

# Timber balconies and terraces

(October 2018) (Second issue - supersedes March 2017)



## Question

Where can timber be used in construction of external decking, balconies and terraces to which people have access?

## Considerations

NHBC Standards provides guidance for various types of external decks, including:

- Timber decking - (clause 3.3.2 Table 1)
- Raised timber decking - (clause 10.2.10)
- Balconies - (clause 7.1.4a)
- Flat roof constructions, which includes terraces - (chapter 7.1 'Flat roofs and balconies').

One of the underlying principles of the Standards is that the structure of the home should have a life of at least 60 years.

Exposed external timber components that have a critical safety function require regular inspection and maintenance.

The Timber Decking and Cladding Association (TDCA) provides useful guidance for the specification of timber components and associated design detailing, available at [www.tdca.org.uk](http://www.tdca.org.uk).

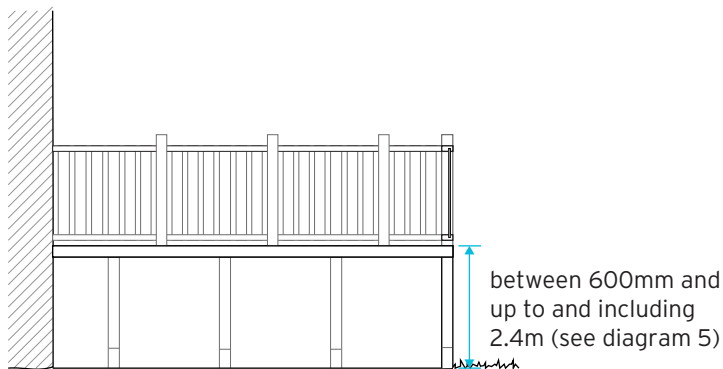
## Answer

Diagram 1 - Timber decking up to 600mm from ground level.



Guidance in clause 3.3.2 Table 1 recommends that softwood timber components should be treated in accordance with BS 8417 to achieve a desired service life of 15 years, (timber treatment is not required where timber used is heartwood only and of durability class 1- 2 as listed in clause 3.3.2 Table 2).

**Diagram 2 - Raised timber decking between 600mm and 2.4m above ground level**



Timber can be used to form raised timber decks when:

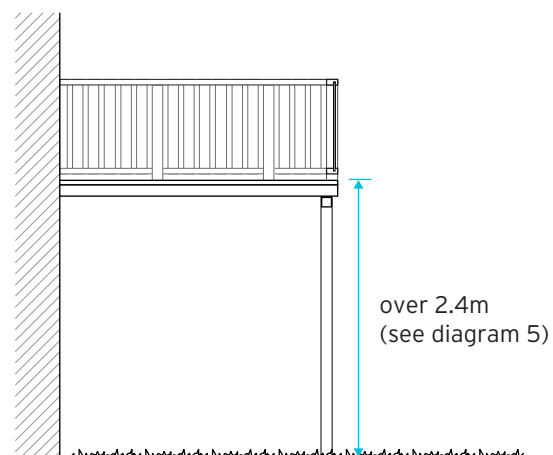
- designed and constructed in full accordance with Code of Practice 'Raised timber deck structures on new homes' published by TDCA, or
- designed by an engineer in accordance with Technical Requirement R5.

Timber columns/support posts (installed out of ground contact), beams, wall plates and joists should be treated to have a desired service life of 60 years.

Deck boards and balustrading should be treated to have a desired service life of 30 years.

The parapet/balustrading should be designed and constructed to follow the guidance in Building Regulations for barriers/guarding. Comprehensive design details can be found in TDCA Technical Bulletin 04: Parapet Design & Construction.

**Diagram 3 - Balconies over 2.4m above ground level**



Because of the increased difficulties when inspecting and maintaining building components at height, restrictions are placed on the use of timber for structural balcony components above 2.4m above ground level.

Timber is not permitted for:

- gallows brackets supporting a balcony
- posts or columns supporting a balcony
- guardrails or their support
- cantilevered decks or joists
- infill joists.

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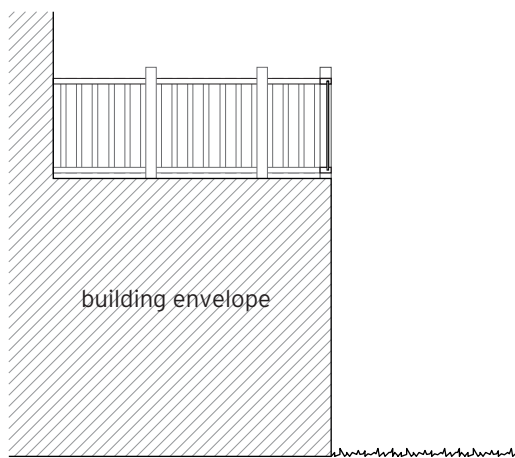
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Timber can be used for decking boards and balustrade infill below a guardrail. Balustrade and decking boards should have a desired service life of 30 years and should be specified and fixed in accordance with:

- the Code of Practice 'Balconies on new homes' published by TDCA, or
- an engineer's design, in accordance with Technical Requirement R5.

Guarding should comply with Building Regulations.

Diagram 4 - Terraced areas



Where timber is used to form a terraced area it should be:

- formed as a flat roof in accordance with Chapter 7.1 'Flat roofs and balconies'
- designed for pedestrian access, and
- the structural decking should be fully covered with a waterproof membrane and not cantilevered.

Guarding should comply with Building Regulations.

**Note applicable to all diagrams:**

Measurements are taken from the top of the deck platform to the lowest ground level vertically below the deck edge. If the ground slopes away at an angle greater than 30° from the horizontal, the vertical drop should be measured 1m horizontally from the deck, as shown in the following diagram.

Diagram 5

