



ADVISORY NOTICE BUILDING

06/06

Advisory Notices are issued to assist in the interpretation of the Development Act 1993

June 2006

TECHNICAL:

Natural Light in Child Care Centres

Background:

Child Care Centres are licensed by Children's Services Licensing and Standards, in the Department for Education and Children's Services, who require compliance with the natural light provisions of the Building Code of Australia for licensing. Recently there have been circumstances where building owners and designers have wanted to vary the BCA requirements and have queried the need for natural lighting to sleeping areas in child care centres. Accordingly, an explanation of the need for natural lighting in child care centres and how this relates to the Building Code provisions is provided in this Notice.

Discussion:

The requirement for daylight in child care centres is based on its benefits to public health and human development. Extensive research on the effects of natural daylight and exposure to the changing light and rhythms of the day, confirms it has positive benefits to both adults and children.

The requirement for windows in all rooms where children may spend any length of time is related to the known developmental health benefits for young children that arise from exposure to the rhythms of natural daylight. For example, research on infants in the UK found that babies who slept well had been exposed to twice as much natural light between noon and 4 pm as poorer sleepers. The results showed that the most common age for crying and unsettled babies, beginning around six weeks of age, was also the time when the body appears to be establishing circadian rhythms by regulating the output of melatonin (a brain chemical that reacts to light).

This information is particularly significant for the care of the less mobile and dependent infant- toddler age group spending extended periods of time in day care centres. If rooms in child care centres are located towards the interior of a building, less natural light is likely to be available from windows and more reliance will be placed on artificial lighting for extended periods of the day. This may limit the exposure of infants and young children to natural rhythms of daylight, which is not desirable as it could inhibit their development. For this reason the BCA does not permit the use of borrowed light from adjoining spaces to be included in the measurements for natural light for spaces used for child care purposes.

It is also quite common for child care centres to change the use of areas so sleeping areas and play areas can be used interchangeably, therefore all spaces that may be occupied by children, other than sanitary facilities and other non-habitable spaces, will need to have adequate natural daylight for child



development purposes.

It is acknowledged that provisions for natural daylight in the Building Code are very general and in certain situations the same or greater amounts of daylight may be achieved through different sized windows, depending on the type of window and its position.

There are ways in which daylight measurements can be calculated either manually or by a computer program. Accordingly, any alternative solutions should be able to demonstrate that the room will receive the same amount of natural daylight as a deemed-to-satisfy window.

Alternative solutions to the deemed-to-satisfy provisions need to be assessed against the performance requirement **FP4.1**, which states-

Sufficient openings must be provided and distributed in a building so that natural light, when available, provides a level illuminance appropriate to the function or use of that part of the building.

As explained above, the reasons for requiring natural light in child care centres are complex and care needs to be taken that the request for an alternative solution is properly justified through daylight modelling and expert research.

In addition to the building rules assessment process, plans for Child Care Centres must be submitted to the Department of Education and Children's Services, Children's Services Licensing Unit for assessment for licensing purposes. Applicants are required to provide details of natural light provided in each room used by children (including sleeping rooms) and need to demonstrate that the BCA requirements have been met .

Additional information is available from:

- 'Natural Light and Ventilation Requirements for Child Care Centres – Fact Sheet' published by Children's Services, Licensing and Standards, Department of Education and Children's Services
- Children's Services Licensing and Standards website www.childcare.sa.gov.au/ybsproviders



Further information

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