

Building Information Modelling Core Brief (232)



Government
of South Australia
Department for Infrastructure
and Transport

BIM – Core Brief

Project Details

Project Name	
Lead Agency	
Project Address	

Purpose

This Building Information Modelling (BIM) Core Brief is to define DIT and Lead Agency requirements for the use of core BIM requirements on simple non-complex building projects.

Application

This brief must be read in conjunction with the detailed BIM requirements outlined in the Building Information Modelling Requirements (G168), the National Specification System of Australia (NATSPEC) [National BIM Guide](#), the professional services contract and its associated briefing documents.

The lead professional service contractors (PSC) shall follow the guidelines and requirements detailed in this document and DIT Building Information Modelling Requirements (G168) when delivering BIM related services.

This Core BIM Brief forms part of the invitation to tender documentation and is to be read in conjunction with the Project Conditions of Contract and other relevant briefing documents.

BIM Execution Plan (BEP)

An outline BIM execution plan (BEP) based on the NATSPEC BIM execution plan template simplified summary shall be prepared by the Lead PSC for the project. The BEP shall:

- Describe how **the** project BIM requirements will be executed, monitored and controlled within a common data environment (CDE) to meet the requirements of the BIM Brief, and
- Comply with Australian Standard AS ISO 19650: 1 and 2 - Part 1 throughout the design and documentation phases of the project.

The BEP shall be reviewed and updated with input from the Construction Contractor (C) to form the Construction BEP for the Construction and Project Completion Phase of the project.

BIM Project Team

All roles and responsibilities shall be assigned to the relevant Lead PSC, DPSC and Construction project team members as identified in the BEP issued by the Lead PSC to achieve the BIM deliverables noted within this document. The BEP along with any variation to the requirements of the BIM Core Brief is required to be submitted to DIT for review and approval as noted in DIT Project Review (G29) guidenote.

Uses for BIM on the Project

The following uses of BIM are required and shall apply to the DIT Capital Works projects noted as Core BIM requirements. The clause numbers referenced in the Project Core Bim Uses Table correspond to the relevant clauses in DIT Building Information Modelling Requirements (G168).

The BIM requirements apply to all new building and associated siteworks and any areas of refurbished works.

Project Core BIM Uses Table

Required Yes/No	Use of BIM	BIM Requirements Clause No.
Yes	Architectural (includes 3D base model) Spatial and Material Design Models and Design Visualisation for Communication and Functional Analysis	8.1
Yes	Structural Engineering (including seismic bracing if required for NCC compliance)	8.2
Yes	Mechanical Systems (new and refurbished areas only) including all mechanical equipment and plant with required maintenance access hatches and clearances	8.3
Yes	Electrical Systems (new and refurbished areas only) including fittings, equipment and cable trays, lighting internal and external, Wireless networks A/V, and Hearing augmentation systems as required	8.4
Yes	Hydraulic and Fire Protection (new and refurbished areas only)	8.5
Yes	Specialist Equipment (lifts, commercial kitchen)	8.6
Yes	Civil Engineering (only for areas affected by the proposed works)	8.7
Yes	Existing Conditions including surrounding infrastructure and buildings affected by the new works	8.8
Yes	Project Brief and Space Validation (verification of project brief, accommodation area schedule from 3D Model)	8.9
Yes	Clash Detection/Conflict Coordination including existing equipment and building services affected by the proposed works)	8.10
Yes	Energy Modelling (3D Base model and data for NCC Section J compliance)	8.11
Yes	Topographic and Property Line surveying	8.12
Yes	Acoustic Modelling utilizing 3D base Models	8.13
Yes	Asset Information Model Review (As required as part of the Completion Documents for Practical Completion/Handover/Commissioning Systems)	8.17 12.1-12.3
Yes	FM Information Handover/Commissioning Systems including:	12.3

BIM Project Collaboration

The BEP shall define the collaboration and communication strategy for each BIM delivery stage for the project, including communication methodology, protocols, design coordination processes and information exchange meetings.

BIM Deliverables

The following table defines the BIM deliverables and the required Level of Development (LOD) of model elements for submission to DIT for review at the completion of each project stage.

BIM Deliverable Table.

Project Phase	Associate use of BIM	LOD	By	For	Format	BIM Requirements clause no
Concept (Part 1)	Conceptual and Presentation 3D Model	100-200	LPSC	Review	IFC & 3D BIM Viewer	8.1 to 8.11 inclusive
Design (Part 2A) (60% documentation stage)	Detail Design Development 3D Model	200+	LPSC	Review	IFC, rvt & 3D BIM Viewer	8.1 to 8.11 inclusive
Documentation Part 2B (90% documentation stage)	Coordinated Final Detailed 3D Model	300	LPSC	Review	IFC, rvt & 3D BIM Viewer	8.1 to 8.11 inclusive
Construction (Part 3)	Project Information Model	300+	C	Review	IFC, rvt & 3D BIM Viewer	12.1 12.2
Practical Completion	Project Information Model	300+	LPSC / C	Review	IFC, rvt & 3D BIM Viewer	12.3
Handover Asset Information Model	Asset Information Model	300+	LPSC / C	Review	IFC, rvt & 3D BIM Viewer	12.3

Level of Development (LOD) Definitions

The Level of Development (LOD) as noted in the above table is based on the BIM Forum - Level of Development Specification (current edition).

The BIM Forum Level of Development Specification includes descriptions of the Level of Development referenced in the BIM Deliverables Table above with more detailed information for each model element.

Refer also to G168 for further description of LOD requirements.

BIM Project Reviews

As part of the DIT project review process, a current BIM Status Reports is to be submitted as evidence of the completion of the BIM deliverable at each project Phase in accordance with Project Review (G29) requirements.

Record Documents

Prior to the date of practical completion (or the equivalent) of the construction contract, the LPSC shall review the Construction Contractor supplied Project Information Model (rvt / ) compliant file (per discipline) including all pdf and dwg files in accordance with DIT amended NATSPEC worksection 0171, Completion Requirements for Building Projects guidenote (G182) and Electronic Documents Requirements (G65) guidenote for issue as an Asset Information Model (AIM) as part of the record documents.

Reference Documents

The following reference documents are available for download from the Building Project Information (BPIMS) website.

- Building Information Requirements (G168)
- Electronic Documents Requirements (G65)
- Completion Requirements for Building Projects (G182)
- Project Review (G29)

National BIM Guide Documents are available from the NATSPEC Building Information Modelling Portal at <https://bim.natspec.org/>.

All other reference documents required for the project, including version, shall be agreed by the BIM team members and referenced in the BEP.

Contact

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