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Building Plan & Management Group

20 November 2017

See Distribution List

Dear Sir/Madam

BUILDING INFORMATION MODELLING (BIM) - VOLUNTARY E-SUBMISSION OF ENGINEERING PLANS IN NATIVE BIM FORMAT

Objective

This circular is to inform the industry on the expansion of voluntary e-submission in Native BIM format to include engineering plans.

Background

2 Since 19 October 2016, BCA has been accepting voluntary BIM e-submissions for architectural plans in Native format that are prepared in accordance with the 'Code of Practice for BIM e-submission' (CoP).

3 The voluntary submissions have provided opportunities for practitioners to gain familiarity with the CoP and experience the benefits of implementing Native BIM in practice. For example, improved organisation of information needed for regulatory approval through standardised model setup, objects and templates as well as enabling the use of intelligent objects, colour coding, schedules and other tools inherent within authoring software that aid compliance review process.

Voluntary Native BIM e-submissions for engineering plans

4 To achieve similar benefits for the engineering disciplines, BCA commenced acceptance of voluntary BIM e-submissions of engineering plans in Native format since 1 Oct 2017. This applies to Mechanical, Electrical & Plumbing (MEP) submissions for transit and public shelters and/or Civil & Structural (C&S) submissions.

5 Along with acceptance of voluntary submission, BCA has prepared a set of **intelligent objects for typical structural elements** such as beams and columns in the templates for use in voluntary submission. With these objects, QPs can create structural models without need to individually annotate the structural elements on the plans, hence reducing the time needed for model setup. BCA will also guide consultants on **how to customise intelligent objects for submissions during their transition to Native format**.

Familiarisation with the Code of Practice for BIM e-submissions

6 We would like to reiterate the need for all voluntary submissions in Native BIM format to be prepared in accordance with the CoP which sets out the minimum modelling standards and regulatory information required to be provided. Pre-consultations upon appointment are available to guide practitioners on how to prepare submissions in the necessary Native BIM format. Copies of the CoP may be downloaded from [http://www.corenet.gov.sg/general/building-information-modeling-\(bim\)-e-submission.aspx](http://www.corenet.gov.sg/general/building-information-modeling-(bim)-e-submission.aspx).

A list of answers to Frequently Asked Questions on BIM e-submission requirements are provided in Annex A.

7 To further familiarise the industry with the details of the Native BIM e-submission requirements, BCA will conduct complimentary monthly briefing sessions which are scheduled as follows:

BIM e-submission Briefings		
Dates	Times	Venue
24 November 2017	9.00am (Architectural) 10.00am (Structural) 11.00am (MEP)	BCAA Block H – Auditorium
20 December 2017	9.00am (Architectural) 10.00am (Structural) 11.00am (MEP)	
19 January 2018	9.00am (Architectural) 10.00am (Structural) 11.00am (MEP)	

Clarification

8 We would appreciate it if you could convey the contents of this circular to the members of your organisation. Should you need further clarifications relating to Native BIM e-submissions, please email bca_enquiry@bca.gov.sg.

Yours faithfully,



TAN JWU YIH
DIRECTOR
BUILDING PLAN AND MANAGEMENT GROUP
for COMMISSIONER OF BUILDING CONTROL

ANNEX A

FREQUENTLY ASKED QUESTIONS ON BIM E-SUBMISSION REQUIREMENTS

1. What projects are considered as ‘new developments’?

New developments include:

- a) New building and infrastructure projects; and
- b) A&A projects involving reconstruction or addition of any new building or infrastructure.

2. Which engineering plans are subjected to mandatory BIM e-submission requirements?

In general, BIM models are required to be submitted for all authority submissions in which the submission requirement applies. Only submissions involving the following structures are exempted from submitting the BIM models:

- Temporary ERSS submission (e.g. steel struts, sheetpile wall and other ERSS elements which do not form part of the permanent structure)

If in doubt, QPs are advised to make enquiry with the relevant approving authorities.

3. Will projects with GFA smaller than 5,000m² require Native BIM e-submission?

No. Plan submission made in Native BIM will be on a voluntary basis. However, for public projects and utility/infrastructure projects which are underground, or have underground components, the submission requirements stated in BCA’s circular dated 31 July 2017 will apply.

4. Must all plan submissions be prepared in accordance with the Code of Practice for BIM E-Submission requirements?

Where building plans are submitted in Native BIM format on or after 19 October 2016, they must be prepared in accordance with the Code of Practice for BIM E-Submission (Architectural Requirements).

Where engineering plans for MEP (transit and public shelters) and/or C&S are submitted in Native BIM format on or after 01 October 2017, they must be prepared in accordance with the Code of Practice for BIM E-Submission (C&S Requirements) and Code of Practice for BIM E-Submission (MEP Requirements) respectively.

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