

# JCTNEWS

THE JCT CONTRACTS UPDATE FOR THE CONSTRUCTION PROFESSIONAL

## GOLDSMITH STREET

When completed later this year, the new terraces of flats and houses at Goldsmith Street, Norwich will be the UK's largest Passivhaus development. If that wasn't ambitious enough, it is also commissioned by Norwich Council as a 100% social housing scheme. A JCT Standard Building Contract provided the contract solution.

Goldsmith Street is the pinnacle of a recent series of developments which is seeing Norfolk become a hub in the UK for Passivhaus projects. Designed by Mikhail Riches Architects and built by RG Carter, it joins the recently completed Carrowbreck Meadow development nearby, with both projects winners of Housing Design Awards.

Goldsmith Street is situated 5 minutes' walk from Norwich's Golden and Silver Triangles – terraces of desirable 19th Century Victorian housing – which has had a significant influence on the design and feel of the new development. It replaces an area of the city blighted by intensive and unpopular post-war development. The aim is not only to deliver



Goldsmith Street, Norwich

Image: Mikhail Riches

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successful urban regeneration and exemplary sustainable homes, but use design, layout, aesthetics, and function to integrate with and reflect the grain of the desirable Victorian landscape nearby.

Achieving the ambition of a 100% social housing Passivhaus scheme is a difficult enough challenge in and of itself. For a development this size, it is exceptionally rare. Goldsmith Street delivers 105 homes, achieving a high density of 83 dwellings per hectare, at a cost of £1,350/m<sup>2</sup> – an outcome that is both competitive and economical. 56 of the homes are one-bed flats, with the rest being a mixture of two and three-bed flats and two to four-bed homes.

The technical requirements of building to Passivhaus standards require upfront cost that is not cheap – including insulation, airtightness and triple-glazing. Costs have been kept down during the building phase using timber frames, common detailing, and two different types of brick – which also helps to add visual variety.

Simplicity of design is also a big factor in terms of both achieving the Passivhaus requirements and saving costs. Every factor of the development from maximising natural light, to layout, to implementation of building services, has been considered to reduce energy

loss. The terraces are designed as regular, orthogonal blocks which reduces envelope and are cheaper to build. The decreased surface areas also results in less overall heat loss.

All terraces face south in order to maximise solar gain and exposure to natural daylight. They feature asymmetrical pitched roofs with a longer, lower, and shallower profile to the north. This arrangement means that each terrace doesn't overshadow the one behind it, as the shallower pitch exposes the rear terrace to more daylight. This also allows for a narrower 14m street profile, more reminiscent of the Victorian-style locality with which the development is aiming to integrate.

For the interiors, the large habitable rooms, such as bedrooms and sitting rooms, have larger south facing windows, whereas smaller rooms, such as studies and bathrooms, are north facing and have small windows to prevent heat loss. Each property uses the minimum number of soil vent pipes to reduce heat transfer. Piping is also situated in a way that requires minimal puncturing through the fabric, once again preserving heat energy. Boilers and MVHR are located against external walls wherever possible, reducing the amount of pipework that

requires ducting to the exterior, which again minimises costs.

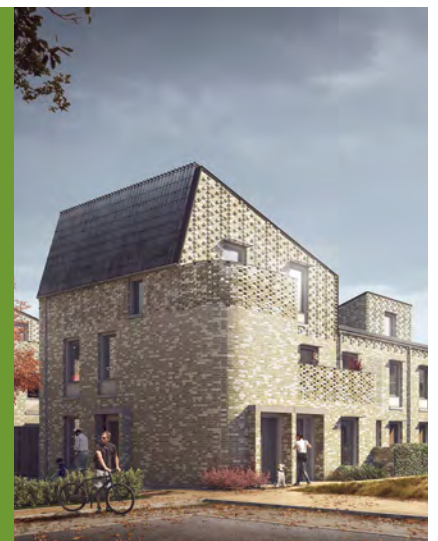
This attention to detail, in focusing on producing as sustainable a development as possible, has an even greater impact on cost savings further down the line. It is anticipated that the greatest cost savings will come post construction, in-use, with fuel bills as low as £150 per year. In addition to running costs, there is no need for any costly environmental retrofits.

What makes Goldsmith Street stand out is not only the dedication to achieving its sustainable credentials, but also providing an integrated, attractive living environment. This is exemplified not only by the care taken to reflect the fabric of Norwich's valued historic architecture, but also in its outward looking and communal ethos. Its green links are reinforced beyond the site with parks and shared secure alley spaces which encourage children's play and communal gathering.

The use of the JCT Standard Building Contract was, according to the architect Mikhail Riches Architects, vital to balancing the ambitions of the project – allowing the Passivhaus requirements to be protected, but also providing flexibility in retaining control over design and adding in cost-saving measures elsewhere.

## GOLDSMITH STREET, NORWICH: KEY FACTS

Project .....	100% social housing scheme, 105 homes
Cost .....	£15m
Contract used.....	JCT Standard Building Contract
Client .....	Norwich City Council
Architect .....	Mikhail Riches
Main contractor .....	RG Carter
Structural engineer .....	Rossi Long
M&E engineer .....	Greengauge
Project manager .....	MER Construction Services
Passivhaus consultant .....	WARM
Landscape architect .....	BBUK
Quantity surveyor .....	Hamson Barron Smith
Timber frame manufacturer ..	Cygnum Timber Frame timber decking



## 'RE-INTEGRATION'

### Chairman's Letter



Richard Saxon CBE

The collapse of Carillion is probably another nail in the coffin of the current UK model of main contracting where virtually all the trade work is subcontracted. Over fifty years in the industry, I have seen the change from traditional contractors with their main trades in-house to the current, unsustainable pattern. The vertically integrated contractor was brought down by recurrent business cycles which punish employers. Once the idea spread that trade specialists could be hired in just when needed, taking them off the contractor's books, that approach spread fast. Tier Two firms could be left with the work of recruiting and training people, innovating in their specialism and managing the risk handed down to them. They could also provide working capital to the main contractor by accepting slow payment for their work. Most of the business cycle impact became 'subcontracted out'. In practice, with Tier Two firms bidding at low margins to win work from the Tier One contractor, the scope for innovation and proper training was driven out. One of the stubborn failures of the industry since this pattern became the norm has been the lack of any productivity growth. Scratch teams, built up per project, learn nothing from experience and waste considerable resources in the procurement process. The critique of the method reads:

- Highest cost, lowest margin
- No learning or productivity gain
- Few resources for R&D or training
- No security of payment, therefore no trust
- High risk of business failure
- Weak collaboration for all these reasons
- Short-term mindset with poor end-customer focus

Twenty years ago, Sir John Egan's report 'Rethinking Construction' rejected the whole concept of setting up project teams by tendering on price. The result, he said, was the highest construction costs in Europe. Manufacturers had long abandoned such methods of team formation, picking their suppliers on quality grounds

and working together long-term. Instead of designing then seeking prices, manufacturers identified the performance they sought and the cost they could bear, then asked their suppliers to work with them to achieve both. This works far better, and manufacturing productivity growth is over 3% per year, with handsome margins for all.

We are now looking again at the manufacturing model, but as a way of making buildings offsite. We surely have to follow the manufacturing norm of building the team for the long term and designing with the team in place. Where projects are sophisticated one-offs, like airports or laboratories, the approach could be through construction management, where an integrator brings together the team, then steers it to achieve the desired result, but with suppliers in alliances or direct contracts to the customer. Where projects are of a simpler, more repetitive type, like housing, the team could become a virtual firm, improving from job to job and developing a branded product, as Egan suggested. The pilot Integrated Project Insurance example, for Dudley College, demonstrates how a one-off team can increase its performance whilst using insurance to cover both its and the client's key risks.

With a long-termist mindset, innovation can be encouraged and rewarded with shares of added value for both customer and supply team. Training can be fundable to handle new methods and retain key staff. Risk can be driven down by better methods, including digital technologies which can greatly reduce changes, error, delay and quality problems. Insurance then becomes a feasible backstop.

The UK culture of risk avoidance by dumping it down the ad-hoc supply chain has manifestly failed. Risk sharing, and management is now more possible than ever. Clients must not be advised to be risk averse; that paradoxically increases the risk of project failure. Supply team leaders need to build stable, trusted supply chains, like manufacturers, and continuously improve performance and reward.

Photograph: Dudley College Advance 2 building



Photograph: ipinitatives.





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## JCT ON DEMAND

NEW JCT DIGITAL CONTRACTS NOW AVAILABLE

JCT has launched its improved and updated On Demand digital service, taking on board user feedback to deliver a new service with a range of enhanced features.

The On Demand digital service is re-launched with three of JCT's

most popular contracts, JCT Minor Works Building Contract (MW), JCT Minor Works Building Contract with contractors' design (MWD) and JCT Design and Build Contract (DB). The Design and Build Contract Guide (DB/G) is also available.

The new On Demand digital service seamlessly integrates with the JCT online store, [www.jctftd.co.uk](http://www.jctftd.co.uk), so that once you have created your account and purchased the On Demand digital version of your contract, you can log in and access your contract any time that is convenient to you.

### SOME OF THE IMPROVEMENTS MADE TO THE NEW SERVICE INCLUDE THE FOLLOWING FEATURES:

- An intuitive Q&A process makes filling in the contracts easy and makes sure you cover all the key areas. Questions change depending on the answers you give, so you only complete what is relevant to you.
- An in-situ Q&A and preview screen – see your answers
- update the contract in real time as you progress.
- Improved design features, such as easy to access document actions, interactive progress bar, and an easy to navigate folder structure, help make finding and progressing through your contracts a breeze.
- You can print DRAFT watermarked copies as you work to review your contract.
- You can view and print comparison documents comparing your changes to the baseline JCT text.

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JCT On Demand is designed to provide a convenient, user-friendly, and secure way to access and work with JCT contracts. It is for users who are looking for peace

of mind in making sure they have comprehensively completed their contract, but are not looking to make bespoke changes or amendments.

Try JCT On Demand today by visiting JCT's online store: [www.jctltd.co.uk](http://www.jctltd.co.uk).



## WHAT CAN ONE LEARN FROM CARILLION?

PETER HIBBERD

The collapse of Carillion was a shock and affects many within the industry, not least sub-contractors and suppliers. It was a shock because, despite the warnings of some commentators, large companies supposedly should not go into compulsory liquidation. It is in that belief that a sub-contractor is generally happier to work for large companies. Carillion's collapse shows that belief, if not entirely misplaced, to be one that cannot be taken for granted. Just because a company is large it is not necessarily safe; precautions are always necessary.

When insolvency occurs all the sub-contractor has to do is seek recompense from the trade credit insurance it took out to cover such an eventuality. But oh dear, for many there is no such insurance in place. This may be so because of lack of familiarity with its availability or more likely because of cost. It is another cost eating away at profit margins and also potentially making the bidder less competitive.

So if trade credit insurance is not the answer, what is? When considering the options, one must accept two fundamental points; they all involve cost and none of them is absolutely foolproof but they can both individually and collectively reduce payment risk.

Before entering into contract with an organisation, regardless of size, ascertain its current financial position, its current payment practices and whether it is either growing or shrinking too rapidly – its cash flow may be under stress. It is also important to look at one's own portfolio of work for too many eggs in one basket can be catastrophic in the event of payment delays, let alone insolvency on the part of the payer.

Now to look at the contract itself: firstly, the sub-contract should be an accepted industry standard form appropriate to the main contract, for example a JCT Standard Building Sub-Contract (SBSub), JCT Short Form of Sub-Contract (ShortSub) or JCT Sub-subcontract (SubSub). The

benefit of using such a form arises in a number of ways, the first is the way it governs insolvency, which is defined term. Secondly, under SBSub, where the main contractor becomes insolvent the sub-contractor's obligations under the sub-contract are immediately suspended, which avoids increasing the risk. Then following a three week moratorium it has a right to terminate its employment. The contractual consequences of the termination are spelled out and importantly the sub-contractor retains access to the site to remove its materials and equipment etc. With regard materials supplied it is always worth considering making them subject to a 'retention of title' provision. Such unfixed materials need to be clearly identifiable but this does mean the sub-contractor can repossess them in the event of payment default, therefore reducing its potential loss.

Although the contractor has an obligation to inform the sub-contractor immediately that it is insolvent or becomes subject to proceedings related to such an event this may not happen as required; sub-contractors should always be aware of the possibility of pending insolvency. There usually are signs.

Now although such contract termination provisions help sub-contractors by providing a framework to deal with insolvency on the part of the payer, these may be of limited use in their recovery of loss, and in cases such as Carillion, certainly will be. So what else can be done?

Under any contract it is important to ensure good cash flow. An aspect of that is the period between payments and the period for payment. Under JCT contracts the payment regime is set out and works on a monthly cycle unless the standard form is amended in the case of SBSub or a longer period is inserted in the recitals of either ShortSub or SubSub. Extending the payment cycle increases risk in the event of payment default, which is inevitable when the

payer becomes insolvent. Limiting the risk by shortening the payment cycle is worthwhile but not always possible but an extension of the payment period to say 90 or 120 days is dangerous.

The sub-contractor is exposed not only for the work executed and not yet certified but also for certified work until it is paid: even then the certified payment may include retention. Frequently, retention is held under a sub-contract and, where it is, sub-contractors should ensure that the retention percentage is not increased from the default position, ideally secure a reduction. Also ask for retention to be placed in a trust account. Alternatively, consider using a retention bond, which means payments are made without retention and the payer has security of the bond in the event of the sub-contractor's default. Retention bond provisions are included in SBSub, because the size of sub-contract may justify such an approach.

Another way of reducing risk is to seek advance payment from the contractor, which is secured by the sub-contractor obtaining an Advanced Payment Bond from a surety for the benefit of the contractor. Examples of all above bonds can be found in the JCT standard form of building contract.

The problem for sub-contractors carrying out relatively small packages of work is that negotiating different terms, taking out bonds and securing parent company guarantees seldom appears worthwhile and the concept of project bank accounts seldom arises. If the risk has to be taken then at least make sure of the contractor's financial soundness and, as best one can, create a diversified portfolio of projects. Sub-contracting is a risk business and payment risk must be reduced to a financially manageable level. Remember 'pay when paid' means little when the payer is insolvent.

**This article was originally published in Issue 75 of Roofing Today.**

## USING WEATHER AND CLIMATE DATA TO MANAGE RISK

### Introduction

JCT has teamed up with the Met Office to offer two new location-based products: Monthly Planning Averages and Monthly Downtime Summaries. The reports are designed specifically for project planning and management, helping you to minimise the impact of weather on your project and complement the weather clauses found in JCT contracts.

Ric Robins, Business Group Head of Meteorology and Science at the Met Office states “we have collaborated with the construction industry and JCT to develop two new weather summary reports, location-based monthly planning averages and downtime reports. Combining our expertise with JCT’s contractual expertise gives greater protection and support to customers.”

These trusted and accurate weather reports for the construction industry, help guide and support in the planning phase and evidence requests for extension of time during or post project.

### Our reports explained...

#### Location-based planning averages reports

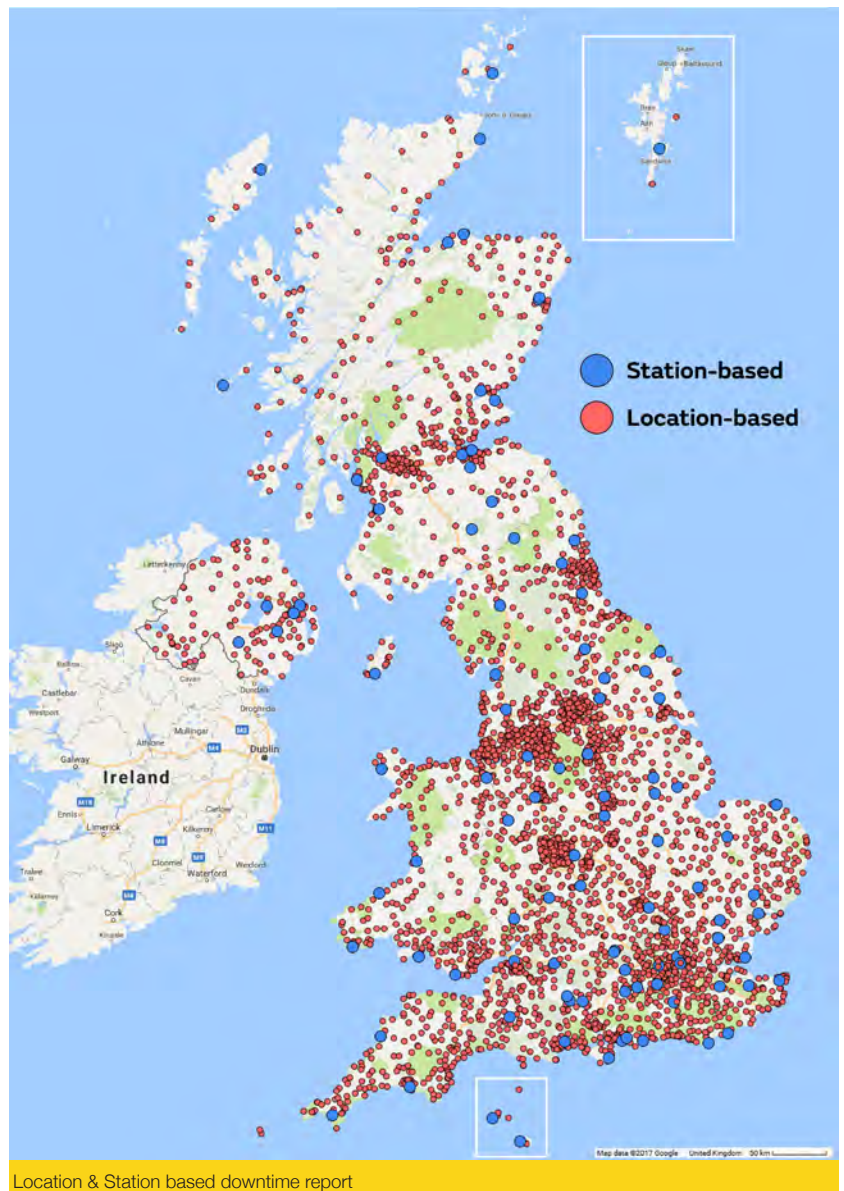
Location-based planning averages reports provide expected conditions for a given month at a given location. By looking over a thirty-year period you can understand the monthly norms to expect on site. This information gives guidance in developing contingency plans and negotiating realistic contracts, tenders and preparing for weather related risks.

These clear and easy to use reports are available for up to 11 weather parameters from 3,600+ locations around the UK. The greatly increased number of site locations compared to the traditional 100 station based sites mitigates the previous issue of having

to pick a location from a limited number of weather stations, which can often be a long distance or unrepresentative of your project location. Having access to specific build location weather data will allow a greater confidence in the weather information obtained.

This added knowledge and information will allow contractors to proactively plan for realistic weather impacts over the course of a project, ensuring that builds are given the best opportunity to meet their deadlines and organisations to protect their reputations.

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## Location-based downtime summary reports

Monthly downtime summary reports provide you with detailed weather conditions actually experienced at your site for your months of interest. These conditions can be compared to their corresponding long-term averages and 1-in-10 year values identifying weather conditions that fall outside of normal parameters which could not have been planned for, therefore supporting your claims for an extension of time.

Using over 30 years of weather data these detailed but easy to use reports provide values for up to 16 different weather parameters for the same 3,600+ locations across the UK, again allowing

for the most representative information to be used. The reports easily identify when a 1-in-10 year value has been exceeded by highlighting each weather parameter in red or green allowing for a quick and efficient decision to be made with the knowledge it's coming from a trusted, independent source of information and expertise.

## Science behind the Location-based reports

To generate the location-based reports, the Met Office combine the historic gridded database of long-term average weather values with a database of present observations used to drive the weather forecasting models run on the

Met Office's Supercomputer. Our system has been rigorously tested to ensure robustness and accuracy.

## So, how can you mitigate the risk of weather?

To avoid unforeseen delays to your build programme Ric Robins, provides his expert advice. "The risk of severe and unseasonal weather like rain, wind and lightning need to be given careful consideration, to avoid the adverse impacts of delays to construction projects." According to Robins, key weather data is available from the Met Office via JCT to help mitigate the risks of weather from negatively impacting the management of construction projects.



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<http://corporate.jctltd.co.uk/jct-network-sign-up/>



# JCT CONTRACTS DISCOVERY

EDUCATION MODULE REVISED AND REMODELLED FOR 2018

JCT Contracts Discovery, the learning and education module first published in 2012, has been substantially updated and revised for 2018, providing an improved and more in-depth tool for those in construction education.

JCT Contracts Discovery is designed for education and training providers, in-house training teams and independent tutors. It is also useful for students studying contractual matters as part of their construction-related course as a reference guide.

Delivered in hard-copy format, the module provides the materials that students need to gain a comprehensive understanding of JCT contracts and JCT contractual procedures.

The module sets new standards for construction contract education, improving the understanding of contract use and assisting the development of the construction professionals of the future. It supplements a student's knowledge of JCT contracts and helps to explain their use in context. It can be used alongside the study of specific contract documents to offer a deeper level of understanding.

This revised publication of JCT Contracts Discovery goes further by giving a more detailed description and explanation of the changes made as a result of the publication of the JCT 2016 Edition of contracts, and provides analysis of the JCT Standard Building Contract and JCT Design and Build Contract in particular.

The module is organised so that each section covers a key area of the construction process impacted by JCT's range of documents.

## JCT Contracts Discovery:

- explains the major elements of the JCT suite of contracts
- goes through how JCT contracts are set up and implemented
- looks at the various roles of individuals including contractors, employers, sub-contractors and contract administrators within the contract process
- discusses how JCT provisions deal with administrative matters, such as payment, control of the works, and control of time.

JCT Contracts Discovery is designed to be flexible to a variety of teaching and learning needs. It can be used as a stand-alone module on JCT contracts or it can be incorporated into the existing structure of a construction-related course.

To order your copy, visit JCT's online store at <https://www.jctltd.co.uk/product/jct-contracts-discovery>.



## THE CHAPTERS INCLUDED ARE:

- Introduction to JCT Contracts Discovery
- Procurement and the contract
- Contractor selection and tendering
- JCT standard forms of main contract and ancillary agreements, contract documents and design responsibility
- Setting up the contract
- Housekeeping issues in JCT contracts
- Carrying out the works
- Control of the works
- Sub-contractors
- Time
- Payment
- Variations
- Liability and Insurance
- Forms of security documentation – Bonds, Guarantees, Third Party Rights and Collateral Warranties
- Termination
- Introduction to dispute resolution



## JCT INTERVIEWS...



**STEVEN  
THOMPSON**

In this series we shed some light on some of the key people who are involved with or give their time to support JCT, to ensure that all areas of the construction industry are represented and can contribute to the development of our contracts. We will look at how our interviewees contribute to JCT specifically, and gain their views on JCT's wider role within the industry.

### Member of the JCT Drafting Sub-Committee

Steven is a fellow of the RICS, qualifying in 1984 as a chartered quantity surveyor and he has spent the bulk of his career in private practice as a quantity surveyor and project manager. He has experience of most types of construction projects with some 15 years' experience of working with global pharmaceutical companies advising on all aspects of research and manufacturing projects. In more recent years and prior to joining the RICS, he has worked client-side with a property developer and outsourcing company, including PFI school developments.

Steven joined the RICS in September 2016 and is one of the associate directors within the RICS Professional Groups Built Environment department. He is responsible for the Quantity Surveying and Project Management Professional Group Boards, and is involved with the related Infrastructure Groups. In addition, he looks after the related Forums and is a member of the 'Black Book' Working Group. He also is a member of the JCT Drafting Sub-Committee and has been closely involved in the drafting of the recently published JCT 2016 Edition of contracts.

**JCT: Steven, how did you first come to be involved with JCT? Why do you think it is important to be involved?**

ST: I was invited to join the Drafting Sub-Committee a few years ago as one of the RICS representatives to the Consultant's College. I feel that it is important that JCT receives as wide a view as possible on the key issues that need to be considered in effective and fair contract formation. Having worked in private practice, for a developer client and an outsourcing contractor over the course of my career, I believe that I can bring a balanced view across the industry and profession.

**JCT: Can you tell us about any specific work you're currently doing with JCT – through your role on the JCT Council, or through any working groups, for example?**

ST: As a member of the Drafting Sub-Committee, my key task over recent years has been the production of the JCT 2016 Edition of contracts and associated sub-contracts, warranties and other documents. This seemed to commence immediately after the publication of the previous 2011 suite and therefore has been an all-consuming task!

We are also at the start of looking at other new forms of contract, such as Target Cost and a Facilities Management form (amongst others), but these are currently only at the preliminary stages.

And, there will always be the initial preparations for the drafting of the next suite revision with a growing 'checklist' of those matters that were deferred in 2016 and will need to be re-visited next time around!

**JCT: Do you have any personal career highlights? What are you most proud of about the construction industry as a whole and where do you think it most needs to improve?**

ST: I think the best way to think of career 'highlights' is to remember with pride the really interesting projects that I have worked on over the years and two stand out in that respect. Firstly, as a young QS very early in my career, I had the privilege to work on part of the restoration of one of Hawksmoor's City churches. In those days it was still an empty shell and I only worked on it for three years or so within a programme of 30 years work to restore it to its former glory. It is thrilling to go back now and see

the church open again and thriving as the centre of a worshipping community.

Secondly, I was proud to be the client developer representative on the construction of a new-build £30m independent school, as a relocation from the previous cramped city centre site. With bank development funding having been denied to the school, we stepped in as developer, funder, and landlord. We completed a 'deal' within six weeks, were on site immediately thereafter using an unamended JCT Design and Build form of contract, therefore having to make all payments to the contractor within 14 days!

**JCT: What do you see as the main challenges for the construction industry over the next five years?**

ST: The aftershock from the collapse of Carillion has brought into sharper focus the need for the industry to seek to 'fix' the broken procurement models and practices that have evolved over recent years. A widespread and comprehensive review is therefore somewhat overdue.

The failure of all levels of the supply chain to provide prompt payment and the continuing use of retention remain related matters which will challenge the industry in the next few years – a workable solution must be found.

Finally, the recent death of Lord Michael Latham provides a timely reminder that the industry may perhaps have not (yet) heeded his recommendations for greater collaboration for the benefit of all – and indeed, much closer to today, we should not forget the warning from Mark Farmer to the industry to modernise or die. Challenging times, indeed.

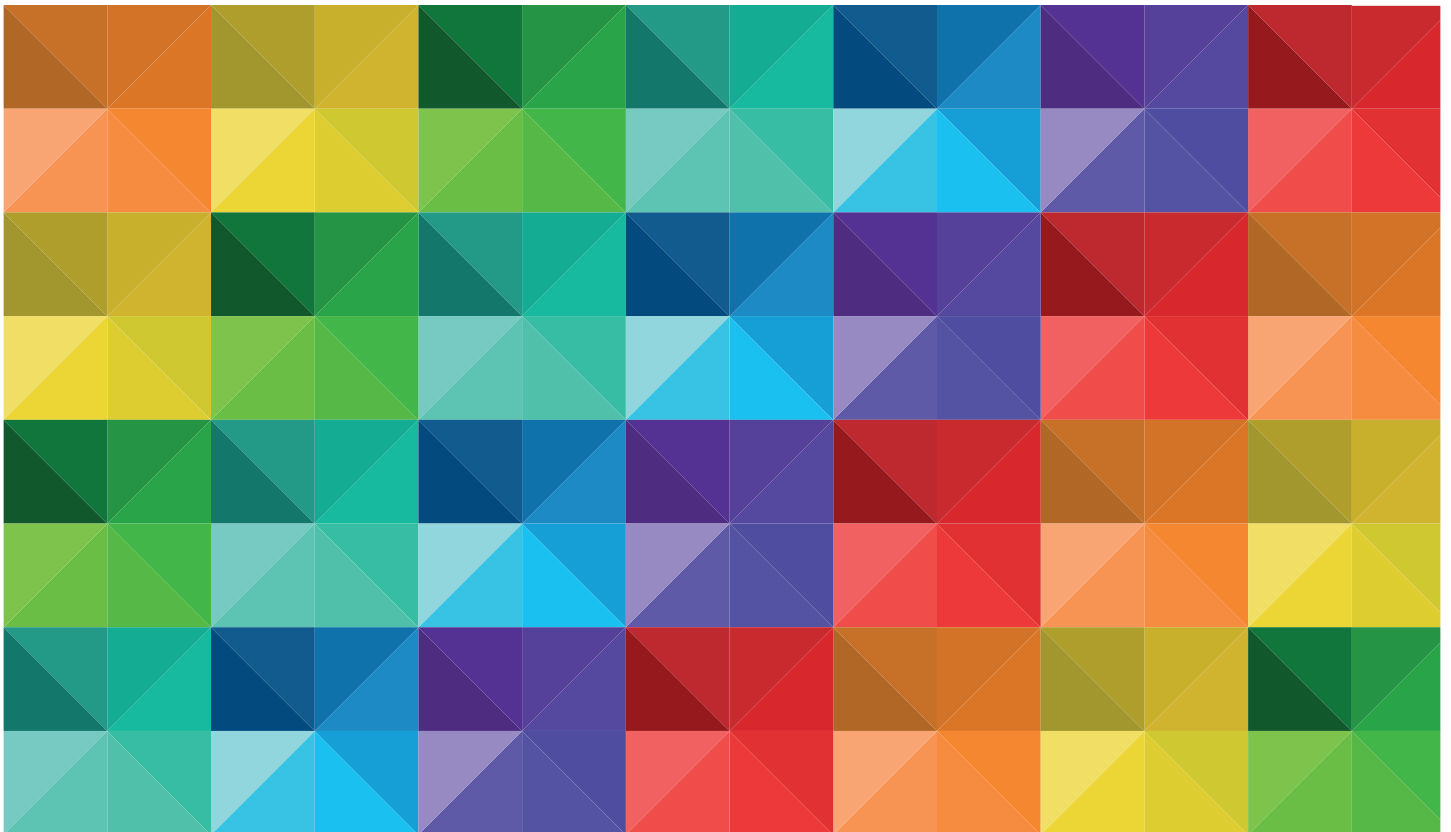
**JCT: Does JCT have a wider role to play in the industry beyond producing contracts?**

ST: Collaboration across the industry and in its relationship with Government is key, and JCT has been facilitating that for many decades with its contracts and other publications seeking to provide a balanced consensus between the various stakeholders.

This role is actually far wider than merely the drafting of the wording of the contracts but also includes education and training of those embarking upon their careers, resulting in a change of mindset for the future.







# THE NEW **JCT ON DEMAND**

Available now on the new and improved platform, **JCT On Demand** gives you an easy access to digital contract drafting with peace of mind.

**New contracts and guide available include:**

- JCT Minor Works Building Contract 2016 (MW)
- JCT Minor Works Building Contract with contractor's design 2016 (MWD)
- JCT Design and Build Contract 2016 (DB)
- JCT Design and Build Contract Guide 2016 (DB/G)



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THE CONTRACTS YOU  
NEED, ON DEMAND

