



## **GUIDANCE NOTE**

**NEC4 (Engineering and Construction  
Contract June 2017)**

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### **INFORMATION MANAGEMENT CLAUSE**

**Including requirements for a security-minded  
information management approach**





## GUIDANCE NOTE

### Information Management Clause

#### Including requirements for a security-minded information management approach

NEC4 contracts can be used for purchases such as the design, construction, refurbishment and decommissioning of buildings, structures, process plants and infrastructure. Projects being procured under any NEC4 main contract or subcontract which include an information management (IM) element, will need to include NEC4 Option X10 (Information Modelling).

The document contains:

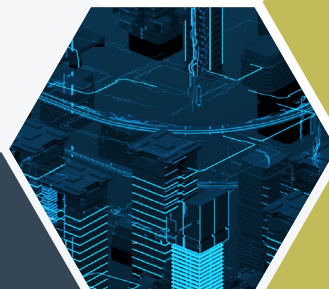
1. Background information on the IM Clause;
2. A detailed commentary to support an understanding and correct use of the provisions;
3. Issues to consider when preparing the contract;
4. The provisions to be inserted into the Scope in the section dealing with Information Management when:
  - Secondary Option X10 (Information Modelling) is used; and
  - The Construction Industry Council (CIC) BIM Protocol is used in addition to Option X10; and
5. Suggested amendments to Secondary Option X10

This document is intended for use by an organisation's procurement team, liaising with the legal team as required.



## 1. Background


- 1.1 The UK BIM Framework in conjunction with the CIC has published an Information Protocol for use with BS EN ISO 19650-2:2012 (the Protocol). The Protocol draws together into one document the contractual requirements to be observed by the parties following BS EN ISO 19650-2.
- 1.2 Option X10 does not have to use the Protocol (or any information protocol) since it incorporates all the required information in the *Client's* Information Model Requirements in the Scope (the *Client's* requirements) and the *Contractor's* Information Execution Plan. It is however recommended that the *Client* includes the Protocol in the contract documents given that it deals with the legal and contractual aspects of the ISO process and so provides more clarity and certainty for the parties in that respect.
- 1.3 To assist parties who want to use the Protocol with Option X10, the NEC issued Practice Note 6 (PN6) in 2020.
- 1.4 PN6 includes a draft of wording to be inserted into the Scope referred to as a “model Scope entry”.
- 1.5 This IM clause builds upon the PN6 model Scope entry to introduce additional references to interoperability, the Construction Playbook and the security minded approach to digital assets. It is aligned with principles set out in the Information Management Mandate (which can be found in Annex B of Transforming Infrastructure Performance: Roadmap to 2030) (TIP) and the UK BIM Framework.





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## 2. Detailed commentary

- 2.1** Paragraphs 1 and 4 to 6 reproduce the content of the existing model Scope entry in PN6. They incorporate the Protocol into the NEC4 contract. Paragraph 3 is a slightly modified version of the equivalent paragraph in PN6 which reflects the addition of the Standards in the IM clause.
- 2.2** Paragraph 2 introduces the Standards. These are the standards relevant to the use and application of IM current at the date of the contract and as may be updated from time to time. They include standards relevant to the operational as well as the delivery stage of the asset.
- 2.3** Paragraph 7 is intended to standardise the way in which information provided by the parties to each other and generated throughout the project is delivered and maintained. It deals with interoperability, the Construction Playbook and the security minded approach to assets.
- 2.4** Interoperability is defined as: *the ability of two or more systems to exchange information securely and to use the information that has been exchanged*. Further detail in relation to the importance of interoperability can be found in the [BIEG Report](#).
- 2.5** The first bullet point in paragraph 7 requires classification of the information using the [Uniclass](#) classification system.
- 2.6** The second bullet point is concerned with how information is delivered throughout the project using BS 1192-4 (COBie); specifying that delivery of geometrical information is in proprietary and open formats, alphanumerical information and all documentation must be made available in open format, and documentation must also be supplied in its native format. Consequently the default position as set out here requires the delivery of information in duplicate formats but it is open to the parties to agree a different requirement if they choose. Whatever is agreed it is important that information is available at the very least in open data formats.
- 2.7** The third bullet point confirms that in accordance with Construction Playbook principles the *Client's* information requirements must be outcome-based, focused on whole life value, performance and cost. See pages 20 and 24 of the Construction Playbook.
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## 2. Detailed commentary (cont.)

- 2.8 The fourth bullet point reinforces the need to maintain data quality by incorporating the requirements set out in BS ISO 8000-8.
- 2.9 The final bullet point deals with the carrying out of a sensitivity assessment and security triage process as described in BS EN ISO 19650-5. These exercises should always be carried out to establish whether there is a need to adopt a security-minded approach to the project or, even if it is decided that there is not, whether the project would benefit from such an approach.
- 2.10 If the contract is being let under a framework arrangement, clause 8 confirms that certain obligations in relation to information standards and information production, methods and procedures should be part of the framework agreement itself, leaving the more project-specific aspects to be covered in the relevant contract.
- 2.11 The final part of the guide contains some suggested amendments to secondary Option X10 itself in certain circumstances as indicated in the sections in square brackets and in bold.



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### 3. Issues to consider when preparing the contract

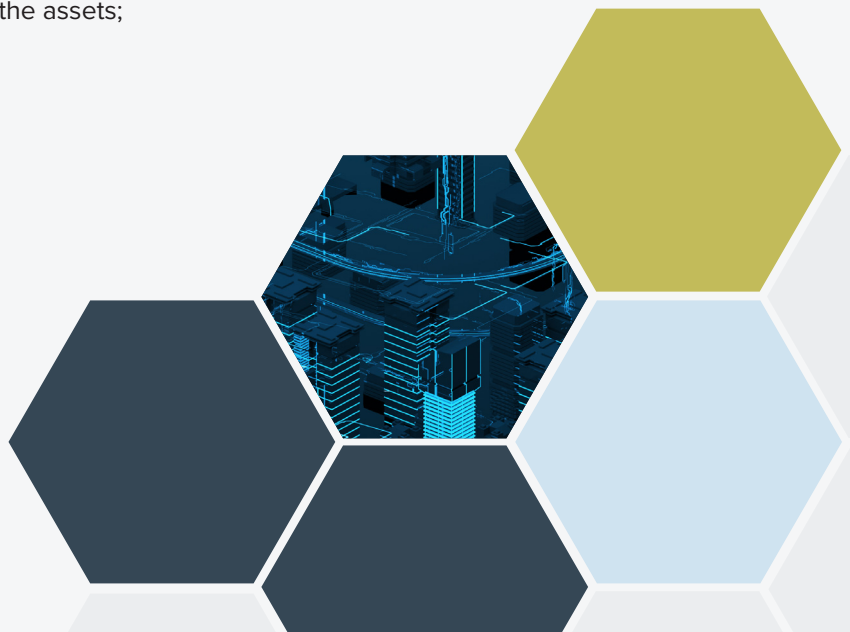
- 3.1 The NEC4 Design/Build/Operate contract includes an implied obligation that the Information Model has to be fit for purpose. The parties will need to address this either by expressly agreeing to a lower standard or by the *Contractor* obtaining appropriate insurance cover, if possible.
- 3.2 Option X10 as drafted does not deal with the position where there is a defect in the Project Information which is not caused by the *Contractor's* negligence (see clauses X.10.7 (1) and (2)). The parties will need to agree who bears the risk in the event such a defect arises. In the absence of agreement this will be the *Client's* risk.
- 3.3 The production of information in accordance with BS EN ISO 19650-2 continues throughout the delivery phase. Consequently, the *Client* must decide what information it will include in the Information Model Requirements at the Contract Date. Any subsequent change or addition to such information will be a Compensation Event. Alternatively, the *Client* and the *Contractor* may agree that certain information (such as the Master Information Delivery Plan) can be added and/or updated after the Contract Date without being treated as a Compensation Event (to the extent that it does not impact on other obligations in the contract). This is an issue that must be dealt with on a project-by-project basis.
- 3.4 The IM clause should be reviewed when first used and every six months thereafter to ensure that the various standards and regulations referred to in the clause and this accompanying Guidance Note are still in force and have not been superseded, requiring the clause and/or the note to be updated.



## 4. The provisions

### Information Management and Model Requirements

1. The “Protocol” is the edition of the Information Protocol to support BS EN ISO 19650-2 current as at the date of this contract as published by UK BIM Framework in association with the Construction Industry Council (CIC).
2. The Standards are as follows:
  - BS EN ISO 19650-1: organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - information management using building information modelling: concepts and principles;
  - BS EN ISO 19650-2: organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) - information management using building information modelling: delivery phase of the assets;
  - BS EN ISO 19650-3: organisation and digitization of information about buildings and civil engineering works, including building information modelling (BIM) – information management using building information modelling: operational phase of the assets;
  - BS EN ISO 19650-5: organisation and digitization of information about buildings and civil engineering works, including building information modelling (BIM) – information management using building information modelling: security-minded approach to information management;
  - BS 1192-4: collaborative production of information: fulfilling employer’s information exchange requirements using COBie – code of practice;
  - PAS1192-6: specification for collaborative sharing and use of structured health and safety information using BIM;
  - BS 8356 Parts 1 and 2: adopting a systematic approach and using data and documentation to help ensure design takes into account the expected use of an asset during its entire lifetime;
  - any other standards which support Information Management notified to the *Contractor*;and any amendments to, re-publication of or replacement of any or all of these Standards.



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### 4. The provisions (cont.)

#### Information Management and Model Requirements

3. The *Client* and the *Contractor* comply with the Protocol and the relevant Standards current as at the date of this contract.
4. The following terms in the Protocol mean the equivalent term given in the contract:

Term in the Protocol	Equivalent Term in ECC
Material	Project Information (if provided by the <i>Contractor</i> )
Federated Information Model	Information Model
Lead Appointed Party, Appointor(s), Appointee(s)	Information Providers
BIM Execution Plan	Information Execution Plan
Works	<i>works</i>

5. Any notice, instruction or acceptance to be given by the *Client* is given by the *Project Manager*.
6. The Information Model Requirements are contained in *[location of documents containing the IMR]*.
7. The Information Model Requirements, the information execution plan and the Project Information are provided in accordance with the following criteria:

- Information is classified to Uniclass.
- All information is delivered using:
  - geometrical information (including 3D models) in proprietary formats and open data formats and
  - alphanumerical information in open data formats structured in accordance with BS 1192-4 and
  - documentation in native and open data formats.
- The *Client's* schedules of information requirements included in the Information Model Requirements are outcome-based and not output-based.
- Reviews of Works incorporate the requirements in BS ISO 8000-8 with the aim of ensuring data quality.
- If following the carrying out of a sensitivity assessment and the security triage process pursuant to Clause 4 of BS EN ISO 19650-5 it is established that there is a need for a security-minded approach, all information is generated, processed and managed in accordance with the specified policies and processes developed in line with the requirements of Clauses 5 to 9 of BS EN ISO 19650-5.

*[If the contract is let under a framework arrangement add the following clause:*

8. Information standards and information production, methods and procedures are contained in *[location]* of the Framework Agreement between the *Client* and the *Contractor* dated [        ].]



## 5. Guidance

### Suggested amendments to Secondary Option X10

**X10.4(4)** After “Project Information” insert “and The Information Model”.

**[NOTE: to be amended if the *Contractor/Consultant* is responsible for providing the overall model.]**

**X10.6** After “Information Model” in line 1 insert “and any [Intellectual Property Rights] in the Information Model”.

**[NOTE: IP provision to tie in with contract definitions.]**

In line 3 after “information” insert “and models”.

At the end of the clause insert “within 14 days of Completion.”

**[NOTE: the last amendment will depend on whether the model is to be utilised during the operational phase.]**

**X10.7(1)** Delete.

**[NOTE: Where this is in a D&B contract and the *Contractor* is responsible for delivering a working model then delete this clause: it would not be reasonable to expect the *Client* to take liability for faults in the model or information provided by information providers who are part of the contractor’s team.]**



