

playground standard impact area & free space guide

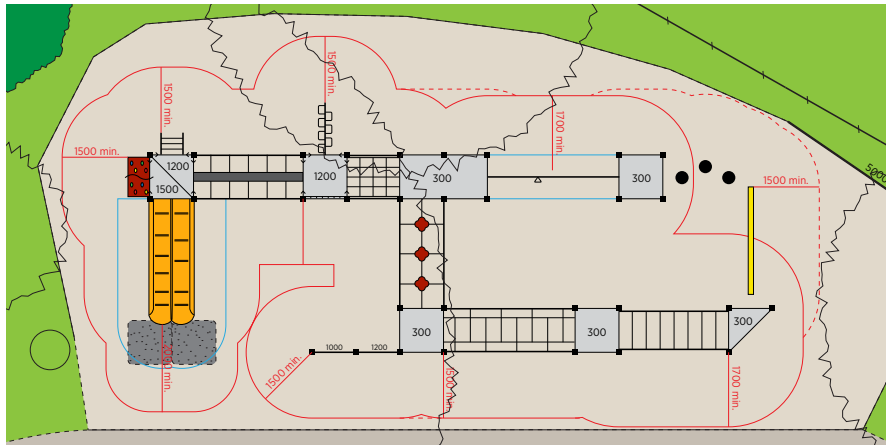
The main playground standard, AS4685, is over 100 pages and covers a huge range of compliance topics. This guide covers the general aspects of impact area and free space requirements from the standard. Due to varying circumstances, there may be a few variations to the rules that are discussed. If in doubt, be free to contact the knowledgeable consultants at **adventure+**.

It is critical to understand the concepts regarding impact area and free space to prevent difficulties in the construction of the a play space. If there is inadequate space around equipment, it will likely have to be relocated, or landscape elements around it modified, which is obviously both costly and a waste of time.

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IMPACT AREA

The red line indicates the minimum impact area as per AS4685-2021 which is the area that a user could fall into if they were to fall from the equipment.

It must be free of all obstacles and have an impact attenuating surface like mulch or rubber.

The size of the impact area varies according to the height a user could fall from. This height is called the 'free height of fall'.

Non moving play items with a free height of fall less than 600mm do not require an impact area.

The maximum free height of fall allowed is 3000mm.

RECOMMENDED CLEARANCE AREA

The dashed red line indicates an area that doesn't require an impact area under AS4685 (free height of fall is under 600mm), but is recommended by **adventure+**.

FREE SPACE

The blue line indicates the required free space as per AS4685-20121 which is the area taken up by the user undergoing forced movement.

Forced movement is movement over which the user has no control.

Example: When a user slides down a slide, they cannot stop part way down. Items with forced movement include swings, carousels, rockers, track rides, flying foxes and fireman's poles.

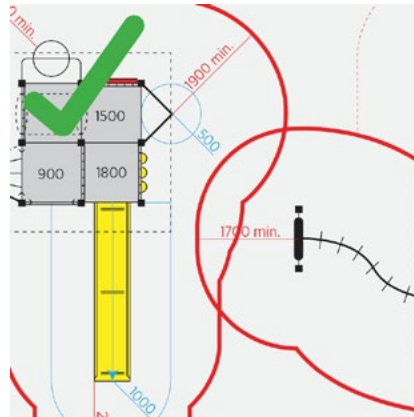
Free space is measured as a three dimensional cylinder, with a radius from the centre of the user that varies according to the type of use.

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IMPACT AREA EXAMPLE

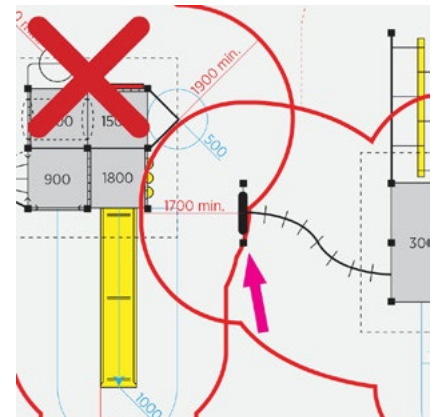
Generally, the impact area (red line) of separate pieces of equipment can overlap. However, the impact area must not overlap with playground equipment, or any other obstruction.

A few exceptions to this rule are explained below.



CORRECT

There are no objects in the impact area of the play equipment.

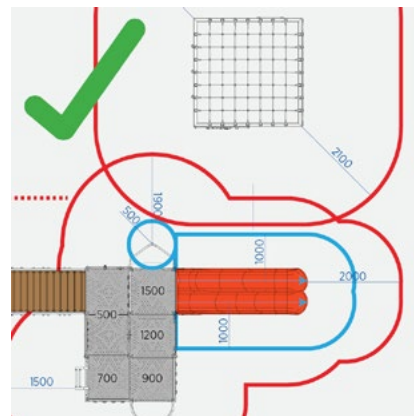


INCORRECT

Play equipment is overlapping into the impact area of other play equipment.

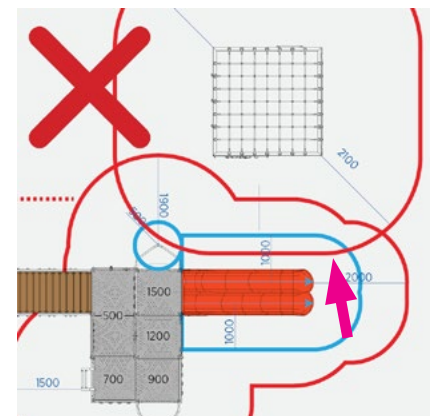
FREE SPACE EXAMPLE

The free space of any item cannot be overlapped with the impact area or free space of any other piece of equipment.



CORRECT

The free space (blue line) does not overlap with any other impact areas (red line).

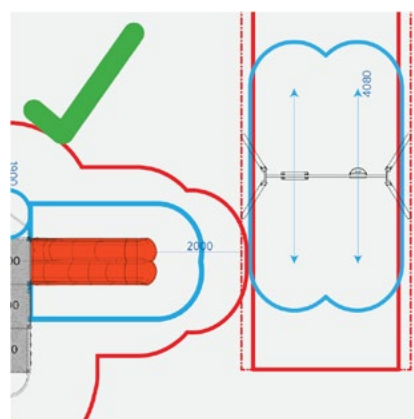


INCORRECT

The impact area (red line) is entering into the free space (blue line) of the rocker.

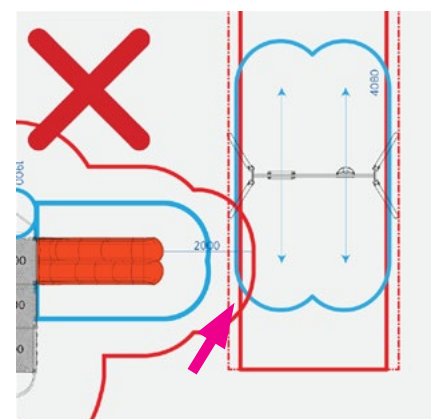
IMPACT AREA EXCEPTION EXAMPLE

There is an exception to the impact area shown above. Swing impact areas cannot be overlapped by any other impact area.



CORRECT

The impact area of this swing does not overlap the impact area of other equipment.



INCORRECT

The impact area of the swing overlaps the impact area of other equipment.