

BIM-AM Standards and Guidelines Version 2.0 vs Version 3.0

– Summary of Major Amendments

Note: -

1. The following summary table includes the major amendments and please refer to version 3.0 for the detailed requirements.
2. This serves the purpose of ease of reference only. The standards and guidelines should take preference over any discrepancy if identified.

Items	Content	Old Version 2.0	New Version 3.0
1.	Interpretations and Abbreviations.	Specified under Section 1.5.	List of interpretations are revised and updated from page vi to viii.
2.	Reference Standards and Specifications.	Specified under Section 1.4.	This section is updated and moved to Section 1.1.3.
3.	Modelling Management and Section and Naming Convention.	<ul style="list-style-type: none"> • Model management requirement is specified under Section 3.1. • The BIM file naming is specified under Section 3.2. 	<ul style="list-style-type: none"> • Model management requirement is moved to Section 2, which stated the BIM Modelling Standards, file size...etc. • Details of BIM file naming convention is specified in new Appendix F – Codification for EMSD BIM Model Naming Convention
4.	Reference Software.	Specified under Section 1.3.	BIM reference software is moved to Section 2.1.
5.	Federation strategy - cross-disciplinary model coordination.	Specified under Section 3.3.4.	This section is moved to Section 2.5, which is related to federation strategy. The federation logic shall follow the requirements stated in Appendix F - Codification for EMSD BIM Models Naming Convention
6.	BIM object naming convention.	Specified under Section 3.2.3	This section is moved to Section 3.1. While the naming codes for category and functional type shall refer to Construction Industry Council's relevant standards and guidelines.
7.	Browser organization.	Specified under Section 3.4	This section is moved to Section 4, which related to BIM Model Authoring.

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8.	BIM Model Set Up.	Specified under Section 3.3	This Section is moved to Section 4.1.
9.	E&M system setup and modelling.	Specified under Section 3.5.1- Section 3.5.5	<ul style="list-style-type: none"> • This section is moved to Section 4.2 and elaborated into detail by category. • New Appendix E – Best Practices for BIM Modelling is added to elaborate the best practice in the industry for E&M model settings and modelling.
10.	Modelling E&M equipment and routing.	Specified under Section 3.5.4.	This section is moved to Section 4.2.3. The BIM category for each E&M equipment type is revised as shown in Table 4-8.
11.	Presentation style.	Specified under Section 3.7.	This section is moved to Section 4.4.
12.	Common Data Environment (CDE) workflow.	Not Specified.	<ul style="list-style-type: none"> • Workflow of handling Alteration and Additions (A&A) project with BIM adoption is added under Section 4.5. • Section 8 - CDE workflow is added to elaborate a new CDE working procedures complying with ISO 19650 for management of BIM model/ document.
13.	E&M Asset Information.	Specified under Section 4.	<p>This section is revised and moved to Section 6 - Asset Information Requirements. The following new requirements about AIMP is mentioned as examples:</p> <ul style="list-style-type: none"> • Revised attribute setting for common and specific parameter as specified under Section 6.5. • Mapping of as-built document to asset; • Workflow from Project Information Model (PIM) to Asset Information Model (AIM);

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			<ul style="list-style-type: none"> • Introduction of BIM-AM lite; and • Application and requirements of COBieLite for information exchange.
14.	Interfacing / Integrating BIM-AM Systems with other systems.	Specified under Section 5.	<ul style="list-style-type: none"> • This section is moved to Section 7. • Detailed elaborations on system interface with BMS point coding requirement are added under Section 7.1. • Details of provisional requirement of asset tag for E&M equipment are updated in Appendix G - List of Equipment Code and Provisional Requirement of RFID tags and QR codes. • RFID tag specifications are added under Section 7.2.2. • The asset tag coding for RFID tag is revised under Section 7.2.4.
15.	Asset coding and numbering System.	The details of coding requirement are elaborated under Section 2.	<ul style="list-style-type: none"> • This section is moved to Section 5. Names and Codes of E&M systems are revised. • New Appendix G- List of Equipment Code, is formulated to list out the updated system and equipment code and provision requirement of RFID tags and QR codes.
16.	Appendix A – Building Code.	Specified under Appendix A.	Updated with latest EMSD’s requirement. For newly constructed venues, please liaise with EMSD for acquiring the new building code.
17.	Appendix B – Asset Information Requirement.	Specified under Appendix B.	<ul style="list-style-type: none"> • New E&M Systems and equipment are added. • The asset of circuit breakers under electrical distribution is removed.

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18.	Appendix C – Asset Information Input Tool (AIIT) User Manual.	Specified under Appendix C.	<ul style="list-style-type: none"> • AIIT is renamed as Asset Information Platform (AIMP). • The AIMP manual is updated based on the CDE workflow as specified under Appendix C.
19.	Appendix D – Shared Parameter File for EMSD BIM-AM.	Specified under Appendix D.	<ul style="list-style-type: none"> • New E&M Systems and equipment are added. • The asset of circuit breakers under electrical distribution is removed.
20.	Appendix E – Best Practise for BIM Modelling.	Specified under Section 3.5 and Section 3.8.	New document, Appendix E – Best Practise for BIM Modelling, is added.
21.	Model Maintainability.	Specified under Section 3.8 - Maintainability	This section is moved to Section 2.3 in Appendix E– Best Practise for BIM Modelling.
22.	Modelling Architecture and Building Structure.	Specified under Section 3.6.	This section is moved to Section 3 in Appendix E – Best Practise for BIM Modelling.
23.	Panel Schedule for Distribution Boards.	Specified under Section 3.5.5.	This Section is moved to Section 5 in Appendix E– Best Practise for BIM Modelling.
24.	Codification for EMSD BIM Model Naming Convention.	Specified under Section 3.2 (Exclude Section 3.2.3 Object Naming Convention).	<ul style="list-style-type: none"> • Please refer to Section 3.1 . • New document, Appendix F – Codification for EMSD BIM Model Naming Convention, to align EMSD’s BIM model naming convention with EMSD’s codes and BIM Harmonisation Guidelines.
25.	List of Equipment and Equipment	Specified under Section 2.7.	<ul style="list-style-type: none"> • New document, Appendix G – List of Equipment and Equipment Code

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	Code and Provisional Requirement of RFID tags and QR codes for EMSD Level 1 and Level 2 Assets.		<p>and Provisional Requirement of RFID tags and QR codes for EMSD Level 1 and Level 2 Assets, stated the E&M equipment type commonly handed over to EMSD.</p> <ul style="list-style-type: none"> • More descriptions on equipment and system are added, such as OmniClass , BIM Object CAT. • The provisional requirement of asset tag and zone tag are revised.
26.	Templates of point definition and point mapping (For equipment status visualisation in model).	Not Specified.	<ul style="list-style-type: none"> • New Appendix H – Templates of point definition and point mapping (for equipment status visualisation in model), to facilitate the mapping of operation data and E&M asset in BIM-AM Systems. • Point definition file is also included to facilitate the point initiation in BIM-AM Systems.
27.	Folder structure requirement for handover of as-built BIM Model.	Specified under Section 1.2.	<ul style="list-style-type: none"> • New Appendix I – Folder Structure, stated the handover package requirement to facilitate file management and file to asset mapping. • As part of the BIM-AM deliverables to be submitted for project handover.
28.	Particular Specification for BIM-AM Implementation (For EMSD internal only).	Not included.	New Appendix Z- Particular Specification for BIM-AM Implementation (For EMSD internal only), to facilitate the preparation of contract particular specification for BIM-AM related works.

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29.	Handover Procedure of As-built BIM Model.	Specified under Section 1.2.	<ul style="list-style-type: none"> • The new Section 9 is added to elaborate the handover and acceptance framework. • A new Guidelines for the Handover of E&M Installation to EMSD (H/O Guide) is formulated to provide a clear and detail guideline on the handover requirement of BIM-AM deliverables. • The details of roles and responsibilities during project handover should be referred to Section 1.2 of H/O Guide.
30.	BIM-AM Deliverables Checklist.	Specified under Section 6.	This section is moved to Annex 3 under the new Guidelines for the Handover of E&M Installation to EMSD (H/O Guide), and revised with quality assurance /quality checklists during handover process.
31.	Acceptance and Upkeeping Guidelines for EMSD	Specified under Section 1.2 and 6	<ul style="list-style-type: none"> • A new BIM-AM Acceptance and Up-keeping Guidelines is formulated to ensure BIM-AM compliance of different BIM project types. • The Guideline outlines holistic workflow, requirement and procedure of for EMSD to accept and up-keep BIM-AM deliverables submitted by Contractor/Consultants/ Services Providers in different stages. • Relevant sections with EMSD BIM-AM Standards and Guidelines are highlighted to facilitate BIM-AM execution.