

Occupational Health & Safety in Aged Care Design



Bob Summerville FRAIA

presents our

'Occupational Health and Safety
in Aged Care Design'

seminar at the

NSW Nurses Association

OH & S Forum

*"an awareness of
OH&S in the design
phase of a facility is
essential"*



Occupational Health and Safety is more than just implementing programmes and staff training; it needs to be a cohesive approach to every aspect of your building, from the floor plan and floor finishes to the fitout and selection of equipment. It's about ensuring your buildings are a safe environment for your staff and residents so that you provide care of the highest possible standard and meet the requirements of the OH&S Act.

Tyranny of Distance

As any Aged Care Nurse or provider will know, one of the major OH&S issues in this sector is the 'tyranny of distance.' With the increasing move toward single bed rooms in contrast to the older 4 bed wards, the distances that staff are walking, pushing trolleys and cleaning has significantly increased - which has a marked impact on the number of OH&S claims a provider receives from their staff.

This has led to the development of the 'nursing unit' based on the practical and legal requirements of staff to resident ratios. Put simply, a 'nursing unit' is a group of bedrooms and associated service rooms which should be sized according to a whole number of staff, i.e. the number of beds grouped together should be for one registered nurse, not 1.2 registered nurses because this would then require 2 nurses.

This 'nursing unit' concept minimises the distances that staff are required to walk as well as the time taken to complete each task - creating a more efficient and safe facility.

Resistance and Floor Finishes

Aged Care Facilities have a diverse range of equipment and furniture on wheels. These range from various trolleys to large, heavy, water chairs. The type of flooring has a big impact on the difficulty of pushing these items around the aged care facility.

Choosing a flooring material is one of the most difficult decisions for aged care providers as it generally polarizes the staff, with management normally tending towards the carpet end of the spectrum and the cleaning staff opting for vinyl.

If the choice is for carpet, then our experience is that the best option is to direct stick the product to the subfloor. Also, it is preferable to have a welded vinyl backing, as carpet on underlay will soon become stretched because trolleys create a 'bow wave' in front of the wheels. This 'bow wave' effect greatly increases the resistance on the wheels and the strain on the backs of staff.

Where tiles and vinyl are used, a significant consideration is slip resistance. WorkCover NSW statistics for 2006-07 reveal that, after manual handling, same level fall-related accidents are the second most common type of injury¹ and a substantial number of them occur as a result of slippery floor surfaces.

The Building Code of Australia provides ▶

¹ WorkCover NSW Statistical Bulletin
2006 -2007, p36

a performance based requirement for slip resistance which brings into play the Australian Standard for Slip Resistance (AS4586). Therefore it is essential to seek expert advice on your flooring selections.

The choice of floor material will inevitably lead to a discussion of slip resistance versus cleaning, and unfortunately these are diametrically opposed.

Get the Height Right

When 25% of all workplace injuries in 06-07 were back injuries², it is important to provide an environment that minimises bending. There are several things you can do that will repay you in the long run. Just a few of these are:

- Pay the extra and have a height adjusting electric bed.
- A height adjustable bath is an advantage to both resident and staff.
- Heightadjusting washing machines allow the trolley to fit under the door to minimise lifting.
- Provide linen trolleys with a spring mounted base that rises as the amount of linen and weight reduces.



adjustable linen trolley

2 ibid, p.36

Space

In order to minimise problems of manual handling in Aged Care Facilities it is important to provide enough space for the staff to operate - but not too much space as this creates a problem for the resident. Residents, who are generally very frail, need to feel that they can reach out and grab hold of something.

Some space requirements are regulated by the Australian Standard: Design for Access and Mobility (AS1428) which is referred to in the Building Code of Australia and SEPP Seniors Living (2004). Unfortunately, the standard was built around independent wheelchair users rather than the frail aged who generally need to be assisted.

To see why this is not always appropriate, we only have to look at the toilet in an aged care facility. AS1428 sets the maximum distance from the centre line of the pan as 450-460mm off the wall. When you add a hand rail on the side wall, which projects a total of 90mm, there is not enough space for a carer to stand between the wall and the pan. This results in carers attempting to lift a heavy resident from one side only.

What is the solution? Where a wheelchair compliant toilet is not required, we move the toilet pan further away from the wall and add a drop down grab rail in the same

location relative to the pan as the wheelchair compliant toilet. We add a further drop down rail on the opposite side of the pan but this is optional.

Whether it is allowing sufficient space in bedrooms to enable lifters to be used or ensuring doors are recessed to allow people to exit a room without immediately stepping into the path of a trolley or the 'dreaded' goffer, an awareness of OH&S in the design phase of a facility is essential.

What is the Solution?

- A design that understands the way facilities are staffed and run.
- Utilising equipment like chemical lifters, electric beds etc.
- Small changes that make a big difference eg. Attic ladders instead of manholes & walkways in the roof spaces.
- Awareness of the relevant regulations so that they can work for you, not against you.



walkway in roof space

SB Architects can help you address OH&S issues right from the outset in designing your new aged care facility or we can work with you to upgrade your existing facility. ■



L to R: Height adjustable Arjo spa bath, drop down grab rails, a chemical lifter, an attic ladder.

Child Care Centres



Recently there has been an increased interest in developing child care facilities on the same site as aged care facilities. This is due, in part, to the ever-increasing community need for child care services and because of the close relationship between aged care and child care, particularly for community based or community minded providers.

Of course not every site is suitable, with proximity to schools/transport, Council zoning, SEPP Seniors Living and DoCS requirements to be assessed in each case, but it is an exciting diversification that many of our clients are investigating or have taken up.

Within the sphere of 'child care' there are a number of options including occasional care, long day care and Outside School Hours Care (OSHC). Each option has different characteristics that should be considered prior to determining the direction that is most suitable for your site. For example, OSHC allows you the potential to hire out the facility during the day for seminars and in-service courses run by other groups or for your own staff training, whereas occasional care can maximise the number of places available throughout the day.

With several 'on the drawing board' and others in Council or just completed, SB Architects are well positioned to get your child care project off the ground with a creative and innovative approach to one of the fastest growing sectors.



Interior Design & Commissioning



At SB Architects our service does not necessarily end with exterior colour selections and Contract Administration. We can also provide interior colour design and schedules.

Our team is trained in colour selection, we know the building and design intent intimately and our schedules will be in accordance with the Specification to avoid costly variations during construction. Also, because of our knowledge of the building, our fees are extremely competitive when compared with many Interior Design companies currently working in the aged care sector.

We can also arrange furniture and fabric consultants to suit your budget. We then manage the process so that selections from them comply with the builder's time frame, your fitout budget and the relevant fire requirements of the Building Code of Australia.

When it comes to commissioning, we have prepared a detailed check list that we are continually updating so that we can provide you with a useful tool to make this busy time as simple as possible.



Master Planning

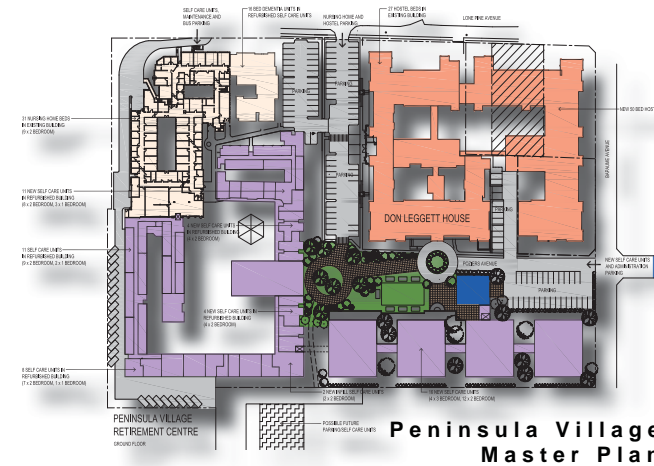
Do it once and do it right – we all know planning ahead can save thousands.

When it comes to the strategic direction of your facility, including planning future property purchases and even determining the level of care you intend to offer the community, it is essential to plan your building programme.

A quality master plan will allow you to maximise your returns and effectively manage the density of your site so that you get the most out of your assets.

A master plan is also a useful marketing tool which will communicate your vision for the future to residents and their families.

At SB Architects we offer our expertise in master planning to make sure that your capital works are feeding into a well thought out building strategy that complies with the relevant authorities requirements.



Under Construction

- 28 bed Dementia Unit and Hostel, Elouera Gardens, Pennant Hills
- 90 Bed Aged Care Facility, Holy Family Services, Marayong
- 128 bed Aged Care Facility, Kanwal
- Stage 6 of 106 Self Care Villas, Apartments and Community Building, Salamander Haven Village, Salamander Bay
- 10 bed Dementia Wing and Administration Offices, Touriandi Lodge, Bingara
- 12 bed Dementia Unit, self care villas and Recreation Hall, Cardinal Stepinac Village, St Johns Park
- 15 bed Dementia Unit, Mount View Lodge, Cessnock
- Alterations and Additions, Abernathy Nursing Home and Jacaranda Grove Hostel, Cessnock



Our Lady of Consolation Master Plan - 1991-2008
 CW from top left: new 2 storey walkway and lift, new administration building and commercial Kitchen, chapel fire upgrade, new convent, new aged care facility, existing nursing home & hostel upgrade & new hostel with enclosed walkway
 Builder: Elsmore Constructions Pty. Ltd

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