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President, Singapore Institute of Architects (SIA)
President, Institution of Engineers, Singapore (IES)
President, Association of Consulting Engineers, Singapore (ACES)
President, Real Estates Development Association of Singapore (REDAS)
Registrar, Board of Architects (BOA)
Registrar, Professional Engineers Board (PEB)

Dear Sir/Mdm,

REVISION TO TECHNICAL REQUIREMENTS FOR HS IN LANDED DWELLING UNIT – HS FORM, LOCATION OF BASEMENT HS AND THICKNESS OF HS CEILING SLAB

A review has been conducted by SCDF and Building Construction Authority (BCA) on the technical requirements for household shelter **in landed dwelling unit**. It took into account the experience gained in regulating the requirements and feedback received from the general public and building professionals.

2 Arising from the review, the technical requirements for HS form, location of basement HS and thickness of ceiling slab of HS **in landed dwelling unit** have been revised. The changes are shown in **Annex A, B and C**.

3 These revisions shall take immediate effect and only applicable for HS in **landed dwelling unit**. We would appreciate it if you could disseminate the contents of this circular to members of your Institution or Association.

4 Please contact the undersigned at 68481470 or Maj Ng Shu Heng at 68481406, should you require clarifications.

Yours faithfully,

(Transmitted thru' e-mail)

Cpt Yoong Eng Chee
SO Shelter Development
for Commissioner, Singapore Civil Defence Force

cc

Members of FSSD Standing Committee

President, SISV

CEO, HDB
Attn: Mr Lau Joo Ming

CEO, URA

CE, LTA
Attn: Dr Chin Kian Keong

CEO, BCA
Attn: Deputy CEO (Building Control)
Director (Special Functions)
Senior Manager (CDSD)
Senior Engineer (CDSD)

HS Form

The configuration of a HS or NS on plan shall be rectangular or square. It may also be trapezoidal or L-shaped provided that it must be able to contain the number of 0.6m x 0.6m square units as specified in Table 1, as illustrated in Figure 1.

GFA of Dwelling Unit (m ²)	HS Floor Area (m ²)	Number of square units
GFA ≤ 45	1.6	3
45 < GFA ≤ 75	2.2	4
75 < GFA ≤ 140	2.8	5
GFA > 140	3.4	6

Table 1 : Number of square units (0.6m x 0.6m) used for the assessment of household shelter's shape

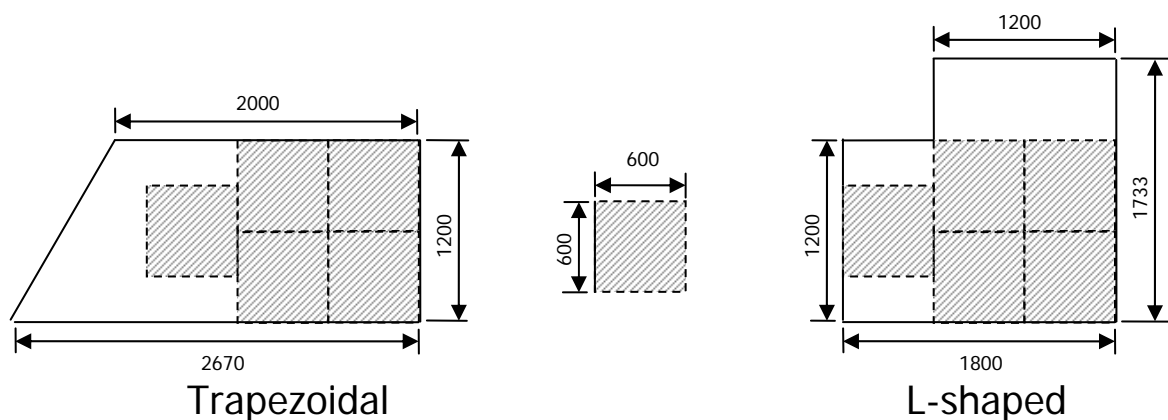


Figure 1 : Examples of HSs of different shapes (GFA = 100m², HS Size = 2.8m², Number of square units=5)

Note: QP has to declare in the drawing submitted to BCA that the HS complies with the abovementioned condition if the HS is trapezoidal or L-shaped.

Location of Basement HS

The fifth paragraph of Clause 2.3.1: HS Position states that

“A HS can also be located in the basement storey of a landed dwelling unit. It is termed as a basement HS. The basement HS shall be located within the footprint of habitable space of the first storey of a dwelling unit.”

This paragraph is now replaced by:-

“A HS can also be located in the basement storey of a landed dwelling unit. It is termed as a basement HS. Access to the basement HS shall be from the basement storey and the access route to the HS door shall have a reinforced concrete ceiling slab of minimum thickness 125mm.”

Thickness of ceiling slab of HS in landed dwelling unit

The thickness of the ceiling slab of a HS in landed dwelling unit may be at least 250mm if there is a roof or another ceiling slab above the HS ceiling slab that extends beyond each HS wall to a distance at least equal to that of the setback distance of that HS wall below (See Figure 2).

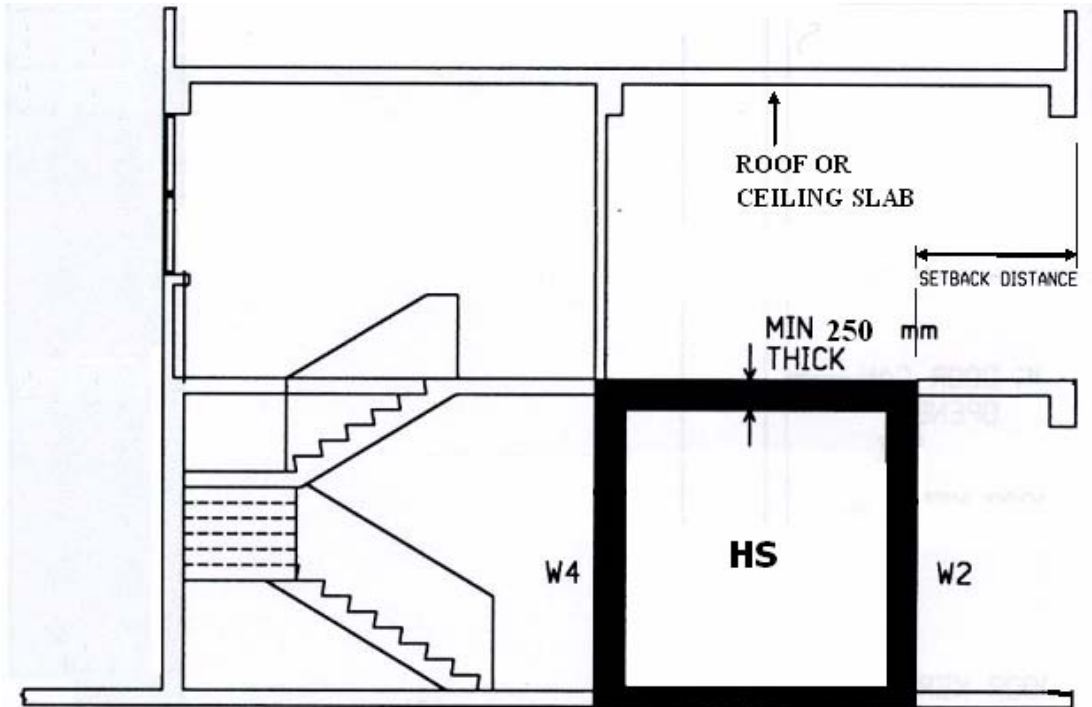


Figure 2: Minimum dimensions of the ceiling slab of HS in landed dwelling unit