

Section 1

REQUIREMENT N1

Critical Locations

1.1 The following locations may be considered 'critical' in terms of safety;

- between finished floor level and 800mm above that level in internal walls and partitions, (see Diagram 1),
- between finished floor level and 1500mm above that level in a door or in a side panel, close to either edge of the door (see Diagram 1).

Reducing the risks

1.2 Glazing in critical locations should either,

- break safely, if it breaks, (see paragraph 1.3), or
- be robust or in small panes, (see paragraphs 1.4, 1.5 and 1.6 and Diagrams 2 and 3), or
- be permanently protected, (see paragraph 1.7 and Diagram 4).

Safe breakage

1.3 Safe breakage which, in practice, is concerned with the performance of laminated and toughened glass, is defined in BS 6206: 1981 *Specification for impact performance requirements for flat safety glass and safety plastics for use in buildings*: clause 5.3, and is based on an impact test which requires the result of the impact to be limited to creating:

- a small clear opening only, with a limit to the size of the detached particles, or

b. disintegration, with small detached particles, or

c. breakage resulting in separate pieces that are not sharp or pointed.

Robustness

1.4 Some glazing materials, such as annealed glass, gain strength through thickness; others such as polycarbonates or glass blocks are inherently strong. Some annealed glass is considered suitable for use in large areas forming fronts to shops, showrooms, offices, factories, and public buildings. Reasonable glass thickness/area limits for annealed glass which may be used in these locations are shown in Diagram 2, (see also paragraph 2.1).

Diagram 2 Annealed glass thickness/area limits

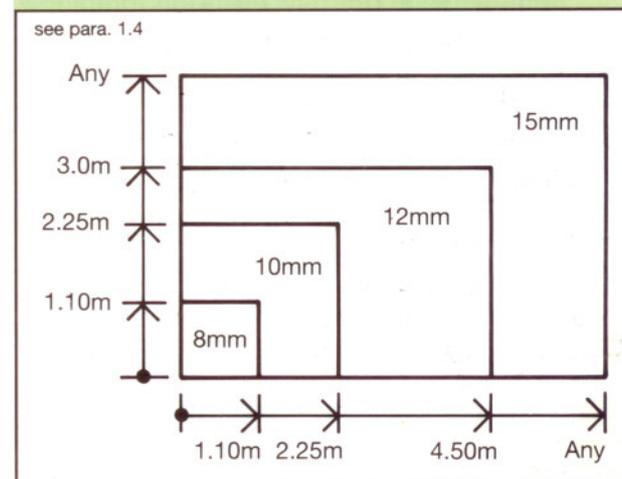
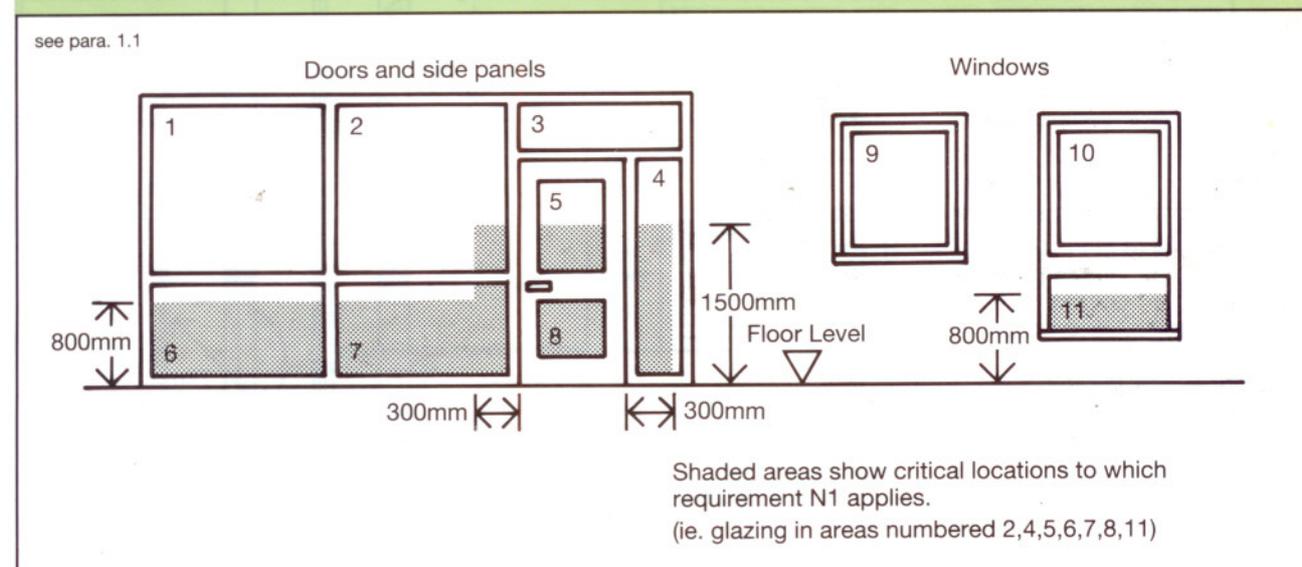


Diagram 1 Critical locations in internal and external walls

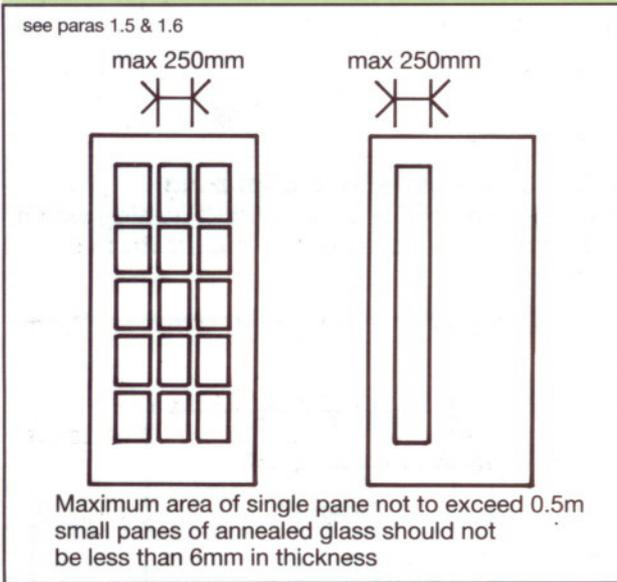


Glazing in small panes

1.5 In the context of this Approved Document, a 'small pane' may be an isolated pane, or one of a number of panes contained within glazing bars.

1.6 Small panes should have a maximum width of 250mm and an area not exceeding 0.5 m², each measured between glazing beads or similar fixings. Annealed glass in a small pane should not be less than 6mm nominal in thickness. Typical installations are shown in Diagram 3.

Diagram 3 Dimensions and areas of small panes



Permanent screen protection

1.7 If, as part of a design solution, glazing in a critical location is installed behind permanent screen protection, the screen should;

- a. prevent a sphere of 75mm from coming into contact with the glazing,
- b. be robust and,
- c. if it is intended to protect glazing that forms part of protection from falling, be difficult to climb.

1.8 Glazing in a critical location which is afforded permanent screen protection, does not, itself, need to comply with requirement N1. The principles of screen protection are shown in Diagram 4.

Diagram 4 Permanent screen protection

