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Building Plan and Management Division

15 Apr 2011

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Dear Sir/Madam

CIRCULAR TO PROFESSIONAL INSTITUTES / ASSOCIATIONS

ENHANCED BUILDABILITY FRAMEWORK TO IMPROVE PRODUCTIVITY

Objective

1 This circular is to inform the industry of the Enhanced Buildability Framework which shall include a new requirement on Constructability Score by builders under the Building Control (Buildability) Regulations 2011.

Effective date

2 The Building Control (Buildability) Regulations 2011 was published in the Singapore Gazette on 15 April 2011 and shall come into operation on **15 July 2011**.

Background

3 Since 2001, BCA's mandatory Buildability Framework has encouraged more labour efficient building designs and is one key contributing factor to improving site productivity. To steer the construction industry towards a higher level of productivity, BCA has formulated a Construction Productivity Roadmap aimed at achieving a 2% - 2.5% annual value-added productivity growth over the next 10 years. One of the key strategies under the Construction Productivity Roadmap is to strengthen the existing Buildability Framework to require designers to deliver more buildable designs upstream and builders to adopt more labour-efficient construction methods / technologies downstream. In this

regard, BCA would be tightening the existing Buildable Design Score and mandating a new minimum Constructability Score standard to influence builders to switch towards dry construction and technology adoption.

Details of the Enhanced Framework

4 The enhancement to the Buildability Framework covers two aspects:

A. Tightened Buildable Design Requirements

5 To bring about wider use of buildable designs and easy-to-build construction that would help to reduce dependence on labour, the existing Buildable Design Score has been tightened by dis-incentivising designs which need labour-intensive construction processes such as brick walls and walls with plastering finishes. For example, the Labour Saving Index (LSI) for brickwall has been significantly reduced from 0.30 to 0.05. At the same time, new buildable features such as the use of off-form external finished walls and industry-wide standardised floor heights with standardised precast staircases have been introduced to encourage more labour-saving designs.

6 With the above changes, although the current minimum buildable design scores remain and have not been raised, designers will need to improve their designs for better buildability downstream. Building works with GFA of 2,000m² or more which are submitted for planning permission on and after 15 July 2011 would be subjected to the tightened buildable design requirements.

B. New Constructability Requirement

7 A new component called Constructability Score has been introduced in the enhanced Buildability framework to encourage builders to move away from traditionally labour-intensive construction methods and switch to more labour-efficient construction processes. This Score is the responsibility of the builders. Builders would be required to comply with a new minimum Constructability Score for affected building works which encourages, for example, the use of system formwork in lieu of traditional formwork, climbing scaffolding in place of external scaffolding, and other innovative construction technologies and methods which reduce labour usage.

8 The Constructability Score requirement applies to all new building works and projects involving repairs, alterations or additions to existing buildings (A&A works) with GFA of 5,000m² or more which are submitted for planning permission on and after 15 July 2011. Builders are required to submit the Constructability Score for their projects:

- (a) when they apply for the permit to commence work or
- (b) within 3 months (6 months for Design and Build projects) after the permit has been issued in the event that they require more time to plan for the type of construction methods / technologies to be adopted in the project.

9 To facilitate better understanding of the submission procedures, the enhanced buildability framework, the minimum standards and the computation of Constructability Score, the Code of Practice on Buildability is available for download from BCA website at <http://www.bca.gov.sg/BuildableDesign/others/copbdapr2011.pdf>. Industry briefings will also be conducted to highlight the salient changes to the existing buildable design score and the new Constructability Score requirements. Details of the industry briefings would be announced at a later date.

Clarification

10 If you or your members have any queries concerning this circular, please contact Mrs Foo-Leoh Chay Hong at 6325 7535 (email: foo-leoh_chay_hong@bca.gov.sg) or Mr Chin Kim Hong at 6325 2098 (email: chin_kim_hong@bca.gov.sg).

Thank you.

Yours faithfully



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