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Section 1

Building Information Modelling (BIM)

1.1 Q: Where Building Information Modelling (“BIM”) is being used on a project, how does CPC2013 provide for this?

CPC2013 provides for design to be carried out using BIM by the Employer (with or without Contractor’s design contribution in relation to a part of the design), or by the Contractor. The design levels of development of a model to which the design may be prepared are defined in table 1 of Appendix C and the participation of the designers in any particular model and content can be identified in table 2 of Appendix C. CPC2013 requires a project specific BIM protocol to set out the particular models each participating designer is to produce and how they are to collaborate. If no other BIM protocol is identified in the Appendix, by default it is that produced by the American Institute of Architects (E202-2008). On BIM generally, see the Conditions Clauses 10 and 11 and the User Notes at pp. 69–72.

1.2 Q: What does Level 2 of BIM encompass?

Levels of BIM (as opposed to the Level of Development of a BIM model) are references to the level of sophistication of the model. Level 1 is 2D CAD; Level 2 is 3D parametric in separate models, which can be Federated; Level 3 is 3D parametric in a single model, to which all designers contribute. CPC2013 requires BIM to Level 2. See the User Notes at pp. 71–72.

1.3 Q: Can you advise us on how closely CPC2013 tallies with BIM, specifically with relevance to the UK Government mandating the use of Level 2 BIM by 2016 on all of their projects?

The provisions in Clause 11 and Appendix C (tables 1 and 2) set out the requirements for Level 2 BIM and a Federated model compatible with the requirements of the UK Government’s published recommendations. See http://www.bimtaskgroup.org/ for further information on the UK Government’s BIM recommendations. And see also the User Notes at pp. 71–72.
1.4 Q: Do I have to use BIM with CPC2013?

No. The contract anticipates design by the Employer, Contractor, or a mixture of the two, prepared in any way from paper and pencil though CAD to BIM. It does not have to be prepared in any specific way and can be put together to suit the convenience and capabilities of all parties. However, it is rather unlikely that a complex project will be designed without the benefit of quite sophisticated design methods and it is possible that on public projects and for certain countries, the use of BIM will be a requirement.

1.5 Q: Does CPC2013 explain where a BIM model sits in the order of priority for documents in the case of inconsistencies in the Contract Documents?

Yes, CPC2013 explains that if one is being used, the Federated model (and any information derived from it) comes after the Contract Appendices and before the Drawings in the order of priority of documents. See Conditions in Clause 3.3.5.

1.6 Q: Why have the authors adopted the AIA’s BIM protocol (E202 2008) as the default protocol (as opposed to, say, the CIC BIM protocol)?

The AIA document was first published in 2008 and has been used on numerous projects since then. It is also more detailed and extensive than that published by the CIC. However, for any particular project, the parties should really devise their own protocol.

1.7 Q: Where Building Information Modelling is being used on a project, what does CPC2013 provide in terms of management of the design?

Building Information Modelling can be used as an effective design-management tool and certain of its functions remove the need for some active design management. The parties need to make provision for establishing a protocol for Building Information Modelling and that protocol will in turn make provision for collaboration in the design management. If the parties do not provide expressly for this, the AIA BIM protocol is the default protocol and it provides the facility for identifying what models are to be produced and by whom. See the User Notes at pp. 69–72.
Section 2

Collaboration

2.1 Q: Does CPC2013 require cooperation between the parties?

Yes. Clause 5.1 stipulates: “The parties shall work together in the manner set out under the Contract and shall cooperate in a spirit of mutual trust and fairness.” The risk-, time- and cost-management procedures also require the Contractor and Employer to cooperate in making sure that all the necessary information is transparent and available to everyone who should see it and that no instructions are given for any change in sequence or resources that have not been fully discussed and agreed to be practically achievable before they are issued. See the User Notes at pp. 47–49 and pp. 57–69.

2.2 Q: What is the effect of the parties’ obligation “to cooperate in a spirit of mutual trust and fairness” (Clause 5.1)?

Clause 5.1 influences the interpretation of many of the obligations contained in CPC2013, particularly those concerning quality control, payment, scheduling and progress records. If a party fails to comply with this obligation, whether in its spirit or letter, such failure will be a breach of contract.

2.3 Q: Is it possible to force a party to comply with the obligation “to cooperate in a spirit of mutual trust and fairness” (Clause 5.1)?

CPC2013 contains a number of clauses that require cooperation and fairness, particularly those concerning quality control, payment, scheduling and progress records. Enforcement of the obligation would normally be made under the particular clause requiring it. Otherwise, a breach of this obligation should in common law jurisdictions be actionable by way of a claim for damages for any loss suffered as a result of such breach.
2.4 Q: There is, in some quarters, a perception that any party employed by the Employer is likely to be inclined to favour the Employer over the Contractor and this can lead to dispute. How does CPC2013 address this?

CPC2013 contains an express provision (unlike other forms) requiring the Contract Administrator, Project Time Manager and Valuer to exercise their discretion “independently and fairly” when required to do so as between the Employer and any other person (Clause 5.2). See also the User Notes at pp. 42–46.

2.5 Q: Does CPC2013 outlaw bribery and corruption expressly, or would they amount to a breach of Clause 5.1?

Bribery and corruption could amount to a breach of Clause 5.1 because they would entail not acting “in a spirit of mutual trust and fairness” (although, if undetected, bribery or corruption could have the effect of creating an illusion that the parties are so cooperating). Depending on where the Works are being carried out and whether Local Law outlaws bribery and corruption, such behaviour may also amount to a breach of the Contractor’s obligation to comply with Local Law (Clause 5.3). Stamping out bribery and corruption in the industry is such a desirable objective that CPC2013 also makes the following express provisions:

• the Contractor is required to ensure that its working methods do not constitute or cause “a fraudulent misrepresentation or any otherwise unethical conduct” (Clause 13.1.6), and likewise
• the Contractor’s Working Schedule and Planning Method Statement must not constitute a fraudulent misrepresentation or cause any unethical conduct (Clause 26.3.6).
Section 3

Contract Background

3.1 Q: What is so special about complex projects that they need a special form of contract like CPC2013?

The CIOB’s research into the way the industry manages time, carried out in 2007, showed that simple projects, of short duration without complicated services, could be managed intuitively under any form of contract 95% of the time. Even when delayed, they were only delayed for a matter of weeks with minimal cost consequences. However, the same research showed that if complex projects were not managed more scientifically, the chances of success dropped to below 20% and the chances of being finished more than six months late rose to over 60%.

In order to encourage a more scientific approach to time-, cost- and risk management, a different form of contract was needed. A copy of the report can be downloaded from http://www.ciob.org/time-management-cpc-2013

3.2 Q: Did the CIOB statistical sampling allow an assessment to be made of the additional costs incurred by Contractors through delayed projects, retrospective claims and the resulting commercial burden of funding them?

EC Harris’s “Global Construction Disputes” (2012) found that the global average claim was over US$32m and took an average 11 months to resolve. Love Davis & Others’ “An Exploratory Study of Project Dispute Pathogens” (2008, Curtin University of Technology, WA) found that dispute costs ranged from 0.5% to 5% of projects’ contract value. The authors say: “[a]ssuming the associated costs of litigation could be as high as 5% of contract value and the indirect costs have a multiplier of six, then disputes could in some circumstances account for 30% of a contract’s value.

Considering the forecast of construction and engineering activity for 2008 and 2009 is projected to be in excess of $82 billion then the total cost of disputes could range anywhere from $2.73 billion to $27 billion to the economy. These indicative costs assume that every project would incur disputes, which is not necessarily the case.
However the figure does provide a degree of magnitude of the problem at hand. Bristow and Vassilopoulos ... revealed that litigation fees are often more costly than the claim being sought. In the United States, for example, it has been estimated that in excess of US$5 billion a year is spent on construction litigation and such expenditure is expected to increase annually by 10%... This figure excludes the 95% of disputes that are settled before trial…”

3.3 Q: Will CPC2013 be an industry-wide standard form (like NEC3), or purely applicable to building works?

CPC2013 is not like NEC3 or other standard forms in that it is only recommended for complex projects in which out-turn time and cost are more important than a low tender or bid time and cost coupled with delay and claims. Other than that, it can be used for a multitude of project types including building, civil and marine engineering works, process plants, oil and gas and so on, in any jurisdiction and internationally.

3.4 Q: The industry has enough standard form contracts to fill a trunk – do we really need another one?

Well, the others don’t deal effectively, or at all, with float, concurrency, time contingencies, timely completion, planning and scheduling, progress records or cost-, time- and risk management. CIOB research has found that simple projects, such as school classrooms, repetitive housing, petrol stations etc., can be managed by anyone with reasonable experience, under any contract, and they will get it right 95% of the time. Even when these go wrong, it’s normally only by a few weeks with low cost consequence. On the other hand, a complex project managed intuitively, has less than 20% chance of being successful and more than 60% chance of being delayed by six months or more. That is where all the expense, terrible waste and ruination lies, and that is why we need a new form of contract for complex projects that encourages a more scientific approach to pro-active risk management.

See the research report, which can be downloaded from http://www.ciob.org/time-management-cpc-2013
3.5 Q: To what extent have Employers’ views been reflected in CPC2013?

The experience of the drafters in dealing with construction disputes over the last 20 years or so (in some of which the drafters were acting for Employers) has been one of the drivers in the design of the Contract. A review edition was published for industry comment in April 2012, as a result of which over 400 suggestions were made for improvement from a number of sources, including those representing Employers.

3.6 Q: Has anyone worked out what it costs the industry to adopt a new contact form and is there a real cost benefit – or is it just a money-spinner for printers and publishers?

So far as we know, there is no data available on what costs are incurred in familiarisation with new form of contract.

The CIOB’s 2007 research found that the management of complex projects was generally poor with less than 20% being successfully completed on time and more than 60% being delayed by six months or more. It is complex projects that are so costly to construct and so wasteful when delayed.

That is why we need a new form of contract which requires a scientific, pro-active approach to risk management of complex projects.

See the research report, which can be downloaded from http://www.ciob.org/time-management-cpc-2013

3.7 Q: What was the approach to establishing the CPC2013? Was it designed as an amendment of an existing contract or was it drafted from scratch?

The primary impetus for drafting the contract came from the drafting of the CIOB “Guide to Good Practice in the Management of Time in Complex Projects” (2011). It was evident that other forms neither required nor encouraged good practice in the management of time, so there was a need for a new form.

It was started with the key time-management clauses, to which were added the cost-, quality- and design-management, BIM and other clauses to fill perceived gaps.
Section 4

Cost Management

4.1 Q: Earned Value Management ("EVM") uses Critical Path Scheduling, but I cannot find any reference to EVM in CPC2013. Why not?

EVM requires a static baseline against which the effects of a financial change can be measured. It is useful in simple projects where the design is completed before the work commences and little is expected to change. It is not recommended as a time-management method in complex projects, where change is inevitable and there is no static baseline. See the CIOB “Guide to Good Practice in the Management of Time in Complex Projects”, paragraph 4.6.10.

4.2 Q: Most people use a quantity surveyor for their projects. Is that the same as the Valuer under CPC2013?

The normal duties of the quantity surveyor are required for CPC2013 and are to be performed by the Valuer. CPC2013 also requires the Valuer to perform some additional duties that are not normally the job of a quantity surveyor, such as making sure that the Contractor’s Pricing Document is properly attributed to the Working Schedule, and checking the resultant calculations. Not all qualified quantity surveyors will have been involved in planning, resource-loading, claims work etc., to enable them to carry out the role of the Valuer under CPC2013, but there are those who have sufficient experience, or who will be prepared to obtain the necessary experience and training to qualify themselves for the role of Valuer. See the User Notes at pp. 38, 44, 63, 64 and 66–67.
4.3 Q: Other contracts such as JCT, NEC and FIDIC already provide for the Architect or its equivalent to undertake interim determinations on time and costs, so what is different about CPC2013?

Whereas many other forms of contract require a specialist in cost management (usually a quantity surveyor) to advise the Contract Administrator on valuation and other cost-related issues, there is usually no equivalent in time management, and other forms make no provision for any quality-assured schedule or programme and fail to provide for any progress records to be kept. CPC2013 is the only standard form of contract that provides a detailed default specification for time- and risk control and also requires specialists in time management, design coordination and data security to advise the Contract Administrator on those specialities. CPC2013 also requires that all time- and cost-related decisions be made on the basis of calculations from data. Other forms require a “fair and reasonable” or “equitable adjustment” based largely on guesswork. CPC2013 has no such provisions, but instead requires technical proof of entitlement. See the User Notes (pp. 30–31, 43 and 47–65).

4.4 Q: Do the cost-management provisions result in performance-related payments, bonus or just faster payments?

Performance-related payments and any bonus structure, if they are required, must be carefully considered and set out in the Special Conditions. CPC2013 provides a clearer payment structure than other forms in that all payments due necessarily include payment for work properly carried out. Disruption is paid for in the month after it occurs and variations are paid for in the month after they are carried out. See the User Notes at pp. 63–67.

4.5 Q: How does CPC2013 address the notoriously difficult issue of concurrency?

Unlike other standard forms, which never define it and rarely mention it, in CPC2013, concurrency is closely defined and the rules of application for both time and cost matters are set out in Clause 41. See the User Notes at pp. 64–65.
4.6 Q: How is it possible for “the Contractor to pre-price (by virtue of its tender or bid) the prolongation costs it is likely to suffer as a result of those contingency periods later being absorbed by Contractor’s risks”? Is it possible, once the risk has been realised, to open up the original allowances to reflect the actual risk incurred? Will not pre-pricing result in top-heavy pricing to cover the risk?

CPC2013 requires contingency periods for the risks of both parties to be identified in the Working Schedule. Those contingencies required by the Employer are to be specified and both those and the Contractor’s, are to be included in the Contractor’s Pricing Document (which is to be embodied in the Working Schedule). The preliminaries (field costs) and Overheads and Profit, are to be identified in levels of effort in the Working Schedule and thus include the time taken up by the allocated contingency periods. In other words, the time and cost model is based upon out-turn time and cost, taking into consideration the expected time and cost effect of all predicted risks. When the work proceeds, the time contingencies are adjusted (in the same way as cost contingencies are ordinarily adjusted) against the risks that actually occur. Both parties have all the power necessary to omit, reduce or amalgamate their contingencies to accommodate the risks that occur, and/or new risks. If the risks do not occur, the contingencies are omitted to the benefit of the party owning the contingency. It does not encourage top-heavy pricing but it does encourage a mature approach to risk management. See the User Notes at pp. 54 and 57–64.

4.7 Q: Does CPC2013 provide a more efficient way of paying the Contractor (and other members of the supply chain)?

Yes, under CPC2013, there is no room for subjective assessments and equitable adjustments. All payments are calculated from the updated, impacted Working Schedule. See the User Notes at pp. 63–67.

4.8 Q: How does CPC2013 control out-turn cost and time?

In contrast to the provisions of other standard forms, CPC2013 requires that when the work is actually carried out, the priced Working Schedule is to be updated with progress data gleaned from quality-controlled Progress Records (including the effects of change).
The benefit of this is that at every update, the Working Schedule automatically calculates the construction end date and the predicted out-turn cost of the Works. The predicted out-turn cost is calculated as the total cost indicated against all the activities and levels of effort in the latest accepted Working Schedule, adjusted to take account of anything contained in the Working Schedule for which the Employer is not required to pay. See the User Notes at pp. 49–56 and 59–67.

4.9 Q: Can either party make sure that the other is financially stable under CPC2013?

Making reasonable enquiry of the parties’ financial stability is a matter of commercial good sense, and identifying whether a party has the ability to fund its obligations cannot reasonably be described by any honest person as a trap for the unwary. On the other hand, whilst some contracts do not contain such a provision, FIDIC does provide the Contractor (but not the Employer) with such a power. To the extent that CPC2013 provides both parties with the opportunity to make sure that the other is able to fund its obligations, it does provide something the others do not. See Conditions, Clauses 5.11 to 5.14.

4.10 Q: How do the payment on insolvency provisions under CPC2013 compare with those of other forms?

The rules for payment on termination have some consistency between the standard forms in that the Contractor is usually entitled to be paid for work done up to the date of termination together with the value of anything belonging to the Contractor which remains on Site. Where the termination is because of the Employer’s insolvency, the Contractor is also entitled to be paid its profits on uncompleted work, the cost of removal of plant and so on from the Site, and any loss and expense it suffers as a result of the termination. If the termination is for the Contractor’s insolvency, however, under CPC2013, the Contractor is not entitled to profit on uncompleted work and must also compensate the Employer for the additional cost of completing the work, and any loss and or expense it suffers as a result of the termination. See the User Notes at pp. 73–76.
4.11 Q: I don’t see the particular benefit of CPC2013 over that of NEC3’s Target Cost. Am I missing something in the fine print?

The NEC3 Target Cost Contract (which used to be called a “cost plus” contract) is simply the ordinary NEC3 core clauses amended for a particular method of pricing the works which requires the Contractor to be paid a fee and percentage of subcontract works on top of the prime cost of work done. CPC2013 makes no provision for any method of pricing the works and can be used with any pricing method. NEC3’s Target Cost Contract stipulates a method of pricing. CPC2013 does not. In CPC2013, the method of pricing must be specified in the Special Conditions. Other than that there are numerous further benefits to using CPC2013, which are not available under NEC3.

For example, CPC2013 provides for:

• inconsistencies with local laws in other jurisdictions
• regular meetings to manage progress
• confidentiality in the Contractor’s contribution to design and to time- and cost management
• disclosure of contractual information when required by law, and
• redress for the Employer if the administrative provisions are not complied with

CPC2013 also provides for:

• Employer and Contractor time contingencies
• Progress Records to be made available transparently to the Contract Administrator and other Listed Persons
• all communications to be electronic
• all risk-management information to be made available to everyone transparently, and
• time to be managed contemporaneously via a resource and cost-loaded critical path network Working Schedule

CPC2013 also:

• defines float and ownership of float, and
• concurrency and method of apportionment of losses where there is concurrency

CPC2013 also constantly reappraises out-turn time and cost, which the NEC3 Target Cost Contract does not.
Section 5

Data Management

5.1 Q: How does CPC2013 differ from other standard forms in the way that it deals with the management of data?

CPC2013 is more advanced than other forms in the way it deals with data management. The starting point is a requirement that certain documents be “published” transparently to the Contract Administrator and Listed Persons. Where documents are required to be published then publication must be in the Common Data Environment, in accordance with a File Transfer Protocol, or by email. See the User Notes at pp. 43–46 and 47–49.

5.2 Q: Why does CPC2013 include electronic data-exchange requirements when other forms do not?

In the past some unscrupulous parties have been prepared to take unfair advantage of a lack of, or imprecision in, contractual data-management provisions. The authors consider that, in addition to it being sensible for the exchange of data to be managed according to agreed protocols, clear data-management requirements are essential to allow the parties to manage risk appropriately and to operate in a transparent and collaborative way. See also the User Notes at pp. 47–49.

5.3 Q: What is a Common Data Environment?

A Common Data Environment is a cloud computing configuration in which data held by a third party can be created, edited, accessed, and used by a multiplicity of authorised users. The Common Data Environment should conform to the requirements of an agreed CoBie protocol. See Appendix A for the defined terms.
5.4 Q: Where a Common Data Environment is not being used
I understand that a File Transfer Protocol is to be used.
What is a File Transfer Protocol?

A File Transfer Protocol is a protocol containing the rules governing the uploading, downloading and accessing of files through a third-party server, and the security of those files.

5.5 Q: CPC2013 requires certain documents, such as the Working Schedule and the Planning Method Statement, to be published in “native file format”. What does that mean?

Native file format means that the documents need to be published in the same software as that in which they were initially created. For example, if a document was created using MS Word, it will be published in native file format by being published in the form of a file ending in .doc or .docx (depending on which version of MS Word was used to create the file) but not as an MS Excel or Adobe PDF file, to which it may have been converted.

5.6 Q: How does CPC2013 deal with commercially sensitive or security-sensitive data?

The parties are required to keep certain data, such as the design of the Works and the Contractor’s rates or prices, confidential. These obligations last until whichever is the later of the data ceasing to be commercially or security sensitive or three years from either termination or substantial completion. See the Conditions at Clause 21.

5.7 Q: Who is responsible for the management of data under CPC2013?

The Data Security Manager is responsible for managing the Common Data Environment, File Transfer Protocol and any Building Information Modelling Protocol. See the User Notes at pp. 44–45.
5.8 Q: What provision does CPC2013 make regarding responsibility for updating and maintaining hardware, software and data included in the Common Data Environment or File Transfer Protocol, and for maintaining the integrity and security of the server?

CPC2013 stipulates that the host of the Common Data Environment or File Transfer Protocol is responsible for this. The host is to be identified in the Special Conditions. The host is also required to indemnify any authorised user against loss and/or damage arising from a breach by the host. Since such an indemnity will only be binding if the host undertakes to so indemnify authorised users, the parties will need to ensure that any host is obliged to provide authorised users with a contractual indemnity. The responsibility should also be reflected in the insurance obligations set out in the Special Conditions. See also the Conditions, Clause 15.5 and User Notes at pp. 11–13.
Section 6

Design Management

6.1 **Q:** Can CPC2013 be used as a design-and-build or turnkey contract where the design is provided by the Employer to Design Level of Development 1 and 2 and the Contractor adopts these and works them up to higher levels?

Yes, CPC2013 provides for the Contractor’s design contribution to be from any stage of design to any stage of design, and may comprise the whole or any part of the design of the Works, either by drawings and specification or by means of a building information model. See the User Notes at pp. 69–72.

6.2 **Q:** Where the Contractor is required to design part or the whole of the Works, what is the status of any design provided by the Employer under CPC2013?

The Reference Design can either be warranted by the Employer to be developed to a particular Design Stage or a project-specific status identified in the Special Conditions. It can alternatively be provided “for information purposes only”. The default position if no express provision is made is that Reference Design is for information purposes only and the Contractor may not rely on it for any purposes. See Conditions at Clause 10.4 and the User Notes at pp. 18 and 69–72.
6.3 Q: Is there any benefit in designing with the use of CPC 2013 in mind?

Well, although the use of a particular form of construction contract should not have a bearing on design, the approach adopted by CPC2013 will certainly have a bearing on how the design is prepared. CIOB “Guide to Good Practice in the Management of Time in Complex Projects” advises that a strategic approach to time management be embodied in the design. It also recommends that time management start with the design process using a Development Schedule, which may later be used as a tender Document and should ideally be embodied in the Contractor's Working Schedule for construction.

6.4 Q: Under CPC2013, is anyone responsible for monitoring the Contractor’s production of design information?

Yes, unless the design is produced in a Common Data Environment that records that information automatically, the Design Coordination Manager is responsible for maintaining a database of submittals by the Contractor of the Contractor’s Design Contribution. See the User Notes at pp. 44.

6.5 Q: How does CPC2013 deal with incompleteness of design or lacking construction details or information?

CPC2013 provides for the Employer and Contractor to design the whole or any part of the Works and envisages that design will continue during the construction stages. Where design submittals are to be made during construction, CPC2013 requires those submittals and the periods required for consideration, approval, conditional approval and re-submittal to be set out in the Working Schedule, together with periods for statutory approvals, permissions and necessary licences to be obtained where relevant. Unless a later period is identified in the Working Schedule, submittals are deemed approved unless rejected or conditionally approved within 10 Business Days of the submittal. See the User Notes at pp. 68–69.
6.6 Q: How does CPC2013 deal with RFIs and supply of design drawings?

CPC2013 requires any request for comments on or acceptance or approval of a design, sample, work, materials, goods or plant, the supply of anything the Employer is required to provide, the supply of instructions and other information, and the supply of Drawings and details other than those comprising Contractor’s Design which is not identified as a request in the Working Schedule to be requested at least 10 Business Days before it is required to be supplied. See further the User Notes (pp. 68–69). Late supply of information is defined as anything supplied later than the latest of

- 10 Business Days from receipt of the request
- the Logical Date identified, if any, for the relevant supply in the latest accepted Working Schedule at the time of the request
- the date stated in the Specification by which the relevant supply is to be made, and
- the Logical Date identified in the latest accepted Working Schedule, by which the Contractor reasonably requires the relevant supply in light of the progress actually achieved.

See the User Notes at pp. 68–69.

6.7 Q: My design team have developed the design of a commercial tower block to planning permission stage. I now want the Contractor to adopt this design and develop it as a design and build project. Can this be done with CPC2013?

Yes. CPC2013 specifically caters for development of design by the Contractor from a Reference Design and permits the Employer to state the stage of development of the Reference Design and if and to what extent it is to be relied upon by the Contractor. See the User Notes at pp. 18.
Section 7

Health and Safety

7.1 Q: What (if any) provision does CPC2013 make for the health and safety of site operatives?

Since health and safety are of paramount importance on any construction or engineering project and having regard to the significant risk of accidents and injuries occurring on such projects, in addition to obliging the Contractor to meet local health and safety requirements under its general obligation to comply with Local Law (Clause 5.3), CPC2013 provides that:

- the Contractor must carry out and maintain in good and safe working condition all Temporary Work (Clause 12.1)
- the Contractor must ensure that its working methods for constructing the Works do not constitute or cause "a hazard to health and/or safety" generally (Clause 13.1.3) and similarly the Contractor must ensure that nothing illustrated in the Working Schedule and Planning Method Statement constitutes or causes the same (Clause 26.3.3)
- the Contractor is obliged to ensure that medical staff, first-aid facilities and ambulances are available to the Site when any work is being carried out (Clause 15.9)
- a suitably qualified safety manager is to be appointed by the Contractor, details of any accident(s) are to be notified by the Contractor and records are to be made and maintained concerning the health, safety and welfare of persons (and damage to property) (Clause 15.10), and
- the Contractor must maintain all Plant "in a good and safe condition" (Clause 5.15).

There are also provisions enabling work to be suspended pending proper investigation of any accident. Parties are strongly encouraged to consider whether further specific health and safety requirements are appropriate to the nature and location of the project and to ensure that these are addressed expressly in the Special Conditions.
7.2 Q: In addition to the health and safety of site operatives, welfare is also important. How does CPC2013 attempt to ensure that best practice is followed when it comes to the welfare of site operatives?

In addition to obliging the Contractor to comply with local welfare requirements under its general obligation to comply with Local Law (Clause 5.3), CPC2013 also provides that:

- for non-resident workers, the Contractor is obliged to provide any necessary visa or work permit and to bear the cost of any necessary repatriation of such workers (Clause 15.4)
- the Contractor is required to provide working conditions and pay such wage rates as are agreed by trades unions representing the relevant trade where the work is being carried out and if there is no such agreement, working conditions must be “not inferior to the general level of working conditions” and rates of wages “not lower than the general level of rates of wages” (Clause 15.5)
- work is only to be carried out during Working Hours on Business Days except in exceptional circumstances (Clause 15.7)
- the Contractor is obliged to provide all necessary Welfare Facilities and no living quarters are to be maintained in any structure forming part of the Works (Clause 15.8).

Parties are encouraged to consider whether further specific welfare requirements are appropriate to the nature and location of the project and to ensure that these are addressed expressly in the Special Conditions.

7.3 Q: What does CPC2013 do to try to help ensure the prevention of accidents on site?

CPC2013 stipulates that no work is to be carried out outside normal Working Hours on Business Days, without approval (Clause 15.7). It also specifies that the safety manager appointed by the Contractor should be empowered to issue instructions and take protective measures to prevent accidents (Clause 15.10).
7.4 Q: If an accident takes place on site and the Contractor fails to give the relevant notice and details, what happens then?

The Contract Administrator may instruct the Contractor to suspend work in whole or in part until the accident has been properly investigated and recorded (Clause 15.10).

7.5 Q: If there is a breach by either party of Local Law regarding health and safety, is there a contractual remedy available to the other party under CPC2013?

Either party can notify the other of such a default and if the other fails to remedy the breach within 10 Business Days, it may then give five Business Days' notice of termination (Clauses 62.1.6, 62.2, 63.1.4 and 63.2). See also the User Notes at pp. 73–75.
Section 8

Issue and Dispute Resolution

8.1 Q: What's new about the way CPC2013 deals with disputes?

First, CPC2013 uses deeming provisions to deem certain issues agreed if, within the required time period, they are not referred to Issue and/or Dispute Resolution. Second, it introduces a new fast-track procedure called "Issue Resolution", whereby issues that could become disputes if not addressed can be determined by Expert Determination. Third, unless the parties agree otherwise, any Adjudicator’s Decision or Arbitrator’s Award will be a public document. See the User Notes at pp. 28–29 and 76–81.

8.2 Q: Adjudication is a particularly English form of dispute resolution, so why is it included in an international contract?

Statutory adjudication is not only available in the UK but also in a number of other jurisdictions including the states and territories of Western Australia, Victoria, New South Wales, Queensland and Northern Territory of Australia, New Zealand, the Isle of Man, Hong Kong, Singapore and Malaysia. Where statutory adjudication is unavailable under Local Law, under the CPC2013, the parties may elect to have adjudication as a primary form of dispute resolution if they want it, but they do not have to have adjudication. If the Local Law does not require adjudication but nevertheless the parties wish to adopt it as their primary dispute-resolution forum, they may choose the adjudication rules under which the adjudication will be processed. If adjudication is selected as a dispute-resolution forum, but no rules are identified, by default the rules are to be those of UK Statutory Instrument 2011 No. 2333, The Scheme for Construction Contracts (England and Wales) Regulations 1998 (Amendment) (England) Regulations 2011. Where it is contractual, the parties are also free to decide whether they will have one adjudicator or more and the decision must be made within 28 days. This is considered to be much quicker, cheaper and, bearing in mind that it follows on from an equally quick Issue Resolution, much more effective than other methods of dispute resolution available. See the User Notes at pp. 28 and 79.
8.3 Q: Whilst FIDIC (or similar contracts) theoretically should work, neither party complies with the contract in my experience, and consequently everything is left until the end. Games of bluff and subterfuge ensue. If there is money, a deal is done; if there is not, EDs are submitted and the game changes to threats of arbitration and stand-offs to see who breaks first to force settlements or even go to arbitration. Why is CPC2013 different?

CPC2013 requires the Contract Administrator, Project Time Manager and Valuer to act independently and fairly, and provides for contemporaneous assessment by an independent expert on anything that might mushroom into a dispute. On some critical matter such as whether a particular submittal has been properly rejected or conditionally accepted, reference to Issue Resolution must be made within five Business Days or the matter is deemed agreed and cannot be the subject of a dispute at a later date. Payment is based upon work properly done according to the working schedule, which must be updated with progress and impacted contemporaneously with the effect of events. If it is not, the Contractor cannot get paid through the contractual mechanism and must pay the Employer’s expenses of dealing with record-keeping, scheduling and other activities caused by the Contractor’s failure to follow the contract. The Employer must pay the Contractor promptly and in full for everything done and any suspension of work caused by an Employer’s risk. If it does not do so, the Contractor can suspend work and can also terminate for breach. There are thus adequate and proper sanctions against both parties for not complying with the contract. See the User Notes at pp. 42–44, 66–67 and 76–78.

8.4 Q: Are the dispute-resolution procedures suitable for international projects?

Yes. They are designed to deal with differences as they arise through the application of Expert Determination. The procedures are quicker and cheaper than those envisaged by FIDIC DABs. Adjudication, arbitration and mediation are also available under CPC2013. See the User Notes at pp. 28–29 and 76–81.
8.5  Q: What would happen if in a project in Nigeria, the law of the contract were English law? Would English or Nigerian law be used to settle disputes?

CPC2013 permits the parties to choose the law of the contract (although the default position is English law). The law of the contract will govern how disputes are settled under the contract and is also, by default, the law which governs the arbitral proceedings themselves. However, it is recommended that advice from suitably-qualified lawyers licensed to practice in the jurisdiction in which the project is being undertaken be obtained in order to ascertain that the local courts will recognise the parties’ right to select a different law of the contract from the local one (if that is the case) and that they will not claim to have jurisdiction to determine disputes under the contract where the contract provides for arbitration elsewhere. The operative law in relation to the Works is “Local Law”, which is always the law relating to the State or Region in which the Site is situated. See the User Notes at pp. 28–29 and 76–81.

8.6  Q: In the use of FIDIC, we often see DAB clauses struck out. If the Expert Determination requirement is struck out, does the Contract lose its balance and effectiveness?

A number of potentially contentious issues require that unless referred to Issue Resolution within a limited time, the matter is deemed agreed and thus cannot later become the subject of any dispute-resolution procedure. Accordingly, if the clause dealing with how the Issue Resolution process is to work were struck out, without any other amendments the dispute resolution and deeming provisions would become unworkable. See the User Notes at pp. 76–78.

8.7  Q: Are the Issue Resolution procedures in this contract similar to FIDIC’s dispute adjudication boards in preventing disputes occurring?

No. The purpose of the Issue Resolution procedures under CPC2013 is to identify contemporaneously what is in issue between the parties and have an expert in the relevant discipline provide the parties with its opinion and advice within 20 Business Days of the reference, before the issue becomes a dispute. It is a quick and focussed process which is issue-specific. The DAB provisions under FIDIC require less focus, less expert experience and the panel is given much more time to reach a decision. See the User Notes at pp. 76–78.
8.8 Q: Won’t the expert under CPC2013 face a hostile environment when he does his own investigation at times?

He shouldn’t do. Although appointed on the application of either, the Principal Expert is paid by both parties in equal portions. The procedure is there to aid the parties in coming to an agreement where for some reason they are unable to do so unaided. We would expect the Principal Expert’s input to be welcomed, as the intention of its appointment is to avoid having to proceed with formal dispute resolution. The parties are also under a duty to “cooperate in a spirit of mutual trust and fairness”: if they are hostile to the expert they may be in breach of this duty too. See the User Notes at pp. 27–28 and 76–78.

8.9 Q: How can CPC2013 be enshrined in Contract Law in Nigeria?

The parties are free to choose the law of the contract and may decide to choose the law of Nigeria as the governing law. However, the Contract also provides that the local law will apply where necessary as there will invariably be laws in each state that apply to construction works or operations by which project participants are bound, even if a different governing law is selected. The law of Nigeria will automatically apply to any project undertaken under CPC2013 where the Site is in Nigeria. If the parties also wish the Contract Conditions to be interpreted in accordance with the law of Nigeria, that can be achieved by changing the “Law of the Contract” in the Agreement to read “Nigerian” instead of the default “English”.

8.10 Q: How confident is the CIOB that if a contract using this form ended in litigation, the Courts would interpret it in the same way that it has been explained, i.e. what precedents are there?

Litigation is not one of the dispute resolution forums under CPC2013, although the enforcement of Determinations, Adjudicator’s Decisions and Arbitrator’s Awards may become subject to litigation. The drafting of the contract is based upon the combined experience of two lawyers, an architect and a QS, who have spent the last 20 years or so dealing with disputes arising out of other contracts. We expect fewer disputes to arise under CPC2013 in particular because of the deeming provisions and Issue Resolution procedures that require contemporaneous expert determination.
At present there are no precedents because CPC2013 is new. However, CPC2013 has been written in plain English, which should leave less room for it to be interpreted in a different way from the way it has been explained. It also makes the decisions of Adjudicators and Arbitral awards public documents, so the authors anticipate that if disputes do arise, there will be a more readily available source of precedents than there is for contracts that make such decisions private. See the User Notes at pp. 27–28 and 76–81.

8.11 Q: The contract does not have any dispute adjudication board. Does this mean it is not suitable for international projects?

No. The drafters of the CPC2013 took the view that many of the commonly occurring matters that cause differences in complex projects were too important to remain unresolved for long periods as they inevitably are with a DAB. Accordingly, CPC2013 deals with resolving issues and disputes in two ways: contemporaneous Issue Resolution by Expert Determination and the dispute resolution procedures of Adjudication and Arbitration. Issue Resolution must be started within 20 Business Days of any issue arising (and within five days of any difference of opinion on whether a submittal has been wrongly rejected or wrongfully conditionally approved, whether conditions found are within the definition of Unforeseeable Conditions and when Substantial Completion has been achieved); there is then a 10-day negotiation period, and then the expert must make its decision within a further 20 days. That decision is final if not disputed within a further 20 days and in any event may be put in evidence by either party in mediation, adjudication or arbitration which may follow. It is a much quicker, cheaper and technically more certain dispute resolution process than that available under FIDIC, NEC3, JCT or any other contract currently available. The CPC2013 procedures are intended to reduce the likelihood of formal disputes arising, but if they do, then also to reduce the costs and uncertainty of construction dispute resolution. See the User Notes at pp. 27–28 and 76–81.
Section 9

Quality Control

9.1 Q: Can you provide me with some examples of how CPC2013 deals with the quality control of specific aspects of the building process, like labour and materials?

In line with some other standard forms, CPC2013 makes specific provision for, amongst other things:

- quality of materials (Clause 15.12)
- quality of labour (Clauses 15.2 and 15.3)
- any design produced by the Contractor (Clause 10.7), which must be of good quality and prepared with the due diligence, skill and care that is reasonably to be expected of a professional designer experienced in designing equivalent work; see further the User Notes (pp. 69–71)
- Testing and Completion Testing (Clause 16); see further the User Notes (pp. 71–72)
- making good defects (Clause 48)
- Retention and Retention Bonds (Clause 52), and
- subcontracts needing to be let on the basis of the CPC subcontract (Clause 19.5), which will contain back-to-back provisions regarding materials and labour.

However, CPC2013 goes further than most standard forms in ensuring that, for example, key documents produced by the Contractor (such as the Working Schedule and Planning Method Statement) are prepared to a rigorous standard (the default specification for which is in Appendix D) and subject to independent quality-assurance audit at specified intervals (Clause 35).
9.2 Q: What is the role of the Auditor under CPC2013?

CPC2013 anticipates the appointment of the Project Time Management Expert (to be named in Appendix B or identified by the Project Time Manager) as the Auditor. The Auditor’s role is to periodically audit key documents produced by the Contractor, such as the Planning Method Statement, Working Schedule and Progress Records, to ensure that they are consistent and meet the requirements of the contract and good practice. The Auditor has the power to notify divergences to the Contractor and make recommendations for correction. The Contractor is obliged to revise any document in accordance with the Auditor’s recommendations. See further the User Notes at pp. 21, 27–28 and 52.

9.3 Q: Are the defects liability provisions similar to those of JCT?

No. JCT’s defects liability clause refers only to those defects “which appear within the relevant Rectification Period”, in other words, defects that become patent after Practical Completion. CPC2013 is not so restricted and provides for the making good of any defects apparent at the time of inspection where any inspection is made within the liability period. See the Conditions at Clauses 48 and 52.
Section 10

Risk Management

10.1 Q: NEC3 calls for a Risk Register and Early Warnings, so what is so different about CPC2013?

NEC3 does not require or permit the risks identified in the Risk Register to be impacted on the “programme” until after they have already caused delay. Under NEC3, the Employer then has no option but to compensate the Contractor for the effect of that compensation event. In contrast, CPC2013 not only requires all risks to be added to the Working Schedule as soon as the risk is perceived, so that the potential consequences can be managed before they occur; but, under CPC2013, the Employer also has the power to instruct the Contractor on how the time consequences of identified risks are to be avoided or reduced. See the User Notes at pp. 54–65 and 67.

10.2 Q: What happens if the Contractor cannot get the Permits or Licences required to carry out the Works?

If the failure to obtain the appropriate licences and permits results in the project becoming impossible to proceed with, then the Contractor’s employment may be terminated upon notice by either party under Clause 64. See also the User Notes at pp. 73–76.

10.3 Q: Does the “Predictable Climatic Conditions” clause mean that if extreme weather conditions were forecast a week before they occurred, for example, the conditions would not be classified as predictable, or is the clause related to the normal conditions at the time of the year?

For the purpose of tendering, unless the default definition is to apply, the weather conditions that the Contractor is to allow for must be identified as “Predictable Climatic Conditions” in the “Special Conditions”. The default definition is in Appendix A at pp. 11.
10.4 **Q:** What is the balance of risk between the Employer and Contractor?

In CPC2013 the balance of risk can be changed from project to project. In other forms of contract most risks are left with the Employer, are inflexible and the Employer is not provided with the tools to manage them. In CPC2013, except where the risk is one that is within the Employer’s control (and therefore must remain with the Employer) all other risks, as to time, cost or both can be allocated on a commercial basis to either the Employer or Contractor. See Appendix F and the User Notes at pp. 31–32.

10.5 **Q:** Are there any sanctions under CPC2013 for non-compliance?

Yes. It is one of the intended features of CPC2013 that where obligations were imposed, the innocent party should have redress in the event of defective or non-performance. For example, all management information is to be published transparently to all those having a continuing design, administrative or supervisory role. If it is not then the Employer has an alternative means of controlling its risk, and there will also be a series of unwelcome consequences for the Contractor. See the User Notes at pp. 47–49.

10.6 **Q:** Does the Employer have full control over “Predicted Climatic Conditions”?

Yes. The Employer has complete control over what risks it wishes to take in this regard. If nothing is specified there is a default definition. See the defined term in Appendix A at pp. 11.

10.7 **Q:** Does “Predicted Climatic Conditions” have to be based on realistic assumptions using past weather records?

No, it does not have to be based upon anything other than commercial risk. The point is that whatever is defined as “Predicted” the Contractor has to allow for, and anything more adverse can be identified as an Employer’s Time Risk, Employer’s Cost Risk or both. See the defined term in Appendix A at pp. 11.
10.8 Q: How does CPC2013 deal with differences concerning unforeseeable conditions and rejected submittals?

CPC2013’s provisions for objecting to a rejection or conditional approval of a submittal, the assertion that conditions found are “Unforeseeable Conditions” or that Substantial Completion has been achieved are designed to make sure that the parties are aware of and can manage their own risks and that any potential difference of opinion is not swept under the carpet only to be resurrected after completion (when all that can be done is a dispute who should pay). While no other contract does this, it should not be thought of as a trap for the unwary. On the contrary, providing a short period for objection to such issues, and on objection, to have them immediately referred to expert determination, helps to focus the mind and make sure that whoever is then responsible can proceed to manage the risks. If the Contractor does not make any objection within the required period, such specified matters are deemed to be agreed and cannot later be the subject of dispute. See the User Notes at pp. 76–78.

10.9 Q: What happens if the contractor does not take the necessary measures to engage suitably qualified labour to do the work and the project does not finish on time? In this case, who is responsible for the delay?

The quality of labour is controlled by Clause 15. The Risk can be changed in this contract to suit the project, so if getting appropriately qualified labour is a risk that the Employer is prepared to take, or share, it can do so. See the Conditions at Clause 15 and the User Notes at pp. 32–33.

10.10 Q: Is the termination for convenience clause under CPC2013 any different from the provisions of other common standard form contracts?

Termination for convenience clauses tend to be used more in connection with government contracts than private forms (there is no provision for termination for convenience, for example, in JCT). Whilst NEC3 does provide that the Employer may terminate for any reason, may require the benefit of subcontracts to be assigned to it and may go on to complete the works without restriction, this clause in NEC3 is more like a “replace and compensate the contractor” clause rather than termination for convenience proper.
FIDIC also provides for termination for convenience at 28 days' notice, but not to allow the Employer to complete the Works with others. CPC2013 removes any doubt in this regard and expressly provides that the Employer may terminate for convenience at no less than five Business Days' notice, but that if so terminated for convenience for a period of 300 Business Days the Employer may not, without the Contractor's consent, go on to carry out the Works. If the Employer recommences the Works during the restricted period, on the date of recommencement the Contractor is entitled to be paid compensation for its Overheads and Profit on work not completed at the Termination Date. See the User Notes at pp. 73–75.

10.11 Q: Is the termination for insolvency clause under CPC2013 any different from the provisions of other common standard form contracts?

Although some forms provide for termination automatically upon insolvency, not all do. One problem with insolvency is that whilst in cases of termination on other grounds the cause will be patent, in insolvency the facts tend to be only in the hands of the insolvent party and, whilst in cases of termination, notice may be required (as it is in JCT), it is rarely given. CPC2013 deals with this issue in two ways. On the one hand, it provides for either party to request from the other "evidence that financial arrangements have been made and are being maintained". If, within 10 Working Days following a request, either fails to provide the evidence requested, the work may be suspended by the innocent party, pending further investigation. This provision is thus an interim measure between failing to pay bills on time (which may or may not be a symptom of insolvency) and termination, which, if wrongly implemented, can be disastrous. Under CPC2013 termination is not automatic, but only happens 10 Working Days after notice if, within that period, alternative satisfactory proposals for funding have not been provided. This is a provision not available under other standard forms, and it should assist parties considerably in avoiding the pitfalls of automatic termination and defective notices. See the Conditions at Clauses 62 and 63 and the User Notes at pp. 73–75.
Section 11

Subcontracting

11.1  Q: How is it intended that the major specialist subcontractors be procured in conjunction with CPC2013?

Subcontractors may be named, listed or approved under CPC2013. Clause 19 requires them to be appointed using the standard form of CPC subcontract, which will be published in 2014 and will be back-to-back with CPC2013. See the User Notes at pp. 42.

11.2  Q: Can the terms of the main contract regarding the appointment of subcontractors be changed, say, by the main contractor?

Yes. Unlike other forms, CPC2013 not only permits Special Conditions but requires them. The idea is that the contract should actually say what the parties want it to say. Apart from that, the Contractor can always subcontract on any terms that are approved by the Employer. See Conditions at Clause 19.5 and the User Notes at pp. 42.
Section 12

Time Management

12.1 Q: CPC2013 clearly highlights the importance of time management in construction and engineering contracts. How, broadly, does it differ from other standard forms in this respect?

CPC2013 represents a sea change in how time management is provided for. It requires a quality-controlled critical-path network and progress records as the basis for a dedicated and independent Project Time Manager to contemporaneously calculate (rather than impressionistically assess) time entitlement(s) where delay occurs. It also goes far beyond other forms in providing the parties with the tools to manage and mitigate time risks. See the User Notes pp. 19–21, 30–32, 43, 45, 47–63 and 67.

12.2 Q: When should project time management start?

Ideally, project time management should start in the early design stages of a project and as soon as it is clear what is to be designed. A design that is prepared to be time-efficient is always more easily managed than one that is not. However, if the design is already completed it does not mean that CPC2013 cannot be used. It should always be a better choice of contract if the project is complex and/or where the risk of late completion is likely to be financially dangerous for either party. See the CIOB “Guide to Good Practice in the Management of Time in Complex Projects” at Sections 1 and 2.

12.3 Q: NEC3 has extensive programme requirements, so what is better about CPC2013?

NEC3’s programme requirements are not actually extensive and are not joined up. NEC3 states that if the “programme” is included in the Works Information it is not required to be updated or revised. Unlike CPC2013, NEC3 does not contain any quality specification for the “programme”, and does not require it to be a critical path network or to be submitted electronically.
Moreover, it contains nothing about concurrency and fails to define float or say who owns it or how it is to be used. Under NEC3, if the “programme” is not included in the Works Information, then it is required to be updated, revised and impacted, but unlike CPC2013, under NEC3, all revisions are to be in the same submittal, on paper, and it is thus difficult to use it for proper cause-and-effect analysis. Again, unlike CPC2013, under NEC3, there is no redress if the contract terms are not followed. See also the User Notes at pp. 19–21, 30–32, 43, 45, 47–63 and 67.

12.4 Q: Should a template be provided with regard to a Planning Method Statement? Most folk won’t know what one is or how to use it...

The Planning Method Statement is a narrative setting out the activity descriptions, sequence and the basis of the assumptions and calculations contained in the Working Schedule. It is not required to follow any particular format. See the “Guide to Good Practice in the Management of Time in Complex Projects” at paragraphs 2.6 and 3.8.59–3.8.62.

12.5 Q: CPC2013 requires a Project Time Manager. Is that the same as a planner?

Not quite. What we refer to in the UK as a planner is more often a person who operates project-planning software and in the US might be called a scheduler. Time Management is a broader discipline. A person performing the duties of a Project Time Manager will also need to have a good working knowledge of the “Guide to Good Practice in the Management of Time in Complex Projects” and CPC2013. If your planner does not, we recommend that the planner undertakes one of the recommended training courses and completes the CIOB’s Time Management Assessment, undertaking workshops 1 (the use of the CPC Contract); 2 (delay and disruption analytical techniques and proof of causation); and 3 (relational databases and progress record-keeping). A number of companies around the world offer training and education in this subject. See also http://www.ciob.org/content/time-management-assessment-0 for further details and see the User Notes at pp. 43–44.
12.6 Q: No other standard form requires progress records to be kept by anyone, so why are they so important in CPC2013?

Progress Records are the first thing to look for when managing time risk and trying to avoid a time-related dispute arising. If global and total loss claims are to be avoided, there is no substitute for them. Further, as most activities in a complex construction project are repeated, having good data on what can be achieved by which resources provides a benchmark against which the achievability of the future schedule can be assessed. The database of Progress Records also provides an information source for improving scheduling on future projects. CPC2013 requires Progress Records to be kept to a detailed specification, on a database from which they can be retrieved, sorted and filtered for reporting, and quality-controlled by an independent auditor. CPC2013 also provides for what is to happen if they are not kept. See further the User Notes at pp. 19–21, 47–49 and 56–57.

12.7 Q: What is a dynamic time model?

The Working Schedule in CPC2013 is not static target of unspecified quality printed out on paper for progress monitoring (as is the programme in other standard forms). In CPC2013 there is a dynamic time model. This is a digital, quality-controlled, critical path network, prepared to a detailed specification in three densities. At low and medium density, the activity durations may be estimated and linked with activity-related logic. However, at high density – the short-term look ahead – activity durations are not guessed, but calculated by reference to resources and achievable productivity and linked by resource- and location-related logic. This is unique. CPC2013 is the first standard form of contract to combine the benefits of waterfall and agile project-management techniques. The time model must also be updated with progress at regular intervals and revised to take on board new information and the impact of events. See further the User Notes at pp. 20–21 and 49–56.
12.8 Q: How does CPC2013 address the notoriously difficult issue of concurrency?

Unlike other standard forms, which never define it and rarely mention it, in CPC2013 concurrency is closely defined and the rules of application for both time and cost matters are set out in Clause 41. See the User Notes at pp. 64–65.

12.9 Q: It is the Contractor’s programme, so why doesn’t all float belong to the Contractor and not the Employer?

The Working Schedule contains the Contractor’s intentions, but it is something that the Employer pays the Contractor to produce, so it is not really something that “belongs” to the Contractor. Furthermore, both parties have the power to keep for themselves as their own time contingencies any float they create if they wish to. In the event that there is residual float then either party can use it as desired to manage risk contemporaneously. On time contingencies and float, see further the User Notes at pp. 54–58.

12.10 Q: Other contracts such as JCT, NEC3 and FIDIC already provide for the Architect or its equivalent to undertake interim determinations on time and costs, so what is different about CPC2013?

All other currently available standard forms including JCT, NEC3 and FIDIC anticipate the same risk management model. It is that the Employer carries the risk, the Contractor has all the tools to manage and control risk, but in the event that the Contractor doesn’t use them to manage the Employer’s risk, the Contractor is to be given more time and more money, intuitively assessed by the contract administrator, on the basis of information provided by the Contractor in support of its claim. In contrast first, CPC2013 requires that all the risk management information is not just to be in the hands of the Contractor but is also to be made available transparently to the Employer and its consultants to a quality controlled specification. Secondly, relief and compensation are to be calculated from the facts by a specialist in that field rather than intuitively assessed by the contract administrator. Third, under CPC2013, the Employer is given the powers to manage its own risk, powers which are not available under other forms and finally, unlike other forms, the Contractor is only entitled to relief and compensation if delayed completion cannot be avoided. See the User Notes at pp. 19–21, 30–32, 43, 45, 47–63 and 67.
12.11 Q: Is the problem of prospective as opposed to retrospective analysis for delay and compensation that we see in NEC3 and other forms avoided in CPC2013?

Yes. NEC3 fails to require a critical path network, or for the programme to be submitted electronically, and does not call for progress records. It fails to provide any method of quality control of the programme, or to deal with float and concurrency, and fails to provide any redress if those matters are corrected by special conditions, but not ultimately followed. Fatally, it fails to require an update, to be submitted separately from a revision and for either to be submitted separately from an impact, so there can be no cogent separation of cause and effect, and thus entitlement under NEC3 can only be subjective. To that extent, NEC3 has the same problems as JCT and FIDIC. In contrast CPC2013 requires the Working Schedule to meet a quality-controlled standard, in the form of a critical path network, submitted electronically in native file format. It also mandates updates and revisions to be submitted independently from each other and any impact, and requires contemporaneous delay analysis using the method known as "Time Impact Analysis". The contract provides substantial redress for non-compliance and mandates "Collapsed As-Built Analysis" after the completion if contemporaneous analysis is not used. See the User Notes at pp. 19–21 and 47–64.

12.12 Q: How does CPC2013 control completion on time?

In contrast to the provisions of other standard forms, CPC2013 requires the Working Schedule to be regularly revised to keep it up to date. It requires all events to be impacted contemporaneously and the Working Schedule to be updated with progress data gleaned from quality-controlled Progress Records (including the effects of change) when the work is actually carried out. The benefit of this is that at every submittal, the Working Schedule automatically calculates the construction end date for the Works on the basis of the best information then available. See the User Notes at pp. 19–21, 49–52, 56–57 and 59–64.
12.13 Q: Is a designated programmer/planner required?

Bearing in mind the time-management requirements (see for example, Conditions Clauses 26–28 and 32–45 and Appendices D and E) and the fact that CPC2013 is intended for use in complex projects, the Contractor is expected to need dedicated programmer/schedulers. See also the User Notes at pp. 19–21, 30 and 47–64.

12.14 Q: Where a project does slip into delay, what options are available to the Employer to manage the resultant risk?

Under CPC2013, a project cannot simply “slip into delay”. At every regular update and revision of the Working Schedule, the Contractor must recalculate the critical paths to demonstrate the effect of progress and any change of intent on the completion dates, and has an obligation to make whatever other changes are necessary to overcome any predicted delay arising out of either. However, if it does not do so, or, following the occurrence of an Employer’s risk event, the predicted delay is one which the Employer wishes to avoid, CPC2013 provides the Contract Administrator with the power (following consultation between the Contractor and Project Time Manager) to instruct the Contractor to:

- reschedule one or more specific activities
- change the resources, and/or
- take any other action necessary

to bring the work back on Schedule, with appropriate redress if the Contractor fails to follow the instructions. Where the instructions are given to recover the Contractor’s culpable delay then the recovery is at the Contractor’s expense. Otherwise it is to be paid for by the Employer. See further the User Notes at pp. 19–21 and 47–59.
12.15 Q: What provisions are there for making sure that any instructions to recover delay or to accelerate are actually followed?

Generally, other standard forms require the Contractor to mitigate its own delays, but if it doesn't, they provide nothing by way of sanction other than liquidated damages for delayed completion. Where acceleration is concerned, most contracts that provide for it do so by making it the subject of a collateral contract, without any consequences for failure. To the extent that CPC2013 provides the Employer with additional powers it does go further than other forms.

If the Contractor fails competently to manage its own risks, or if an Employer's risk is likely to cause delay to completion, the Project Time Manager is to consult with the Contractor and advise the Contract Administrator as to what instructions may reasonably be given to the Contractor to reschedule one or more specific activities, change the resources and/or take any other action necessary to recover lost time. The cost of recovery is always the Contractor's risk but the cost of acceleration must be paid for: in effect, this gives the Employer the choice of having a delayed completion, or paying the price of acceleration to bring the project back on track, or to advance the completion date.

If the Contractor disagrees with the Project Time Manager's opinion as to what can reasonably be done to recover or accelerate, the Contractor has a right of appeal to Expert Determination within a limited period after the instruction is given. On the other hand, if the Contractor simply fails to follow instructions properly given, CPC2013 also provides the Employer with some redress that is not available under other standard forms. One of those is the recovery of actual losses, over and above liquidated damages up to the limit of any stated cap. The Employer can also terminate for Contractor default. See the User Notes at pp. 22–24, 47–49, 57–59 and 73–75.
Section 13

Training and Education

13.1 Q: CPC2013 requires someone to fulfil the roles of Design Coordination Manager, Data Security Manager Auditor and Project Time Manager, which are new. Where can professionals capable of fulfilling these roles be found?

There are numerous professionals who are capable of fulfilling these roles, and who have traditionally done so as part of their functions under other contract forms. The difference with CPC2013 is that the requirements of good practice have been made express and, in the case of the Project Time Manager, its functions have been separated out from the traditional Architect’s role to prevent conflict arising where time entitlement is being considered (in particular in respect of delay that may have arisen from late and/or incomplete design). There is, however, nothing in principle to prevent the Contract Administrator from being appointed to act in these roles provided that the Employer is prepared to accept the associated risk. It is considered that those contemplating carrying out these functions will benefit from specific training to ensure that they are familiar with the particular requirements of CPC2013. For example, a person performing the duties of a Project Time Manager will also need to have a good working knowledge of the CIOB “Guide to Good Practice in the Management of Time in Complex Projects”. We recommend that the person taking on that role should undertake one of the recommended training courses and complete the CIOB’s Time Management Assessment, undertaking workshops 1 (the use of the CPC Contract); 2 (delay and disruption analytical techniques and proof of causation); and 3 (relational databases and progress record-keeping). A number of companies around the world offer training and education in this subject. See, also http://www.ciob.org/content/time-management-assessment-0 for further details and see the User Notes at pp. 43–46.
13.2 Q: What specific training will the CIOB be providing in respect of such roles?

In the first instance, the CIOB has held a workshop and has also held a number of in-house CPD sessions for some major project procurers. In addition, the CIOB has appointed Athena Project Services [http://www.athenaprojectservices.com](http://www.athenaprojectservices.com) and Mosaic Project Services Pty Ltd [http://www.mosaicprojects.com.au](http://www.mosaicprojects.com.au) as licensed training providers in project time management and Hill International as trainer in the use of the Complex Projects Contract. For further information contact stuartwilks@hillintl.com.

13.3 Q: I lecture in Cost Control and Management as well as in Contract Administration. Would it be possible to get a copy for review so that if it’s in line with our course I can then order a few copies for the library as well as include it in recommended reading lists?

CPC2013 is available in a protected PDF format for academic use only. You should apply to [publications@ciob.org.uk](mailto:publications@ciob.org.uk), from where a copy of the Conditions, Appendices and User Notes will be provided free of charge. The General Index and Agreement are also available for free download for general purposes from [www.cio.org.uk/cpc](http://www.cio.org.uk/cpc).

13.4 Q: The issue for any contract is the people, their competencies, their knowledge and the culture of the team. Is getting the team right as important as the contract used? What is being provided by the CIOB by way of education and training?

CPC2013 requires the parties to work as a team. Collaboration is not just encouraged; it is positively required. See further FAQs – Collaboration. Certainly there should be team training before and during the Contract. The CIOB has already held a general workshop and a number of in-house CPD sessions for major project procurers. In addition, the CIOB has appointed Athena Project Services [http://www.athenaprojectservices.com](http://www.athenaprojectservices.com) and Mosaic Project Services Pty Ltd [http://www.mosaicprojects.com.au](http://www.mosaicprojects.com.au) as licensed training providers in project time management and Hill International as trainers in the Complex Projects Contract. For further information contact stuartwilks@hillintl.com.
Section 14

Use of CPC2013

14.1 Q: What is a complex project?

A complex project is any project which, because of its technical requirements or method of procurement, is unlikely to be managed successfully by intuition alone. Complexity is subjective and much will depend upon the individual project, but guidance is available as to what will usually constitute a complex project and thus be suitable for CPC2013 as its terms of Contract. See the Conditions at pp. 3 and also the CIOB “Guide to the Management of Time in Complex Projects” (2011) at section 1.5.

14.2 Q: Does purchase of the documents that constitute CPC2013 allow editing and/or copying for further future use – in other words, is this a one-off purchase or must the documents be procured for each project and separate inquiry?

All the documents are copyright of the CIOB. However not all need to be purchased afresh for each project. The User Notes and the General Index are applicable to all projects and, as they are not Contract Documents, only one copy of each is needed for reference purposes. The Appendices and Agreement require project-specific information to be added before they can be used. The completed Appendices and completed but unexecuted Agreement may be used as tender or bid documents. If they are not, then the project-specific details must be extracted from the Appendices and Agreement and included in the Specification used for tender purposes. The original completed and executed Agreement, Conditions and the original completed Appendices are Contract Documents and must thus be bundled with the remainder of the Contract Documents for each project. A copy of the Conditions and a copy of the completed Appendices should also be kept with the User Notes, for reference purposes, throughout the duration of the project. For further discussion of the Contract Documents see the User Notes at pp. 10–41.
14.3 Q: Can CPC2013 be used for EPCM/construction management?

Yes, but some changes should be made via the Special Conditions. For example, the Contract Administrator will become the Construction Manager and the Contractor, the Works Package Contractor. The Project Time Manager would then fulfil the role of the Project Schedule Controller.

14.4 Q: Where can I purchase a copy of CPC2013?

For country-related availability, please contact publications@ciob.org.uk

14.5 Q: I am contemplating a £7m building project. Is CPC2013 suitable for this?

We recommend that selection be based upon complexity rather than price. For example, a £7m shed would be unlikely to justify the procedures required, but a £7m hospital department may well benefit from the use of CPC2013. If you are in doubt, but would like to have a brief chat to someone about the nature of the project and the state of its development, please contact publications@ciob.org.uk with your telephone number and availability and someone will be pleased to call you to discuss it.

14.6 Q: I would like to try using CPC2013, but am unsure how to go about it. Can the CIOB provide any assistance?

Yes. The CIOB would be happy to assist in the development of a suitable project and give active assistance to the project management team in the use of CPC2013. For further information, please contact publications@ciob.org.uk
14.7 Q: Our design team have nearly completed their work and we should be ready to go to tender in a few months’ time. Is it too late to choose CPC2013 as a form of contract?

No, it’s not too late, but, unless they have already done so, your design team will need to get up to speed with the techniques of project time management. To do that they will need to be familiar with the CIOB “Guide to Good Practice in the Management of Time in Complex Projects” (2011) and the requirements of CPC2013 itself. Details of country-related availability of these documents can be obtained from publications@ciob.org.uk

We would also recommend registration for the Time Management Assessment and undertaking a workshop on the use of the Contract. See also the FAQs on Training and Education.

14.8 Q: As a public authority we tend to supervise our own projects using in-house staff, so can we still use CPC2013?

Yes. However, CPC2013 requires that the Contract Administrator, the Project Time Manager and the Valuer be required to exercise discretion as between the interests of the Employer and any other person independently and fairly. This means that whoever takes those roles must have unfettered discretion. CPC2013 also requires that the Employer and Contractor cooperate in a spirit of mutual trust and fairness. If the Contract Administrator, Project Time Manager and Valuer did not have unfettered discretion the Employer would be in breach of both these clauses. See the User Notes (pp. 42–46).

14.9 Q: We have a project which, although not very complex, must be completed on time otherwise the consequential losses might be disastrous. Can we use CPC2013?

Yes. Whilst the procedures and processes required by CPC2013 are intended for use with complex projects where the consequences of failure are likely to be economically unmanageable, the benefits of putting in place the time-, cost- and risk-management procedures of CPC2013 should be justified.
14.10  Q: Can CPC2013 be used for projects involving process plants?

Yes. It is particularly suitable for the management of time, cost and risk on projects in which labour resources and production rates are at the root of time management, such as process plants and other projects (such as oil and gas pipelines and other linear projects) where there is a critical path between processes but those processes tend to be carried out in a multitude of different areas at the same time. The labour-, plant- and production-recording procedures are particularly suitable for this type of work.

14.11  Q: Is CPC2013 suitable for rail work where we often have to work in short possessions in multiple areas?

Yes. It is particularly suitable for the management of time, cost and risk on projects in which labour resources and production rates are at the root of time management, such as road and rail where there is a critical path between processes but those processes tend to be carried out in a multitude of different areas at the same time. The labour-, plant- and production-recording procedures are particularly suitable for this type of work.

14.12  Q: We have been approached to carry out a £5m refurbishment of a London home designed by a firm of interior designers and without a contract administrator or architect. Should we use CPC2013?

No. This form is not suitable for this type of work or for projects without specialists who are familiar with contract administration of complex projects. For such a project as the one described, a project-specific tailoring by a specialist contract draftsman of a more basic standard form is likely to be more appropriate.

14.13  Q: Can CPC2013 be used for IT contracts?

In its current form, CPC2013 is intended for use in construction and engineering projects. Where construction forms a significant part of an IT contract (such as in the development of multiple signal transmission masts), CPC2013 could readily be used. However, where design and consultancy services form the greater part of the work then the Consultancy Appointment and Collaborative Services Agreement (both of which are due for release in 2014) would be more suitable.
14.14 Q: Can we use CPC2013 with our regular design team?

Yes, provided that they are up to speed with project time-management disciplines. CPC2013 recommends that all those having a continuing design, administrative or supervisory role during the contract should have the necessary training and education in time management. See the CIOB “Guide to Good Practice in the Management of Time in Complex Projects” and see also the Project Time Management Assessment:
http://www.ciob.org.uk/content/time-management-assessment-0

14.15 Q: CPC2013 contains all those contractual matters that have to be in all forms, so what is so different about it?

In CPC2013, float, concurrency, disruption, prolongation, rejected and conditionally accepted submittals, information flow etc. are clearly defined (they are not in most forms). Also, under CPC2013, management information is not left in the hands of the Contractor, as it is with JCT, NEC3 and FIDIC, but is provided digitally to all those having a continuing design, administration or supervisory role, so that it can be filtered, sorted, retrieved and used during the Works to manage risk. Unlike any other standard form contract CPC2013 focuses on out-turn time and cost instead of merely tender time and cost. Cost control and valuation under other forms is carried out independently of time control. In CPC2013, the time model is also the cost model, so out-turn time and cost are to be managed together from the same base data. In this way, the updated model calculates, on a rolling basis, first the predicted out-turn completion date and cost to completion, and second (from the difference between this and the previous update) the interim value of work done.

14.16 Q: I live in Dubai. Where can I get a copy of CPC2013?

The Agreement and General Index can be downloaded, free of charge, from http://www.ciob.org.uk/cpc
Country-related availability of the Conditions, Appendices and User Notes can be obtained from publications@ciob.org.uk
14.17  Q: Can CIOB members have electronic access to this contract?

The CIOB is preparing to make electronic access available on a restricted basis to educational establishments. There is currently no intention to make it more widely available to members as a whole. For further information, contact publications@ciob.org.uk

14.18  Q: What are the limitations on the use of CPC2013?

CPC2013 is not recommended for simple repetitive projects or projects in which the design, which does not contain any complicated services, is completed in its entirety before construction starts and where construction is intended to be completed in a short time. CPC2013 is a contract written for the management of the construction and engineering projects which, by their nature, are sufficiently complicated that they are incapable of being managed effectively by intuition alone. Although much will depend upon individual project characteristics, guidance is given in the introduction to the Conditions and the User Notes as to what sort of project it is suitable for. It is intended for use by Government Agencies and companies in a variety of procurement methods (including build only, design and build and turnkey) and envisages the use of Special Conditions for each job.

14.19  Q: How widely accepted has CPC2013 become?

CPC2013 was published in April 2013. Complex Projects that were designed prior to April could not have used the form and we do not expect it to be used on anything that is ready to go to tender before, say, 2014, at the earliest.

14.20  Q: Is CPC2013 suitable for use by smaller Contractors?

No. CPC2013 is not recommended for anything other than complex projects with a competent management team.
14.21 Q: Given that Employers (and/or their advisers) will be the ones driving the use of CPC2013, what assurance is there that Employers will adopt CPC2013 instead of, say, NEC3 or JCT?

Before CPC2013, there was no alternative but to leave the Contractor to manage the Employer’s risks and give the Contractor more time and money if it didn’t. There was also no way of managing out-turn time and cost under the contract. Where the Employer wishes to control its exposure to unmanaged risks, delayed completion and prolongation costs, it would not be in its interests to use JCT, NEC3 or FIDIC.

14.22 Q: Would Employers rather use CPC2013 over other contracts they have already used before? It is well known that clients usually prefer using contracts they already know.

In 1993 nobody had ever used NEC3. Much depends upon what the Employer wants to achieve. If it is content with delayed completion and multi-million-pound unmanaged claims, it is unlikely to want to use CPC2013.

14.23 Q: Do you think the complexity of CPC2013 will scare off potential users?

The terms of CPC2013 are not at all complex. They are written in plain English, and without any legalese or inappropriate tenses. Some of the concepts may be new to users of other contracts (which really haven’t changed much in 140 years), but CPC2013 should be easy to follow compared to most other forms.