

CIOB

TIME AND COST MANAGEMENT CONTRACT

03

CONTRACT APPENDICES

2015 EDITION



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03 **CONTRACT APPENDICES** 2015 EDITION

INTRODUCTION

This is a revised edition of the Appendices to what was previously called the CIOB's Complex Projects Contract, first published in 2013. The name has been changed to reflect more clearly the core strengths of the Contract.

NAMING

The Contract is formally called the "CIOB Time and Cost Management Contract, 2015 Edition". However, it may also be referred to as "The Time and Cost Management Contract" or simply "TCM15". It is referred to within this document as the "Contract".

STANDARD DOCUMENTATION

In addition to this Document No. 3 (the Contract Appendices, 2015 Edition), the Contract comprises

- Document No. 1, Contract Agreement, 2015 Edition and
- Document No. 2, Contract Conditions, 2015 Edition.

Also available for use with the Contract are

- Document No. 4, Subcontract Agreement, 2015 Edition
- Document No. 5, Subcontract Conditions, 2015 Edition
- Document No. 6, Subcontract Appendices, 2015 Edition
- Document No. 7, Consultancy Appointment, 2015 Edition
- Document No. 8, Schedules 8 and 9 for the appointment of the Project Time Manager, 2015 Edition, and
- Document No. 9, Schedules 8 and 9 for the appointment of the Contract Administrator, 2015 Edition.

DISCLAIMER

The Contract has been produced for use in a wide variety of construction and engineering projects. As with any standard document however, the unique circumstances of each project will demand careful consideration as to its suitability and that of each provision. The parties will need to rely upon their own skill and judgement (and that of their advisers) in making use of this and any other standard form document comprised in, or for use in connection with, this Contract. Neither the Chartered Institute of Building nor any author or contributor assumes any liability to anyone for any loss or damage caused by any error or omission whether such error or omission is the result of negligence or any other cause.

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Appendix A – Definitions

Access Date	The Access Date identified as such in Appendix B
Activity	A process or task consuming time and resources and having the attributes specified in Appendix D
Activity ID	Activity identification data, a unique identifying code for an Activity, Milestone, or Level of Effort made up of numerals, letters and symbols, or a combination of them
Advance Payment Bond	A bond executed by the Contractor and a guarantor, in the form and manner identified in, or referred to, in the Special Conditions, to be maintained until such sums have been fully repaid to the Employer and with a bond value equivalent to the aggregate of the advance payment monies and/or advance mobilisation costs paid to the Contractor
Applicable Law	<p>Any and all of the following in force at the Base Date in the region, state or other jurisdiction in which the Site is situated and, to the extent that any part of the Works is not performed on Site, which govern the Contractor in performing the Works</p> <ul style="list-style-type: none">● any laws, regulations, decrees, decisions, orders and/or other legal requirements of any government authority● all orders, rules, regulations, ordinances, notices, guidance notes, schemes, warrants, by-laws, directives, franchises, licences, permits, circulars and codes of practice raised under, or in connection with, any of the foregoing● any amendment, updating or re-enactment of any of the foregoing, and● any ruling, judgment or order of any Court having jurisdiction
Appointing Body	The Appointing Body identified as such in Appendix B
Auditor	The person named in Appendix B as the Time Management Expert or, if no Time Management Expert is identified in Appendix B, such person as is identified by the Time Manager (exercising reasonable skill and care) with the agreement of the Employer, such agreement not to be unreasonably withheld or delayed

Base Date	The date identified as such in Appendix B and by reference to which the Works have been priced
Bill of Quantities	A document setting out the quality and quantity of the goods and materials required for the Works, prepared in accordance with the Method of Measurement
Building Information Modelling	The use of one or more Level 2 Models for the collaborative production of design information to describe the design of the Works
Building Information Modelling Protocol	The Building Information Modelling Protocol identified as such in Appendix B
Business Day	Any day other than those indicated in the Special Conditions and/or the Contractor's Pricing Document as being days on which no work is to be carried out
Certificate of Failure to Achieve Substantial Completion	A Certificate distributed by the Contract Administrator under Clause 56.1
Certificate of Making Good Defects	A Certificate issued by the Contract Administrator under Clause 55.6
Certificate of Partial Possession	A Certificate distributed by the Contract Administrator under Clause 53.2.2
Certificate of Substantial Completion	A Certificate distributed by the Contract Administrator under Clause 54.4
CIOB Guide	Chartered Institute of Building, Guide to Good Practice in the Management of Time in Complex Projects (December 2010) ISBN: 978-1-4443-3493-7, or later edition current at the Base Date
Collateral Warranty	A collateral agreement or direct agreement entered into by the Contractor with a third party, in the form and manner identified in, or referred to, in the Special Conditions
Common Data Environment	A single source of information for collection, management and distribution of all relevant approved project documents for multi-disciplinary teams in a managed process compatible with the requirements of PAS 1192: Part 2, 2013 "Specification for information management for the capital/delivery phase of construction projects using building information modelling"

Completion Testing	Any testing identified in the Contract Specification as being required to be satisfactorily completed before the Works or any Section is Substantially Complete
Connected Contract	Any related agreement for lease, funding agreement, development agreement or other contract which relates to the Works and/or Site between the Employer and a third party, copies of or relevant extracts from which are included in the Special Conditions
Connected Party	A third party under a Connected Contract
Consenting Party	Any person who has agreed in writing with the Employer to be bound by Clause 74.14 of the Contract or by terms equivalent to it
Contract	The Contract Agreement between the Employer and the Contractor to which the Conditions of Contract and Contract Appendices relate, including those documents listed in the Contract Agreement as Contract Documents
Contract Administrator	The person identified as such in the Contract Agreement or, on ceasing to be the Contract Administrator, such other person as the Employer shall appoint and confirm to the Contractor
Contract Administrator's Notice of Payment Due	A notice issued under Clause 64
Contract Agreement	The signed Agreement identifying the parties to the Contract, the Works, the price to be paid for the Works (or the basis for calculating such price), the Law of the Contract, the Contract Documents and those persons appointed by the Employer for the administration of the Contract
Contract Bill of Quantities	The Bill of Quantities listed in the Contract Agreement as Contract Documents
Contract Development Schedule	The Development Schedule listed in the Contract Agreement as a Contract Document
Contract Documents	The documents listed in the Contract Agreement as Contract Documents
Contract Drawings	The Drawings listed in the Contract Agreement as Contract Documents
Contract Federated Model	The Federated Model listed in the Contract Agreement as a Contract Document
Contract Model	The Model listed in the Contract Agreement as a Contract Document

Contract Specification	The Specification listed in the Contract Agreement as a Contract Document
Contractor	The person identified as such in the Contract Agreement
Contractor's Authorised Representative	The person identified as such in the Contract Agreement or, on ceasing to be the Contractor's Authorised Representative, such other person as the Contractor shall appoint and confirm to the Employer and Contract Administrator
Contractor's Design	The design or Design Contribution prepared by, or under the direction of, the Contractor comprising Drawings, specifications, calculations, analyses, or other information relating to the design or Design Contribution, or a Model or Federated Model prepared by, or under the direction of, the Contractor and any drawings specifications, calculations, analyses, or other information extracted from the Model, or any other design or Design Contribution for which the Contractor is required to assume responsibility
Contractor's Notice of Payment Due	A notice issued under Clause 65
Contractor's Plant	Plant, equipment, tools and transport to be used by the Contractor to operate and construct the Works, but which are not required to be and/or are not incorporated into the Works
Contractor's Pricing Document	The Contractor's Pricing Document listed as a Contract Document in the Contract Agreement
Contractor's Site Agent	The person nominated by the Contractor in accordance with Clause 6.2 to manage the Works on Site
Contractor's Time Contingency	One or more time periods identified in the Working Schedule and Planning Method Statement, to be absorbed in whole or in part, increased, reduced, amalgamated with other Contractor's Time Contingencies, or omitted, in order to manage the Contractor's risks
Cost Manager	The person identified as such in the Contract Agreement or, on ceasing to be the Cost Manager, such other person as the Employer shall appoint and confirm to the Contractor and Contract Administrator, or, if none is appointed, the Contract Administrator
Critical Path	The longest sequence of logically linked Activities from the start of a process to its finish
Current Contract Value	The Predicted Cost of the Works as adjusted in accordance with Clause 61

Data Date	The date at which the status of the data is established in an electronic file
Date for Sectional Access	The Logical Date identified in the latest accepted Working Schedule by which the Employer is to afford access to, and grant possession of, a Section
Date for Sectional Completion	The Logical Date identified in the latest accepted Working Schedule by which a Section is to achieve Substantial Completion
Date for Substantial Completion	The Logical Date identified in the latest accepted Working Schedule by which the Works are to achieve Substantial Completion
Date of Contract	The date shown as such in the Contract Agreement
Design Contribution	<p>A design, part of a design, data or information which is created or prepared by</p> <ul style="list-style-type: none">● a Listed Person● the Contractor● a Subcontractor, or● a Connected Party <p>and is communicated to, or shared with, any other Design Contributor, in any way</p>
Design Contributor	A person who makes a Design Contribution
Design Element	An element of the design of the Works described in Table 2 in Appendix C
Design Execution Plan	The performance specification and plan of work for the timing, preparation, submission and approval of each Design Stage or Design Level of Development of the Contractor's Design
Design Level of Development	The degree of completeness of a Model compatible with its use identified by reference to Appendix C
Design Stage	The degree of completeness of a Drawing compatible with its use for the purpose identified by Table 1 in Appendix C
Design User	Any person identified in the Special Conditions as authorised to use a Model for the purpose identified in Appendix C
Determination	The determination of the Principal Expert issued in accordance with Clause 73
Draft Impacted Planning Method Statement	The latest version of the document identified as such and distributed for acceptance under Clause 43.5

Development Schedule	A critical path network schedule, prepared by or on behalf of the Employer which identifies the planned process of project procurement from inception to completion and which functions as the Employer's time and cost model for the project as a whole
Draft Impacted Working Schedule	The latest version of the document identified as such and published for acceptance under Clause 43.6
Draft Planning Method Statement	The latest version of the document identified as such and distributed for acceptance under Clause 37.2
Draft Revised Planning Method Statement	The latest version of the document identified as such and distributed for acceptance under Clause 41.3
Draft Revised Working Schedule	The latest version of the document identified as such and published for acceptance under Clause 41.2
Draft Updated Planning Method Statement	The latest version of the document identified as such and distributed for acceptance under Clause 40.3
Draft Updated Working Schedule	The latest version of the document identified as such and published for acceptance under Clause 40.1
Draft Working Schedule	The latest version of the document identified as such and published for acceptance under Clause 37.5 or Clause 37.6
Drawing	Two-dimensional plan, section, elevation, detail, sketch and three-dimensional projection that is not extracted from a Model and two-dimensional projection extracted from a Model which is supplemented with data, information or projection that is not extracted from a Model
Due Date	Any Key Date, Sectional Completion Date or the Substantial Completion Date identified in Appendix B as extended under Clause 51 or brought forward under Clause 49
Early Warning	A warning given pursuant to Clause 34.2
Employer	The person identified as such in the Contract Agreement
Employer's Authorised Representative	The person identified as such in the Contract Agreement or, on ceasing to be the Employer's Authorised Representative, such other person as the Employer shall appoint and confirm to the Contractor and Contract Administrator.

Employer's Cost Contingency	A sum of money identified in the Contract Specification to be included in the Contractor's Pricing Document and to be absorbed in whole or in part, or omitted, as the Contract Administrator may instruct
Employer's Cost Risk Event	An occurrence identified as such in Appendix F which is not caused or contributed to by the Contractor or anyone for whom the Contractor is responsible
Employer's Time Contingency	A period of time identified in the Contract Specification to be included as an Activity in the Working Schedule and to be absorbed in whole or in part, increased, reduced, amalgamated with other Employer's Time Contingencies, or omitted, as the Contract Administrator may instruct
Employer's Time Risk Event	An occurrence identified as such in Appendix F which is not caused or contributed to by the Contractor or anyone for whom the Contractor is responsible
Event	An occurrence which is an Employer's Cost Risk Event or an Employer's Time Risk Event
Federated Model	A model consisting of connected but distinct Models
File Transfer Protocol	The protocol for uploading, downloading, managing access to, security of and transferring digital files by electronic means
Final Contract Value	The ultimate value of the Works calculated in accordance with Clause 63
Finding	Any archaeological artefact, fossil, coin, article of value or antiquity, or item of geological interest, or human remains
Fragnet	A sub-network or fragment of a network diagram, used to illustrate sequence of Activities ¹
Free Float	The period, calculated by the latest accepted Working Schedule, by which an Activity may be delayed without delaying the Logical Date for the start of any of its successor Activities
Free Issue Materials	Those materials and/or goods identified in the Contract Specification to be supplied by the Employer and delivered to the Contractor without charge

¹ See the CIOB Guide at paragraphs 4.5.15 and 5.2.5.

High Density	That part of the Working Schedule containing Activities for which, at the Data Date, all information and estimated productivity necessary for their execution is available. At High Density, provision for risks and their consequences is made on the basis of a comprehensive review of the predicted risks, planned activities and their dependencies
Holding Company	The Contractor’s ultimate parent company or such other person identified in Appendix B as the Holding Company
Holding Company Guarantee	A guarantee executed by the Contractor and the Holding Company in the form and manner identified in, or referred to in, the Special Conditions
Initiation Date	The date upon which an Event occurs
Interest Rate	The rate of interest on late payments identified in Appendix B
Issue Resolution	The procedure to be adopted under Clause 73
Key Date	The stage identified in the Special Conditions to which the date identified in Appendix B applies and to which Clause 5.5 refers
Law of the Contract	The law stated as such in the Contract Agreement
Laydown	Any land allocated for the sole use of the Contractor in connection with the Works, whether on the Site or elsewhere, including but not limited to use for fabrication, assembly and storage and for the secure delivery of materials and maintenance of Contractor’s Plant
Level of Effort	A described duration in the Working Schedule representing the period over which the value of a Preliminaries or Overheads and Profit item is to be consumed, logically linked to the Activities which start and end the relevant period
Limit of Liability	The sum identified as such in Appendix B which is the overall limit on the Contractor’s financial liability to the Employer for any loss and/or damage including without limitation any Liquidated Delay Damages, loss and/or expense and/or other consequential loss incurred by the Employer as a result of any breach by the Contractor of the Contract or otherwise to the extent permitted by Applicable Law
Liquidated Delay Damages	Liquidated damages under Clause 57
Listed Persons	Those persons identified as such in Appendix B

Logical Date	A date calculated by the Working Schedule
Low Density	That part of the Working Schedule containing Activities for which, at the Data Date, all information necessary for their execution is not available. At Low Density risks may be provided for by the application of a formulaic contingency where relevant, the required resources and/or their estimated productivity
Medium Density	That part of the Working Schedule containing Activities for which, at the Data Date, all information necessary for their execution is available other than, where relevant, the required resources and/or their estimated productivity. At Medium Density, provision for risks and their consequences is made on the basis of a comprehensive review of the predicted risks, planned activities, their estimated durations and dependencies
Method of Measurement	The standard identified in Appendix B
Milestone	A point in time identified on the Working Schedule which has neither duration nor resources attributed to it
Model	A collaborative digital representation of the design of part of the physical and/or functional characteristics of the Works
Notice Date	The date calculated to be 5 calendar days from the last date by which the Contract Administrator is required to issue a statement of Current Contract Value, Penultimate Contract Value or Final Contract Value. Such calculation shall exclude any days which are bank and/or public holidays under Applicable Law
Notice of Payment Due	A notice under Clause 64 or Clause 65
Official Dealing Rate	The interest rate set by the institution identified in Appendix B
Overheads and Profit	The costs and profit related to running the Contractor's business as a whole, which are not Activity- or Site-related and which are identified as such in the Contractor's Pricing Document
Partial Possession	Deemed or actual possession by the Employer of part of the Works, or Section, in accordance with Clause 53
Penultimate Contract Value	The penultimate value of the Works calculated in accordance with Clause 62
Performance Bond	A guarantee bond executed by the Contractor and a guarantor in the form and manner, and for the value and period, referred to in the Special Conditions

Performance Security	An Advance Payment Bond, a Retention Bond and/or a Performance Bond
Permanent Plant	Any plant or equipment which the Contract Specification requires to be permanently incorporated into the Works
Planning Method Statement	The description of the assumptions and calculations underlying the Working Schedule
Post-Substantial Completion Retention Period	The period after Substantial Completion of the Works or any Section identified in Appendix B to which Clause 55.1 refers
Predicted Climatic Conditions	Those stated in the Contract Specification or, if none is stated, the maximum depth of rain, sleet or snow, maximum wind speed, and the maximum and minimum temperature and humidity occurring during a single day at the closest independent monitoring facility to the Site at which such conditions have been continuously recorded in the 5 years preceding the Base Date
Predicted Cost	The predicted ultimate cost of the Works calculated in accordance with Clause 60
Preliminaries	Site establishment and field costs which are not directly related to any Activity and which are identified as such in the Contractor's Pricing Document
Prime Cost Sum	A sum of money identified in the Contract Specification to be included in the Contractor's Pricing Document for specialised work to be carried out by a Subcontractor to which Clause 31.1.1 refers
Principal Expert	The person identified as such in Appendix B
Progress Meeting	Any meeting under Clause 30
Progress Records	The accepted database records of the resources actually used to perform a recorded quantity of work made and recorded in accordance with Appendix E
Provisional Sum	A sum of money identified in the Contract Specification to be included in the Contractor's Pricing Document for work which cannot be described in detail at the time of tender/bid
Reference Design	Contract Drawings and/or Contract Specification and/or Contract Model and/or Contract Federated Model describing the requirements in accordance with which the Contractor is to design the whole or any part of the Works

Relevant Substantial Completion Date	Any Due Date identified in Appendix B, as extended under Clause 51 or brought forward under Clause 49
Relevant Date for Substantial Completion	The Logical Date for completion of a Key Date, Section, or the Works calculated by the latest accepted Working Schedule or a schedule prepared under Clause 36.2 at the latest Data Date
Retention Bond	A bond executed by the Contractor and a guarantor in the form and manner identified in, or referred to in, the Special Conditions, to be maintained for the period and with a bond value as set out in the Special Conditions
Risk Register	The register maintained by the Contract Administrator under Clause 35
Scheme for Construction Contracts	U.K. Statutory Instrument 1998 No. 649, <i>The Scheme for Construction Contracts (England and Wales) Regulations 1998</i> , as amended by U.K. Statutory Instrument 2011 No. 2333, <i>The Scheme for Construction Contracts (England and Wales) Regulations 1998 (Amendment) (England) Regulations 2011</i>
Section	A part of the Works identified by the Contract Specification and/or Contract Drawings and/or Contract Model and/or Contract Bill of Quantities to which the Employer is to grant access by the Date for Sectional Access Date to which the Sectional Value applies, and which is to be substantially complete by the Sectional Completion specified in Appendix B
Sectional Access Date	The date identified in Appendix B by which the Employer is to afford access to, and grant possession of, a Section
Sectional Substantial Completion Date	The date identified in Appendix B by which a Section is to achieve Substantial Completion, as extended under Clause 51 or brought forward under Clause 49
Sectional Value	The value of a Section identified in Appendix B
Site	The identified area or areas of land upon which the Works are to be executed, as defined in the Contract Specification and/or Contract Drawings and/or Contract Model and/or Contract Bill of Quantities, and to which the Employer is to afford access and possession to the Contractor under Clause 5.1
Site Services	Those electricity, gas, telecommunication, broadband, water and/or other supplies identified in the Special Conditions which are to be provided by the Employer for the Contractor's use in carrying out the Works
Special Conditions	The Special Conditions listed as a Contract Document in the Contract Agreement

Standard	The individual requirements contained within a standards document (including but not limited to any British standard, any European standard and/or any international standard) which are referred to in the Contract Documents and/or applicable to the Works as a result of any Applicable Law
Statutory Authority	A body authorised to enforce legislation on behalf of the relevant region or state
Statutory Undertaker	An entity authorised by Applicable Law to carry out utility development and/or highways works required by the relevant region or state
Subcontract	Any subcontract entered into between the Contractor and the Subcontractor in respect of the Works or any part of it
Subcontractor	Any subcontractor or consultant carrying out work or performing services for the Contractor which relate to the Contract, the Works and/or the Site
Substantial Completion	A state where, in the Contract Administrator's opinion, all the work required under the Contract in respect of the Works or a Section has been performed and operation and maintenance manuals required by the Contract Specification have been provided, subject only to such minor outstanding items of work, documentation and/or minor defects the existence of which does not affect the beneficial use, operation or maintenance of the Works or relevant Section
Substantial Completion Date	The date stated in the Certificate of Substantial Completion on which the Works or a Section achieved Substantial Completion
Temporary Buildings	Any structure erected by or on behalf of the Contractor for use solely in connection with the Works, including but not limited to buildings for administration, fabrication, assembly and storage and for the secure delivery of materials and maintenance of plant
Temporary Work	Work which is described as such in the Contract Specification to be designed and carried out by the Contractor in accordance with an approved operational method statement for the purposes of the Works, but which is not incorporated into the Works
Termination Date	The date upon which the Contractor's employment and all work under the Contract, whether carried out on Site or elsewhere, is to cease
Time Manager	The person identified as such in the Contract Agreement or, on ceasing to be the Time Manager, such other person as the Employer shall appoint and confirm to the Contractor and Contract Administrator, or, if none is appointed, the Contract Administrator

Total Float

The period, calculated by the last accepted Working Schedule, by which an Activity may be delayed without delaying the achievement of a Due Date

Unforeseeable Conditions

Geological or hydrological condition or man-made or other obstruction, void, pollutant or contaminant, including utility or service encountered sub-surface on the Site, or any access to the Site or right of way, or the content or the condition of an existing structure which, at the Base Date, an experienced Contractor could not reasonably be expected to have foreseen

Variation

● The alteration or modification of

- the design, quality, or quantity of the Works including
 - the addition, omission or substitution of any work
 - the alteration of the kind or standard of any work

and/or

- the Working Schedule

so as avoid the occurrence of any Event, or to reduce, overcome or avoid the likely effects of any delay to progress caused by an Event including, but not limited to, the alteration or modification of

- the duration, sequence, or timing of any Activity
- any period of time whether by reference to a lead, lag, or otherwise
- any Key Date
- the resources to be used in connection with any Activity

and/or

- the requirements of the Contract for publication, content and character of the Working Schedule, Progress Records and/or Contractor's Design

and /or

- the removal of any work executed, or materials, or goods brought thereon by the Contractor for the purposes of the Works, other than work, materials or goods which are not in accordance with this Contract
- the modification in the location, type, or quantity of tests and/or Completion Testing, or tests and/or Completion Testing in addition to those identified in the Contract Specification

- the imposition by the Employer of any obligations or restrictions in regard to the carrying out of the Works, or the addition to, alteration or omission of any such obligations or restrictions so imposed, or imposed by the Employer in the Contract Documents in regard to
 - access to the Site, or any part or Section thereof
 - possession of the Site, or any part or Section thereof
 - the use of any specific parts of the Site
 - limitations of working space
 - limitations of working hours
 - approval or acceptance, or conditional approval or conditional acceptance, of a submission
 - the execution of the Works or any part, in any specific sequence, order or time
 - compliance with a Connected Contract, the terms of which are not included in the Special Conditions, and/or

- the specification of a particular Subcontractor to supply and fix materials, or goods, or to execute work which is priced by the Contractor in the Contractor's Pricing Document for supply and fixing, or execution by the Contractor

- the taking out of insurances pursuant to Clause 10.3 which the Employer has failed to take out and/or maintain in accordance with Clause 10.2

Welfare Facilities

Restroom, toilet and washing facilities, drying rooms, clothing stores, canteen and other facilities required for the personal wellbeing of the staff and workforce on Site and the Contract Administrator, Listed Persons and visitors as required by the Contract Specification, or if none is specified, then in accordance with the UK Government "Construction (Design and Management) Regulations (2007) Approved Code of Practice L144"

Working Hours

Any hours other than those indicated in the Special Conditions and/or the Contractor's Pricing Document as being hours during which no work is to be carried out

Working Schedule

The Working Schedule accepted under Clause 37

Works

The work to be carried out by the Contractor under the Contract including all items and work that are specifically referred to in the Contract Documents or otherwise contemplated by the Contract. For the avoidance of doubt, the Works include all risk analyses, record keeping, scheduling and all other administrative functions which the Contractor is required to carry out under the Contract

Appendix B – Contract Data

Listed Persons

Discipline	Name	Email	Time zone	Telephone
Architecture				
Civil Engineering				
Cost Management				
Commissioning Engineering				
Drainage Engineering				
Electrical Engineering				
Mechanical Engineering				
Structural Engineering				
Quality Control				
Project Management				
Time Management				
Design Coordination				
Document Management				
Data Security				

Method of Measurement is

(Appendix A)
 (if none is stated, it shall be the New Rules of Measurement, Detailed Measurement of Building Works (NRM2), published by the Royal Institution of Chartered Surveyors current at the Base Date)²

Holding Company is

(Appendix A)
 (if none is stated, it shall be deemed to be the Contractor’s ultimate parent company)

² There are different standard forms of measurement appropriate for works not comprising building works.

The monetary currency is

(Clause 2.3)
(if none is stated, it shall be the pound sterling)

The Base Date is

(Clause 2.4)
(if none is stated, it shall be 20 Business Days before the earlier of the Start Date and the Access Date)

Access Date is

(Clause 5.1)

Date for Substantial Completion is

(Clause 5.2)

Start Date is

(Clause 5.3)

Sectional Access Dates and Sectional Substantial Completion Dates are

(Clauses 5.4.1, 5.4.3 and 5.4.4)

Section	Sectional Access Date	Sectional Substantial Completion Date

Key Dates
(Clause 5.5)

Key Date Description	Activity ID	Key Date

Email subject code data is

(Clause 7.2)
(if none is stated, no subject data code is required)

Holding Company Guarantee

(Clause 9.1.1) shall/shall not apply* (if not stated, shall be deemed not to apply)

Performance Bond

(Clause 9.1.2) shall/shall not apply* (if not stated, shall be deemed not to apply)

Advance Payment Bond

(Clause 9.2) shall/shall not apply* (if not stated, shall be deemed not to apply)

The status of the Reference Design is that it is

- (Clause 11.1)
1. provided for information purposes only and may not be relied upon by the Contractor, for any purpose, or
 2. prepared to Design Stage or Design Level of Development,
or
 3. defined in the Special Conditions

(delete whichever two are inapplicable. If two of the three options are not deleted, or if no Design Stage or Design Level of Development is indicated against option 2, option 1 shall apply)

The Building Information Modelling Protocol shall be

(Clauses 17.1.1 and 17.2.2.1)

.....
(or if none is stated, shall be AIA Document G202-2013 BIM Information Modelling Protocol Exhibit published by the American Institute of Architects, or such later edition as may be current at the Base Date)

** Delete whichever is inapplicable.*

Interval for Progress Meetings shall be

(Clause 30.1) Business Days after the Start Date/Access Date*
(if none is stated, it shall be 20 Business Days from the earlier of the Start Date and the Access Date) and at intervals of Business Days thereafter (if none is stated, such interval shall be 20 Business Days)

Status interval for publication of Progress Records is

(Clause 39.2) Business Days after the Start Date/Access Date*
(if none is stated, it shall be 10 Business Days from the earlier of the Start Date and the Access Date) and at intervals of Business Days thereafter (if none is stated, such interval shall be 20 Business Days)

Status interval for revision of the Working Schedule is

(Clause 41.1) Business Days after the Start Date/Access Date*
(if none is stated, it shall be 25 Business Days from the earlier of the Start Date and the Access Date) and at intervals of Business Days thereafter (if none is stated, such interval shall be 20 Business Days)

Status interval for schedule quality assurance audits is

(Clause 42.2) on receipt of the first publication of the Draft Working Schedule and at every Business Days thereafter (if none is stated, such interval shall be 60 Business Days)

Post-Substantial Completion Retention Period is

(Clause 55.1) weeks

Liquidated Damages

(Clause 57.1 and/or Clause 57.2) shall/shall not apply*
(if not stated to apply and if no sum is indicted below they shall be deemed not to apply)

Liquidated Delay Damages for failure to complete the Works are

(Clause 57.1) per week or part thereof

** Delete whichever is inapplicable.*

Limit on the period of delay to Substantial Completion is

(Clause 57.1) weeks

Liquidated Delay Damages for failure to complete a Section are

(Clauses 5.4.1, 5.4.2 and 57.2)

Section	Sectional Value	Liquidated Delay Damages	Limit on period of delay to completion
		per week or part thereof	weeks
		per week or part thereof	weeks
		per week or part thereof	weeks
		per week or part thereof	weeks
		per week or part thereof	weeks
		per week or part thereof	weeks
		per week or part thereof	weeks
		per week or part thereof	weeks
		per week or part thereof	weeks

Limit of Liability is

(Clause 58)

Retention fund for repair of defects is

(Clause 59.1) per cent of Current Value
(if none is stated, it shall be two and a half per cent)

Retention Bond

(Clause 59.4) shall/shall not apply* (if not stated, shall be deemed not to apply)

Interval of statement of Current Value is

(Clause 61.1) Business Days after acceptance of the Draft Updated Working Schedule. (if none is stated, then within 10 Business Days of acceptance or deemed acceptance of the Draft Updated Working Schedule)

* Delete whichever is inapplicable.

Final date for payment is

(Clause 66.3.1 and 66.5.1) Business Days after receipt of a Notice of Payment Due under Clause 64 or Clause 65. (if none is stated, then within 20 Business Days of the date of the Notice)

Interest Rate is

(Clause 67.1) per month/year, simple/compound.* (if none is stated, then at the rate of 5% per year, simple, above the Official Dealing Rate)

Official Dealing Rate

(Clause 67.1) That set by
 (if none is stated, it shall be that set by the Governor and Company of the Bank of England at the date that the payment became overdue)

Principal Expert is

(Clause 73.4)
 (if none is stated, or if the identified person is unable to act, such other person as the parties agree, or in default of such agreement, on the application of either party, the person appointed by the Appointing Body for the Expert identified in Appendix B)

Experts are

(Clause 73.5)

Discipline	Name	Email	Time zone	Telephone
Architecture				
Civil Engineering				
Cost Management				
Commissioning Engineering				
Drainage Engineering				
Electrical Engineering				
Mechanical Engineering				
Structural Engineering				
Law				
Project Management				
Time Management				

* Delete whichever is inapplicable.

Appointing Body is

(Clauses 73.4, 74.8 and 74.12)

Discipline	Appointing Body	Appointing Body if none is stated
Principal Expert (Clause 73.4)		Academy of Experts, 3 Gray's Inn Square, London, WC1R 5AH, United Kingdom (http://www.academyofexperts.org)
Adjudicator (Clause 74.8)		Chartered Institute of Building, Englemere, Kings Ride, Ascot, Berkshire, SL5 7TB, United Kingdom (http://www.ciob.org)
Arbitrator (Clause 74.12)		Chartered Institute of Building, Englemere, Kings Ride, Ascot, Berkshire, SL5 7TB, United Kingdom (http://www.ciob.org)

Adjudication

(Clause 74.7) shall/shall not apply*(if not identified, shall be deemed to apply)

Rules of Adjudication are

(Clause 74.7)
 (if none is stated, and Applicable Law does not provide any default adjudication rules, the adjudication rules shall be the Scheme for Construction Contracts, modified as necessary to meet any requirements of adjudication under Local Law not provided for)

Adjudicator is

(Clause 74.8)
 (if none is stated, or if the identified person is unable to act, such other person as the parties agree, or in default of such agreement, on the application of either party, the person appointed by the Appointing Body for the Adjudicator identified in Appendix B)

* Delete whichever is inapplicable.

The final dispute resolution mechanism shall be

(Clause 74.11)
(if none is stated, final dispute resolution shall be by arbitration)

Rules of Arbitration are

(Clause 74.11)
(if none is stated, those current at the Base Date of the London Court of International Arbitration,
70, Fleet Street, London EC4Y 1EU, United Kingdom. (<http://www.lcia.org>))

Arbitrator is

(Clause 74.12)
(if none is stated, or if the identified person is unable to act, such other person as the parties agree,
or in default of such agreement, on the application of either party, the person appointed by the
Appointing Body for the Arbitrator identified in Appendix B)

Appendix C – Building Information Modelling

Design Stages, Levels of Development, geometry, content and uses

C 1. The Model shall not be used for any purpose not identified in Table 1 against the relevant Design Level of Development.

Design Contributors and Design Elements

C 2. The Design Contributor responsible for each Design Element at each Design Stage and Design Level of Development shall be as indicated in Table 2.

Table 1 - Levels of Development, Design and Uses

C1	Design Level of Development³	Design Stage	Geometry	Content	Analysis
	100	Preparation	Conceptual	Overall massing indicative of area, height, volume, location and orientation	Conformity with general performance data
	200	Design	Approximate	Generalised systems and assemblies that indicate approximate quantities, size, shape, location and orientation, including product information where available	Conformity of systems and Design Elements with general performance criteria, including energy usage
	300	Pre-construction	Precise	Design Elements and assemblies accurate in size, shape, location, orientation and quantity, including product information where available	Conformity of systems and Design Elements with specific element-related performance criteria, including energy usage and sustainability
	400	Fabrication	Detailed	Design Elements and assemblies accurate in size, shape, location, orientation and quantity, with complete fabrication, detail and product information	Conformity of systems and Design Elements with specific element-related performance criteria, including fire control, health and safety, energy usage and sustainability
	500	Construction	Recorded	Design Elements modelled as constructed assemblies accurate in size, shape, location, orientation and quantity and resources, with complete fabrication, detail, product information, cost and time data	Changes and design development during construction,
	600	Use	Recorded	As constructed Design element assemblies accurate in size, shape, location, orientation and quantity	Using, maintaining, altering and adding to the project in conformity with licensing agreement, if any.

³ The Design Level of Development codes must be referable to the Building Information Modelling Protocol identified in Appendix B.

Cost Control	Time Control	Licensing and Approvals	Construction	Other Uses
Estimating based upon cost per square metre, per cubic metre, or other conceptual standard such as per hospital bed, per hotel key, etc.	Low density project phasing and overall predicted duration.	May be used to generate drawings sufficient in detail for permission for development in outline and similar licensing		
Estimating based upon approximate data for area, volume and quantity of Element of Design	Low density timing of major Design Elements, zones of operation, project phasing and overall predicted duration.	May be used to generate drawings sufficient in detail for development control and similar licensing		
Estimating based upon approximate data for area, volume and quantity of Element of Design	Low density timing of Design Elements, zones of operation, project phasing and overall predicted duration.	May be used to generate drawings sufficient in detail for building control and similar licensing	May be used to generate traditional construction drawings, specifications and schedules	
Estimating based upon standard rates for measured data for items, linear measure, area, volume and quantity of Design Elements	Low and Medium density timing of Design Elements, zones of operation, project phasing, methods of construction, phased access and completion, key dates and overall predicted duration. High Density planning of construction in the short term	Tender and bidding	The information comprises a virtual model of the Design Elements and is suitable for construction purposes	
Predicted Cost in accordance with Clause 60. Current Contract Value in accordance with Clause 61, and Final Contract Value in accordance with Clause 63	High Density planning of construction including all resources and productivity planned to be achieved. Productivity achieved and resources used in accordance with Progress Records and contemporaneous time management, including delay and disruption analysis.	Occupational permits, fire authority and Health and Safety Executive permissions	The information comprises a virtual as-built model of the Design Element and is relied upon for retrospective analysis	Actual record of resources used and productivity achieved, for benchmarking and feedback.
		Occupational permits, fire authority and Health and Safety Executive permissions	The information comprises a virtual as-built model of the Design Elements and is relied upon for cooperation and maintenance	Can be relied upon for all purposes in connection with facilities management and the future use and maintenance of the project

Table 2 - Design Contributor responsible for the Design Element at each Design Level of Development

Design Level of Development		100	200
C2	Design Elements ⁴	Preparation	Design
	Code	Design Element	Design Contributor

⁴ Table 2 should refer to the Design Elements referred to in and be consistent with the requirements of the Building Information Modelling Protocol identified in Appendix B.

Appendix D – Working Schedule

Software

- D 1. The Working Schedule and any Fragnet required for it or in connection with it shall be prepared and maintained using

software

version

Standards

- D 2. The Working Schedule shall be prepared in accordance with the Contract and the recommendations of the CIOB Guide.

Production and administration content

- D 3. The Working Schedule shall be supported by a Planning Method Statement of the calculations and assumptions used in its preparation and shall describe the durations and sequence of all Activities planned to be carried out in the future, and those completed in whole or in part, and, in so far as it is relevant, is to contain

- a. all Activities necessary for the effective completion of the Works
- b. all allowances for Prime Cost, Provisional Sums and/or Employer's Time and/or Cost Contingencies required by the Employer and/or those engaged or employed by it identified in the Contract Specification
- c. Activities representing any work to be carried out by
 - i. the Employer, details of which are contained in the Contract Specification
 - ii. those engaged by the Employer, details of which are contained in the Contract Specification
 - iii. utility companies
 - iv. Statutory Undertakers and/or Statutory Authorities
- d. all allowances for Contractor's Time and/or Cost Contingencies identified in the Contractor's Pricing Document
- e. the identity of
 - i. any Subcontractor appointed to carry out any Activity
 - ii. any supplier appointed to supply any goods or Permanent Plant for which an Activity is included
- f. the resources planned to be used, and the resources actually used, in whole or in part
- g. the value of all Activities, Level of Effort items and Milestones
- h. the Level of Effort items for Preliminaries and Overheads and Profit
- i. the interface between the Works and work to be carried out by others

- j. any date by which the Employer warrants that it will provide
 - i. acceptance or approval of a Design Stage or Design Level of Development of a Contractor's Design or other Design Contribution, sample of work, work or materials, goods, or Permanent Plant
 - ii. the supply by the Employer of Drawings, instructions, or other information
 - iii. the supply of anything the Employer is to provide, or
 - iv. work to be carried out by the Employer or those engaged or employed by it
- k. the Logical Date by which the Employer is to provide
 - i. acceptance or approval of a Design Stage or Design Level of Development of a Contractor's Design or other Design Contribution, sample of work, work or materials, goods, or Permanent Plant
 - ii. the supply by the Employer of Drawings, instructions, or other information
 - iii. the supply of anything the Employer is to provide, or
 - iv. work to be carried out by the Employer or those engaged or employed by it
- l. the duration and sequence of any Events identified in Appendix F
- m. the duration and sequence of any Contractor's risk events
- n. testing and Completion Testing
- o. Key Dates for anything to be provided by the Employer or the Listed Persons
- p. Key Dates for anything to be provided by the Contractor and any Subcontractor, supplier, Statutory Undertaking, Statutory Authority, utility provider, or Employer's contractor
- q. the following Contract Milestones
 - i. Start Date
 - ii. Access Date
 - iii. Substantial Completion Date
 - iv. Dates for Sectional Access
 - v. Dates for Sectional Completion
 - vi. the start and finish of the work of all Sub-contractors and suppliers
 - vii. the start and finish of testing and Completion Testing
 - viii. the specified Key Dates.

Design Content

- D 4. Where the Contractor is required to design the Works, or any part or parts of the Works, unless specified otherwise in the Contract Specification, the Working Schedule shall incorporate the Design Execution Plan and shall include provision for Activities of adequate duration, linked to the construction Activities to which they relate for
 - a. submission for acceptance
 - b. period for consideration
 - c. period for corrections and amendments
 - d. period for reconsideration and acceptance

in relation to each of the following Design Stages, where relevant

- i. Preparation
- ii. Design
- iii. Pre-construction
- iv. Fabrication

and where the Contractor's Design Contribution is made by reference to a Model, in relation to each of the following Levels of Development where relevant

- v. Design Level of Development 1
- vi. Design Level of Development 2
- vii. Design Level of Development 3
- viii. Design Level of Development 4

and shall include Activities of adequate duration, linked to the appropriate Design Stages or Levels of Development for every licence or approval, including those of Statutory Authorities necessary in connection with that design, or any relevant part thereof

- e. preparation of submissions
- f. submission
- g. consideration
- h. approval.

Design Element

- D 5. The Activities shall be coded according to the Design Element to which each activity relates, by reference to Table 2 of Appendix C.

Conformity with Building Information Modelling

- D 6. In so far as it relates to the same Design Element, where the design is produced by a Model from which the Working Schedule is not extracted, the coding structure for the Working Schedule is to be identical to that in the Model.

Density

- D 7. The duration of planned Activities shall not exceed the following
- a. For the High Density period between the Data Date and 3 months after the Data Date Business Days (if none is stated, the period shall be 20 Business Days)
 - b. For the Medium Density period between 3 months and 9 months after the Data Date Business Days (if none is stated, the period shall be 40 Business Days)
 - c. For the Low Density period more than 9 months after the Data Date Business Days (if none is stated, the period shall be unlimited).

D 8. For the High Density part of the Working Schedule, the duration of planned Activities shall be calculated by reference to the resources planned to be employed and the productivity anticipated by those resources. The Planning Method Statement is to set out the source of data used and explain each such calculation.

Work Breakdown Structure

D 9. The Activities shall be coded according to a Work Breakdown Structure as follows

- Level 1: the whole of the Works
- Level 2: Sections
- Level 3: subsection
- Level 4: level
- Level 5: zone
- Level 6: Design Element
- Level 7: Contractor, Subcontractor or supplier.

Sections, subsections, levels and zones

D 10. The Sections, subsections, levels and zones of the project are illustrated and described on

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Project-specific data fields

D 11. Where project specific data fields, Activity, or resource codes are used, they are to be unique and distinctive mnemonics and are to be described in the Planning Method Statement.

Standard data fields

D 12. Every Activity, Milestone and Level of Effort shall have attributed to it a permanent unique description and alphanumeric Activity ID and shall have available the following standard data fields attributed as relevant

- a. "Design Contributor" coded "DC" and allow 99 separate alpha/numeric identities for each of the following field values to which they relate
 - A: Architect
 - B: Building Surveyor
 - C: Civil Engineer
 - D: Drainage, Highways Engineer
 - E: Electrical Engineer
 - F: Facilities Manager
 - G: Geographical and Land Surveyor

- H: Heating, Ventilation and Air Conditioning Engineer
- I: Interior Designer
- K: Employer
- L: Landscape Architect
- M: Mechanical Engineer
- P: Public Health Engineer
- T: Development Planner
- W: Contractor
- X: Subcontractor or supplier
- Y: Specialist Designer
- Z: General (non-disciplinary)
- J:
- N:
- R:
- U:
- V:

b. "Milestones" coded "MS". Allow for 999 separate alpha/numeric identities for each of the following field values to which they relate

- AD: Access, Sectional Access and possession dates
- CM: Contractor's start and finish dates
- EM: Dates of supply by the Employer
- EW: Dates of Start and Finish of Employer's work
- SD: Sectional and Substantial Completion Dates
- SM: Subcontractors' and suppliers' start and finish dates
- KD: Key Dates
- FS: Date of start of interface
- FF: Date of finish of interface
-:
-:
-:

c. "Section" coded "SE". Allow for 999 separate alpha/numeric values

d. "Subsection" coded "SS". Allow for 999 separate alpha/numeric values

e. "Level" coded "LV". Allow for 999 separate alpha/numeric values

f. "Zone" coded "ZO". Allow for 999 separate alpha/numeric values

g. "Design Element" coded "DE". Allow for alpha/numeric values in accordance with Appendix C, Table 2 and any additional or substituted table

h. "Trade" coded "TR". Allow for 99 separate alpha/numeric identities for each of the

following field values to which they relate

- BRL: Bricklayer
- CAB: Cabinet Maker
- CPT: Carpenter
- CCT: Concretor
- DEC: Decorator
- DRL: Drainlayer
- ELE: Electrical engineering
- EXC: Excavator
- FLO: FLOORER
- FUR: Furniture
- GWK: Groundwork
- HVC: Heating Ventilating and Air Conditioning
- JON: Joiner
- LDS: Landscaper
- MAR: Marine Works
- MAS: Mason
- MEC: Mechanical engineering
- PAV: Pavior
- PLB: Plumber
- PLS: Plasterer
- RIG: Rigger
- ROF: Roofer
- SCA: Scaffolder
- SHP: Shopfitter
- STF: Steelfixer (reinforcement)
- STE: Steel erector (structural)
- TIL: Tiler
- WEL: Welder

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i. "Cost Account" coded "CA". Allow for 999 separate alpha/numeric identities for each of the following field values to which they relate

- CP: Contractor's Plant
- ES: Estimate
- EX: Expenses
- GD: Goods
- LB: Labour
- MT: Material
- EQ: Equipment
- OH: Overheads and Profit

PP: Permanent Plant
PR: Preliminaries
SR: Subcontractor
TW: Temporary Works
TX: Licences, permits, duties and taxes

- j. "Events" coded "EV". Allow for 999 separate alpha/numeric identities for each of the following field values to which they relate
- ECC: Employer's Cost Contingency
 - ECR: Employer's Cost Risk Event
 - ETR: Employer's Time Risk Event
 - ETC: Employer's Time Contingency
 - EEE: Employer's Time and Cost Risk Event
- k. "Contractor's Risks" coded "CR". Allow for 999 separate alpha/numeric identities for each of the following field values to which they relate
- CCC: Contractor's Cost Contingency
 - CCR: Contractor's Cost Risk Event
 - CTR: Contractor's Time Risk Event
 - CTC: Contractor's Time Contingency
 - CEE: Contractor's Time and Cost Risk Event.

Submissions archive

- D 13. Unless the data is automatically maintained in a Common Data Environment, the Time Manager shall archive each submission of the Working Schedule and/or Planning Method Statement with a unique file name, including its Data Date, and shall make and maintain a database of submissions including, but not limited to, the following data fields
- a. The identity of the party making the submission
 - b. The date of the submission
 - c. The nature of the submission
 - d. The name of the submission
 - e. The Data Date of the submission
 - f. The file name of the submission
 - g. The location of the archive of the submission
 - h. The size of the submission in bytes
 - i. The number of Activities in the submission
 - j. Whether accepted, rejected, or conditionally accepted
 - k. The date of decision on the submission
 - l. The date on which the conditions were complied with
 - m. The file name of the decision
 - n. The location of the archive of the decision.

Appendix E – Progress Records

Record categories

- E 1. Progress Records are the historical data of the timing and the resources actually used in the design, procurement and construction of the Works and shall include records of
 - a. Work done,
 - b. Resources used
 - c. Quality control
 - d. Information flow
 - e.
 - f.

Software

- E 2. Progress Records shall be maintained using
 - software
 - version

Cross reference to Working Schedule

- E 3. Progress Records are to be fully cross-referenced to the Working Schedule. Each database record shall have
 - a. A unique data entry identifier
 - b. The date of entry
 - c. The identity of the person entering data
 - d. The reporting period dates, week commencement number and contract week number
 - e. Working Schedule Activity ID
 - f. Working Schedule Activity description.

Submissions

- E 4. The Contractor shall submit to the Time Manager sufficient information as is reasonably necessary to enable the Project Time Manager to check and evaluate the Progress Records.

Design Progress Records

E 5. Where the Contractor is required by the Contract Specification to produce a Contractor's Design, unless specified otherwise in the Contract Specification, for each Business Day from the date of commencement of the Contractor's Design until the Date of Substantial Completion of the Works, the Contractor is to record the production data in the following data fields

- a. In relation to planned design Activity identified on the Working Schedule
 - i. The design speciality
 - ii. The name of the Design Contributor
 - iii. Design Element
 - iv. The Activity description
 - v. The Activity ID
 - vi. The Design Stage or Design Level of Development
 - vii. The date the Activity started
 - viii. The date the Activity finished
 - ix. The name and status of each employee allocated to an Activity in progress and the hours worked by each
 - x. The quantity of work completed
 - xi. The value of work completed
 - xii. If not started as planned, the reason for non-commencement
 - xiii. If the Activity is started, but without progress during the reporting period, the reason for the absence of progress

- b. In relation to a change of, or unplanned design Activity not contemplated on the Working Schedule
 - i. The design speciality
 - ii. The name of the Design Contributor
 - iii. The Design Element
 - iv. The Activity description
 - v. The Activity ID Activity codes
 - vi. The identity of any Event identified in Appendix F which is the direct cause of the unplanned Activity
 - vii. The reason for executing the Activity
 - viii. The Design Stage or Design Level of Development
 - ix. The date the new Activity started
 - xi. The date the new Activity finished
 - xii. The name and status of each employee allocated to an Activity in progress and the hours worked by each
 - xiii. The quantity of work completed

- xiv. The value of work completed
- xv. If started but without progress during the reporting period, the reason for the absence of progress
- xvi.
- xvii.
- xviii.

Production Progress Records

- E 6. For each Business Day from the Start Date until the Date of Substantial Completion of the Works, the Contractor is to record the production data in the following data fields
 - a. In relation to each planned production Activity identified on the Working Schedule
 - i. The Activity description
 - ii. The Activity ID
 - iii. The date the Activity started
 - iv. The date the Activity finished
 - v. The quantity of work completed
 - vi. The value of work completed
 - vii. If not started, the reason for not starting
 - viii. If started but without progress during the reporting period, the reason for the absence of progress
 - ix. The identity of any Subcontractor carrying out the Activity
 - x. The identity of any supplier carrying out the Activity
 - xi. The name and status of each item of labour allocated to an Activity in progress and the hours worked by each
 - xii. The name of each item of Contractor’s Plant allocated to an Activity in progress and the hours worked by each item
 - xiii. Any materials delivered
 - b. In relation to a change of, or unplanned production Activity not contemplated on, the Working Schedule
 - i. The Activity description
 - ii. The Activity ID
 - iii. The identity of any Event identified in Appendix F which is the direct cause of the unplanned Activity
 - iv. The reason for executing the Activity
 - v. The date the new Activity started
 - vi. The date the new Activity finished

- vii. The quantity of work completed
- viii. The value of work completed
- ix. If started but without progress during the reporting period, the reason for the absence of progress
- x. The identity of any Subcontractor carrying out the Activity
- xi. The identity of any supplier carrying out the Activity
- xii. The name and status of each item of labour allocated to an Activity in progress and the hours worked by each
- xiii. The name of each item of Contractor’s Plant allocated to an Activity in progress and the hours worked by each item
- xiv. Any materials delivered for use in connection with the Activity
- xv.
- xvi.
- xvii.

E 7. Information Flow

- a. In relation to Drawings, approvals, information, details or instructions requested
 - i. Activity description
 - ii. Activity ID
 - iii. Unique identifier of the request
 - iv. Description of the request
 - v. Date of the request
 - vi. Date the response is required by
 - vii. Name and status of the person responsible for compiling and/or issuing the request
 - viii. The Activity ID and description of the Activity directly dependent upon the data requested
 - ix.
 - x.
 - xi.

- b. In relation to Drawings, approvals, information, details or instructions supplied
 - i. Activity description
 - ii. Activity ID
 - iii. Unique identifier of the request to which the supply relates, if any
 - iv. Description of the request, if any
 - v. Date of the request, if any
 - vi. Description of the information, Drawings, details or instructions supplied
 - vii. Date of issue of the data
 - viii. Name and status of the person responsible for supplying the data
 - ix. The Activity ID and description of the Activity directly dependent upon the data supplied

- x.
- xi.
- xii.

E 8. Quality Control

a. In relation to quality control:

- i. Activity description
- ii. Activity ID
- iii. Any inspections or tests carried out, including Completion Testing and the result thereof, listing deficiencies identified, together with the corrective action taken or to be taken
- iv. Job safety evaluations
- v. The weather conditions, maximum and minimum temperature, inside and out, at 0800hrs, 1200hrs and 1600hrs and, if night time working, midnight and 0400 hrs
- vi. Photographic records taken
- vii. Any visitors to the Site
- viii.
- ix.
- x.

E 9. Events

a. In relation to unplanned occurrences:

- i. Event Activity description
- ii. Event Activity ID
- iii. Description of the occurrence
- iv. Any standing time, or unproductive resources and the reason for such loss of productivity
- v. The identity of any Event identified in Appendix F, which is the cause of the lost productivity or standing time
- vi.
- vii.
- viii.

Submission archive

E 10. Unless the data is automatically maintained in a Common Data Environment, the Time Manager shall archive each submission of the database of Progress Records with a unique file name, including its Data Date, and shall make and maintain a log of submission including, but not limited to, the following data fields

- a. The identity of the party making the submission
- b. The date of the submission
- c. The file name of the submission

- d. The location of the archive of the submission
- e. The Data Date of the submission
- f. The size of the submission in bytes
- g. The number of records in the submission
- h. The ID of the latest record
- i. The date of entry of the latest record
- j. Whether accepted, rejected, or conditionally accepted
- k. The date of decision on the submission
- l. The file name of the decision
- m. If conditionally accepted, the date of compliance with the conditions
- n. The location of the archive of the decision.

Appendix F – Events

Event No	Event Description	Employer's Time Risk Event	Employer's Cost Risk Event
F1	A Variation instruction	Yes	Yes
F2	An instruction for the expenditure of a Prime Cost or Provisional Sum, other than one for which the Contract Documents require work to be designed or goods or materials to be provided by, or under the direction of, the Contractor	Yes	Yes
F3	Except for an instruction to which Clause 26.8 refers, an instruction to open up and/or investigate any work, goods, materials and/or Permanent Plant and/or to search for defective work, goods, materials and/or Permanent Plant or its cause, or an instruction pursuant to Clause 26.9 where no defect was ultimately discovered	Yes	Yes
F4	An instruction to remedy any factual error in information contained in the Contract Documents other than those to which Clause 3.7.1, Clause 3.7.2 or Clause 3.8 refers	Yes	Yes
F5	Suspension of the Works or any part thereof as a result of the occurrence of an insured risk and/or an instruction to repair or replace the loss of, or damage to, the Works caused by an insured risk	Yes	Yes
F6	An instruction to correct any unstated departure from the Method of Measurement, or any error in description or quantity, or any omission of items from the Bill of Quantities prepared by, or under the direction of, the Employer and upon which the Contractor is permitted to rely	Yes	Yes
F7	The execution of a measured quantity of work that differs by more than 10 per cent from any approximate quantities stated in the Bill of Quantities prepared by, or under the direction of, the Employer and upon which the Contractor is permitted to rely	Yes	Yes

Event No	Event Description	Employer's Time Risk Event	Employer's Cost Risk Event
F8	An instruction to correct any error, omission, inconsistency or ambiguity in a Model provided by the Employer and not caused by a Contractor's Design Contribution	Yes	Yes
F9	An instruction to correct any error, omission, inconsistency or ambiguity in a Model, Working Schedule or Progress Records caused by a defect in software and/or hardware specified by the Employer	Yes	Yes
F10	An instruction issued under Clause 26.4 to defer tests or Completion Testing	Yes	Yes
F11	A failure to make available to the Contractor the necessary parts of the Site on or before the Sectional Access Dates, if any, and/or the Site as a whole on or before the Access Date stated in Appendix B, or the latest Logical Date for Access or Logical Dates for Sectional Access identified in the Working Schedule as accepted from time to time, whichever is the later	Yes	Yes
F12	A failure by the Contract Administrator to provide a response to a request to which Clause 12.1 applies within the time permitted by Clause 12.4	Yes	Yes
F13	An error in any investigation report, data, maps, Drawings, historical records or other information provided by the Employer upon which the Contractor is permitted to rely	Yes	Yes
F14	The suspension of the performance of the Contractor's obligations pursuant to Clause 4.9 or Clause 66.4, or the suspension of the Contractor's obligations, or any part thereof, as a result of instructions issued under Clause 31.1.3	Yes	Yes
F15	An impediment, prevention or default, whether by act or omission, of the Contract Administrator, Employer, Listed Persons, or any person or other contractor appointed by the Employer	Yes	Yes

Event No	Event Description	Employer's Time Risk Event	Employer's Cost Risk Event
F16	The failure of a Statutory Undertaker or Statutory Authority to carry out work required by the relevant region or state, when the Contractor has complied with the procedures required by the Statutory Undertaker or Statutory Authority and the procedures stipulated in the Contract Documents	Yes/No*	Yes/No*
F17	Suspension of the Works or any part thereof as a result of an order, or other act of a Court or Statutory Authority exercising authority under Applicable Law, or failure to act in accordance with Applicable Law, or a change in interpretation of Applicable Law, by such Court or Statutory Authority	Yes/No*	Yes/No*
F18	Suspension of the Works or any part thereof as a result of a strike or lockout affecting the suspended part of the Works	Yes/No*	Yes/No*
F19	Suspension of the Works or any part thereof as a result of civil commotion, or the use or threat of terrorism and/or of the activities of the relevant authorities in dealing with such an event or threat affecting the suspended part of the Works	Yes/No*	Yes/No*
F20	Suspension of the Works or any part thereof as a result of the discovery of Unforeseeable Conditions	Yes/No*	Yes/No*
F21	Suspension of the Works or any part thereof as a result of the discovery of a Finding, other than those described in the Contract Specification	Yes/No*	Yes/No*
F22	Suspension of the Works or any part thereof as a result of the occurrence of climatic conditions more adverse than the Predicted Climatic Conditions	Yes/No*	Yes/No*
F23	Suspension of the Works or any part thereof as a result of any event outside the control of both the Employer and the Contractor	Yes/No*	Yes/No*

**Delete whichever is inapplicable (if not stated, shall be deemed to be at the Employer's risk).*

Event No	Event Description	Employer's Time Risk Event	Employer's Cost Risk Event
F24		Yes/No*	Yes/No*
F25		Yes/No*	Yes/No*
F26		Yes/No*	Yes/No*
F27		Yes/No*	Yes/No*
F28		Yes/No*	Yes/No*
F29		Yes/No*	Yes/No*
F30		Yes/No*	Yes/No*
F31		Yes/No*	Yes/No*
F32		Yes/No*	Yes/No*
F33		Yes/No*	Yes/No*
F34		Yes/No*	Yes/No*

**Describe the risk and delete whichever is inapplicable (if not described and stated, shall be deemed not to apply).*

Appendix G – Issue Resolution

Purpose

- G 1. The purpose of Issue Resolution is to assist the parties in the management of their risks in executing the Works and to reduce the possibility of formal dispute resolution proceedings. Accordingly, the Principal Expert must issue its Determination on the basis of its own investigations and shall not be limited by the submissions of the parties.

Questions

- G 2. For each Issue, the Principal Expert must give its Determination on the following questions (to the extent that they are applicable to the Issue)
- 2.1. Whether the Contractor's submission properly conforms to the Contract and if not, with which term or terms of the Contract is it not in conformance?
 - 2.2. Whether the rejection of the submission, valuation, or measurement, if any, was proper in the circumstances?
 - 2.3. Whether the conditions applied to acceptance, if any, would properly have rendered the submission, valuation, or measurement not in conformance with the Contract?
 - 2.4. Whether the conditions applied to acceptance, if any, amount to a Variation of the Contract?
 - 2.5. Whether and, if so, what other conditions should reasonably be applied to acceptance?
 - 2.6. Any other questions identified or required by the parties, having regard to the nature of the Issue.

Submissions

- G 3. The procedure for submissions to the Principal Expert is as follows
- 3.1. The referring party must make a submission in respect of the Issue, with its notice under Clause 73.1

- 3.2. All submissions, responses, replies, requests and comments must be in writing and served electronically in accordance with the File Transfer Protocol or, if none has been agreed prior to the Issue arising, then by email. If a party to the Contract gives information to the Principal Expert, it must at the same time give a copy to the other party. All documents to be copied to either party under this procedure must be sent to the relevant person.
- 3.3. The other party must respond within 5 Business Days after receiving a copy of that notice and submission, or such longer period as the other party may reasonably require, having regard to the nature and complexity of the issue and the volume of the submission. If the parties do not agree on such requested extended period, the Principal Expert will promptly determine any extra time that may reasonably be permitted, bearing in mind the complexity and seriousness of the Issue in relation to the competent management of risk and the progress of the Works.

Consultation with other experts

- G 4. Having regard to the nature of the issue referred and the expert knowledge reasonably required for the Issue Resolution, the Principal Expert shall consult with such other experts as are necessary.

Further information

- G 5. The Principal Expert may request further information from either party, to be provided within a time limit. The Principal Expert must send a copy of the request and the response to the other party, and give the other party a reasonable opportunity to comment upon the response.

Conference

- G 6. The Principal Expert may request a conference with the parties to the Contract and any other of the Listed Persons and any other expert who, in its absolute discretion, the Principal Expert deems appropriate. The request must identify an agenda setting out the matters to be discussed.

Status

- G 7. The Principal Expert shall act as an expert and not as an arbitrator or adjudicator.

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1 Arlington Square
Downshire Way
Bracknell
Berkshire
RG12 1WA
United Kingdom

T: + 44 (0) 1344 630 700
F: + 44 (0) 1344 306 430
W: www.ciob.org