

# Falling Space and Impact Area



Playground injuries most frequently occur when a child falls from play equipment onto a hard surface. Playground equipment that measures 600mm or more above ground level requires a falling space and impact area. The falling space and impact area is a safety zone that surrounds the equipment and is free of obstacles.

Tested playground surfacing is required within impact areas. Surfaces must have proof of testing in accordance with AS/NZS 4422. Refer to the information sheet titled *Playground Surfacing*.

## Free Height of Fall

The maximum height of platforms for playground equipment:

- All Age settings (schools and public playgrounds) - 3000mm.
- Education and Care services - 1800mm.

This is measured from the playing surface to the intended point of body support e.g. foot, hand, or seated position.

## Falling Space and Impact Areas

The extent of the falling space and impact area is measured from a point directly below the elevated part of the equipment where the equipment measures 600mm or more above surface level.

For static equipment items with platforms 600 – 1500mm above ground, the falling space and impact area is 1500mm. AS 4685:2014 presents a graded system of falling space and impact area for platform heights of more than 1500mm.

Specific falling space and impact areas apply for each type of moving equipment such as swings, rocking equipment (e.g. spring rockers, see saws), cableways (e.g. flying foxes) and carousels. *Kidsafe NSW* is available to discuss the impact areas and playground surfacing requirements detailed in the Australian Standard for different items.

If engaging the services of an equipment supply company, landscape architect or designer, request that falling spaces and impact areas for equipment items are clearly dimensioned on the plan.

When purchasing new equipment the falling space and impact area must be determined by the manufacturer in accordance with AS 4685. Request and retain certification of conformance from the manufacturer.



## Shared Falling Space and Impact Areas

Falling space and impact areas between static equipment items can be shared. Refer to Figure 1 below. The falling space and impact area for swings and carousels may not overlap with those for other equipment items.

*Kidsafe NSW* recommends that separate impact areas for all moving equipment are provided.

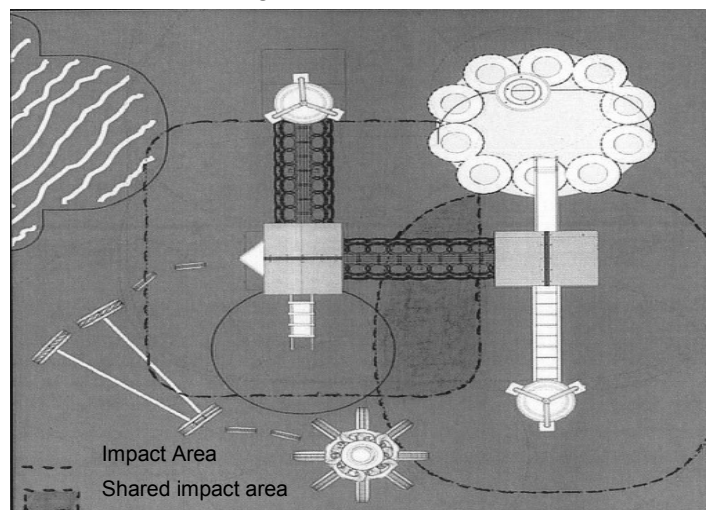


Figure 1: Example of shared impact areas surrounding static equipment.

# Impact Areas for Specific Equipment Types



## Swings

AS 4685 allows for a reduction in the amount of impact attenuating surfacing required for swings that are self-aligning. Contact *Kidsafe* for further information.

## Slides

Falling space and impact areas are required to be provided surrounding slides elevated more than 600mm above playing surface in accordance with AS 4685.

An impact area filled with certified surfacing (1m rating) is required to be provided beyond the end of all slides irrespective of height.

- **Type 1 Slide** (short run-out section with long impact area): the impact area is at least 2000mm beyond the end of the slide.
- **Type 2 Slide** (long run-out section with short impact area): the impact area is at least 1000mm beyond the end of the slide.

Contact *Kidsafe NSW* for further information.

## Cableways

A minimum 2000mm impact area shall be provided to each lateral side of the cable. In addition, a minimum 2000mm impact area is required beyond the end of the maximum swinging position of the grip or seat.

## Carousels

A minimum impact area of 2000mm is required surrounding any carousel.

## Giant Revolving Discs

A minimum impact area of 3000mm is required from the side of a revolving disk.

## Rocking Equipment

A minimum impact area of 1000mm is required surrounding a rocking equipment item.

## Spatial Networks

Refer to manufacturers certification of conformity for impact area requirements.

## Moveable Play Equipment Items

A minimum impact area of 1500mm is required surrounding moveable equipment items measuring 600mm or more above the playing surface. Refer to the information sheet :*Moveable Equipment*.

The area for setting up moveable equipment (photo below) has been indicated with the use of the black wet pour rubber. The impact area is highlighted with the use of the red and green sections.



**Impact area for equipment less than 600mm above ground level** must be provided with an impact area of less than 1500mm (AS 4685:2014 4.2.8.2.5). *Kidsafe NSW* recommends a circulation zone of 1000mm is provided surrounding low equipment items that are designed for climbing, rocking or jumping.

KIDSAFE NEW SOUTH WALES Inc.  
Playground Advisory Unit

P: 02 9845 0893 F: 02 9845 0895  
E: kidsafe@chw.edu.au

[kidsafensw.org](http://kidsafensw.org)