



# INFORMATION SHEET

BUILDING SERVICES

Ref: NAT BCA 12-24

## GLASS BALUSTRADES (NAT)

Australian Standard 1288 '*Glass in buildings – Selection and Installation*' was revised in 2006 and now includes a restriction on the use of certain glass balustrades for building floor levels one metre and over when measured from an adjoining floor level or area.

The change requires glass balustrades at these heights provide a handrail that will take an imposed load and provides two options to achieve this.

It is important to note that in addition to these provisions for glass balustrades set out in the Glazing Standard, there are also general loading requirements for balustrades and barriers. These are intended to ensure that the balustrade will be able to take imposed loads as a result of day to day use and also other loads such as wind loads for external balustrades. These other requirements are covered in Australian Standard 1170 *Part 1 'Structural design actions - Permanent, imposed and other actions'*.

### What are the requirements under AS 1288?

To provide clarification the following types of glass balustrades are provided for in the Australian Standard AS 1288:

- **Example 1** restricts the use for those balustrades that do not rely on an additional handrail for support.
- **Example 2** relies solely on a handrail for support,
- **Example 3** acts as an 'assembly' with the glass and handrail acting together but requires that if one of the glass panels breaks the handrail will continue to provide support.

### **Example 1 – Structural glass balustrades**

Either the top edge of the glass acts as the handrail or the glass supports a handrail that is fixed to the glass and relies on the glass for structural support. These types of handrails **cannot be used at heights one metre or greater**.

This picture shows a glass handrail that relies solely on the glass for support that was an acceptable design prior to the changes in 2006, but is now not compliant with the Standard where used at 1 metre or higher above the level below.

Therefore the use of the glass as a handrail is now only permitted where the balustrade is within 1 metre of the ground level below.

---

DISCLAIMER - The above is intended to provide general information in summary form. The contents do not constitute specific advice and should not be relied upon as such. Formal specific advice should be sought by members with respect to particular matters before taking action.

phone 1300 650 620 | fax 1300 655 953 | enquiries@hia.com.au | hia.com.au



***Example 2 – Load supporting handrails***

The handrail is mechanically fixed to the structure, independent of the glass, but the glass can be connected to it. The handrail is taking the entire load. These types of handrails can be used at height 1 metre or greater above the level below.

The picture below shows a glass balustrade and independent handrail.



### **Example 3 - Interlinking handrails**

The handrail is non-load-supporting, **unless** a panel breakage occurs, and is connected to adjacent panels of glass, or the building, where the adjacent panels are at least 1000 mm wide and three or more panels of glass form the balustrade. If **any one panel** fails, then the remaining **panels and handrail** shall be capable of resisting the loads. This still provides reliance on the handrail for ultimate support.



### **Alternative solutions**

It is always possible to adopt an alternative solution and use balustrade designs that are outside the scope of the Australian Standard.

This generally requires having a balustrade or barrier designed by an engineer who can determine that it will provide adequate structural support. The relevant building surveyor assessing the designs for the purpose of issuing a building permit/approval for the building work would also need to agree to allow the alternative solution and note this on the building permit.

This pathway can allow others, such as stair and balustrade manufactures and suppliers, to rely on this alternative solution and not risk supplying non-compliant systems or elements, where the relevant building approval authority also agrees with the solution.

**For more information on the rules for glass balustrades, HIA members can contact HIA Building Services staff on 1300 650 620 or [hia\\_technical@hia.com.au](mailto:hia_technical@hia.com.au).**