

JCTNEWS

THE JCT CONTRACTS UPDATE FOR THE CONSTRUCTION PROFESSIONAL

WHITE COLLAR FACTORY

Derwent London's latest commercial development, White Collar Factory, combines years of research, lessons learned from well-built historic industrial spaces, and best practice in sustainable modern office design, to deliver a low-cost, low impact, and flexible working environment. A JCT Design and Build Contract provided the contract solution.

Located overlooking Old Street roundabout, White Collar Factory is surrounded by the trendy and artistic enclaves of Shoreditch, Hoxton and Clerkenwell in the northern part of the City of London. Home to Tech City, Old Street is a diverse community of successful start-ups and established digital companies. This range of creative and technology industries is helping to drive the regeneration, growth, and development taking place in the area.

White Collar Factory is the latest result of a long-term research initiative between Derwent London and architect, Alford Hall Monaghan Morris (AHMM). Their other recent projects together include Shoreditch's Tea Building and the RIBA Stirling shortlisted Angel Building in Islington. Working with engineering firms AKT II and Arup, their research has looked at the features that have allowed the city's Victorian warehouses and factory buildings to have lasted so long, and how this longevity could inform future sustainable development. The principles of their development projects have centred on being low-cost and low-carbon, as part of providing user-focused design and function. In working on White Collar Factory, the project team identified five key elements from the research that have provided the back-bone to the



White Collar Factory

Photograph: Tim Soar

project: high ceilings, deep plans, simple passive façades, concrete structure, and smart servicing.

Prior to construction, and as part of the research phase, the project team took the unusual step of investing in a £1m prototype of the building. A 325m² replica of White Collar Factory was erected on the site for a period of 12 months. The results put the team in a much stronger position to inform the final design of the building, prove and test their theories beyond reasonable doubt, and enable buy-in from the market, helping to achieve a full roster of tenants from the outset.

White Collar Factory is a development of six buildings in total – a complex of office spaces, studios, incubator spaces, restaurants, apartments, and the main feature – a 16-storey tower topped with a 150m race track – totalling 27,200m². The predominant material is concrete and it is featured in several ways: it forms the structure, provides thermal mass, carries embedded cold water pipes, and creates the building's distinct interior and exterior finishes.

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Photographs: Tim Soar

At pavement level, board shuttered concrete covers the building. The glazing is broken up by alternating panels of 'portholes' banded with anodised aluminium panels. In addition, the glazing varies in response to the orientation of the tower – larger openings to the north, smaller in the east and west, and smallest in the south. The building envelope extends above the roof height which protects the running track at the top of the tower.

White Collar Tower is conceived to be as low-carbon and low-impact as possible, designed to withstand the long-term effects of climate change. The development is rated EPC A, BREEAM Outstanding, and LEED Platinum. One of the key ways this is achieved is through a bespoke Concrete Core Cooling (CCC) system, which is integrated into White Collar Factory's design and structure. Unlike conventional air conditioning it is a passive cooling system, quiet to run, with less air movement within the office space, so it provides a comfortable and effective working environment. It works with the thermal mass of the building's concrete structure to absorb the heat generated in the office. The heat is transferred by a network of chilled water pipes embedded in the concrete, providing radiant cooling and controlling the environment. Natural exposed concrete soffits and perimeter blade columns are integrated into the façade to declutter the space and provide additional exposed thermal mass. It helps the structure keep both warm and cool as required. Openable windows enable 70% natural ventilation of the floor plate. The fresh air works in conjunction with the passive cooling system. Mechanical ventilation input can be reduced by using natural ventilation at least 50% of the time (when outside temperature is between 14°C and 25°C). The 3.5m floor-to-ceiling height is also excellent for providing volume and light.

Flexible occupation is also a key part of the design of the building function, with the generous and open floor areas providing a number of options, in particular suitability for high-density occupation. Under floor power and data, with exposed services are easy to adapt and maintain. The well-being of occupants and sense of community across the development has also been considered fully. Along with the running track, there is also space for nearly 300 bicycles in the basement, encouraging healthy and low-carbon transport. The whole development has a substantial degree of public space, providing multiple restaurants and cafes on site.

The combination of better energy performance, lower carbon emissions, lower energy usage, and natural ventilation also has an impact on dramatically reducing cost. White Collar Factory was between 15-20% cheaper to build than the equivalent standard building. The development is also expected to provide between a 10-30% reduction in energy costs per year – depending on tenant fit-out configurations, and a 25% reduction in carbon emissions over a typical office building of the same size.

The focus on research-led attention to detail on White Collar Factory not only adds new life to an existing space, it takes well thought, timeless principles to inform a project that is innovative, future-proof and shows a real care for balancing the work and living requirements that make a development successful. With a project that requires this complex level of detailed requirements, and where the design-meets-research prototyping is vital to informing the final outcome, the JCT Design and Build Contract is an important tool in helping the project team detail the requirements and responsibilities effectively, helping White Collar Factory to emerge tailored to perfection.

PROJECT SUMMARY

Cost £76m

Contract JCT Design and Build Contract

Client Derwent London

Architect Allford Hall Monaghan Morris

Main contractor Multiplex

Engineer Arup

Structural/civil engineer ATK II

Project manager/CDM co-ordinator

Jackson Coles

Quantity surveyor AECOM

Building control BRCS

Rights of light Gordon Ingram Associates

Planning consultant Tibbalds

Security consultant QCIC Group

BIM coordination BIM Technologies

Party Wall surveyor Botley Byrne

Archaeology Molas

Construction legals Speechly Bircham

Property legals Macfarlanes

Tunnel monitoring Survey Associates

Wayfinding and identity design Cartledge

Levene

Identity design Studio Myerscough

'GOING SOFT'

Chairman's Letter



Richard Saxon CBE

We need to be harder on ourselves as an industry and admit that most of our new buildings reach the end of their defects liability period without ever delivering the performance that they promised. BREEAM ratings at design stage do not predict carbon emissions commensurate with the grading. Sometimes, the certificated building burns several times the expected energy consumption. And typically, we don't go back to analyse the performance, nor the workability of the design for the purpose intended. We move on to the next project. Clients rarely complain, as their expectations were never high, nor clearly stated.

This woeful state of affairs stems from our fixation with the capital cost of buildings, rather than the whole-life value and cost, and with completion of the artefact rather than with delivery of a service. Operational and maintenance factors don't form part of the brief, other than observation of the health and safety rules about safe access for maintenance. We have also allowed breaks in the chain of responsibility to the client to widen in the name of capital economy. Designers now can't usually ensure that the contractor builds what was designed, as value engineering carves through the niceties. Commissioning of systems is a black art. Training of facility managers to run the building is rarely thorough. So designed performance is both under-considered and undermined.

Cambridge University Estates Management, under then-head David Adamson, addressed this issue in 2004, with the help of Mark Way of RMJM and Bill Bordass of the Usable Buildings Trust. They set out a scheme to add whole-life matters to the project plan of work: Facility Management was to become part of the briefing team and their requirements followed through the build phase to ensure no slippage of measures. Handover was to be extended for months, with the builder and

key consultants and specialists on call during early occupation to ensure that everything actually did do what it should. A full evaluation after at least two years of climate experience would create a learning opportunity for everyone on what worked and what didn't. They called it 'Soft Landings'.

The concept caught the attention of government in their 2011 Construction Strategy. Not only was BIM Level 2 to be mandatory by 2016 but it contained the idea of an Asset Information Model as an aid to building management. And a revved-up version of the Way-Bordass idea called Government Soft Landings became part of the Construction Strategy. Government doesn't only want buildings that work as planned but occupant outcomes that meet the business case for the project. The move to outcome-based thinking was further reinforced in the 2013 Construction Industry Strategy. Soft Landings has shifted the RICS NRM toolkit too, starting the build-up of O&M cost knowledge to equal that for capital costs. BSRIA now owns and supports the Soft Landings system.

The wider industry beyond government work has not really picked up on any of this yet. Decades of past high interest rates have conditioned clients to think that the net present value of future costs cannot be a major matter. Business models and accounting systems that separate responsibility for capital spend from that for operational spend still rule. Yet we now have digital tools to manage our buildings more precisely than ever before. Clients will be specifying operating budgets in the brief because we can deliver if we use the tools. Soft Landings may seem like an odd term but it marks the change from a product-centred industry to a service-oriented one. New business models lie out there and feather-light comfort for new occupants and owners sounds like a really nice goal.



Following the successful release of the JCT 2016 edition of contracts, the JCT 2011 contracts will be withdrawn as follows:

JCT CONTRACTS DIGITAL SERVICE (CD) USERS

After the end of April 2018, JCT 2011 contracts will be archived.

HARD-COPY USERS

JCT 2011 contracts will remain available in hard-copy until the end of April 2018, to allow users as much time to transition and complete ongoing projects using JCT 2011 as possible.



JCT STUDENT COMPETITION 2018 – WHAT INSPIRES YOU ABOUT CONSTRUCTION?



JCT Student Competition

WHAT INSPIRES YOU ABOUT CONSTRUCTION?
Enter JCT's Student Competition and use your creative skills – whether it's an essay, article, video or photography – to tell us what inspires you about construction and why.

You could win £1000!

#JCTStudentCompetition

JCT's annual Student Competition will be running for 2018, with a number of new features to make the competition more open, creative and easier to enter.

The competition will be open for entry in October 2017 and will close in March 2018. As with previous years, the overall winner's prize will be £1,000, with two runner-up prizes of £250 also available.

There will be two aspects to this year's competition. For the main competition, the topic is "What Inspires You About Construction?". Candidates may wish to choose a public building, which could be local to them, or a famous iconic international landmark, and explain what aspects of the building they find inspiring. Alternatively, they can focus on aesthetics or design, or any other aspect

of construction, function, any innovative or creative features, sustainability and the positive environmental impact, social impact, or any other feature of construction they feel is of interest to them.

Continuing the competition's emphasis on creativity, and providing a flexible and open range of entry options, candidates can use a variety of formats to describe what inspires them about construction - including an article or essay, video, photographic presentation or slideshow, poster or graphic design, or any other creative format. It is for the main competition that the top £1,000 and £250 prizes will be awarded.

The second element of the competition is a 'selfie' photography competition. For the selfie competition, entrants must create and submit a creative, interesting or

humorous picture of themselves interacting with a building or something construction related in some way. A range of smaller prizes will be awarded for the best submissions. Entry will take place via the JCT website and JCT's Facebook page, with further details to be published as the competition opens.

Students can find out more and enter the competition at <http://corporate.jctltd.co.uk/students>, which includes all the information about the competition, including brief, helpful hints, rules and terms, and the entry form. In a change to previous years, which has required students to pre-register before separately submitting their entry, this year they will be able to complete their details and submit their entry at the same time, making the process much easier.

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MW 2016 INSURANCE: NOT SURE HOW TO COMPLETE CLAUSE 5.4C PARTICULARS?

Possible solutions for you to consider:

The following is an extract from 'Insurance under the Minor Works Building Contract 2016'. This extract outlines possible solutions where clause 5.4C is to operate i.e. those circumstances where clauses 5.4A and 5.4B are not appropriate. The full text is available at <https://corporate.jctltd.co.uk/insurance-under-the-minor-works-building-contract-2016/>.

Clause 5.4C is to apply where clause 5.4A does not apply and clause 5.4B cannot apply because the relevant insurance is not available. As a consequence one has to make other arrangements and which clause 5.4C requires to be set out in documents to be specifically stated in the relevant Contract Particular. Those arrangements are dependent upon the circumstances and market factors at the time but there are three principal ways that one might proceed.

Clause 5.4C particulars – Possible Solution 1

Works and existing structures: See if the proposed contractor's insurers would be prepared to provide Joint Names cover under a Works policy for both the Works itself and the existing structures. If this is acceptable to the insurers the wording of clause 5.4C Contract Particulars would simply reflect

such arrangement as a requirement e.g. The contractor shall effect and maintain a Joint Names Policy for All Risks Insurance for the full reinstatement value of the Works (plus the percentage, if any, stated in the Contract Particulars to cover professional fees) and for the existing structures together with the contents of them owned by the Employer or for which he is responsible, for the full cost of reinstatement, repair or replacement of loss or damage.

The actual wording will depend on whatever arrangements are available.

Clause 5.4C particulars – Possible Solution 2

Works: For the contractor to insure the Works for All Risks Insurance in the Joint Names of the Contractor and Employer; in those circumstances clause 5.4C particulars (in part) would then state that the wording of clause 5.4A is to apply.

Existing structures: The above would then leave the question of existing structures which generally the Employer would have already insured or have insured by its landlord (where relevant) on its behalf. Where the Employer already has insurance in place it must notify his insurer that building works are to be carried out and also ensure that appropriate cover is maintained. Where the Employer has a landlord it should always notify the landlord of

any proposed building works and involve the landlord prior to making any other arrangements for insurance so as to avoid duplication of insurance and increasing costs. Where the Employer has not taken out insurance for existing structures it should do so.

Clause 5.4C particulars should then in addition set out the position regarding insurance of the existing structures and where necessary require the Employer to insure in its own name. The level of cover is for the Employer to agree with the insurer.

In this situation, the Contractor not being a joint named insured would receive no cover under the Employer's policy for existing structures. The Contractor would cover its liability for any damage to those existing structures under its public liability cover required under clause 5.3.2 or by an extension of such policy.

Clause 5.4C particulars – Possible Solution 3

Works: The Employer may decide to insure the Works for All Risks Insurance in the Joint Names of the Employer and Contractor; clause 5.4C particulars could state that the Employer shall effect and maintain insurance as set out in clause 5.4B.2.

Existing structures: The existing structures part of Possible Solution 2 above is equally relevant to this situation.



Autumn Flash Sale - coming soon!

Keep an eye out for our autumn flash sale, offering 10% off any JCT 2016 Edition contract purchased via the JCT online store, www.jctltd.co.uk

Exclusive to JCT Network members only - make sure you are signed up to the JCT Network to receive notification of the autumn flash sale > corporate.jctltd.co.uk/jct-network/



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JCT TENDERING PRACTICE NOTE 2017: AVAILABLE NOW



JCT has updated its Tendering Practice Note and the latest version, the **JCT Tendering Practice Note 2017**, is now available from JCT's online store www.jctltd.co.uk/product/tendering-practice-note

Now in its third edition, the 2017 Practice Note reflects key developments in public sector tendering following the coming into force of The Public Contracts Regulations 2015 and updates the Note generally to reflect current best practice in both public and private sectors.

The JCT Tendering Practice Note 2017 is a general guidance document, providing an informative and practical tool for employers, contractors, and professional advisers involved in private or public sector procurement for the letting of construction contracts in the UK.

The Practice Note focuses on selective tendering procedures. It spans the tendering process as a whole, looking at short listing, the pre-qualification process, preliminary enquiry, invitation to tender and tender, and assessment and award. Each part of the process is considered sequentially, looking at both legal and practical issues.

From looking at different types of selective tendering procedure, the Note is then divided into the following main sections:

- **Preliminary Enquiry** – including a project information schedule and pre-qualification questionnaire.
- **Invitation to Tender and Tender** – covering the documents involved, the criteria and compliance.
- **Assessment and Award** – covering assessment, examination of priced documents and related matters, and notification to tenderers.

In addition to the tendering process, the Practice Note indicates some of the key areas of the new regulations and how these impact on aspects of public sector tendering. As indicated in the Practice Note, applicable public sector procurement rules and any related guidance issued may be subject to change, and JCT recommends reference is always made to GOV.UK for the latest information.

Model forms – covering both the pre-selection phase and the tender stage, are also included within the Note. These are intended for use in relation to private sector procurement only. JCT considers that, in view of the rules and regulations that apply to public procurement, public sector employers and their advisers will usually have developed their own forms.

The model forms cover both the pre-selection phase and the tender stage of a private sector tender. They may be used with any JCT main contract, and with adaptation for both sub-contract and framework tendering.

The pre-selection model forms include a preliminary enquiry letter, project information schedule and questionnaire, and the tender model forms an invitation to tender and tender document. The model forms are templates and are intended to provide employers and their professional advisers with a useful guide on the structure and format of each of these key documents. The forms will obviously require adapting as appropriate to suit the needs of an individual project.

To order your copy of the JCT Tendering Practice Note 2017, visit JCT's online store at www.jctltd.co.uk/product/tendering-practice-note

RIBA CONTRACT ADMINISTRATION PACKS AND PADS FOR JCT 2016 EDITION

The RIBA produced Contract Administration Project Packs and Pads are now available to purchase from JCT's online store. They are a completely up-to-date set of contract administration forms specifically produced for use with the JCT 2016 Edition of Contracts. The packs are tailor-made to work with the following JCT contract families:

- JCT Standard Building Contract (SBC)
- JCT Design and Build Contract (DB)
- JCT Intermediate Building Contract (IC)
- JCT Minor Works Building Contract (MW)

Each pack contains a comprehensive selection and sufficient quantity of forms for administering a project under the specific contract chosen – all prepared in a clearly laid out and easy to use format.

In addition to the Contract Administration Packs, there are also Architect/Contract Administrator's Instructions forms available in pads of 50. Extra Interim Certificates, including Statement of Retention are also available in pads (12x Interim Certificate and 12x Statement of Retention).

For more information about each project pack and to purchase, please visit: www.jctltd.co.uk/category/jct-2016-contract-administration-packs/

JCT INTERVIEWS...



PAUL COWAN

Member of the JCT Council Chair of the Construction Dispute Resolution Group

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.

Paul is a barrister and arbitrator at 4 New Square chambers. He has 20 years of experience advising and representing parties on major construction projects both nationally and internationally, including many years of detailed first-hand experience on new build nuclear power plants, as well as extensive specialist experience in delay and disruption disputes.

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

PC: Over 15 years ago, Ann Minogue at Cameron McKenna introduced me to working with the British Property Federation as secretary of its JCT liaison committee, which then

developed into me attending the JCT Council as a BPF representative, as well as Drafting Sub-Committee. I particularly remember my first JCT Council meeting where it had been initially suggested that I should attend as an observer, but this was the subject of a procedural objection (from the Construction Confederation!) which had to be resolved before I was allowed in! I have always found it important to understand the perspectives of construction professionals and practitioners from all the different parts of the industry in the UK, and to be involved in shaping developments in construction procurement and contracts.

JCT: Can you tell us about any specific work you're currently doing with JCT – through the Construction Dispute Resolution Group, for example?

PC: Following my suggestion and with the strong approval of the JCT Council, the CDRG has been working on adopting best practice from dispute resolution on international construction projects in using 'dispute boards'. These are multi-member panels who have a standing role on major construction projects, and whose focus is to enable dispute avoidance, or at least early dispute resolution. The CDRG is presently at work developing the contractual provisions and adapted rules that will give users of JCT contracts the option of having Construction Act compliant procedures for standing 'dispute boards', which will be a first for UK-based standard form contracts.

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?

PC: Over the last few years, I have had the privilege of being lead counsel on one of the largest construction delay and disruption disputes in the world relating to a nuclear power plant, cross-examining the key witnesses on the key design and construction problems, and pleading the case in oral argument and written submissions. In order to do so, I have had to get to grips with the technical content and processes involved, as well as the use of novel analytical approaches such as 'dynamic simulation' and statistical sampling. It has been

a hugely interesting experience in respect of the construction issues, and a great challenge as advocate. Alongside this, I recently succeeded in establishing new principles about how extensions of time should be administered in a multi-party main contractor/sub-contractor setting, following hearings in both the Technology & Construction Court and the Court of Appeal.

The construction industry has introduced me to incredibly talented people responsible for innovative design and construction methods all around the world, and has shown me that there are few things in life that are genuinely impossible – it is just a question of applying the time and effort needed to overcome the biggest challenges. In terms of areas for improvement, from my involvement in delay disputes, I still see parties committing to programmes and budgets that are not realistic, or which have not had the same level of scrutiny of risks and content that parties expend on negotiating the contractual conditions.

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

PC: I know a number of commercial directors of major UK construction companies who are anticipating a slowdown in the construction market in the years ahead (notwithstanding the UK Government pushing ahead with major projects like HS2). If it happens, this slowdown will be happening alongside Brexit-induced economic pressures which have been driving up construction costs of materials and labour, and further increasing the pressures and problems in the market.

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

PC: With its long-established institutional experience from publishing the leading form of UK construction contracts over many decades, coupled with the talents of its members, the JCT has a great deal to offer in terms of cross-industry thought-leadership for how construction procurement should be undertaken, how parties should use its standard forms, and taking a lead in promoting best practice (such as we are seeing in the CDRG's work on 'dispute boards').





The JCT Contracts Complete 2016 Edition (Volumes 4-6)

Contains the following documents:

- Constructing Excellence Contract family
- Construction Management family
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- Framework Agreement family
- Major Project Construction family
- Collateral Warranties (CMWa/F, CMWa/P&T, TCWa/F, TCWa/P&T, MCWa/F, MCWa/P&T, WCWa/F, WCWa/P&T)
- Measured Term Contract family
- Prime Cost Building Contract family
- Management Building Contract family
- Management Works Contract family
- Pre-Construction Services Agreement family
- Repair and Maintenance Contract family

Both JCT Box Sets, containing Volumes 1-3 and Volumes 4-6 can be purchased through the online store at: www.jctltd.co.uk/category/jct-contracts-complete-2016-edition

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