to describe the circumstances in which they might be useful. Adopting the standard across the industry will allow the creation of tools that can search, filter and manage all construction knowledge, whatever its source, and to integrate it into project environments. The standard includes two mandatory fields, eleven recommended fields and sixteen that are optional. It is based on existing classification systems including the Dublin Core Metadata Initiative and Uniclass.

The CKTG are now calling for industry publishers to apply the standard to their knowledge and for technology providers to create new tools to help practitioners use that knowledge.

Dr Gregor Harvie, CKTG Chair said, "It's time to stop publishing construction knowledge in dumb formats that are just digital versions of paper documents. This new standard means knowledge will come out of the dark ages and become a smart, structured resource that can be found and managed intelligently, supporting people as they work. BIM has already made this change for data and information; it's time for knowledge to catch up."

Steven Hedley MCIAT, Vice-President Technical said, "We are delighted to be involved with the Construction Knowledge Task Group and the development of such a significant standard in today's intelligent information environment. The release of the Discoverable Construction Knowledge standard will benefit the entire construction industry community and CIAT look forward to seeing it become the norm for construction information management".

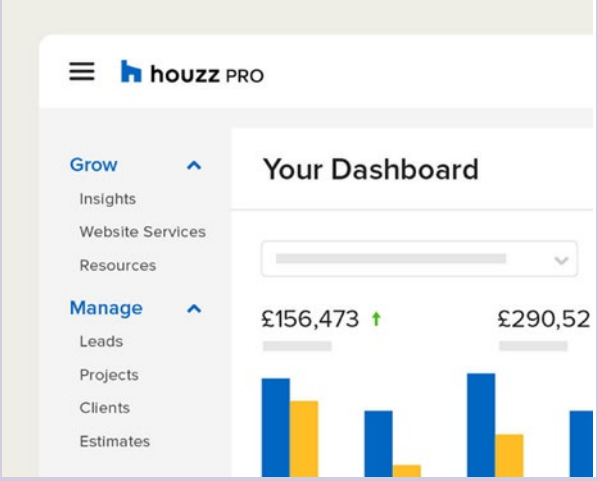
Tom Bartley, CEO at Barbal, who led the project, said: "We've made this standard as easy to adopt as possible. There are just two fields that need to be added to construction knowledge to make it discoverable. Then there are a number of optional fields that can be added depending on the needs of the publisher and their audience. The standard can be adopted by traditional publishers, and by practitioner organisations who want to share their knowledge externally or organise their internal knowledge in a more structured way."

Development of the open standard was funded by the Lloyd's Register Foundation with the support of the Open Data Institute. It is freely available on Barbal's StandardsRepo platform at: https://app.standardsrepo.com/CKTG/MakingConstructionKnowledgeDiscoverable/src/branch/master/1 ■

Houzz launches Houzz Pro business software for renovation pros

Words by Kiya Kelly, Communications, Houzz UK & Ireland

The new Houzz Pro software provides renovation professionals with a suite of business tools to stand out, win more clients, increase profits and stay connected with their clients and teams. The easy-to-use business software also helps professionals to manage their entire project life cycle in one place. With Houzz Pro software and the dedicated mobile app, pros can manage all their business activities, from attracting and converting new clients, to building estimates and collaborating with homeowners from anywhere, at any time.



Houzz Pro was born from listening to feedback from our pro community and it is important to us that this powerful solution is both affordable and easy-to-use

"Most of the professionals, including Architectural Technologists, who turn to Houzz are entrepreneurs running small businesses, and they need the right tools that enable them to run their businesses profitably and efficiently," said Ines Cid, Country Manager UK, Ireland and Southern Europe at Houzz. "Houzz Pro was born from listening to feedback from our pro community and it is important to us that this powerful solution is both affordable and easy-to-use."

Read on to learn about the major features of this new offering from Houzz.

1. Manage leads

Manage your client pipeline from Houzz and any other source, using the integrated lead management tool to stay top of mind and win more projects. Communicate with your prospective clients, add internal notes about projects and attach relevant files and photos. A scheduling tool within Houzz Pro integrates with your calendar to easily schedule meetings. When a lead becomes a client, the entire communication history moves seamlessly to the new project.

2. Create estimates

Use the estimate creation tool within Houzz Pro to build fast, accurate estimates from scratch. These can be saved as templates and customised for use on future projects. You can send your estimates via email to clients for approval with a digital signature.

3. Collaborate with clients

Stay connected and collaborate with clients within Houzz Pro. Track the entire client communication history, including chat, email, photos and documents. Keep on top of payment requests, invoices, change orders, timelines and all client approvals.

4. Keep clients up to date

Proactively communicate project status to clients through a built-in dashboard, choosing which content you want clients to see before sharing. A preview function allows you to confirm everything is correct before sending. The dashboard includes message history, an interactive project timeline that you can build and share with clients, daily logs to share regular updates of what's happening on the job site, photos and more.

5. Track change orders and schedule payments

Easily create, send and track change orders and get client approval. The payment scheduling feature can be set up to automatically invoice clients.

6. Attract clients with new marketing tools

Stand out, build your brand and attract clients with new marketing and advertising features, including website building and hosting services, highlight video, featured reviews, and branded client communications.

Houzz Pro subscription packages are priced to fit any budget or team, starting at just £49 per month.

Visit houzz.co.uk/pro to learn about features and pricing. ■

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Chartered Institute of Architectural Technologists

Chartered Institute of Architectural Technologists' members are invited to register for the **BIM Middle East 2020 Conference & Expo** at the Crowne Plaza Dubai on 19 & 20 October, plus half day workshop on the morning of 21st October 2020. Institute members can register for the special discount registration fee of AED 1,450 / US$395.

Organised with Content Partners **buildingSMART International**, and the **Open Geospatial Consortium (OGC)**, and Event Partner **Dubai Municipality**, this is the region's leading and biggest event on BIM.

***Plus* - Event includes official launch of buildingSMART UAE Chapter**

FUTURE OF BIM STARTS HERE

Now accepted as an integral process of the built asset, BIM is more than just a technology!
Event theme is **Enabling Digital Transformation** and includes a two-day conference covering all the latest developments and dimensions in BIM, and integration with GIS, from project concept and design, project management, to post construction asset management. The conference will be followed by a half day workshop on Applying and implementing Open BIM Standards and IFC. An expo running alongside will feature the latest in digital construction design technology.

INTERNATIONAL AND LOCAL KEYNOTE PRESENTATIONS

International and local keynote presentations by: buildingSMART Singapore; Dubai Municipality; Dubai RTA; Saudi Aramco; Abu Dhabi Municipality; Dubai Land Department; Abu Dhabi Airports; China State Construction Engineering Corporation; Consolidated Contractors Company (CCC); Parsons; Open Geospatial Consortium; BuroHappold Engineering; The Red Sea Development Company; Drees & Sommer; TAV Group; Bin Quraya KSA; KEO International Consultants; Mott MacDonald; AECOM; Turner & Townsend; Jacobs; Larsen & Toubro; Atkins Acuity; India BIM Association; BSBG; WhiteSpace Architects Egypt; Asite Solutions; and Bricsys.

LEADING EDGE PROGRAM AND TOPICS

Over 30 keynote presentations on the 2 day program include: government policy; BIM mandates; digital transformation, Open Standards IFC, case study applications, visionary international presentations, BIM roadmap and implementation strategies, stakeholder collaboration, BIM / GIS integration, latest thinking in design technology, oil & gas EPC and role of BIM, Common Data Environments; Digital Twins, BIM and real estate development; digital technology and BIM in Saudi Vision 2030; post construction asset management; BIM in airport construction and management; Roads design, development; infrastructure management… and more. For program and presentation details visit: www.bimmiddleeast.com

PLUS WORKSHOP

A separate half day workshop on the morning of 21 October focuses on **Applying and implementing Open BIM Standards and IFC**

REGISTER TO ATTEND NOW

Be a part of this unique forum that brings together the full BIM and AEC community to one unique forum including government; municipalities; contractors; civil engineering; transport and infrastructure operators; property developers; architects; consultants; oil & gas; engineering consultancies; technology providers; and industry associations.

For further information on participation contact:
Anthony Sprange
Phone +971 (0)58 598 9062
Email: anthony@meteklive.com

Organised by:

MetekLive
Dubai Silicon Oasis, UAE

Qualifying as a Chartered Architectural Technologist, MCIAT remotely

If you are looking to utilise your time you can progress as a Chartered Architectural Technologist and the process is completely remote! Your Professional Assessment Interview is held via Zoom and the current turnaround is swifter than normal.

Steps to qualify remotely:

1. Complete the MCIAT Professional Assessment and reference your supporting evidence. It must be supported by a Referee (MCIAT, ARB, MRICS, MCIOB, MCABE etc.) and you must be an active Associate member or profile candidate to apply.
2. Submit the MCIAT PA application with evidence via Dropbox, WeTransfer, Google Drive (or alike) to membership@ciat.org.uk and pay the £350 assessment fee.
3. The Member Panel will review the MCIAT PA application and with the outcome of pass, defer or refer. If you are deferred and asked for further evidence, we will provide guidance to support.
4. Once passed, we will arrange your Professional Assessment Interview via Zoom.

CIAT

A selection of completed exemplars, PA form to complete, Professional Standards Framework and candidate guidance notes can be found here: shorturl.at/cGX34

For any queries or assistance required, please do not hesitate to contact the Membership Department:

James Banks, Membership Director – **james@ciat.org.uk**

Dorota Fitzpatrick, Assistant Membership Director – **dorota@ciat.org.uk**

Megan Brown, Membership Administrator – **megan@ciat.org.uk**

CPD during lockdown

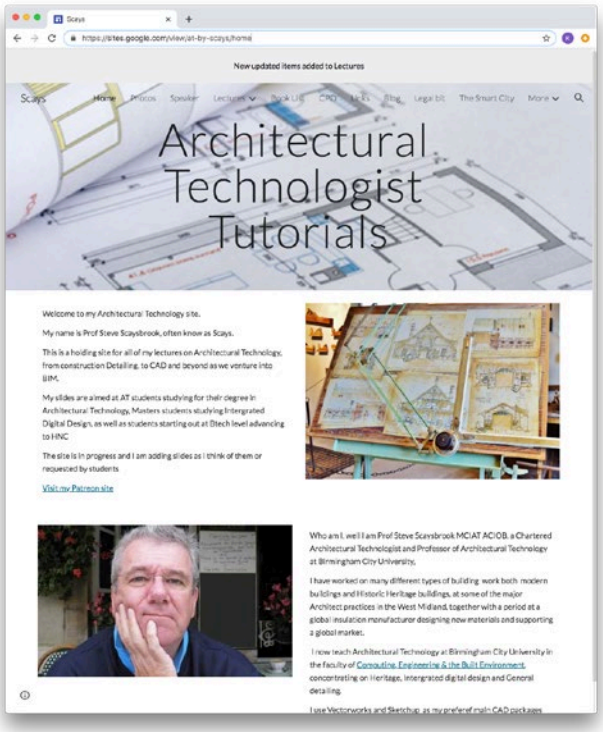
Words by Professor Steve Scaysbrook MCIAT, Chartered Architectural Technologist

Many of you will have been struggling to find suitable CPD during the COVID-19 crisis, whilst so many Architectural Technologists are still working either from home or in restricted numbers in their offices, CPD still remains difficult to achieve with so many manufacturers not sending their reps out and relying on phones to keep in contact or have simply put their teams on furlough.

Some of the more adventurous have tried alternative method such as webinars and podcasts to keep the contact live. Proctor Group is a classic example of good use of very technical webinars to promote their range of insulations and membranes.

So, in order to allow the members of the West Midlands Region (05) to keep up their CPD, we have pulled together a new website, CPD webinar list for AT's (https://sites.google.com/view/cpd-webinar-list-for-at/home) to list available webinars, events and written copy that will be of interest to all members. It has been written and controlled by the Google sites programme and is published on their free domain, hence the strange URL. If you have a Gmail account this is all free, it is not as powerful as some high-end programmes but it is not lacking in most, if not all, the basics and it links to your Google Drive giving access to all your pictures, documents, slides and almost anything you might have saved like CAD and pdf files.

...we have pulled together a new website, CPD webinar list for AT's to list available webinars, events and written copy that will be of interest to all members.



The CPD list is split into links for main CPD, with those available on YouTube and non-tech webinars. The lists also include discussion points and a specific page for my simple spreadsheet to track your activity, the example is my own list that I have kept for a long time. It helps to compare previous years subjects and pick up when you see no or little activity in that area. Updating the spreadsheet for any year is a simple addition to the activity list, rolling on the results page for each year requires a little alteration to the formula, but I plan to solve this in the following 2021-22 season, I run my list from April to March, as per the membership subscription year.

Part of the sites menu is a link to my Scays (scays.co.uk) website. It is a collection of most of the current lecture slide sets from my Google files, they are constantly updated with new information, links and references. I am adding video explanations and lecture notes to expand the slides and areas of further research.

Another part of the CPD site is a page devoted to research. Here I list a few sites that I use to look for information, searching in standard Google often brings up so much information but adding filters or rewording the search will tighten up the list Google delivers. Also, Google has added sites for very specific search's namely scholar for more advanced searching of scholarly articles, and data for sites that hold database lists. I find this fascinating and is a current area of research I am conducting to see how we as Architectural Technologists will use this information in our CAD graphical programming area, i.e. Dynamo, Grasshopper or Marionette.

As always, if you want a copy of the spreadsheet, drop me a line via the contact section, I use just about every way possible, but Gmail is preferred. If you want direction on any specific research, again talk to me, I may have something hidden away.

On this last point, I scan with my Pixel 3, via the very useful Adobe scanner for almost everything I read that I find of interest; from the weekend papers to articles I get from research sites, like Medium, to books. A lot of research books I tend to purchase, if possible on Kindle, it makes note-taking easy and at the end of the book, I just send the electronic notes to my email, ready to be added to a correct folder. I have a specific section to cover this important area with a list of my current reading and books in the waiting area and a list of my most used magazines.

It might come as no surprise, but I use Google Drive to store almost, if not all, my documents. It makes finding information so much easier than relying on memory and sharing is so good. ■

AGM 2020: Remote meeting

To comply with both the COVID-19 regulations and the Laws of the Institute, CIAT will be holding its virtual AGM on Saturday 14 November 2020.

Any member or affiliate can attend the AGM but you must register your attendance by completing the Eventbrite registration at **ciatagm2020.eventbrite.co.uk**

The Resolutions are included as an insert in this issue, if your copy is missing then please email **communications@ciat.org.uk**

For any questions please contact the Chief Executive's Office by emailing **rochae@ciat.org.uk**

Honorary Officer elections 2021: your opportunity to influence your profession

Words by Francesca Berriman MBE, Chief Executive

The election process and how you could become influential within your Institute, shape its future and that of your profession.

For the effective operation for any professional body, it is essential that it elects positions from amongst its membership to allow it to function within its Charter. These positions are open to Chartered Members who are invited to provide their experience, skills and time in a voluntary capacity to the work of the Institute set within the Strategic and Corporate Plans, as approved by Council. Contributing in such a capacity is two-way and Members who have been involved have benefited and learnt from their experiences.

Within the Institute's governance, there are a number of core roles collectively known as the Honorary Officer positions. These are the President, Honorary Secretary, Honorary Treasurer, Vice-President Education, Vice-President Practice and Vice-President Technical. These are all undertaken by Chartered Members in a voluntary capacity other than expenses which are paid for by the Institute.

For 2021, there are three positions for election which are now open for nominations:

1 Honorary Secretary

Together with the President and Chief Executive, the Honorary Secretary is responsible for ensuring the smooth running of the Council, Executive Board, AGM and Conduct Committee in line with the Laws of the Institute (the Charter, the Bye-laws, the Regulations and *Code of Conduct* and other forms of regulatory provision made by the Institute).

Council meets twice a year and the Executive Board four times, twice in conjunction with Council.

Working with the Chair of the Conduct Committee, the Honorary Secretary is required to attend these meetings which are held at least four times a year.

Members who undertake this position must possess strong analytical skills and the ability to make informed decisions and considered judgments. The ability to interpret and understand information and evidence is essential, as is good communication and presentation skills. For Conduct, the Member must be prepared to read, at times, a considerable amount of case papers.

2 Vice-President Education

The Vice-President Education works with the Education and Membership Departments on issues such as the development, maintenance and promotion of educational and membership standards, qualification development, Accreditation and membership recruitment, retention and progression.

The Vice-President Education is invited to attend all meetings administered by the Education and Membership Departments and will represent the Institute at relevant external meetings and events.

A Member who undertakes this position must have a very strong academic background with considerable experience and knowledge of higher and/or further education and research, as well as a good understanding of educational establishments' relationships with professional institutes. They must be prepared to confidently represent and promote the Institute externally, particularly in regard to education and membership.

3 Vice-President Practice

The Vice-President Practice promotes the Institute's practice standards and policies for members practising the discipline of Architectural Technology. As such, the Vice-President Practice works closely with the Vice-President Technical, Practice & Technical Director and Practice Department in overseeing the work of the relevant Taskforces and working groups. These groups cover topics on liability, practice and technical documents, building regulations and legislative issues.

The Vice-President Practice may be involved directly or indirectly with these groups but reports to the Council and Executive Board on the work of these groups and their output and that of the Practice Department.

In carrying out these activities the Vice-President Practice:

- represents the members externally relating to industry issues, lobbying for change or improvement and lobbying and promoting on behalf of the discipline;
- ensures the necessary documentation is produced for the membership's benefit on changes in legislation or regulations; and
- ensures the appropriate guidance is available to assist members in implementing and complying with legislation and regulations in their work and complying with the Institute's policies and Code of Conduct.

A Member who undertakes this position must be a practising Chartered Architectural Technologist and have knowledge of the contractual side with an understanding of legislation and regulations. They must also be confident and able to represent the discipline at the highest level which includes Government.

All candidates must be able to undertake business via email or other electronic mediums.

What do these positions involve?

With each of these positions you will become a Trustee of CIAT and a member of the Executive Board, which is responsible for the implementation of the Strategic and Corporate Plans, which can be found on our website. The Board makes guidelines for the conduct of business of the Institute, in line with the rules of the Institute and policy. You will also become a member of Council, which is the Electoral College and Strategic Forum for the Institute. You will be expected to contribute to the policies and future strategic development of the Institute.

What does being a Trustee involve?

Trustees have an overall legal duty to the Institute and are the individuals who take decisions. Trustees have specific duties and operate within the rules of the

Institute. Trustees work collectively as the Executive Board and once a decision has been collectively made – all Trustees are bound to support that decision.

A Trustee's primary duty is to the Institute and its Charter under which it is established, as such Trustees must act with integrity and adopt the values which helps CIAT achieves its strategic aims.

What are the time commitments to these roles?

You should be looking to commit up to five hours a week (approximately) but this will depend on the nature of the work, meetings, providing views and advice on documents, the time of year and external representation on behalf the Institute that may be necessary. It is essential you are proactive and reactive dependent on the project work required. With all the positions, you will be working closely with a staff Director at Central Office, and their departmental team and be expected to respond to queries speedily at times; this could be within a couple of hours. There will be specific meetings or working groups that you may need to participate in and possibly chair.

As an Honorary Officer you will be expected to attend two Council meetings (normally on a Saturday in March and September) and a minimum of four Executive Board meetings (two of which run in tandem with the Council meetings) as well as the AGM (normally in November) and the AT Awards event (September).

The positions are two-year terms, which become effective from the close of the 2021 AGM in November to the close of the 2023 AGM.

Representing the Institute and discipline

As representatives of the Institute, these positions require you to attend events and meetings on behalf of the Institute, for example, Construction Industry Council meetings, Award presentations, university events, or Government led steering groups, presenting at conferences etc. There will be specialist meetings which you will either have to attend/chair or contribute to, and you will need to report back to Central Office on these. The staff Director will work with you to ensure that you are properly briefed and prepared for these meetings where you will be expected to speak on behalf of CIAT and the discipline of Architectural Technology.

Social media

You would work with Central Office staff in relation to social media engagement.

What do I benefit from taking on a position?

You will have the chance to shape the future of your Institute, your profession and the discipline at a strategic level. If you have ever wondered why something has or has not been done then now is your chance to do something positive about it. You also get to network extensively with peers and fellow professionals, gain a greater insight behind the scenes at Institute, Governments and sister institute levels and it contributes to your CPD obligations.

How can I be nominated?

To be nominated for any of the positions, a fellow Chartered Member must nominate you in writing to the Returning Officer, who is the Chief Executive. Any Chartered Member is eligible to propose a candidate, although no nomination is permitted without obtaining the prior consent of the nominee. Any Chartered Member is able to stand for any position in these elections. No prior experience is required of the Institute – just a passion for Architectural Technology and the Institute.

What happens once I have been nominated?

Once a nomination has been received, you are then asked to formally accept or reject the nomination. You will then be asked to a manifesto. Once all the manifestos have been received, they will be issued to the Regions/Centres for their review, consideration and action. It is then your responsibility to actively organise and carry out your election campaign (at your own cost) to all members, this will be via the Communications Department and direct liaison with Regional and Centre Committees. Your campaign can be by a variety of mediums which is for you to choose. We provide you with the contact details of the Region/Centre Committees.

You will need to prepare a full manifesto for publication and distribution via the Institute's media channels; details of what we would be looking for in the manifesto will be included in the election section of the website and information pack. It will also be featured in the spring issue of *AT Journal*.

We will provide further clarification on the election process and the information we would be seeking on the website.

Over the election process, and the lead up to the elections in September, we will be issuing some election special ealerts providing reminders and updates together with profiles of the candidates standing for the positions etc.

If I stand how do I promote my candidacy

There are a number of ways in which you can put yourself in front of the membership during your election campaign.

There is the traditional manifesto which will outline your policies, thoughts and aspirations for both the role you are nominated for and the Institute. This should not be a CV but a formal written document which grasps your key objectives and aims. Alongside this, you can create a profile which showcases you as a person, captures your personality and strengths and puts across the real you to people who do not know you and want to know more about the person seeking election.

In this technological and social media focused world, you can create Twitter or Facebook accounts, videos, podcasts, blogs or a series of short films which support your manifesto and profile. You can get your message across simply and they can all be easily accessed.

You could arrange for a Q&A with the membership at a location and venue that is accessible and could have visits to Regions and Centres and meet with Council, those who will be voting on the day. There are a number of different mechanisms which will be covered in the information pack.

What is the voting procedure?

- Regional/Centre Committees are encouraged to meet and discuss their preferred candidate, in an open forum which takes into account feedback from the Region/Centre membership;
- It maybe that you wish to proactively engage with the Region/Centre Committees to present your manifesto and respond to questions.
- Regional/Centre Committees advise their Councillor of their preferred candidate; and
- the Councillor is expected to vote in accordance with their Region/Centre's decision; however there may be exceptions where they may change their vote as per their Committee's instructions. These could be based upon the candidate's response at the Autumn Council meeting or other factors, for example, if the candidate withdraws from the election at very short notice that would not allow a Councillor reasonable time to refer back to their Region/Centre.

How is the vote taken?

Elections are held at the autumn Council meeting:

- All candidates are invited to attend the autumn Council meeting to respond to questions brought by Councillor from their Regions/Centres or to debate a particular issue in relation to their manifesto
- Council confirms and agrees the method of the election – which has traditionally been by secret ballot;
- Councillors represent their Region/Centre – either using their agreed Committee's vote or changing their vote as per their Committee's instructions based upon the candidate's presentation or other factors;
- Honorary Officer members of Council have a free vote according to their preference (as Trustee) and considering the best interests of the Institute and its Strategic Plan;

- Council votes on the candidate and/or candidates and the election takes place;
- Council policy is that a candidate who is also a serving member on Council may not vote if there are other Candidates standing who do not sit on Council, this includes Honorary officers;
- Council policy is that Region/Centres do not have the right to send a proxy vote if their Councillor is standing for a position. It is the Councillor who carries the vote, or their deputy, in their absence. A serving Honorary Officer who is standing against a candidate who is not a member of Council forfeits their vote. This ensures equity and fairness;
- the President, as Chair, has the casting vote if there is a tie;
- the elected Member assumes the Officer position from the close of that year's AGM (normally in November), unless an Officer resigns from their position early, in which case the assumption is either immediate or from the date of resignation if later; and
- the results are then reported to the membership via the weekly ebulletin, AT and Region/Centre Committee.

When would I assume the position if I were elected?

All three positions take effect from the close of the 2021 AGM on 27 November 2021.

Key dates summary

Call for nominations close
7 December 2020

Acceptances (or rejections)
21 December 2020

Manifestos/profile received
1 February 2021

Issue of candidates and their manifestos to all members via an ealert/update of election section of the website
22 February 2021

Issue of candidates and their manifestos to Region/Centre Committees
22 February 2021

Presentation at Council
6 March 2021

Campaigning by candidates
22 February – 3 September 2021 inclusive

Election ealerts and updates on the website
22 February – 3 September 2021 inclusive

Election at Council
4 September 2021
Candidates advised if not in attendance at Council

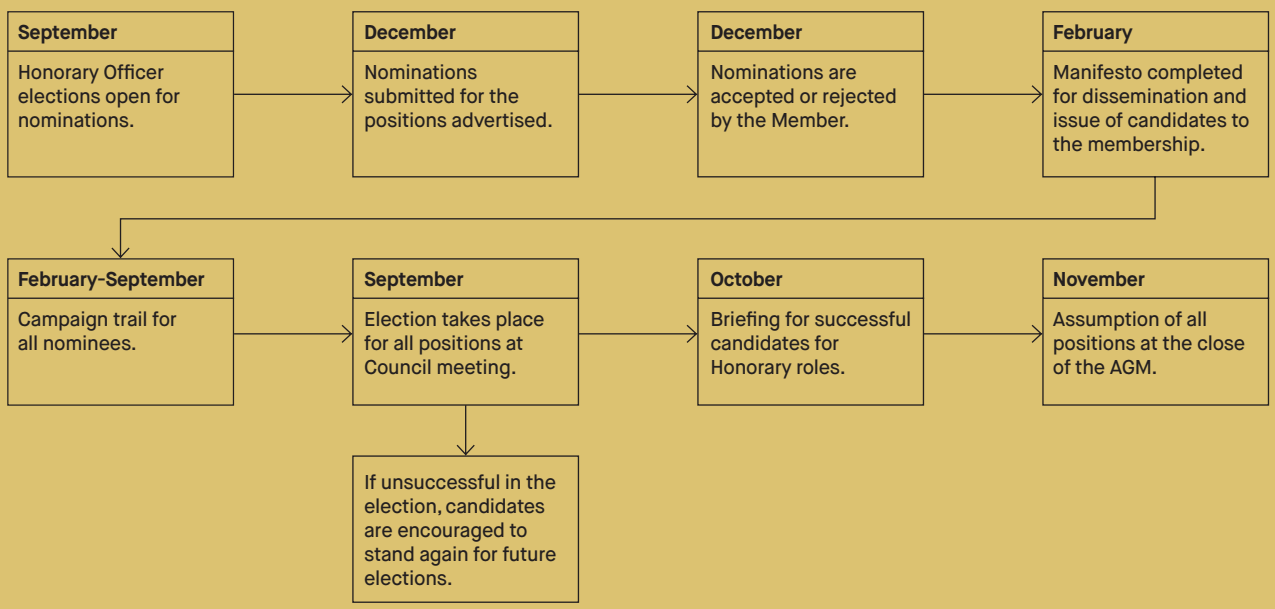
Ealert announcing the election results
4 September 2021

Assumption of position
27 November 2021 close of 2021 AGM

Further information

For further information or clarification contact Adam Endacott, Editor, adam@ciat.org.uk
or call +44(0)20 7278 2206

Election flow chart



Greater London Region Student Awards 2020

Words by Niall Healy MCIAT, Greater London Region PR Officer

What a strange year so far? Who could have predicted when the clock struck midnight on 31 December 2019 what was laying waiting ahead for us in 2020! For many the world has been turned upside down and well-established plans put to one side with the challenge of finding new ways to operate. There is an old nautical saying, you cannot control the weather but only adjust the sails, and I can tell you that in the Greater London Region we have been busy adjusting and trimming the sails to keep the momentum of the Region on course.

In 2019, the Greater London Region introduced their own Student Awards for universities in the Region. As an inaugural event, it was a great success which culminated in a tour, courtesy of Fosters+Partners, of the Bloomberg Building for the four graduate medal winners for our four London universities with Accredited degree programmes. It was a great honour and pleasure to be joined by Alex Naraian PPCIAT MCIAT, then President, as special guest on the tour.

With the current restrictions due to the pandemic some creative thinking was deployed to explore how we could deliver something meaningful to the students and universities in our Region for 2020. The obvious answer was to, using that now over used term, 'pivot' to an online experience for the Regional awards. From the initial tentative conversations on how we could deliver an event, which involved trial running some delivery platforms, we could not have predicted how valuable and rewarding the events were to become for all who participated.

In addition to the privilege of being nominated for the awards, we wanted to offer the Highly Commended and Winning students something tangible. We were very fortunate to gain the support from a very generous sponsor, ThermoHouse UK, who sponsored £1,000 in

prize money that was distributed to each Winner and Highly Commended student in each year group from each university.

The event evolved into four separate award presentations, one for each of the universities with an Accredited degree programme.

The events were as follows:

CIAT | London South Bank University Student Awards 2020
Aug 20, 2020 7:30pm

CIAT | University of Westminster Student Awards 2020
Aug 13, 2020 7:30pm

CIAT | University of West London Student Awards 2020
Aug 6, 2020 7:30pm

CIAT | University of East London Student Awards 2020
Aug 4, 2020 7:30pm

The format of each event varied slightly in response to the input from the academic staff. In general, the event opened with a welcome from the programme leader and an introduction to the guest speakers. Our sponsor, ThermoHouse UK, also presented a short talk at the opening of the event, moving on to the formal opening of proceedings by special guests of honour. These included Alex Naraian PPCIAT MCIAT, Dr Matthew Brooke-Peat MCIAT, Vice-President Education, Steven Hedley MCIAT, Vice-President Technical and Eddie Weir PCIAT, President to whom the Greater London Region and participating universities are incredibly grateful to.

Our sponsor, ThermoHouse UK, also presented a short talk at the opening of the event, moving on to the formal opening of proceedings by special guests of honour.

The format of the awards event consisted of a slideshow presenting a headshot and sample of work for each nominated student. This format was selected as it celebrated the achievement of each nominee.

The presentations and prizes were presented on behalf of the Region by Emma Thomson ACIAT, the aspirATion Chair and Raquel Castro Vicente MCIAT, Chair of the Regional Committee for first and second-year groups. The guest of honour was then invited to present third-year nominations and present the prizes.

All nominated, Highly Commended and Winning students received a certificate of achievement and, in addition, the third-year winner received the Greater London Region Graduate Medal and a free upgrade from student to Associate membership.

As the format evolved through each event, and the addition of a short interview with the winners of the second and third-year students, they proved to be extremely popular and were very well received. Following the events, the PR Officer received several emails from academic staff and students expressing gratitude to the Greater London Region for the effort to create and host the events. It was clear that having an event such as this, in what has been such a challenging year, lifted the spirits, and have an incredibly positive impact on the confidence of the students.

A post-event tweet says it all:

SEVENTY-FIVE Nominees in TWELVE Categories across FOUR Universities to create ONE Fantastic Festival of @CIATechnologist!

Keeping the event discrete to each university allows the festival to celebrate the best in each individual university. The AT Awards|Student provide a platform to celebrate the most outstanding student of the year where all universities with Accredited programmes can complete, it was important not to replicate this endeavour.

At its core, the individual university events are a vehicle to raise the profile and relevance of the Institute to the students enrolled in the Accredited programmes. It creates a goal for each student to strive for excellence and use the work of friends and colleagues who have been nominated, Highly Commended or Winners as a reference point for their own remarkable achievements on their education journey.

The warmth of the comments shared between students and the audience in general on the chat window of the event platform was inspiring for the members who organised the events. It has strengthened the resolve to make this an annual celebration of the students' achievements on their journey to becoming Chartered Architectural Technologists of the future.

To conclude, we owe a great debt of thanks to the programme leaders who were so enthusiastic and accommodating in their support of the event:

Tabatha Mills BSc (Hons) PGCHE
University of Westminster

Dr Charlie Fu MCIAT MRTPI FHEA
University of West London

Jennifer Hardi BSc. Hons. PGCHE MPhil SFHEA MCIAT MCIOB
London South Bank University

Dr Arman Hashemi PhD, FHEA, MCMI, ACIAT
University of East London

Also to members of the members of the Greater London Regional Committee who acted as judges, along with guest judges Christine Moran of BDP and Jacqui Macqueen of Goldcrest Architects. To ThermoHouse UK, our generous sponsors and finally, and most importantly, to the Winners and Highly Commended students.

Greater London Region Student Awards 2020

University of West London

Year 1

Winner
Tomasz Grzegorz Koperniak

Highly Commended
Alan Clark

Nominated
Kheman Ramji Jeshani
Sukhvir Gill

Year 2

Winner
Panteha Karbasi

Highly Commended
Milda Klimanskyte

Nominated
Doha Hussein
Nassir Mohamed

Year 3

Winner
Thomas Patrick Felix

Highly Commended
Daniel Neal Warne

Nominated
Cavan Ruaux
Kelly BarcelosDosSantos
Michael John O'Sullivan

University of Westminster

Year 1

Winners
Peter Sotiri
Zoe Shepherd
Ismail Yoonis
Azhar Faghi Elmi
Afzal Ali

Highly Commended
Lloyd Butcher
Stefano Fantuzzi
Rommel Mangsat
Nathan Kwane
Yassin Ali

Nominated
Chanjeevan Gnanenthiran
Elspeth Jefferson
Robyn Howe
Velina Drakalieva
Zaheen Ibrahimi
Isaac Grant
Fariya Abdul
Nasma Amrane

Year 2

Winner
Gus Hodge

Highly Commended
Thomas McGinnity

Nominated
Arcangela Verela Tavares
Arsalna Usmani
Jack Deboo
Lihane Bekteshi

Year 3

Winner
Sandi Nurpeissova

Highly Commended
James Park

Nominated
Amelia Bond
George Smith
Jasmine Smith
Orville Phillips
William Nicholls

University of East London

Year 1

Winner
Ioana Predescu

Highly Commended
Danny Tran

Nominated
Jydsen Zchrlyn Ombao
Jake Dacosta Augustin

Year 2

Winner
Gergely Toth

Highly Commended
Mohamed Ahmed

Nominated
Daniela Ionela Dragu
Thomas Stroud
Marius Rotaru
Ouninioluwa Rotimi

Year 3

Winner
Giulia Fincini

Highly Commended
George Fahmi

Nominated
Connor Minihane
Jawad Serroukh
Jonny Chapi Enriquez
Oussama Nefzi
Oliver Egerton-Smith
Shahid Siddique
Simren Dosanjh

London South Bank University

Year 2

Winner
Robert Marsh

Highly Commended
Anthony Withall

Nominated
William Hall
Samuel Mcloughlin
Bradley Martin
Geraldine Quinn

Year 3

Winner
Christopher Cattle

Highly Commended
Joel Mammoliti

Nominated
Sebastian Cave
Benjamin Clark
Ann-Marie Houlihan
Luke Stanley

Year 2

Winner
Samuel Mcloughlin

Highly Commended
Robert Marsh

Nominated
Klaudia Preus
Geraldine Quinn
Bradley Martin
Anthony Withall
William Hall
Michael Harnett

Year 3

Winner
Christopher Cattle

Highly Commended
Benjamin Clark

Nominated
Ann-Marie Houlihan
Sebastian Cave
Joel Mammoliti
Luke Stanley

All nominated, Highly Commended and Winning students received a certificate of achievement and, in addition, the third-year winner received the Greater London Region Graduate Medal and a free upgrade from student to Associate membership.

Subscription Renewal 2020/21 | Reminder

As your professional body we remain committed to supporting you

> Your Executive Board has considered how best to assist you to enable you to continue your membership – they are very aware, from their own personal experiences, how you may have been impacted.

Eddie Weir PCIAT

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CIAT joining and qualifying structure: a recap

Words by James Banks, Membership Director

The joining and qualifying structure from 1 September 2020 to coincide with the new Code of Conduct

Summary of changes

The changes to the joining structure are:

1. phasing out of Technician membership, TCIAT;
2. introduction of affiliate status (affiliate is not a class of membership):
   i. affiliates who are/were profile candidates
   ii. affiliates who want to be associated with CIAT as a friend and individual/ group or body corporate
3. phasing out of profile candidate, replaced by affiliate status;
   *N.B. affiliate – is **not** a grade/class of membership,*
4. introduction of a Fellow class, FCIAT;
5. introduction of an Honorary Fellow class, HonFCIAT;
6. cessation of Honorary member class, replaced by Honorary Fellow class (current Honorary members retain their HonMCIAT and will not be transferred); and
7. introduction of CIAT Chartered Practice to replace CIAT Registered Practice.

There are no changes to:

- Chartered Architectural Technologist, MCIAT – CIAT's highest professional qualification.
- Associate member, ACIAT
- Student member

Technician member

Architectural Technician, TCIAT is being phased out. It will be removed from the Institute's structure on 31 December 2021, at which time use of the TCIAT post nominal designation will cease.

Profile candidate

Profile candidate was withdrawn on 1 September 2020 and replaced by affiliate status.

Affiliate status

Is affiliate status a class/grade of membership?
No, it is not a membership *class or grade* but a status within the Institute's structure. It facilitates access to qualifying and an opportunity to be engaged and involved with the Institute.

Affiliate as regulated in Section B of the Code of Conduct:

Individuals: Architectural Technology professionals who:

- do not satisfy the academic standard criteria for membership; and/or
- are offering services directly to clients via self-employment (as defined in the *Code of Conduct*).

They will be able to refer to themselves as:

- *'CIAT affiliate'* or
- *'CIAT affiliate whilst working towards attaining Chartered Architectural Technologist, MCIAT status'*

Affiliate as regulated in Section C of the Code of Conduct

The opportunity to join through this process will not go live until late 2020 or early 2021
Individuals: For those with an interest in Architectural Technology and/or built environment sector and wish to be associated with CIAT and support the discipline.
They will be able to refer to themselves as:

- *'CIAT affiliate'*

Group or Body Corporates: For those with an interest in Architectural Technology and/or built environment sector and wish to support and be associated with the discipline of Architectural Technology and CIAT.

Launch date and how they will promote their affiliate status is to be confirmed.

Fellow Member, FCIAT

This new class of membership is only open to Chartered Architectural Technologists and will provide recognition of their significant contribution to and/or excellence in Architectural Technology.

What is a Fellow Member?

The Fellow Membership class complements the Chartered Architectural Technologist qualification and is an aspirational achievement for such Members to further demonstrate their skills, roles and functions. Fellow Members will be entitled to use the post nominal letters, FCIAT.

Who can apply?

Chartered Architectural Technologists.

What are the criteria to become a Fellow?

The Fellow criteria and processes are being finalised.

How will it differ to being a Chartered Architectural Technologist MCIAT?

Chartered Architectural Technologist, MCIAT is a professional qualification achieved when Members demonstrate their underpinning knowledge, experience and competence attained through practical experience and professionalism.

When will this be launched?

The Fellow Membership process is being finalised with envisaged full launch in autumn/winter 2020.

Honorary Fellow, HonFCIAT

This will be awarded to a distinguished individual:

- with pre-eminence in their field;
- for significant contribution to/and or excellence in Architectural Technology; or
- with a significant and ongoing relationship with Architectural Technology.

Who is eligible?

It is by invitation only and cannot be applied for. Individuals are to be nominated and suitability aligned with the Fellow Membership requirements for continuity.

Honorary member, HonMCIAT

The Institute is privileged to have eleven current Honorary members and their status is unaffected. This is class of membership is no longer open.

CIAT Chartered Practice Register

All current CIAT Registered Practices became CIAT Chartered Practices on 1 September 2020.

'CIAT Chartered Practice' is a protected descriptor as approved by the Privy Council and sits alongside the protected title Chartered Architectural Technologists. Only CIAT Registered Practices may use it.

Only those practices who have satisfied the requirements for registration with CIAT may describe themselves as a 'CIAT Chartered Practice' and use the CIAT Chartered Practice logo, which is issued under license and subject to approvals for use and copyright protections.

CIAT CHARTERED PRACTICE

For further information contact practice@ciat.org.uk

If you have any queries, please contact membership@ciat.org.uk ■

Membership news

Chartered Members

We would like to congratulate the following members who successfully attended their Professional Interview and are now Chartered Architectural Technologists, MCIAT:

019999	Michael Hartley	Northern, 01
020472	Andrew Hinchliffe	Yorkshire, 02
022055	Robert Jagger	Yorkshire, 02
022855	Helen Kirk	Yorkshire, 02
034850	Aidan Linskill	Yorkshire, 02
029165	Tom Speck	Yorkshire, 02
023670	Emma Tarring	Yorkshire, 02
0000055	James Whipp	Yorkshire, 02
013605	Graham Baldwin	North West, 03
025981	Abdisalem Farah	North West, 03
034321	Richard Farley	North West, 03
035144	Robert Gorman	North West, 03
033529	James Lawson	North West, 03
035092	Bethany Popplewell	North West, 03
028391	Mohammed Saoud	North West, 03
013157	Gerard Walsh	North West, 03
031891	Duncan Staniforth	East Midlands, 04
034400	Liam Taylor	East Midlands, 04
034286	Yahya Al-Saeed	West Midlands, 05
026953	James Fairclough	West Midlands, 05
032420	Sandip Kalia	West Midlands, 05
021231	Nathan Stubbs	West Midlands, 05
029844	Ben Macey	Wessex, 06
032286	Daniel Murphy	Wessex, 06
027936	Annamarija Sepilova	Wessex, 06
032455	Ben Wilson	Wessex, 06
030192	David Graham	East Anglia, 07
019094	John Grove	East Anglia, 07
026090	Benjamin Thomas	East Anglia, 07
017954	David Turner	East Anglia, 07
030001	Frances Walters	East Anglia, 07
031551	Charlotte Herring	Central, 08
021782	Miriam Kochanova	Central, 08
030040	Matthew Picot	Central, 08
028474	Emily Cooke	Greater London, 09
008211	Roger Day	Greater London, 09
029190	William Flett Garden	Greater London, 09
034216	Nicholas Horvath	Greater London, 09
012500	James Keegan	Greater London, 09
0000071	Abinaya Munirathinam	Greater London, 09
030235	Reza Shafaei	Greater London, 09
030303	Cameron Weights	Greater London, 09
019592	Daniel Barker	South East, 10
035158	Jack Coleman	South East, 10
030051	Olagoke Faromika	South East, 10
018820	Samuel Holmes	South East, 10
028569	Russell Jemmett	South East, 10
033313	Lionel Stroh	South East, 10
034867	Christopher Mauger	Channel Islands, 11
023900	Jonathan Blackmore	Western, 12
018295	Darren Crain	Western, 12
022091	Wayne Kelly	Scotland West, 13
019678	Kevin MacDonald	Scotland West, 13
023630	Gavin McAuley	Scotland West, 13
034159	David Perez	Scotland West, 13
028114	Peter Hackett	Scotland East, 14
025098	Oliver Hibbs	Scotland East, 14
029145	Joyce Wiseman	Scotland East, 14
034162	Philip Childs	Northern Ireland, 15
035026	Kevin McCluskey	Northern Ireland, 15
026135	Timothy McCurdy	Northern Ireland, 15
024946	Kieran Wilson	Northern Ireland, 15
031213	Frederick Carter	Wales, 16
026713	Richard Burke	Republic of Ireland, C2
034182	Siubhan Criostoir	Republic of Ireland, C2
032834	Ciaran McMahon	Republic of Ireland, C2
028455	Matthew Reddy	Republic of Ireland, C2
034966	Andre King	The Americas, C4
034873	Ian Mason	Middle East & Africa, C7

Welcome back

We would like to welcome back the following Chartered Members:

021196	Seya Tansill	Wessex, 06
021899	John Yarham	Western, 12
012271	Heather Smith	Scotland East, 14
029212	David Millea	Republic of Ireland, C2

We would like to welcome back the following Technician member:

017994	Lorraine Bennett	South East, 10

In memoriam

We regret to announce the death of the following members:

002848	Royston Evans	West Midlands, 05
008094	Paul Reynolds	West Midlands, 05
000692	Martin Gould	South East, 10
034506	Richard Hollis	South East, 10
018664	Andrew Nankivell	Western, 12

CIAT signs collaborative agreement with ASA

CIAT has signed a collaborative agreement with the Architectural Science Association (ASA). The agreement formalises a collaborative relationship between CIAT and ASA.

It aims to create a climate of cooperation that allows the organisations to serve the needs of the members, academia, industry and society as well as improving and promoting the public profile of the organisations. This Arrangement will allow the two organisations to share and disseminate research outputs, information, knowledge and best practice through conferences, publications and events thus promoting the skills, competences and professions of the members of both CIAT and ASA and to position both organisations as leaders in the field of architectural science and technology research.

New document – Beyond COVID-19: Recovery measures for Architectural Technologists and building surveyors in design and contract administration roles

This guide is intended to build on government and wider industry guidance and gives practical advice to CIAT and RICS professionals working in building design and contract administration on working as the COVID-19 lockdown measures are lifted and we work through the restart phase of recovery. It highlights the risks at key stages in the design and construction process, identify control measures that can be adopted, and offer useful tools and advice on how the designer may mitigate COVID-19 risks. It can be downloaded from: ciat.org.uk/resource/recovery-measures-for-designers-beyond-covid-pdf.html

The AT Awards and digital showcase – 3 December 2020

Showcasing the technology of architecture at its best, CIAT's AT Awards event and digital showcase will be live on 3 December.

This free online event will recognise the exceptional contribution that Architectural Technology practices and professionals make to the built environment.

The winners will be announced by television presenter, journalist, and musician Matt Allwright as the AT Awards becomes virtual for 2020!

The AT Awards are recognised as the premier accolades that demonstrate outstanding achievement in Architectural Technology and celebrate the technology of architecture.

Find out more at:
ciat.org.uk/awards/atawards.htm

AT AWARDS

ciat.org.uk/awards.html
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