We shape a safe, high quality, sustainable and friendly built environment.

Our Ref : BCA BC 15.0.3

Building Engineering Division (#05-00)

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3 Jan 2011

See **Distribution** 

Dear Sir/Madam

## DESIGN AND MATERIAL SPECIFICATIONS TO BE SHOWN ON DRAWINGS ON STRUCTURAL STEELWORK

The design guide BC 1: 2008 "Design Guide on Use of Alternative Steel to BS 5950" has been incorporated into the Approved Documents since 1 Jan 2009. However, we are still receiving plan submissions on structural steelwork from Qualified Persons for Structural Works (QPs) without specifying the "design classa" and "material standardb" in compliance with BC1: 2008. There are also instances of steel material being specified to obsolete material standards or to those which are not in the list of certified steel material in BC 1: 2008.

While BC 1: 2008 aims to enhance the resilience of our building and construction sector by giving the industry a wider choice of alternative steel material, it is crucial that the adequacy and reliability requirements in this design guide are strictly adhered to. QPs should ensure that their design intent including the design class, material standards, steel grades and testing regimes comply with the current version of BC 1 and are clearly specified on the drawings.

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a Class 1 steel material (including those manufactured to the British Standard) to BC 1: 2008 are those from "audited mills" with the necessary Factory Production Control Certificate (FPC) and Material Test Certificates (MTC). Where quality assurance of certified steel material could not be ascertained from the FPC and MTC certifications, the steel can be classified as Class 2 under the alternative route provided for in Clause 4.4 of BC 1: 2008 where sufficient rigorous tests should be carried out to verify that the material meets the requirements in accordance with Appendix B of the design guide.

<sup>&</sup>lt;sup>b</sup> BC 1: 2008 allows design to be carried out using procedures in British Standards BS5950, with appropriate parameters to account for the mechanical and physical properties of steel manufactured to a variety of commonly available material standards as shown under "List of certified steel materials" in Appendix A of BC 1: 2008.

I would appreciate it if you could disseminate the contents of this letter to your members. Please contact Mr Ng Hee Yang at Tel: 6325-2103 or email: ng\_hee\_yang@bca.gov.sg if you need further clarification.

Thank you.

Yours faithfully

K THANABAL DEPUTY DIRECTOR, BUILDING ENGINEERING DIVISION for COMMISSIONER OF BUILDING CONTROL

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