

# SINGAPORE CIVIL DEFENCE FORCE

Our Ref. : CD/FSSD/12/02/03/01

Your Ref :

Date : 7 Feb 2013



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

Dear Sir/Mdm,

## USE OF PLASTIC MATERIALS FOR IN-FILL IN BUILDING CONSTRUCTION - FURTHER CLARIFICATIONS

SCDF has received several feedback on common construction practices since the circular on the use of plastic materials for in-fill in building construction dated 21 Aug 12 has been issued. SCDF would like to clarify the requirements for these common construction practices as follows:

- a) Plastic pipes which are embedded in concrete structure for M&E services are permitted provided there is a minimum 30mm concrete cover.
- b) Plastic-based water-proofing membrane that is laid onto the concrete roof / planter boxes that is open to sky is permitted. The membrane may or may not be covered with cement screed. However, membrane that is embedded in the concrete is not permitted.
- c) When a room is subsequently built on top of the concrete roof which was previously open to sky, plastic-based water-proofing membrane shall be removed as it is considered an embedded membrane in the concrete which is not permitted if not removed.
- d) Plastic-based water-proofing membrane of thickness not more than 3mm, that is used indoor for the purpose of water-proofing of floors and walls e.g. toilets, bathrooms, kitchens, etc. is permitted provided there is a minimum protection cement screed or plaster/render of 25mm. However, membrane that is embedded in the concrete floor or wall is not permitted.



- e) Plastic in-fills in RC slab/wall are not permitted, including but not limited to the following types of construction:
- i. Pre-cast / cast-in-situ end wall panels
  - ii. Pre-cast / cast-in-situ façade panels
  - iii. Topping up of floor level
- f) Roof insulation materials with plastic content that are laid on top of the concrete slab (and not light-weight/ metal roof construction), which is open to the sky is permitted (See attached diagrams 1 – 3 on roof insulation construction details depicting what is acceptable / unacceptable.)

2. Please convey the contents of this circular to members of your Institution/ Association / Board. The circular is also available in CORENET-e-Info: <http://www.corenet.gov.sg/einfo>.

3. For any inquiry or clarification on this subject, please contact Mr Pang Tong Teck at DID: 6848 1403, E-mail: [Pang\\_Tong\\_Teck@scdf.gov.sg](mailto:Pang_Tong_Teck@scdf.gov.sg)

Yours faithfully,

(transmitted via e-mail)  
CPT Lim Boon Hsing  
Secretary, FSSD Standing Committee  
for Commissioner  
Singapore Civil Defence Force

cc

All members of FSSD Standing Committee  
President, REDAS  
President, IFE  
President, SISV  
CEO, BCA  
CEO, URA  
CEO, HDB  
CEO, PSA  
CEO, JTC  
CE, LTA  
CE, TUV SUD PSB – (Attn: Ms Emily Mok/ Mr Joseph Chng)  
CE, SPRING Singapore – (Attn: Mr Kenneth Lim)  
President, FSMAS  
Honorary Secretary, SPM

Diagram 1

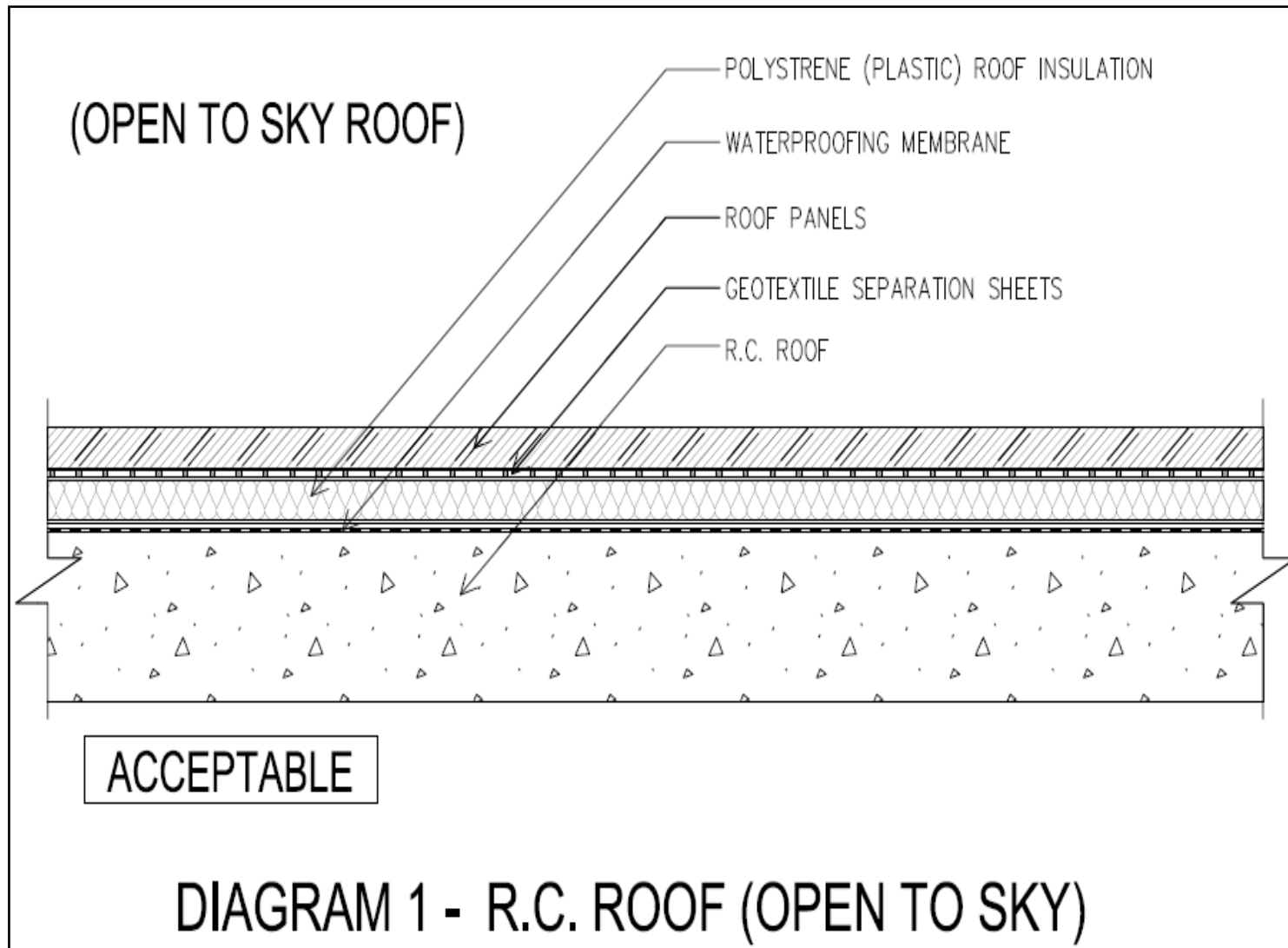


Diagram 2

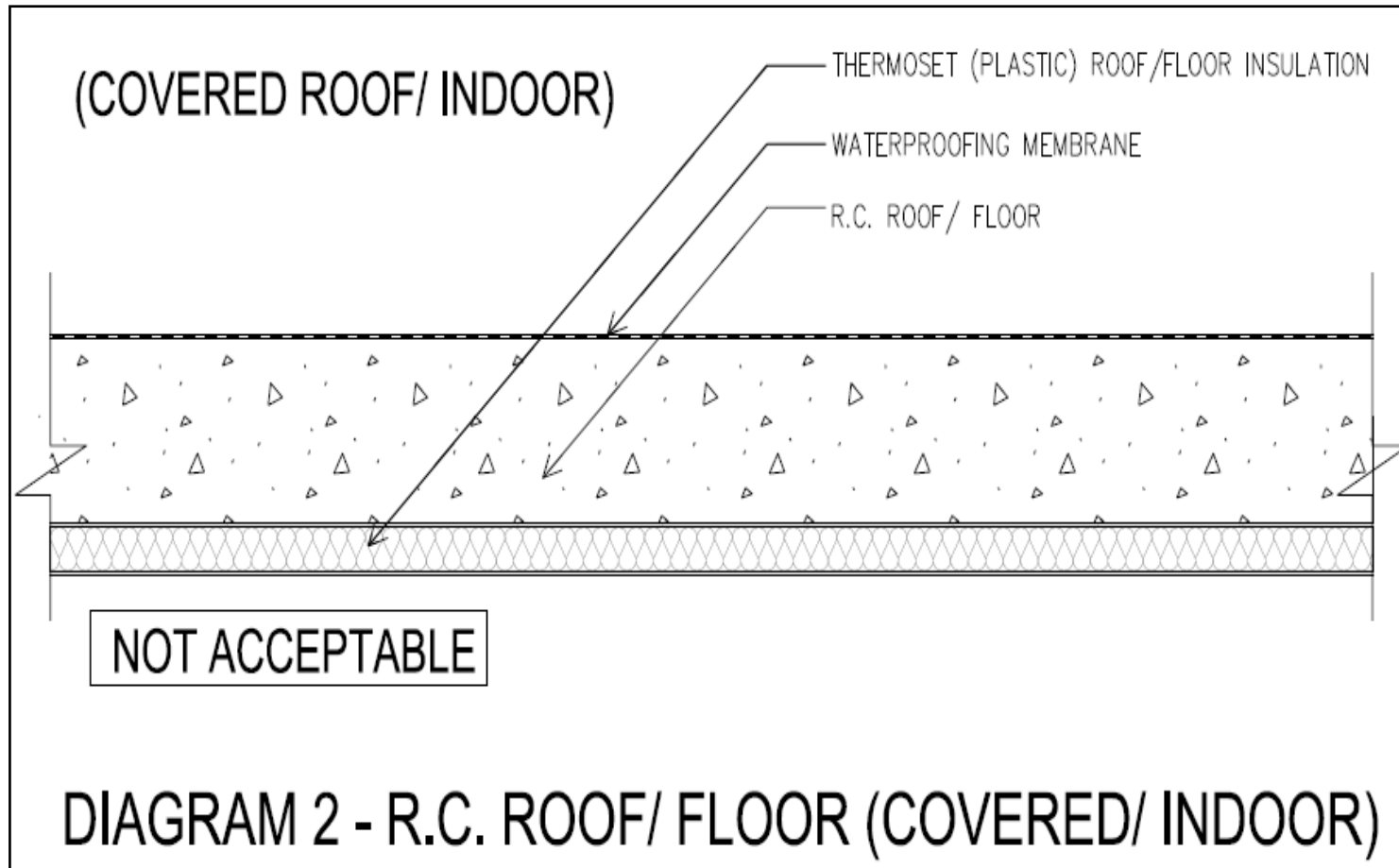


Diagram 3

