

091202

## LEAKING SHOWER SCREENS

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### THE ISSUE

The owners of a two-storey suburban home noticed what appeared to be watermarks on the underside of the ceiling below the main bathroom. The leak was estimated to be in the area immediately below the shower tray.

The staining on the ceiling was detected at an early stage and probably prevented the long-term exposure of timber flooring members to the effects of moisture. The owners expressed great concern about the proximity of the staining and down-lights in the ceiling. Evidence of water entry into the actual light fittings was obvious.



### OBSERVATION

Although the drainage of the shower was concealed in a bulkhead it was not considered necessary to conduct any destructive investigation of the plasterboard ceiling to establish the condition of pipe-work. Instead, flood testing of the tray was carried out which did not result in visually activating the apparent leak.

concentrate the shower nozzle at the hob/screen junction to simulate the flow of water during use. After approximately 10 to 15 minutes of water flow, the area of staining was observed to become noticeably moist.

As the shower screen was located on the outside edge of the formed hob, it was decided to

Water was also observed to pass between the bottom edge of the shower screen door and the top edge of the tiled hob. This was considered to also be indicative of the normal use of the shower.

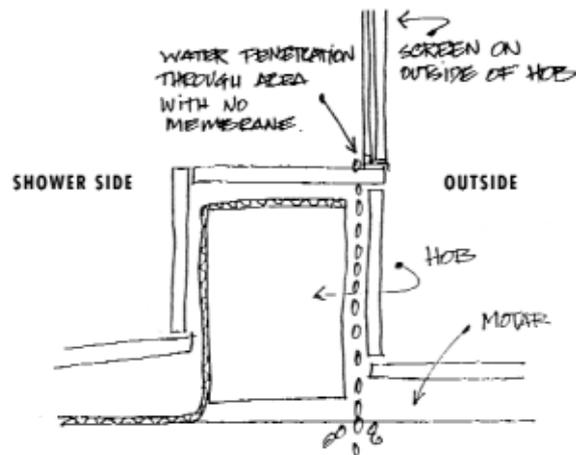


## REASON FOR FAILURE

Analysis of the observations concluded the following:

- The water was found to be tracking through the inside face of the tile on the outer edge of the hob and the hob itself.
- There was no indication of a waterproof membrane at this location.
- Water migrated through the flooring members and became evident on the outside face of the plasterboard ceiling.

SHOWER SCREEN LOCATION - OUTSIDE EDGE OF HOB.



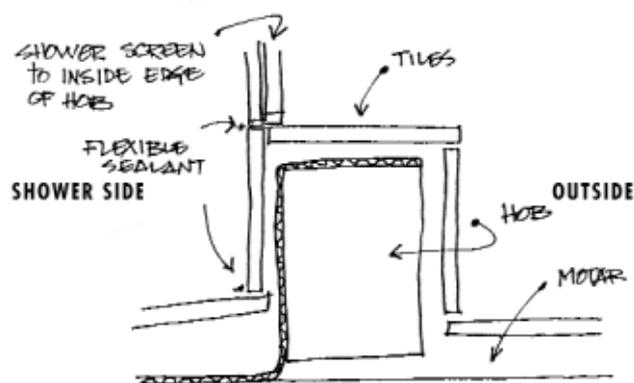
## CORRECTIVE MEASURES

The problem was corrected by:

- Removing the shower screen from the top of the hob
- Re-tiling and repairing the waterproofing membrane where required
- Relocating and sealing the shower screen to the inside edge of the hob
- Providing (as a precautionary measure) a hinged flexible flap to the bottom of the shower screen door to restrict water flow to the outside of shower enclosure.

The corrective measure of moving and properly sealing the shower screen to the inside edge of the hob brought the enclosure into conformity with the requirements of Australian Standard 3740 – Waterproofing of wet areas within residential buildings.

SHOWER SCREEN LOCATION - INSIDE EDGE OF HOB.



## PREVENTION

Observing the correct installation of shower screens can easily prevent this kind of failure. Australian Standard 3740 1994 – Waterproofing of wet areas within residential buildings clearly sets out the location of screens in relation to hob construction.

Screen enclosures when fitted to hobs are required to be fitted flush with the inside vertical face of the hob and sealed at that location with flexible sealant. To enhance the efficiency of the mechanical sealing at this location, an angle over the inner vertical/horizontal junction of the hob can be incorporated. This will then act as an extension of

the screen over the junction of the vertical and horizontal tiles.

## REFERENCES

Other references that may be of use in these types of installations are:

- Australian Standard 3740-1994 Waterproofing of wet areas within residential buildings.
- Building Code of Australia Part 3.8 Health and Amenity –Wet areas (3.8.1)

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