



# Glazed Surfaces and Manifestation

Dave Croft – 22<sup>nd</sup> Jan 2006.

## 1 Glazed Surfaces

Tactile and colour contrasted surfaces should also be used to warn of automatic and rotating doors. These are needed to warn people with low vision or hearing of their approach to a possible hazard.

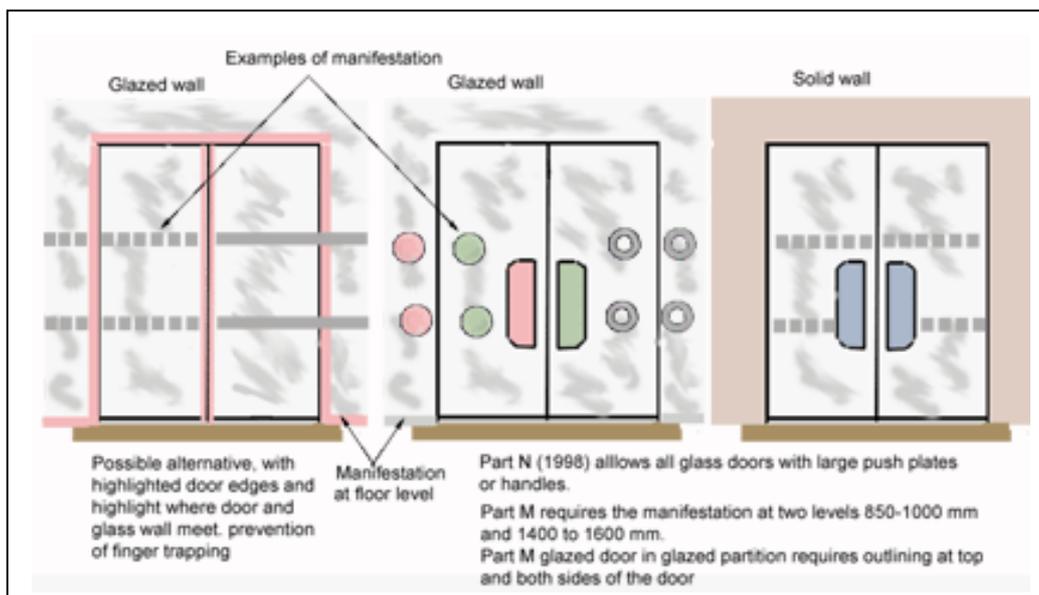
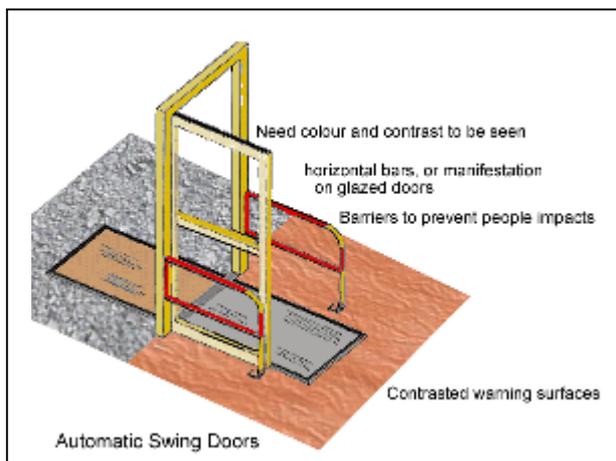
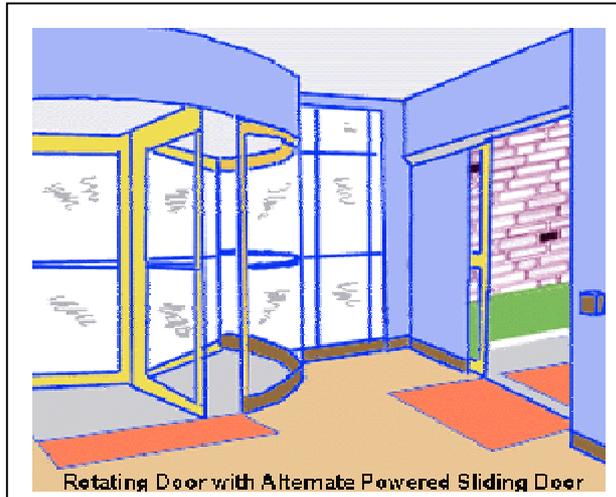
The top bottom and sides of the door need to be visible as does any glazed partition surrounding the door. Vision

bands should be at least 25 mm wide solid colours.

Bright colours are not essential what is important is that they contrast with the background under all lighting conditions.

Glass must be toughened, resistant to breaking and if broken the glass must not form sharp edges.

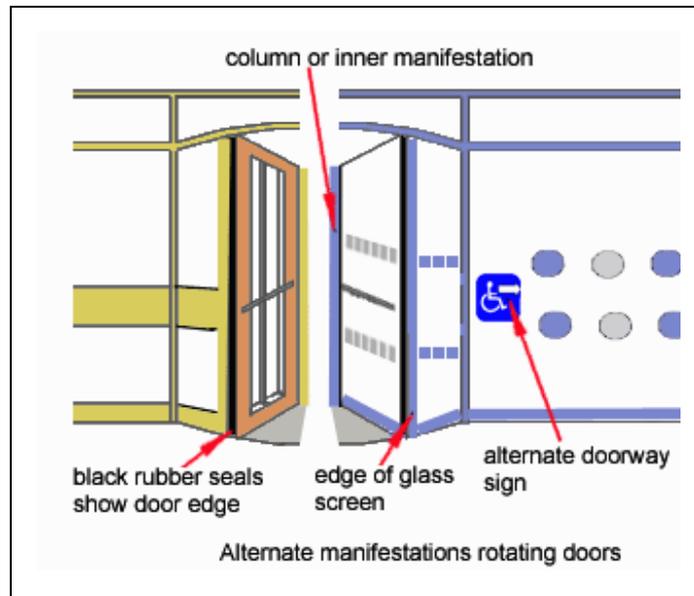
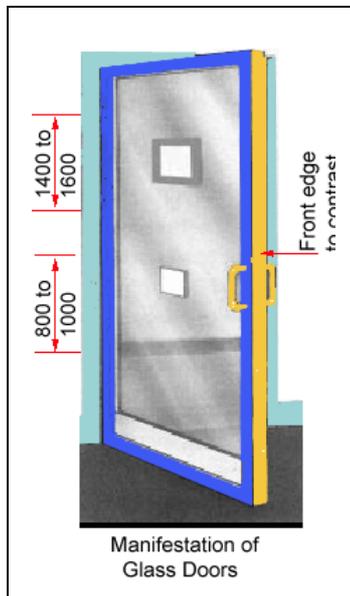
Automatic swing doors should have the tactile surface far enough from the door to allow time to stop in a safe place.





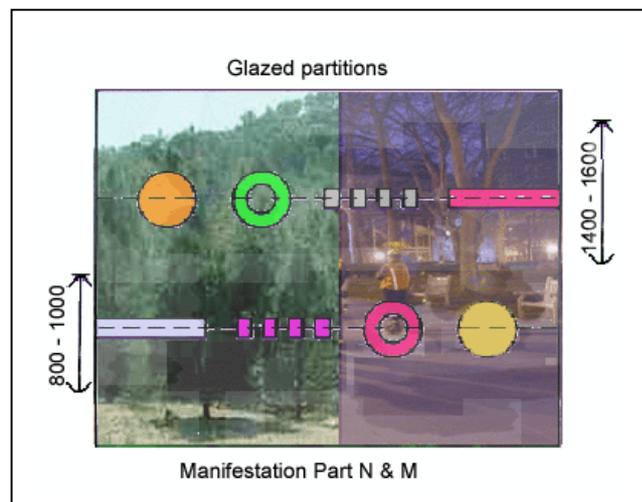
900 mm high side barriers should be visible and prevent people walking into the swing.

## 2 Manifestation



Glazed walls and inset doors need to have manifestation.

Part N requires manifestation only at 1500 mm height, this does not take into account children small adults and mobility vehicle riders. A second lower set of manifestation is needed.

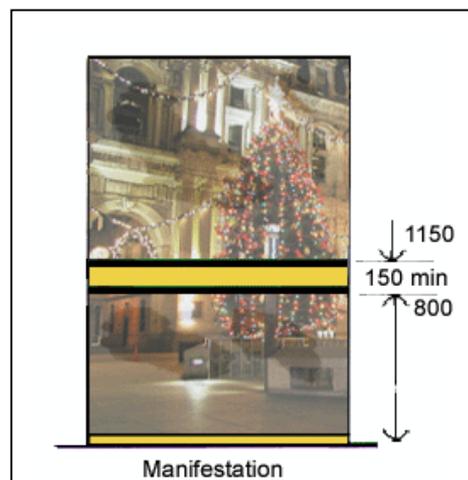


Research published in

2006 will recommend changes to Part N and M with regard to manifestation these proposed changes can be found in the Appendix to this guide.

Part M requires greater manifestation at two height ranges.

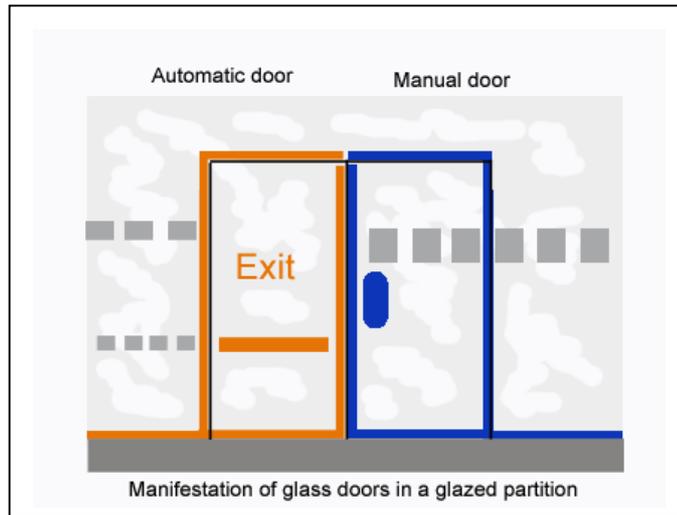
Manifestation can be of many shapes, the essential criteria are visibility - colour and density, contrast with background in all light conditions, size 100-200 mm high.





Full height glazed walls or windows should always have manifestation. This can be especially important in fire smoke or chemical fume situations where people can become disoriented and mistake the window for an exit.

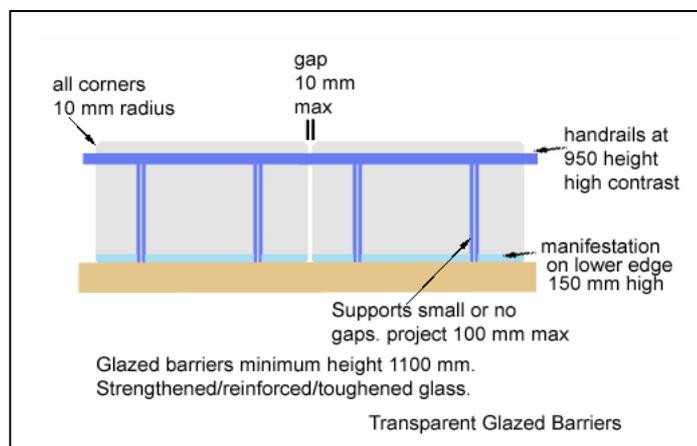
The ability to see glass doors set in glazed walls and partitions is important. The wall and door must be clearly differentiated from each other.



The front edge of the door needs to be seen when closed and edge on when open. To prevent people walking or children running into the edge.

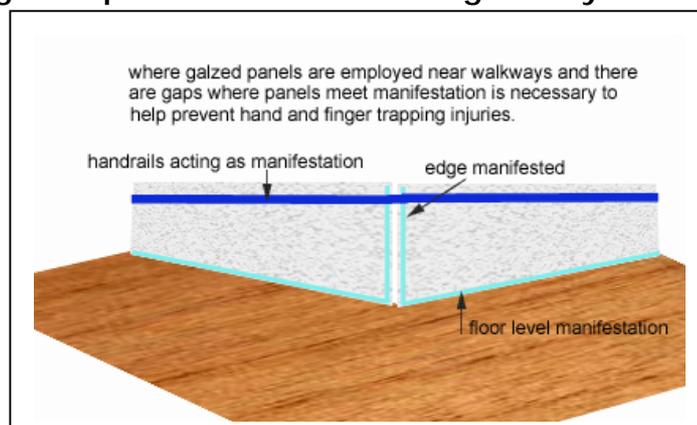
The rear edge must be visible to prevent people, especially children and visually impaired people, slipping their fingers into the gap between the door and panel when the door is open.

Vision bands should be at least 25 mm wide solid colours. Bright colours are not essential what is important is that they contrast with the background under all lighting conditions.



### 2.1 Barriers

Where glazed barriers are used to guard the edges of platforms and floor edges they need to be clearly manifested. The upper edge will normally be manifested with a handrail and vertical supports will outline the panels. The lower edge needs to be manifested so that people using tapping canes can find the





barrier. It also aids people with low vision to identify the edge to prevent kicking of the glass or banging with walking aids.

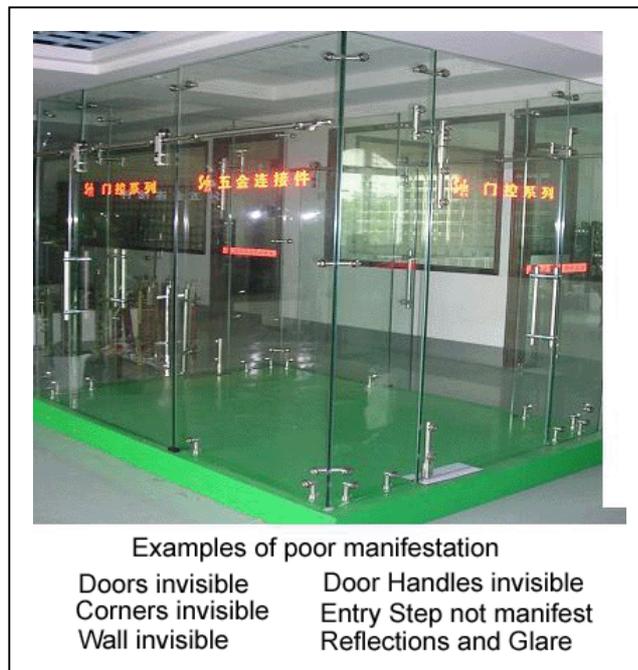
Where glazed barriers are used as guarding it is important to ensure that gaps at joins do not become a hazard for trapping fingers or hands. They also need to be manifested so that young children do not run into the edges.

The bands should be solid colours 25 mm high and close to vertical edges and 50-75 mm above floor level on bottoms of panels. Contrast is important bright glaring colours are not necessary and can be self defeating.

## 2.2 Example of Poor Use of Glazing

This example illustrates poor manifestation.

- Reflection and glare
- Undefined corners on walls.
- Door undefined
- Door furnishings not visible. Small diameter stainless steel.
- Skirting not visible





## Appendix Manifestation Part N

The following changes to Part N Manifestations are suggested in Building Research Technical Report 9/2005 – January 2006.

The following is example only and not the full text.

1. That manifestation is to be increased to cover at least 10% of the manifestation zones of glazed doors, walls or panels.
2. Allows Manifestation to take the form of a continuous or broken line, sign, logo or patterning on the glass that covers a minimum of 10% of the glazing area within the specified zone. This can be achieved by marks on the glazing or hardware, such as:
  - Any line, sign, logo or patterning placed in an area between 850 and 1600 mm above the floor. Or
  - Any hardware such as door handles, push/pull plates, framing or rails placed in an area between 850 and 1600 mm. Or
  - A combination of the above
3. There is also a suggestion that where the bottom 450 mm is opaque other manifestation is not needed.
4. Glass doors adjacent to or forming part of, a glazed screen should be clearly differentiated from the screen by a different type of manifestation to that used on the screen. Doors should also have a high contrast strip along the top, sides and bottom edges of the door.
5. Manifestation should not turn the area into a reflective or mirror surface.

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