

PHILIPLEE

Contract Awareness with the Adoption of BIM: What workplaces need to know

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Presented by Hugh Cummins, Senior Associate, Philip Lee
(hcummins@philiplee.ie)



Introduction

- BIM in Ireland – current status
- CIC BIM Protocol
 - Employer obligations
 - Professional team obligations
 - Use of models
 - BIM liability
- Legal issues
- Legal benefits



BIM in Ireland

- Professional Appointments
 - IEI
 - RIAI
 - SCS
- No provision for BIM!



BIM in Ireland

- Works Contracts

- RIAI
- IEI
- Public Works Contracts
 - GCCC review of PWC
 - Interim recommendations – no BIM
 - Medium term strategy – desire to incorporate BIM
 - Opportunity to introduce BIM!



BIM in Ireland

- **New Procurement Directive 2014/24/EU**
 - Transposition into Irish law – March 2016
 - Article 22(4) - Member States “may require use of” BIM
- **Where are we relative to UK?**
 - UK Construction Strategy 2011
 - Mandates use of BIM Level 2 on all public projects by 2016
 - Ireland is lagging behind!

BIM in Ireland

- What can we do?
 - Incorporation of BIM Protocol
 - Onus on employers (until mandated)



CIC BIM Protocol

- What is it?
 - Protocol commissioned by Construction Industry Council in response to UK BIM Strategy 2011
 - Supports BIM Level 2
 - Stated objectives:
 - *Enable the production of Building Information Models at defined stages of a project*
 - *Appointment of Information Manager*
 - *Support the adoption of effective collaborative working practices in Project Teams*

CIC BIM Protocol

- How can we incorporate it into contracts/appointments?
 - Simple enabling clause
 - Append Protocol (amended if necessary)
 - Must incorporate into all project documents!
 - Design and build – consider in context of novation (if only some being novated)
 - Sub-contracts

CIC BIM Protocol

- Terms of protocol prevail
 - Priority of Contract Documents
 - Terms of Protocol prevail
- Contract Document
 - Take care!!
 - Conflict with existing clauses (e.g. IP, delivery of documents) giving rise to unintended consequences



CIC BIM Protocol

Contents:

1. Definitions
2. Priority of Contract Documents
- 3. Obligations of the Employer**
- 4. Obligations of the Project Team Member**
5. Electronic Data Exchange
- 6. Use of Models**
7. Liability in Respect of a Model
8. Termination
 - Appendix 1
 - Appendix 2

Clause 3 - Obligations of the Employer

- Ensure that the protocol is incorporated in all project documents
 - Works contracts
 - Design appointments



Clause 3 - Obligations of the Employer (continued)

- Appointment of Information Manager
 - Standalone appointment or combine with other role (e.g. architect)?
 - Duties – manage Information Requirements
 - No design related duties!
 - Differs from design lead
 - Continuity – contractor to assume role during works?

Clause 4 - Obligations of the Project Team Member

- Produce the Specified Models
 - level of detail in Model Production and Delivery Timetable (MPDT)
 - required level of skill and care under agreement
- Deliver models (reasonable endeavours):
 - to level of detail in MPDT; and
 - at stage specified in MPDT

Clause 4 - Obligations of the Project Team Member (continued)

- Reasonable endeavours obligation to:
 - Use Project Team Models in accordance with any procedures in Information Requirements
 - Comply with Information Requirements
- Incorporate into any sub-contracts!
 - Project team member risk



Clause 6 - Use of Models

- Intellectual Property
 - Priority over existing clauses; or
 - Incorporates clauses if none



Clause 6 - Use of Models (Continued)

- Copyright licence from Project Team Member to Employer
 - In respect of the Material
 - Non-exclusive
 - Sub-licence if any rights in Material owned by third parties
 - Transmit, copy, use Material for “Permitted Purpose”
(construction, operation, maintenance of project)
 - Revocation for non payment – only to extent already provided for in Agreement

Clause 6 - Use of Models (Continued)

- Copyright sub-licence from Employer to Project Team Member
 - In respect of;
 - Material forming part of Specified Models provided by Employer
 - Project Team Models
 - Federated Model
 - Any proprietary work contained in the above
 - Non-exclusive
 - Transmit, copy, use for Permitted Purpose

Clause 6 - Use of Models (Continued)

- Copyright licence from Employer to Project Team Member
 - Where Employer owns items listed above
- Carve-outs from licences
 - Amendment/modification without written consent
 - Reproduction of proprietary work in the Material for the extension of project

BIM Liability

- **Clause 5:** No liability of Project Team Member for corruption if Electronic Data after transmission
- **Clause 7:** Liability in respect of Model:
 - No liability of Project Team Member in respect of any modification or amendment of the Material by others
 - No liability of Employer in respect of:
 - Material forming part of Specified Models provided by Employer
 - Project Team Models
 - Federated Model

Model Production & Delivery Table

Speelmen Production and Delivery Table for BIM Protocol user Guide

	Drop 1 Stage 1		Drop 2a Stage 2		Drop 2b Stage 2		Drop 3 Stage 3		Drop 4 Stage 6	
	Model Originator	Level of Detail	Model Originator	Level of Detail	Model Originator	Level of Detail	Model Originator	Level of Detail	Model Originator	Level of Detail
Overall form and content										
Space planning	Architect	1	Architect	2	Contractor	2	Contractor	3	Contractor	6
Site and context	Architect	1	Architect	2	Contractor	2	Contractor	3	Contractor	6
Surveys							Contractor	3		
External form and appearance			Architect	2	Contractor	2	Contractor	3	Contractor	6
Building and site sections					Contractor	2	Contractor	3	Contractor	6
Internal layouts					Contractor	2	Contractor	3	Contractor	6
Design strategies										
Fire			Architect	2	Contractor	2	Contractor	3	Contractor	6
Physical security			Architect	2	Contractor	2	Contractor	3	Contractor	6
Disabled access			Architect	2	Contractor	2	Contractor	3	Contractor	6
Maintenance access			Architect	2	Contractor	2	Contractor	3	Contractor	6
BREEAM					Contractor	2	Contractor	3	Contractor	6
Performance										
Building	Architect	1	Architect	2	Contractor	2	Contractor	3		
Structural	Architect	1	Str Eng	2	Contractor	2	Contractor	3		
MEP systems	Architect	1	MEP Eng	2	Contractor	2	Contractor	3		
Regulation compliance analysis							Contractor	3	Contractor	6
Thermal Simulation							Contractor	3	Contractor	6
Sustainability Analysis							Contractor	3	Contractor	6
Acoustic analysis							Contractor	3	Contractor	6
4D Programming Analysis										
5D Cost Analysis										
Services Commissioning							Contractor	3	Contractor	6
Elements, materials components										
Building			Architect	2	Contractor	2	Contractor	3	Contractor	6
Specifications			MEP Eng	2	Contractor	2	Contractor	3	Contractor	6
MEP systems					Contractor	2	Contractor	3	Contractor	6
Construction proposals										
Phasing							Contractor	3		
Site access							Contractor	3		
Site set-up							Contractor	3		
Health and safety										
Design							Contractor	3		
Construction							Contractor	3		
Operation									Contractor	6

LOD definitions (from PAS 1192)

- 1 Brief
- 2 Concept
- 3 Developed Design
- 4 Production
- 5 Installation
- 6 As constructed
- 7 In use

Stage definitions (from APM)

- 0 Strategy
- 1 Brief
- 2 Concept
- 3 Definition
- 4 Design (production information)
- 5 Build & Commission
- 6 Handover & Closeout
- 7 Operation and end of life

Model Originators identified by name

Appendix 2: Information Requirements

- Parties may choose appropriate standards
- Name and details of Information Manager
- Sets out:
 - Common Data Environment
 - Software to develop Models
 - File formats
 - File numbering/naming system

Information Requirements

1. Standards

The following standard(s) shall apply: _____

2. Parties

2.1 The parties involved in the Project are:

2.2 The role of Information Manager shall be performed by the following person or persons for the following stages:

<i>Stages</i>	<i>Person</i>
_____	_____
_____	_____

3. Employer's Information Requirements

3.1 The Common Data Environment shall be _____

3.2 The Models shall be developed using the following versions of the following software:

3.3 The Models shall be delivered by the persons listed below in the following formats:

<i>Person</i>	<i>File format</i>
_____	_____

3.4 Files and layers shall be named and numbered in accordance with

3.5 The following units, annotation, dimensions, abbreviations and symbols shall be used in developing a Model

3.6 The following co-ordinate system shall be used

3.7 The zoning requirements are as follows

3.8 Data drops shall take place in accordance with the [Employer's Information Requirements/ Execution Plan]. To the extent that the [Employer's Information Requirements/Execution Plan] requires a particular piece of information to be extracted from a Model in more than one format at any particular Stage, all such formats shall be extracted from the same Model.

4. Project Procedures

4.1 The following protocols/procedures shall apply to the Project:

- 4.1.1 Spatial Co-ordination protocol;
- 4.1.2 Model approval/information exchange protocol;
- 4.1.3 Archiving procedures;
- 4.1.4 Security requirements and access rights procedures;
- 4.1.5 [Other]

4.2 Resolution of conflicts

specify any circumstances in which information extracted from a Model will take precedence over the Model.

BIM – Legal Issues

- Care with incorporation
- Consistency of Protocol with underlying contract
 - IP (in particular)
 - Information delivery/production
- Terms of Protocol prevail over contract
- Must be incorporated in the same manner, to the same standards across all documents
- Novation of design appointments

BIM – Legal Benefits

- Reduction in disputes
 - Greater collaboration, partnership approach
 - clear, detailed information delivered at defined stages
- Easy to incorporate into existing contracts/appointments
 - For BIM Level 2
 - No need for ‘horizontal’ arrangements
- Early clash detection – should result in less claims

Thank you!



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PHILIPLEE

philiplee.ie
info@philiplee.ie



DUBLIN

7/8 Wilton Terrace
Dublin 2
Ireland

T: +353 (0)1 237 3700

F: +353 (0)1 678 7794

BRUSSELS

39 Rue des Deux Eglises
1000 Brussels
Belgium

T: +32 (0) 2 640 3890

F: +32 (0) 2 648 2279

SAN FRANCISCO

201 Spear St.
Suite 1100
San Francisco
CA 94105

T: +1 415 213 2836