Dear Sir/Madam

EFFECTIVENESS OF ACCREDITED CHECKER SYSTEM

The Accredited Checker (AC) plays an important role in ensuring the structural safety of buildings by carrying out independent checks on the structural designs prepared by Qualified Person (QP) so as to minimise the risk of design errors due to lapses by the QP. Since the implementation in 1989, the AC system has served us well and will continue to be a vital component of our Building Control system in ensuring that buildings continue to be designed and constructed safely. We wish to highlight a few issues or undesirable industry practices which could affect the effectiveness of the AC system.

2 One important task to be carried out by the AC is to perform independent structural design checks as well as to check whether the structural details shown on the drawings tally with the design. Hence, ACs should be given sufficient time to carry out their checking so that any design inadequacy could be corrected. The ACs should not be pressured to rush through the checking process. As the AC system is acting like a safety net to ensure structural safety of building, it is important for ACs to be given sufficient time to perform their tasks as set out in the Building Control (Accredited Checkers and Accredited Checking Organisations) Regulations. (Please refer to the attached list of tasks in Annex A).

3 We have also received feedback that there were cases where structural plans that were not well prepared and detailed by the QPs were sent to ACs for their checking. As a result, more time and efforts are required in the checking of these plans. Thus, we urge the QPs to perform their roles by sending only complete structural plans to ACs for their checking.

4 Under the Building Control (BC) Act, the AC has to be appointed by the developer. The practice of getting the Qualified Person (QP) to appoint the AC on behalf of the developer is not acceptable. We like to point out that in the application form for approval of structural plans, the developer has to make a declaration on the appointment of AC.
5 The AC system is a very critical component of the Building Control process to ensure structural safety of buildings. The tasks to be performed by the ACs are onerous. Hence, for the AC system to be effective, it is necessary for all project parties to work together and perform their duties diligently. Building safety can only be achieved through concerted efforts by all parties, including BCA.

6 Please bring to the attention of your members the contents of this circular. If you need further clarification, you can contact Ms Andris Leong at tel: 6325-7493 or email: andris_LEONG@bca.gov.sg. Thank you.

Yours faithfully

CHEW KEAT CHUAN
DIRECTOR
BUILDING ENGINEERING DIVISION
for COMMISSIONER OF BUILDING CONTROL
ANNEX A

SECOND SCHEDULE

TASKS THAT MUST BE CARRIED OUT
BY ACCREDITED CHECKERS

The accredited checker in relation to any plans of building works (but not the geotechnical aspects of any underground building works comprised in those building works) shall —

(a) determine and use the Code of Practice adopted in the preparation of the structural design in the plans of building works;

(b) check the design loadings and, where applicable, wind loading;

(c) ascertain the design assumptions and limitations of the computer program used in the analysis of the structural design;

(d) use appropriate engineering information and models in the analysis for the structural design;

(e) check the standards and specifications of materials to be used in the building works;

(f) ascertain the structural design concept used and identify the key structural elements;

(g) determine the stability and robustness of the structural system, including considerations for lateral loads, lateral ties, bracings and lateral transfer of loads;

(h) analyse all key structural elements and the foundation system of the building to be erected or affected by building works carried out in accordance with the plans of building works;

(i) analyse all piles used in foundations, including considerations for structural capacity, geotechnical capacity, lateral load effects, uplift effects, pile group effects, differential settlement of supporting structures, negative skin friction effects and pile joint capacities;

(j) analyse all earth retaining structures, including considerations for surcharge loads, overburden pressure and water pressure;

(k) analyse all columns and vertical key structural elements, including considerations for axial loads, lateral loads and bending moments;

(l) analyse all long span steel trusses and long span beams, including considerations for lateral stability and torsional capacity;

(m) analyse all transfer beams, including considerations for torsional capacity, lateral stability and the effects of the structural frames to which they are connected;

(n) analyse all joint connections, including connections between structural elements and between the structural element and its supports;

(o) check the structural detailing in drawings and ensure that these are consistent with the design calculations; and

(p) determine the adequacy of other aspects of the design which are peculiar to the building to be erected or affected by the building works and which are essential to the structural integrity of the building.

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