

# TECHNICAL GUIDANCE

## TIMBER BALCONIES AND TERRACES

7.1/02 - March 2017

(First Issue)

### 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:

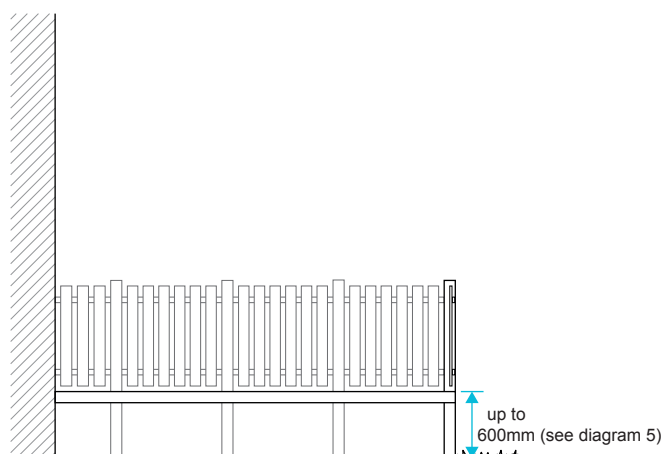
- timber decking - (clause 3.3.2 Table 1)
- Raised timber decking - (clause 10.2.10)
- Balconies - (clause 7.1.4a)
- Flat roof constructions, which includes terraces - (chapter 7.1 'Flat roofs and balconies').

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.

### ANSWERS

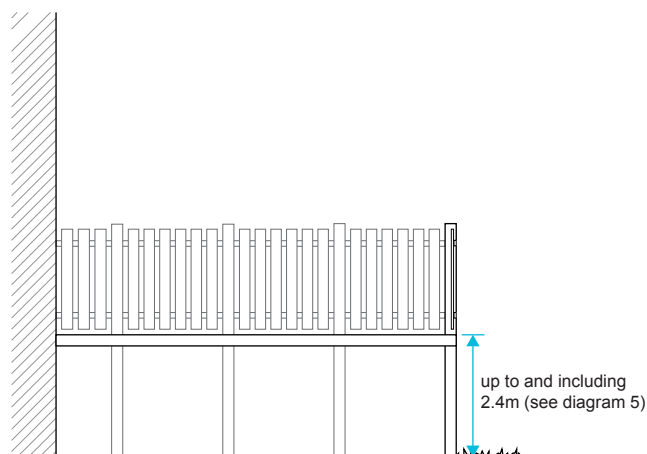
#### Diagram 1 - Timber decking up to 600mm from ground level.



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).

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).

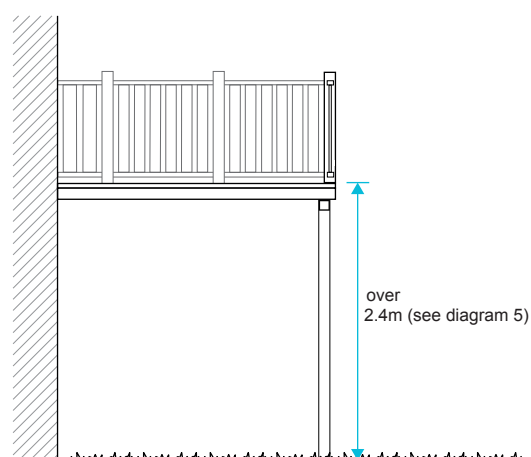
### Diagram 2 - Raised timber decking up to 2.4m above ground level



Timber can be used to form raised timber decks when:

- designed and constructed in full accordance with guidance document 'Raised timber deck structures on new homes - desired service life 60 years' published by TDCA, or
- designed by an engineer in accordance with Technical Requirement R5 with a desired service life of 60 years.

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



Clause 7.1.4a states that structural elements of balconies should have a desired service life of at least 60 years

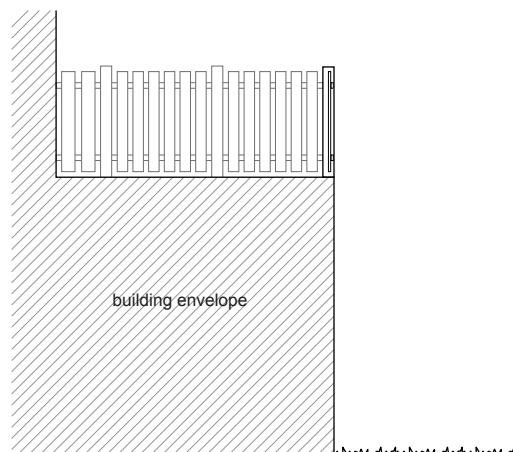
Because of the increased difficulties when inspecting and maintaining building components at height, restrictions are placed on the use of timber for structural balcony components above 2.4m above ground level. Timber is not permitted for:

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

Timber can be used for balustrading below a guardrail and decking boards. Decking boards should have a desired life of 60 years and should be specified and fixed in accordance with:

- guidance from the Timber Decking and Cladding Association, or
- an engineer's design, in accordance with Technical Requirement R5.

### 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.

### 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  $30^{\circ}$  from the horizontal, the vertical drop should be measured 1m horizontally from the deck, as shown in the following diagram.

### Diagram 5

