

NHBC Risk Guide

Balconies (Revised May 2020)

(Refer to BS EN 12056-3, AD K, SE 46, SE 48, TE 14, Standards Ch 7.1)

Site ref: Site Manager: Inspector:

Date: Signature: Signature:

Provision of information	
It is essential that the following information is available on site:	
Details showing the extent and direction of falls and position of outlets.	
Sections through the construction indicating how the falls are formed, and means of ventilation, if required.	
Details showing the size, specification and position of all the roof components, including the vapour control layer, insulation and waterproofing layer.	
Information of all treatment and protection of materials to achieve the necessary durability.	
Details of construction at critical junctions (e.g. abutments, parapets, edge details).	
Details of balustrading and method of fixing.	
Details of fixing methods and fixings for insulation and surfacing.	
If information is unavailable request its provision.	

Please specify the type(s) balcony required on site including plot numbers					
Type		Plots			Plots
Timber deck	Yes / No		Profiled metal deck	Yes / No	
Concrete deck	Yes / No		Other (please specify)	Yes / No	

Balcony Structure
Balconies should be designed by a structural engineer and have a service life of at least 60 years.
Timber in balconies should be limited to elements which are supported by materials other than timber.
Timber should not be used for: <ul style="list-style-type: none"> ■ gallows brackets, posts or columns supporting a balcony ■ guardrails or their support ■ cantilevered decks or joists ■ infill joists.
In-situ reinforced concrete decks should be formed using a mix which has low shrinkage characteristics, have accurately constructed and suitably supported formwork; and, be protected until adequately cured and dried.
Precast concrete decks should be installed on an even and true supporting structure, have a minimum 90mm bearing (unless design states otherwise), have allowance for continuity or anti-crack reinforcement, and; have allowance for movement at approximately every 15m and at abutments.
Profile metal decks should be constructed in accordance with manufacturer's recommendations to achieve required strength and durability.

Balcony drainage	
Is drainage to the balcony required?	Yes / No
<p>Note: Drainage is required on balconies where areas are 6m² or over. Consideration should also be given to providing drainage to areas that are less than 6m², when considering factors such as exposure, where the water will end up, and potential adverse effects on the building or surrounding area.</p>	
	Flat roofs and balconies should have a finished fall of not less than 1:80, except for flat roofs with metal sheet roof coverings and green roofs which should have a finished fall of not less than 1:60 (fall away from the door).
	The size and number of outlets should be designed to meet the expected rainfall intensity in accordance with BS EN 12056-3.
	For flat roofs bounded by parapets at least two outlets (or one outlet plus an overflow) should be provided. Outlets should have a recessed mouth to allow the free flow of water.
	Where a flat roof or balcony has an upstand on all sides, an overflow outlet should be provided through parapet walls or perimeter upstands to prevent a build-up of water in the event of other outlets becoming blocked.
	The capacity of the overflow should not be less than the (combined) size of the outlet(s).
	If decking or paving to a balcony is to be installed above the waterproofing (but less than 150mm below the sill) it should be a type and design that prevents standing water build-up.
The design should incorporate rainwater outlets that are accessible for maintenance.	
Is water discharging from multiple balconies?	Yes / No
<p>Note: The cumulative effects of water discharging from multiple balconies in vertical alignment should be accounted for to ensure satisfactory in-service performance and avoid issues such as the premature staining of the facade.</p>	

Waterproofing

Type of system being used :	Proprietary		Other
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Note: Proprietary systems should be laid by manufacturer approved contractors.

If a proprietary system, name of manufacturer approved installer;

Waterproofing systems should be laid according to the design, specification and manufacturer's recommendations.

Membranes should not be laid on damp or frosted surfaces or when any rain, sleet or snow is falling, and should not be laid or handled when the air temperature is 5°C.

Once completed the waterproof membrane should be visually inspected and electronically tested for integrity.

The tested membrane should be protected from damage until subsequent layers are applied.

Detailing and special considerations

The tested membrane should be protected from damage until subsequent layers are applied.

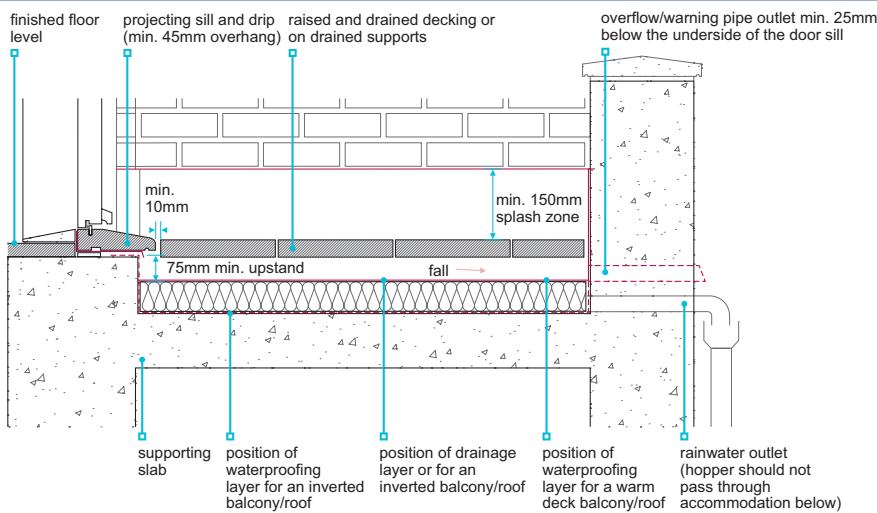
Special consideration should be given to detailing the waterproofing of: abutments, parapets, edge details, fixing of guarding, projections through the roof, and the interface between the façade and balcony waterproofing.

Membrane laps near outlets should not impede drainage.

Accessible balcony threshold

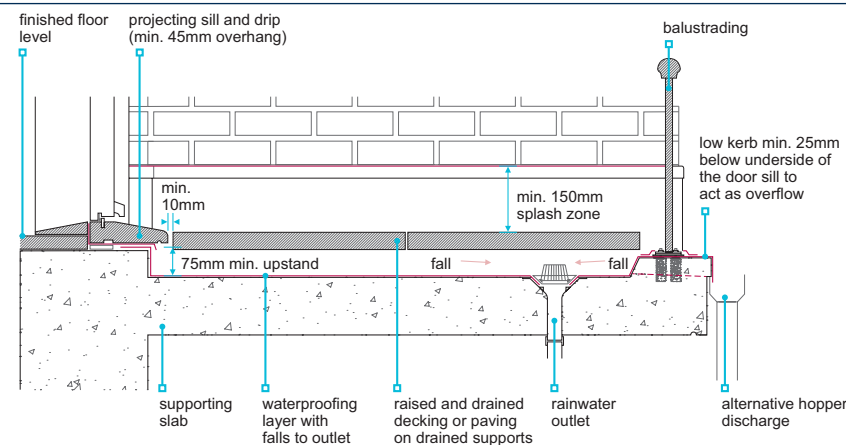
Does the door have an accessible balcony threshold?

Yes / No



Waterproofing layers at zero falls will only be accepted if the waterproofing membrane has a third party assessment specifically for that use.

The membrane should also be fully protected from direct trafficking and be UV resistant unless fully protected from daylight.



The membrane should be capable of withstanding any point loads from supports to decking or paving.

Balcony guarding

Guarding to external balconies should be at least 1100mm high from finished floor level (FFL).

The balustrading should not be easily climbed.

Any glazing in the balustrading should be toughened or laminated glass, or glass blocks.

Balustrading and guard rails should be fixed in accordance with the design details, and should not be fixed through the waterproofing unless special precautions are taken.

Masonry balcony walls should incorporate strengthening and movement joints as required by the design; and copings should be firmly bedded (see parapets and copings risk guide).

Timber should not be used for guardrails or supports.

Guarding to external balconies should be at least 1100m high from the finished floor level.

The balcony guarding should provide containment from a person falling against it by resisting horizontal forces

Other considerations

Stacked balconies, ventilation to timber joisted balconies, weather protection and drainage to wintergardens.

