

Determination

under the

Building Act 1991

No. 92.1102: Handrails for an Assembly Service Building

1. The matter to be determined

- 1.1 The matter before the Authority was a dispute arising from a territorial authority's refusal to issue a building consent in respect of proposed handrails for a building with the classified use of Assembly Service. The application for building consent was made on the basis that a waiver was required, although it was not clear whether the waiver was sought in respect of the provisions of the New Zealand Building Code or of the relevant Approved Document.
- 1.2 The Authority takes the view that it is being asked to determine under Part III of the Building Act 1991 whether the proposed handrails comply with clause F4 of the New Zealand Building Code, and if not whether a waiver of those requirements is justified. In making its determination, the Authority has not considered whether the plans comply with any other provisions of the New Zealand Building Code.
- 1.3 The handrails are for stairs, external walkways, and internal openings between floors. The documents submitted to the Authority show the handrails as essentially 915 mm high with angle section steel uprights at approximately 1 m centres and horizontal tensioned steel cables between the uprights at 144 mm vertical intervals. On stairs, the cables follow the pitch line of the stair.
- 1.4 The territorial authority considers that "Young children have the ability to either climb the tensioned cable rails or squeeze between them, and therefore increase the likelihood of an accidental fall".
- 1.5 The applicant does not dispute that the building is likely to be used by young children, but contends that the conditions in the building concerned are such that "children under the age of six will be under constant supervision and surveillance" either by the staff of the building or by accompanying adults.
- 1.6 Neither of the parties wished to speak or call evidence in support of their submissions.

2. Discussion

- 2.1 The Authority notes that the handrail design does not comply with the acceptable solution, F4/AS1, in Approved Document F4 “Safety from Falling” . That acceptable solution includes requirements that minimum barrier heights shall be 1000 mm on floors and landings and 900 mm on stairs or ramps measured from the pitch line or nosings, and that in buildings likely to be used by young children a barrier shall have no openings through which a 100 mm diameter sphere can pass and no component between the heights of 150 mm and 760 mm above the floor (or stair nosing) level which can provide a toehold that could enable a child to climb over the barrier. The Authority considers that those requirements allow a wide range of design solutions. However, the Building Act specifically provides that the Approved Documents issued under section 49 of the Act shall not be the only means of establishing compliance with the New Zealand Building Code, and the Authority is anxious to ensure that the Approved Documents do not inhibit different design approaches expressed in alternative solutions.
- 2.2 The Authority considers that the handrail design as shown in the plans does not comply with the New Zealand Building Code because:
- (a) The handrail is not of an appropriate height in relation to the average adult hip-height and centre of gravity, and therefore does not adequately reduce the likelihood of an accidental fall over the handrail;
 - (b) The space between the cables, coupled with the flexibility of the cables, is too great to adequately prevent children from falling through the handrail; and
 - (c) The handrail could readily be climbed by children under six years of age, and therefore does not adequately restrict the entry of children of that age.
- 2.3 The Authority does not consider a waiver is justified in this case. As regards the question of supervision of children, the Building Act does not cover the management of buildings in that respect, and assurances as to future management practices will rarely be enforceable under the Act. Furthermore, in this case, it would take only a few seconds for a child to climb over or fall through the handrail and it is unreasonable to expect a level of supervision that could prevent that.
- 2.4 The Authority recognises that the visual appearance of the handrail is appropriate to the intended use of the building concerned, but does not consider that a wish to achieve an appropriate appearance justifies a waiver of the requirements of the New Zealand Building Code, particularly as it appears to be possible to achieve an appropriate visual appearance within the constraints of the New Zealand Building Code. The Authority also notes that a number of similar handrails have been used in recently-constructed buildings, but does not consider that previous use justifies a waiver.

3. The Authority's decision

- 3.1 In accordance with section 20(a) of the Act, the Authority hereby confirms the decision of the territorial authority.

Signed for and on behalf of the Building Industry Authority on this 3rd day of December 1992.

J H Hunt
Chief Executive