



Llywodraeth Cymru
Welsh Government

Template Project BIM Agreement

(Standard Form Version 1.1)

Background Note

The purpose of the Project BIM Agreement is to set out how WEPCo and the Participants will collaborate together in relation to the BIM environment and fulfil all roles and responsibilities identified in that context.

The Project BIM Agreement

- outlines the BIM strategy for the delivery of all new Projects from the point at which a New Project Request is raised to Handback of the project back to the Authority;
- describes the process to be followed to achieve the key objectives and aspirations of Welsh Government in achieving BIM Level 2 compliance; and
- sets out the requirements and responsibilities of each of the parties, namely the Participant/Authority, WEPCo and ProjectCo.

The Project BIM Agreement is further complemented by the BIM Protocol which is to be adopted on all Projects and with which the parties to the Project Agreement shall comply. The BIM Protocol is a contractually binding document and shall be incorporated into the Project Agreement (at schedule 30 to the Project Agreement) and cascaded by ProjectCo down the sub-contract chain. All of the parties responsibilities in relation to BIM during the construction and operation of a Project are to be contained within the BIM Protocol and are to be enforced in accordance with the terms of the Project Agreement.

This Project BIM Agreement has been drafted on the basis that:

- the roles and responsibilities of the Participant/Authority, WEPCo and ProjectCo have been identified for each stage of a New Project;
- once ProjectCo and Authority enter into the Project Agreement, all BIM obligations will be transferred from WEPCo to ProjectCo¹;
- the creation of digital information management processes across the WEP Strategic Partnering delivery model will maintain consistency in information delivery throughout the term of (a) the Strategic Partnering Agreement; and (b) all Project Agreements.

¹ The transfer of BIM obligations from WEPCo to ProjectCo and the practicalities associated with this transfer is a key issue to be dialogued on with bidders.

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Definitions

Authority – the Local Authority or Further Education Institution who enters into a Project Agreement with ProjectCo. (also referred to as the ‘Participant’ under the Strategic Partnering Agreement up until the Project Agreement is executed).

Authority Information Manager – a joint appointment between the Authority and ProjectCo to undertake the duties detailed in the BIM Protocol;

Asset Information Requirements (AIRs) – Information relating to an operational phase of an asset;

BIM Execution Plan (BEP) – an execution plan prepared by WEPCo in response to the Participant’s/Authority’s Information Requirements (PAIRs);

BIM Protocol – sets out contractual requirements [between the Participant/Authority and ProjectCo relating to the production of design and construction information and documents and the rights of parties to use the information and documents;

Built Asset Security Management Plan (BASMP) – the plan developed for the lifecycle of the built asset derived from the Built Asset Security Strategy which includes appropriate consideration of the people, process, physical and technological aspects of the built asset, the related asset information and building related systems;

Built Asset Security Manager (BASM) - the individual appointed by the Participant undertaking the role of security management;

Built Asset Security Strategy (BASS) - the security strategy, risk assessment and mitigation plan which includes a record of the security requirements determined by a security triage process, details of who need to be informed about residual risks and how the strategy itself should be reviewed and updated;

COBie - Construction Operations Buildings Information Exchange. A specific, defined structure for the collection of asset data relating to its construction, installation, operation and maintenance requirements which generates data through the construction process into an asset management system and process;

Common Data Environment (CDE) – a secure, structured and managed platform used for storing, managing and sharing information

Data Drop (Milestone) - a formal information exchange enabling project to progress to the next stage or through a gateway. The following ‘standardised’ data drops will be adopted for all New Projects:

- DATA DROP 1 – ‘STAGE 1’ SUBMISSION
- DATA DROP 2 – ‘PLANNING APPLICATION’ SUBMISSION
- DATA DROP 3 – ‘STAGE 2’ SUBMISSION
- DATA DROP 4 – ‘APPROVED FOR CONSTRUCTION’ SUBMISSION
- DATA DROP 5 – ‘AS-BUILT’ SUBMISSION
- DATA DROP 6 – ‘HAND-BACK’ SUBMISSION

Additional Data Drops may be required on a Project-specific basis and could include:

- Medium and High Value Changes

- Low Value Changes if they directly impact on the facility's operation, security and/ or safety (e.g. affect the circulation, fire compartmentation, escape routes, escape strategies, occupancy, access points)
- Low Value Changes (other than those outlined above) to be updated on an annual basis or part of a 'catch up' with a Medium Value Change or High Value Change Data Drop.

Handback – the handback of the facilities to the Authority on expiry of the Project Agreement.

Information Delivery Plan (IDP) – a structured plan drafted by the Participant setting out all the information to be delivered during the briefing, design and construction phases of a project which includes details of the required format of the information, the Data Drops and the level of definition;

Information Standards – industry standards required to be adopted to enable the delivery of BIM Level 2 projects;

Information Manager – the information manager appointed by the Participant to represent the Participant and undertake the duties detailed in the BIM Protocol;

Master Information Delivery Plan (MIDP) – all the Task Information Delivery Plans together with a schedule of all model, data and information deliverables for a project prepared by WEPCo in response to the Information Delivery Plan which identifies the party responsible for development and delivery of the related files, the level of detail and level of information required and when the deliverables will be generated;

Milestone (Data Drop) - the formal information exchange enabling the project to progress to the next stage or through a gateway;

New Project – has the meaning given in the Strategic Partnering Agreement.

New Project Request – has the meaning given in the Strategic Partnering Agreement.

Participant – has the meaning given in the Strategic Partnering Agreement;

Participant's/Authority's Information Requirements (PAIRs) –the standards and processes the Participant/Authority requires to be adopted by the design and construction team in relation to models, data and information which are included as Appendix 2 to the BIM Protocol;

Plain Language Questions (PLQs) – the questions contained within the Participant's/Authority's Information Requirements (PAIRs), introduced with each information exchange (Data Drop) to ensure the design and construction team understand the detailed requirements of the information exchange and can determine how best to respond;

Responsibility Matrix –the matrix included at appendix 1 to the BIM Protocol which define the specified models (including the models to be generated during a design and construction of the relevant project), the scope of the specified models, the purposes for which the models will be used, the responsibility for the development of the specified models and the level of detail and information the specified models should represent at each formal information exchange (Data Drop);

Routine Information Exchange Schedule – an informal information exchange which takes place in the CDE (but does not form a Data Drop) where model originators (such as the architect) identified in the Responsibility Matrix upload their work-in-progress models into the CDE weekly during the design development periods;

Soft Landings – the soft landings approach set out in the Authority's Construction Requirements;

Stage 1 – the ‘Feasibility’ stage which commences once the Participant has raised a New Project Request which is accepted by WEPCo;

Stage 2 – the ‘Supply Chain Assembly, Design and Planning’ stage which commences once the Participant has approved the Stage 1 Submission;

Task Information Delivery Plan (TIDP) - a plan generated by each Task Team setting out the models, data and information they will produce, responsibility for production, the level of detail and level of information it will represent and the point(s) at which it will be provided;

Task Team – the team responsible for the delivery of a specified task

1. Interpretation

- 1.1 Standardised documents have been developed to ensure that wherever possible a consistent approach is adopted by the Participant and WEPCo/ ProjectCo. These standard documents are identified below and can be found at *[insert relevant data room location]*:

- 1.1.1 BIM Protocol;
- 1.1.2 Responsibility Matrix – Appendix 1 to the BIM Protocol;
- 1.1.3 Asset Information Requirements (AIRs) – forms part of the Participant/Authority's Information Requirements;
- 1.1.4 Information Delivery Plan (IDP) - forms part of the Participant/Authority's Information Requirements;
- 1.1.5 COBie Requirements – forms part of Asset Information Requirements (AIRs);
- 1.1.6 Maintainable Assets – forms part of Asset Information Requirements (AIRs).

- 1.2 The following documents will be developed on a site-specific basis using a standard form template:

- 1.2.1 Participant's/Authority's Information Requirements – Appendix 2 to the BIM Protocol;
- 1.2.2 Built Asset Security Strategy;
- 1.2.3 Built Asset Security Management Plan.

- 1.3 The structure of the BIM documentation for MIM 21st Century Schools and Colleges programme will follow the same structure as industry practice, as detailed below:

- I. BIM Protocol
- II. Appendix 1: Responsibility Matrix
- III. Appendix 2: Information Particulars - Participant's/ Authority's Information Requirements (PAIRs)
- IV. Appendix 2: Information Particulars - BIM Execution Plan
- V. Appendix 2: Asset Information Requirements (AIRs)
- VI. Appendix 2: Information Delivery Plan (IDP)
- VII. Appendix 3: Security Minded Provisions - Built Asset Security Strategy
- VIII. Appendix 3: Security Minded Provisions - Built Asset Security Management Plan

Project BIM Agreement

BIM Protocol

Appendix 1

RESPONSIBILITY MATRIX

Specified
Information

Data Drops

Level of
Definition

Originators

Model
Uses

Appendix 2

INFORMATION PARTICULARS



Appendix 3

SECURITY-MINDED PROVISIONS (if applicable)



1.3 The Project BIM Agreement will require compliance with the core standards, specifications and codes of practice detailed below:

- 1.3.1 ISO 19650-1 Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) — Information management using BIM - Part 1: Concepts and Principles;
- 1.3.2 ISO 19650-2 Organization and digitization of information about buildings and civil engineering works, including building information modelling (BIM) — Information management using BIM - Part 2: Delivery phase of the Assets;
- 1.3.3 BS 1192 Collaborative production of architectural, engineering and construction information. Code of practice;
- 1.3.4 BS 1192+A2 Collaborative production of architectural, engineering and construction information. Code of practice;
- 1.3.5 PAS 1192-2 Specification for information management for the capital delivery phase of construction projects using BIM;
- 1.3.6 PAS 1192-3 Specification for information management for the operational phase of Assets using BIM;
- 1.3.7 BS 1192-4 Collaborative production of information. Fulfilling Employer's Information Exchange requirements using COBie;
- 1.3.8 PAS 1192-5 Specification for Security-minded BIM, digital built environments and smart Asset management;
- 1.3.9 PAS 1192-6 Specification for collaborative sharing and use of structured Health and Safety information using BIM;
- 1.3.10 BS 8536-1 Briefing for design and construction-Part 1: Code of practice for facilities management;

- 1.3.11 BS 8536-2 Briefing for design and construction-Part 2: Code of practice for Asset management;
- 1.3.12 BS 8541-1 Library objects for architecture, engineering and construction Part 1: Identification and classification. Code of practice;
- 1.3.13 BS 8541-2 Library objects for architecture, engineering and construction Part 2: Recommended 2D symbols of building elements for use in BIM CDM 2015 Construction Design Management Regulations 2015;
- 1.3.14 ISO 16739 Industry Foundation Classes (IFC) for data sharing in the construction and facility management industries;
- 1.3.15 CIC BIM Protocol, 2nd edition;
- 1.3.16 CIC Outline scope of services for the role of Information Management;
- 1.3.17 RICS Code of measuring practice 6th edition; and
- 1.3.18 NBS Uniclass 2015 classification.

2.Obligations at each Project Stage

2.1 New Project Request

2.1.1 The Participant is responsible for undertaking the following activities prior to Stage 1 (Feasibility):

2.1.1.1 The Participant shall identify and resource the following roles to support any New Project:

2.1.1.1.1 Participant's Information Manager (IM); and

2.1.1.1.2 Built Asset Security Manager (BASM).

These roles are defined further in Annex 1 of this BIM Project Agreement.

2.1.1.2 The Participant shall identify aspirations and objectives for BIM, where these differ or exceed the programme level requirements defined in the standardised requirements outlined in clause 1.1 of this Project BIM Agreement.

2.1.1.3 The Participant shall complete the security triage process as set out within the Participant's/ Authority's Information Requirements (PAIRs) and record the outcome. The Participant shall use the standard form Built Asset Security Strategy template and Built Asset Security Management Plan template to develop New Project-specific requirements.

2.1.2 The Participant shall provide the following information to WEPCo as part of the New Project Request:

2.1.2.1 Participant's/ Authority's Information Requirements (PAIRs) which will form a part of Appendix 2 of the BIM Protocol referred to as the 'Information Particulars'. The PAIRs will include the Participant's individual project-specific requirements and will include the following information:

2.1.2.1.1 Asset Information Requirements (AIRs)

2.1.1.1.2 Information Delivery Plan (IDP)

2.1.1.1.3 Plain Language Questions (PLQs) to support each Information Exchange (Data Drop)

2.1.3 The Participant shall complete the Responsibility Matrix which will form Appendix 1 of the BIM protocol and will include details of;

2.1.3.1 the Specified Information required to be delivered;

2.1.3.2 Level of Definition (Level of Detail & Level of Information);

2.1.3.3 Data Drops;

- 2.1.3.4 Model/ Information Originators; and
- 2.1.3.5 Model Uses.

2.2 Stage 1 (Feasibility)

2.2.1 Participant Obligations

- 2.2.1.1 During the Stage 1 process the Participant will appoint a Participant's Information Manager (IM) who will;
 - 2.2.1.1.1 be responsible for managing the CDE; and
 - 2.2.1.1.2 use reasonable endeavours to ensure that all parties accessing and using the CDE comply with the processes and procedures established.
- 2.2.1.2 The IM will manage the CDE and processes associated with it, including;
 - 2.2.1.2.1 establishing the folder structure;
 - 2.2.1.2.2 identifying and arranging access permissions;
 - 2.2.1.2.3 approving workflows; and
 - 2.2.1.2.4 managing the platform.
- 2.2.1.3 The Participant shall approve WEPCo Data Drop 1 ('Stage 1' submission) to confirm that in the Participant's reasonable opinion the required information has been provided in the correct formats and as detailed in the BIM Protocol and its appendices.

2.2.2 WEPCo Obligations

- 2.2.2.1 As a response to the Participant's/Authority's Information Requirements (PAIRs), WEPCo. shall prepare a pre-contract BIM Execution Plan (BEP) in the form specified by Construction Project Information Committee (CPIC) to demonstrate WEPCo's:
 - 2.2.2.1.1 understanding of model, data and information requirements;
 - 2.2.2.1.2 capability, capacity and competence to deliver the Services;
 - 2.2.1.2.3 understanding of other project roles and the interfaces between them;
 - 2.2.1.2.4 methodology for the Service Delivery in the context of models and data;
 - 2.2.1.2.5 understanding of the Participant's aspirations for asset data use;
 - 2.2.1.2.6 capability to exchange information within the CDE;
 - 2.2.1.2.7 IT maturity; and
 - 2.2.1.2.8 capability to effectively and consistently communicate the Participant's key objectives and cascade these requirements throughout the design team, so that the performance measures are met.

- 2.2.2.2 WEPCo shall ensure that the BEP delivers the requirements set out in the BIM Protocol and all its Appendices.
- 2.2.2.3 WEPCo shall procure the CDE on behalf of the Participant. The CDE will be established to ensure that the CDE will be relevant through development, construction and operation of the New Project and is capable of efficient transfer to the Authority at Handback or on early termination of the Project Agreement;
- 2.2.2.4 WEPCo shall ensure it delivers all the relevant requirements to complete Data Drop 1 ('Stage 1' submission).

2.3 Stage 2 (Supply Chain Assembly, Design and Planning)

2.3.1 Participant Obligations

- 2.3.1.1 The role of the Participant's IM remains unchanged to the role defined in clause 2.1 (New Project Request).
- 2.3.1.2 The Participant's Information Manager shall ensure that;
 - 2.2.2..1 access to the CDE will be provided to WEPCo's supply chain as they are appointed;
 - 2.2.2..2 access permissions and approval workflows will be established to reflect WEPCo's reasonable requirements provided relevant details are provided by WEPCo; and
 - 2.2.2..3 access permissions of those whose involvement in the Project terminated at the end of Stage 1 are removed provided relevant details are provided by WEPCo.
- 2.3.1.3 The Participant shall;
 - 2.2.2..1 review WEPCo's BIM Execution Plan and monitor its development;
 - 2.2.2..2 approve the Responsibility Matrix completed by WEPCo;
 - 2.2.2..3 approve the Master Information Delivery Plan (MIDP) collated by WEPCo;
 - 2.2.2..4 approve WEPCo Data Drop 2 ('Planning Application' submission) to confirm that in the Participant's reasonable opinion the required information has been provided in the correct formats and as detailed in the BIM Protocol and its appendices;
 - 2.2.2..5 approve WEPCo's Data Drop 3 ('Stage 2' submission) to confirm that in the Participant's reasonable opinion the required information has been provided in the correct formats and as detailed in the BIM Protocol and its appendices;
 - 2.2.2..6 approve WEPCo's Data Drop 4 ('Approved for Construction' submission) to confirm that in the Participant's reasonable opinion the required information has been provided in the correct formats and as detailed in the BIM Protocol and its appendices.

2.3.2 WEPCo Obligations

- 2.3.2.1 WEPCo shall ensure that all supply chain members enter into a sub-contractor BIM protocol which complies with;
 - 2.2.2..1 the requirements of this Project BIM Agreement;
 - 2.2.2..2 the requirements of the BIM Protocol; and
 - 2.2.2..3 Good Industry Practice.
- 2.3.2.2 WEPCo shall collate all individual BIM Execution Plans, provided by the supply chain members, into one comprehensive BEP. The BEP is a live document and WEPCo shall re-evaluated and update the BEP as necessary during this Stage.
- 2.3.2.3 As a response to the Participant's/Authority's Information Requirements (PAIRs) within one month of commencement of Stage 2, WEPCo shall prepare a post-contract BIM Execution Plan (BEP) in the form specified in the Participant's/Authority's Information Requirements (PAIRs).
- 2.3.2.4 WEPCo shall update the Responsibility Matrix (provided by the Participant as Appendix 1 of the BIM Protocol) with the allocation of individual resources to each 'responsibility' or activity identified by the Participant.
- 2.3.2.5 WEPCo shall collate individual Task Information Delivery Plans (TIDPs), produced by the supply chain, to form the Master Information Delivery Plan (MIDP).
- 2.3.2.6 WEPCo shall establish a Routine Information Exchange Schedule; an informal information exchange which takes place in the CDE (but does not form a Data Drop) where model originators (such as the architect) identified in the Responsibility Matrix upload their work-in-progress models into the CDE weekly to enable the co-ordination and clash detection activities to take place. WEPCo shall detail the Routine Information Exchange Schedule in the BIM Execution Plan along with the established shared co-ordinated system.
- 2.3.2.7 WEPCo shall engage the Hard Facilities Management Provider in sufficient time to ensure that the information required to operate the Building is identified and developed during the Stage 2 process.
- 2.3.2.8 WEPCo shall ensure it delivers all the relevant requirements to complete;
 - 2.3.2.8.1 Data Drop 2 ('Planning Application submission);
 - 2.3.2.8.2 Data Drop 3 ('Stage 2' submission); and
 - 2.3.2.8.3 Data Drop 4 ('Approved for Construction' submission).

2.4 Pre-Project Agreement Execution

2.4.1 WEPCo Obligations

2.4.2.1 Prior to the execution of the Project Agreement², WEPCo shall:

- 2.4.2.1.1 transfer ownership of the CDE to ProjectCo ensuring a smooth transition without the loss of any functionality of the CDE and without the loss or corruption of data;
- 2.4.2.1.2 transfer all project information developed to date including any received from the Participant as part of the New Project Request to ProjectCo and ensure that ProjectCo is provided with equivalent intellectual property rights over the design and survey documentation, drawings and models that WEPCo held, so as not to restrict its use during the remaining stages of construction and operation; and
- 2.4.2.1.3 procure the novation or otherwise transfer of the design team, Building Contractor, Sub-Contractor and Suppliers who have provided design information and documentation to ProjectCo to provide a seamless transfer of responsibilities and obligations.

2.4.2.2 The obligations of WEPCo in relation to BIM transfer to ProjectCo once the Authority and ProjectCo execute the Project Agreement.

2.5 Construction³

2.5.1 Authority Obligations

2.5.1.1 The Authority will jointly appoint with ProjectCo an Authority's Information Manager (AIM) to undertake the relevant tasks set out within the BIM Protocol and its appendices.

2.5.1.2 The AIM shall use reasonable endeavours to ensure that:

- 2.4.1..1 access to the CDE will be provided to ProjectCo's supply chain as they are appointed;
- 2.4.1..2 access permissions and approval workflows will be established to reflect ProjectCo's reasonable requirements; and

² Bidders to clarify as part of the competitive dialogue the processes that they will put in place to ensure the smooth transfer of data from WEPCo to ProjectCo of the relevant information and what reliance (if any) ProjectCo will be able to place on WEPCo's acts or omissions under the Project BIM Agreement.

³ The obligations of both the public and private sector during the construction and operational phases (clauses 2.5 – 2.7) have been included in the Project BIM Agreement for completeness to provide an overview of responsibilities in relation to BIM for the life of the Project. Parties to ensure that the obligations contained in clauses 2.5 – 2.7 are incorporated into the BIM Protocol - as it is not proposed at present for ProjectCo to be party to the Project BIM Agreement.

2.4.1.3 access permissions of any individuals whose involvement in the Project has terminated are removed, so that access is no longer available to such individuals provided relevant details are provided by ProjectCo.

2.5.1.3 The Authority shall approve ProjectCo's Data Drop 5 ('As-built' submission) to confirm that in the Authority's reasonable opinion the required information has been provided in the correct formats and as detailed in the BIM Protocol and its appendices.

2.5.2 ProjectCo Obligations

2.5.2.1 ProjectCo shall be obliged to comply with the requirements set out in the BIM Protocol when it enters into the Project Agreement with the Authority.

2.5.2.2 ProjectCo shall ensure that the building contractor and all relevant supply chain members enter into a sub-contractor BIM protocol which complies with

2.5.2.2.1 the requirements of this Project BIM Agreement;

2.5.2.2.2 the requirements of the BIM Protocol; and

2.5.2.2.3 the requirements of the Project Agreement in relation to the provision of the Works including but not limited to complying with Good Industry Practice.

2.5.2.3 ProjectCo shall collate all individual BIM Execution Plans, provided by the supply chain members, into one comprehensive BEP. The BEP is a live document and shall be continually re-evaluated and updated by ProjectCo as necessary during this Stage.

2.5.2.4 ProjectCo shall ensure that

2.5.2.4.1 access to the CDE (which is managed and maintained by the Information Manager) will be provided to the relevant supply chain members by instructing the Information Manager;

2.5.2.4.2 access permissions and approval workflows will be established by the Information Manager to reflect the requirements of ProjectCo's delivery team by instructing the Information Manager;

2.5.2.4.3 access permissions of any individuals whose involvement in the Project has terminated are removed, so that access is no longer available to such individuals by instructing the Information Manager.

2.5.2.5 ProjectCo shall deliver Data Drop 5 ('As-Built' submission) which will include:

- 2.5.2.5.1 the 'as-built' deliverable package as detailed in the Participant's/ Authority's Information Requirements (PAIRs).⁴
- 2.5.2.5.2 ProjectCo. shall liaise with the Authority to provide the Authority and their Soft Service providers with access to the CDE and the BIM information and documentation for extract and transfer to inform and plan their Soft Service Delivery.

2.6 Operation

2.6.1 Authority Rights

- 2.6.1.1 The Authority may carry out audits of the CDE and the maintained model and information at any point during the operational period to confirm if ProjectCo is complying with its obligations.

2.6.2 ProjectCo Obligations

- 2.6.2.1 ProjectCo shall be responsible for the maintenance of the CDE and shall provide access to the CDE to the Authority or their nominated representative, as reasonably required by the Authority.
- 2.6.2.2 ProjectCo shall ensure that the CDE shall remain operational until expiry or earlier termination of the Project Agreement.
- 2.6.2.3 ProjectCo shall maintain the model and asset data in line with the model maintenance schedule, as described in the Participant's/Authority's Information Requirements which will include details of the:
 - 2.6.2.4.1 frequency of the model updates (which will be no less frequent than annual updates);
 - 2.6.2.4.2 scope of changes required to be captured in the model updates (small, medium, etc.); and
 - 2.6.2.4.3 format of outputs.
- 2.6.2.5 ProjectCo shall ensure that access permissions to those whose involvement in the Project terminated at the end of the construction period are removed so access is no longer available.

⁴ Participant to consider whether a 3D laser scanning survey should be completed (during construction and after practical completion) as a means of verification and quality assurance.

- 2.6.2.6 ProjectCo shall ensure that access to the CDE will be provided to the Authority's soft service provider, with access permissions as requested by the Authority and with access permissions equally removed on request.

2.7 Handback and Termination

2.7.1 Authority's Obligations

- 2.7.1.1 The Authority is responsible for the sign-off of Data Drop 6 ('Handback' submission), confirming that all of the required information has been provided in the correct formats and as detailed in the BIM Protocol and its appendices.
- 2.7.1.2 The Authority is responsible for the sign-off of the CDE transfer, to confirm that the required information has been provided in the correct formats and as detailed in the BIM Protocol and its appendices.

2.7.2 ProjectCo's Obligations

- 2.7.2.1 ProjectCo shall complete updated versions of the 'As-Built' submission to reflect all changes that will have taken place since the 'As-built' submission, in accordance with the model maintenance schedule.
- 2.7.2.2 ProjectCo shall be responsible for the transfer of or procuring the transfer of the CDE to a platform provided by the Authority on expiry or earlier termination of the Project Agreement.

Annex 1: Definition of Roles

1. Participant's/ Authority's Information Manager

1.2 The Information Manager's role shall be carried out in accordance with:

1.2.1 CIC Scope of Services for the role of Information Management; and

1.2.2 PAS 1192-2 Table 2.

1.3 The Information Manager will:

1.3.1 enable reliable information exchange through the CDE;

1.3.2 maintain and receive information into the information model;

1.3.3 enable integration and co-ordination of information within the information model;

1.3.4 configure information for project outputs;

1.3.5 populate the information exchange format for the information model;

1.3.6 accept/reject information exchanges within the CDE;

1.3.7 establish, agree and implement the information structure and maintenance standards for the information model;

1.3.8 receive information into the information model in compliance with agreed processes and procedures;

1.3.9 validate compliance with required data drops and information requirements and advise on noncompliance;

1.3.10 maintain the information model to meet integrity and security standards in compliance with the information requirements;

1.3.11 manage CDE processes and procedures, validate compliance with them and advise on non-compliance;

1.3.12 initiate, agree and implement a project information plan and asset information plan covering information structure across roles e.g.:

1.3.12.1 software platforms (all levels of supply chain) appropriate to meet the Participant's/Authority's requirements and project team resources;

1.3.12.2 responsibility for the provision of information at each stage;

1.3.12.3 level of detail of information required for specific project outputs e.g. planning, procurement, operational updates; and

1.3.12.4 the process for incorporating as-constructed, testing, validation and commissioning information;

- 1.3.13 enable integration of information within the project team and co-ordination of information by design leads;
- 1.3.14 agree formats for project outputs;
- 1.3.15 assist project team members in assembling information for project outputs;
- 1.3.16 support the implementation of the Project BIM Agreement including updating the appendices (when required);
- 1.3.17 liaise with and co-operate with project team members in support of a collaborative working culture;
- 1.3.18 assist the project team members in establishing information exchange processes, including defining and agreeing procedures for convening, chairing, attendance and responsibility for recording 'information exchange process meetings', and;
- 1.3.18 participate in and comply with project team management procedures and processes including:
 - 1.3.18.1 risk and value management;
 - 1.3.18.2 performance management and measurement procedures;
 - 1.3.18.3 change management procedures including adjustments to budgets and programme;
 - 1.3.18.4 attendance at project and design team meetings as required; and
 - 1.3.18.5 agree and implement record keeping, archiving and audit trail for Information Model.
- 1.3.19 In undertaking these activities, the information manager will not accept any design responsibility or the right to issue any design related instructions.

2. Built Asset Security Manager⁵

2.1 The Participant/Authority shall appoint a Built Asset Security Manager to undertake the Security Triage Process with the Participant to assess the security requirements for each Project.

2.2 The Participant will assess the following security risks :

2.2.1 Physical security

⁵ On smaller projects the **Built Asset Security Manager** role is likely to be a part-time function and fulfilled by an individual who may undertake or be responsible for security and other duties. However, that individual will still need to be suitably qualified and experienced to undertake the role. On larger or more complex projects it is likely that it will be a full-time post. It should be someone who knows about the Participant's security arrangements and will understand the language and terminology used in the BASS/ BASMP templates.

- 2.2.2 Cyber security
- 2.2.3 Personnel security

2.3 The Participant/Authority shall record the outcome of the application of the Security Triage Process for each built asset to which it is applied, including where there is no identified need for more than Baseline Security Measures.

2.4 Where the recorded outcome details the security protection level or classification level of a built asset, the information shall be managed by all parties on a strict need-to know basis and shall be subject to security measures, appropriate to the level of risk, with regard to its creation, storage, distribution and use.

2.5 Sensitive Built Asset

- 2.5.1 The term Sensitive Built Asset shall apply to any built asset, as a whole or in part, that:
 - 2.5.1.1 Is a designated site under sections 128 or 129 of the Serious Organised Crime and Police Act 2005 [4]
 - 2.5.1.2 Forms part of the critical national infrastructure (only the asset owner, the lead government department and CPNI will be aware of its status)
 - 2.5.1.3 Fulfils a defence, law enforcement, national security or diplomatic function
 - 2.5.1.4 Is a commercial site involving the creation, trading or storage of significant volumes of valuable materials, currency, pharmaceuticals, chemicals, petrochemicals, or gases
 - 2.5.1.5 Constitutes a landmark, nationally significant site or crowded place (as determined by NaCTSO)
 - 2.5.1.6 Is used or is planned to be used to host events of security significance and/or;
 - 2.5.1.7 Has been judged could be used to significantly compromise the integrity of the built asset as a whole, or its ability to function.
- 2.5.2 The specific assets or asset attributes which shall be considered include, as a minimum:
 - 2.5.2.1 Location, routes, cabling, configuration, identification and use of control systems
 - 2.5.2.2 Location and identification of permanent plant and machinery
 - 2.5.2.3 Structural design details
 - 2.5.2.4 Location and identification of security or other control rooms
 - 2.5.2.5 Location and identification of regulated spaces, or areas housing regulated substances (e.g. nuclear isotopes and bio-hazards) or information

- 2.5.2.6 Technical specification of security products and features
- 2.5.2.7 Built asset assessed at or before project initiation
- 2.5.3 If a planned Built Asset has been determined to be sensitive, the Participant shall implement a security-minded approach to the creation and exchange of asset information pertaining to that asset before issuing the New Project Request.
- 2.5.4 Note: Any publicity surrounding development of sensitive built assets might be of interest for hostile reconnaissance from the earliest stages in the design process.
- 2.5.5 The Built Asset Security Manager's role shall be carried out in accordance with:
 - 2.5.5.1 CIC Scope of Services for the role of Built Asset Security Management; and
 - 2.5.5.2 PAS 1192-2 Table 2
- 2.5.6 The Built Asset Security Manager will:
 - 2.5.6.1 Assist the Participant in undertaking the Security Triage Process (See Figure 1below)
 - 2.5.6.2 Provide a holistic view of the security issues and threats to be addressed
 - 2.5.6.3 Offer guidance and direction on the handling of risks
 - 2.5.6.4 Take ownership, manage, and assist in the development of the built asset security strategy (BASS)
 - 2.5.6.5 Be accountable for security decisions that are taken;
 - 2.5.6.6 Take ownership, manage, and assist in the development of the Built Asset Security Management Plan (BASMP)
 - 2.5.6.7 Take ownership, manage, and assist in the development of Security Breach/ Incident Management Plan (SB/ IMP)
 - 2.5.6.8 Take ownership, manage, and assist in the development of the Built Asset Security Information Requirements (BASIR)
 - 2.5.6.9 Assist in the development of Plain Language Questions and Participant's Information Requirements
 - 2.5.6.10 Assist in the development and reviewing of any tendering and project planning documentation
 - 2.5.6.11 Be responsible for promoting a security-minded culture
 - 2.5.6.12 Brief advisors, specialists and supply chain on relevant aspects of the BASS, BASMP and BASIR

- 2.5.6.13 Advise on the need for, and undertake, the review and auditing of documentation, policies, processes and procedures relating to the security of the built asset
- 2.5.6.14 Where appropriate and necessary, seek appropriate professional security advice to provide additional guidance throughout the lifecycle of the project and/ or asset.
- 2.5.6.15 The Built Asset Security Manager does not perform any design role within a project.

Security Triage Process, PAS 1192-5

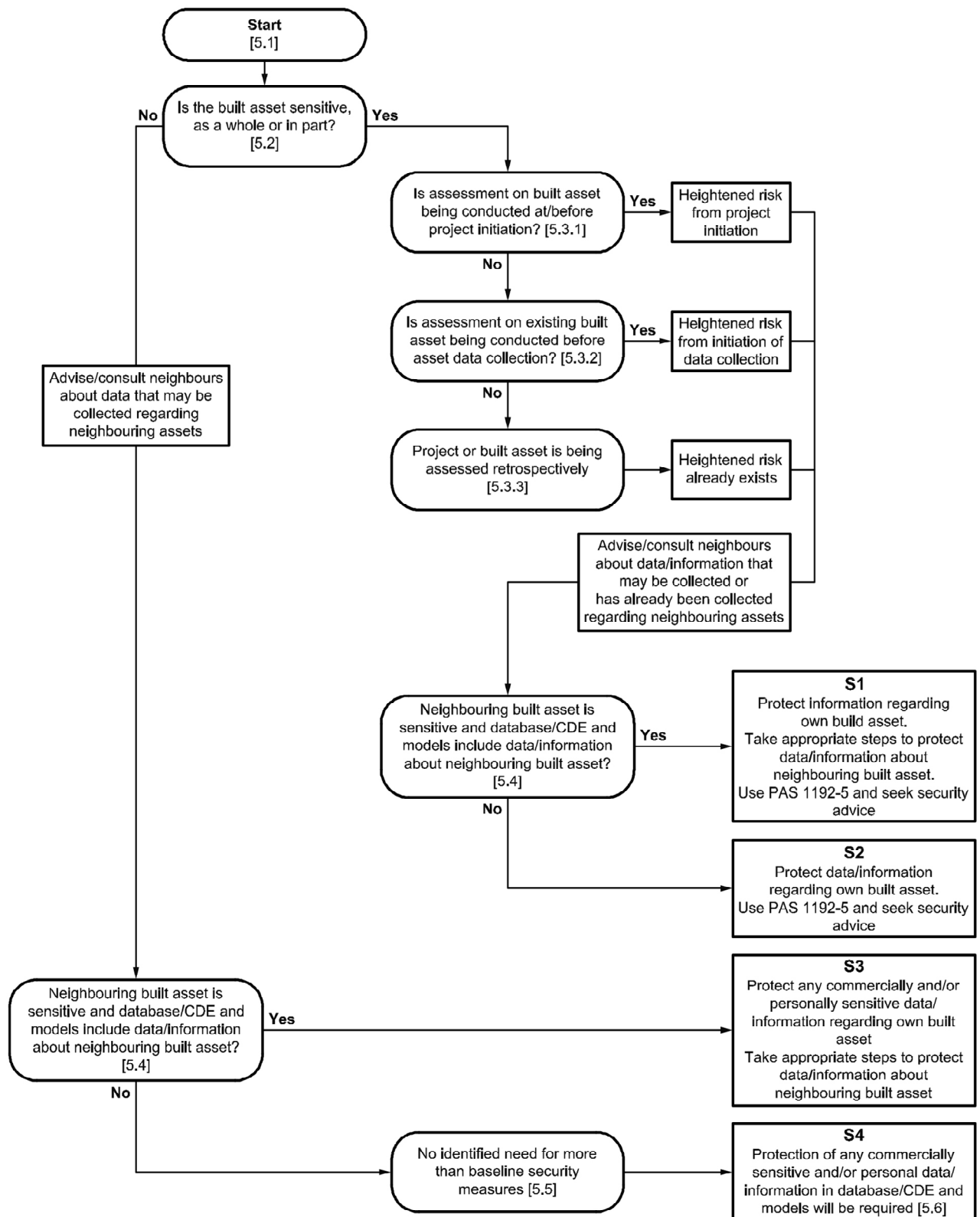


Figure 1