DEMENTIA TRAINING AUSTRALIA

ENVIRONMENTAL DESIGN RESOURCES

RICHARD FLEMING
KIRSTY A BENNETT

VERSION 2

Now including EAT-Acute Care

Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

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The authors would like to thank: Terri Preece for her diligent editorial support; Illawarra Retirement Trust for providing support to Prof. Richard Fleming in the development of these Environmental Design Resources; Cathy Greenblat for the cover photographs which illustrate the positive ways people with dementia live their lives.

Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

DEMENTIA TRAINING AUSTRALIA ENVIRONMENTAL DESIGN RESOURCES

RICHARD FLEMING
KIRSTY A BENNETT

February 2017

DEMENTIA TRAINING AUSTRALIA

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INTRODUCTION

The goal of this collection of resources is to support those who wish to improve environments for people with dementia. The resources introduce the reader to a systematic way of looking at the built environment and provide a number of tools that guide the user to an understanding of what needs to be changed, and how the change might be accomplished.

To create a supportive environment for people living with dementia, the environment and philosophy of care / operation philosophy need to complement each other. Despite the best efforts of staff, the physical environment sets a limit to what can be achieved in the support of people with dementia — particularly people who are mobile. A good environment can, almost by itself, reduce confusion and agitation, improve wayfinding and encourage social interaction. On the other hand, a poor environment increases confusion and behaviour that causes distress to people with dementia and others and will eventually reduce staff to a state of helplessness, in which they feel that nothing can be done. The effects of a well-designed environment on people with dementia are summarised in Table 1 below.

Table 1: Effects of a well-designed environment on people with dementia

Improvements in:-	Reductions in:-
• Wayfinding • Eating behaviour • Motor functions • Activities of daily living • Self-help skills • Mobility • Pleasure • Use of toilet • Vitality • Interaction between staff and residents/patients • Independence in dressing • Ease of supervision • Likelihood of residents/patients making friends with one another • Quality of life	• Agitation • Anxiety • Conflict • Confusion • Depression • Dyspraxia • Emotional disturbance • Number of falls • Restlessness • Stress associated with bathing • Amount of physical help required • Time spent by staff locating and monitoring patients/residents • Number of attempts to leave • Doses of antibiotics and psychotropic drugs • Wandering into other people's spaces

The first resource reviews the context in which the environments are operating and the literature on the design of aged and health care buildings used by people with dementia. It is intended to inform the reader about aspects of design that have proven to be effective in assisting people with dementia, and to help the reader to assess the strength of the evidence so that decisions on the modification of environments can be based on the best available evidence.

The second resource is an introduction to the use of assessment tools to identify the strengths and weaknesses of the environment. This is intended to help the reader select an appropriate tool and to apply it to inform decisions on modifying the environment.

The third, fourth and fifth resources are environmental assessment tools that have been developed for various purposes; specifically the assessment of environments where most people are mobile, higher care environments where people may or may not be mobile, and public and commercial buildings.

The sixth resource is an aged care design guide for Indigenous people.

USING THE BUILT ENVIRONMENT TO CREATE COMPREHENSIBLE MANAGEABLE AND MEANINGFUL ENVIRONMENTS

FOR PEOPLE WITH DEMENTIA

RICHARD FLEMING
KIRSTY A BENNETT

RESOURCE 1

Environmental Design Resources

February 2017

Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

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RESOURCE 1

Environmental Design Resources

February 2017

This resource is No 1 in a set of six Environmental Design Resources.

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RESOURCE 1

Using the built environment to create comprehensible, manageable and meaningful environments for people with dementia

PART 1

DEMENTIA: ITS PREVALENCE AND IMPACT

PART 1

DEMENTIA: ITS PREVALENCE AND IMPACT

1.1 Introduction

Dementia is an umbrella term for a large number of disorders that affect thinking and memory. Alzheimer's Disease is the most common form and accounts for between 50 and 70 per cent of dementias. The second most common form of dementia, resulting from small strokes, is Vascular Dementia. Other types of dementia include Lewy Body Dementia and Fronto-temporal dementia.

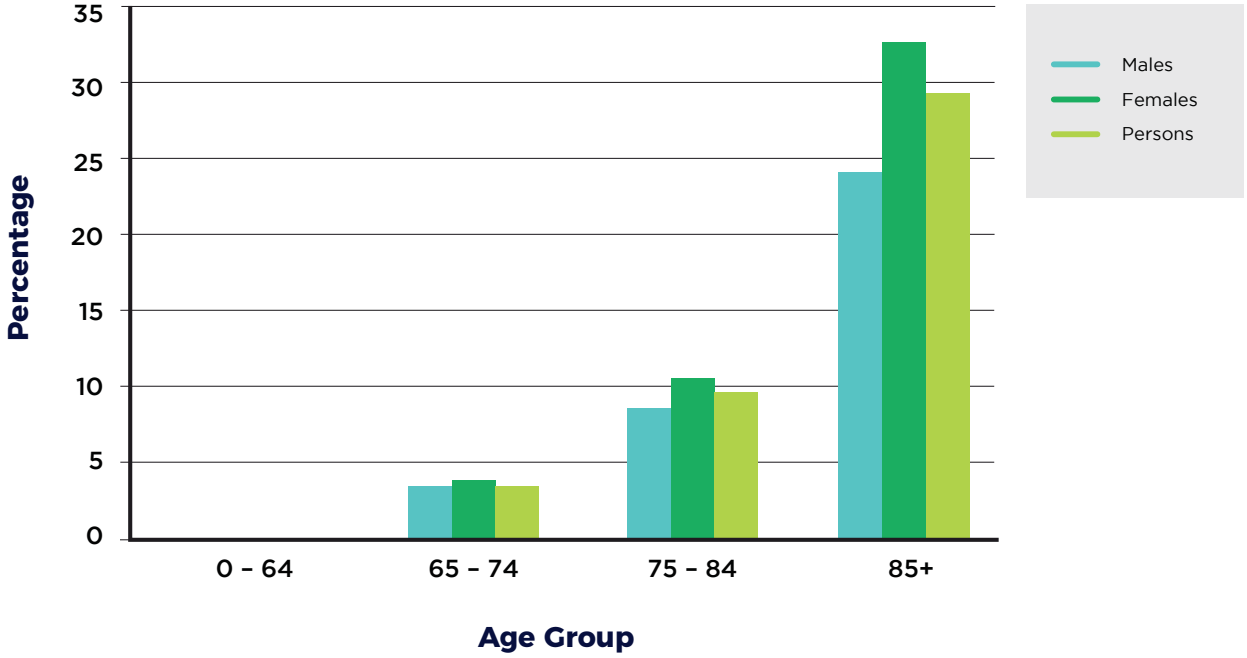
The most common symptoms of dementia are:-

- Progressive and frequent memory loss
- Confusion
- Personality change
- Apathy and withdrawal
- Loss of ability to perform everyday tasks

Some people with dementia also behave in ways which are often experienced by their carers, professional and family, as challenging or disturbed. These behaviours have been the focus of a great deal of attention in the scientific literature, where they have been described as Behavioural and Psychological Symptoms of Dementia (BPSD). While the levels of cognitive impairment and the problems with activities of daily living increase as the dementia progresses, the prevalence of behavioural and psychological symptoms (with the exception of passivity) tends to peak in the middle stages (Lövheim, Sandman et al. 2008). It is very important to understand that these symptoms may be due to the circumstances of the person with dementia rather than the dementia itself. Indeed there is considerable controversy over the use of the term BPSD as it tends to imply a medical, or disease, origin for behaviour that may be better understood as a way of communicating unmet needs (Keady and Jones 2010).

Dementia is predominantly a condition found in older people with its prevalence increasing steadily as age advances. It has been estimated that the prevalence doubles every 5.1 years after the age of 65 (Jorm, Korten et al. 1987) as illustrated in Figure 1. The median survival from initial diagnosis has been estimated as 4.2 years for men and 5.7 years for women (Larson, Marie-Florence et al. 2004). However, this is likely to change as services improve and diagnosis takes place earlier.

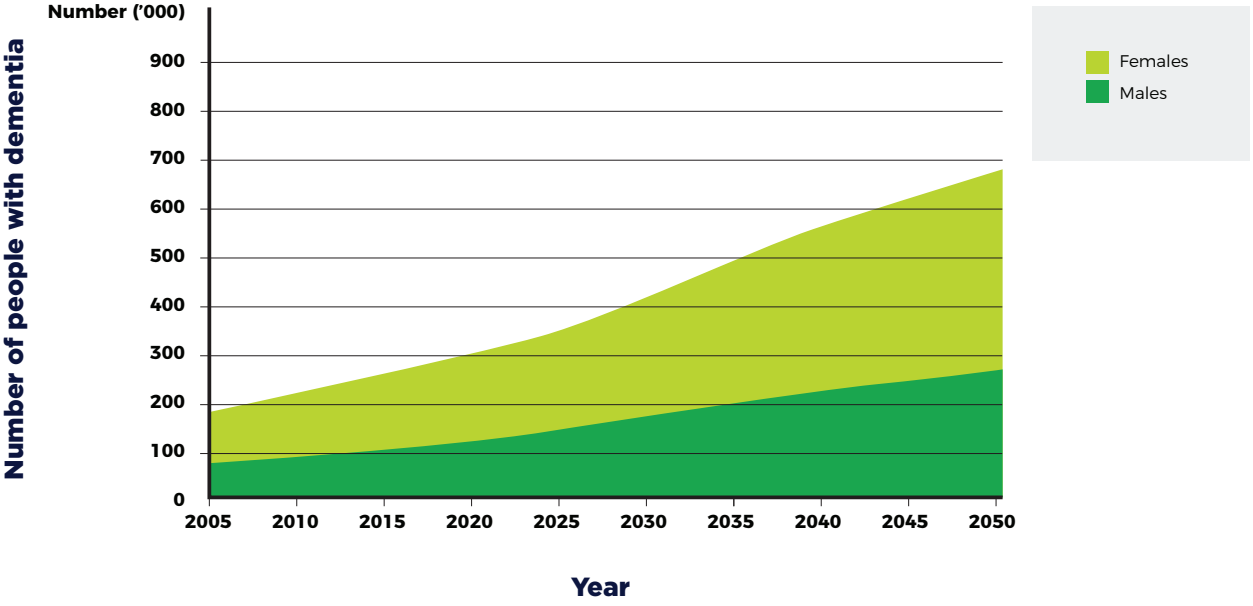
Figure 1: Percentage of older people with dementia



Source: Australian Institute of Health and Welfare (AIHW) (2012). Dementia in Australia. Canberra, Table 2.1

Mainly as the result of people living longer, the proportion of older people in Australia is increasing. As 1 in 10 people over 65 and 3 in 10 people over 85 have dementia, the number of people with dementia in Australia is increasing as the population ages. Figure 2 illustrates the estimates that 342,800 Australians had dementia in 2015 and that the number of people with dementia will reach almost 400,000 by 2020, and around 900,000 by 2050.

Figure 2 : Estimated number of people with dementia, by sex, 2005-2050



Source: Australian Institute of Health and Welfare (AIHW); Dementia in Australia, catalogue No. AGE 70, 2012, p.18.

This phenomenon is often referred to in the popular press as an 'epidemic' of dementia. This is somewhat misleading as dementia is not an infectious disease. The increasing number of people with dementia is due to the increasing number of older people, rather than an increase in prevalence. The use of the word epidemic is unhelpful as it fosters a sense of fear. This may be an obstacle to the development of plans that will enable people with dementia to access the services and resources they need to lead a full life without being stigmatised.

1.2 People with dementia in residential aged care

More than 112,000 people with dementia are living in residential aged care in Australia and the demand for places is increasing at 4% per year (AIHW 2012). This means that if we wish to continue providing residential care for people with dementia at the current rate, we need to build almost 400 new places per month. Every developed and developing country in the world is facing the same issue.

Information on whether people have a diagnosis of dementia in residential aged care facilities (RACF) is collected through the Aged Care Funding Instrument (ACFI) which is completed on all Australian Government subsidised RACF residents in Australia. The ACFI provides information on care needs in three domains: Activities of daily living (ADL), Behaviour (BEH) characteristics, and Complex Health Care needs. The AIHW report (AIHW 2012) provides a detailed comparison of the care needs of residents with and without dementia. Residents with dementia are more likely than those without dementia to have been rated with higher care needs in the ADL and the BEH domains, but not in the CHC domain (AIHW 2012). Just over half (52%) of permanent residents with dementia had a 'high' rating in the 'ADL domain' compared with about a third (32%) of those without dementia. At the other end of the scale, 19% of those with dementia had a rating of 'low' or 'nil'; this compares with 41% of those without dementia. About 62% of residents with dementia had the highest possible rating in the 'Behaviour characteristics' domain. This is almost three times higher than the proportion of other residents given this rating (22%). Relatively few (3%) of those with dementia had a rating of 'nil' for this domain, while 21% of those without dementia did so (Fig 3.7, AIHW 2012).

The AIHW report breaks down the Behavioural characteristics into the categories of problematic verbal, physical behaviour and wandering. More than half (55%) of residents with dementia exhibited problematic verbal behaviour twice a day or more, at least 6 days a week. Problematic verbal behaviour is considered to be: verbal refusal of care, being verbally disruptive, having paranoid ideation that disturbs others, and inappropriate verbal sexual advances. An additional 14% of residents with dementia exhibited such behaviour once a day at least 6 days a week (A3.14, AIHW 2012). By comparison, 35% of those without dementia exhibited problematic verbal behaviour twice a day or more, at least 6 days a week.

Half of all residents with dementia exhibited problematic physical behaviour (that is, physically threatening or harmful behaviour, socially inappropriate physical behaviour and constant physical agitation) twice a day or more, at least 6 days a week. This is twice the proportion of those without dementia exhibiting such behaviours with the same level of frequency.

In terms of wandering behaviour, the ACFI provides information on

repeated attempts to enter areas where his/her presence is 'unwelcome' or 'inappropriate', and interfering with or disturbing other people or their belongings while wandering. About one quarter (27%) of residents with dementia displayed this behaviour twice a day or more, at least 6 days a week, compared with 8% of residents without dementia.

Given the emerging understanding of BPSD as a means of communicating unmet needs, the high prevalence of disturbed behaviour must raise concerns about the nature and quality of care being provided to people with dementia in residential aged care. As the literature review which follows will demonstrate, the built environment provides an effective way of facilitating the meeting of needs. It is therefore very important that staff, managers, architects, designers and policy makers understand the importance of getting the built environment right. If they don't there will be many more dysfunctional buildings built, residents will not enjoy the quality of life that can be made available to them, and staff will continue to struggle to deliver high quality care.

1.3 People with dementia in hospitals

People with dementia are major users of hospital services, largely due to the fact that dementia commonly occurs in older people and older people are likely to have health conditions that require medical attention. Common reasons for hospitalisation of people with dementia include hip fractures and other injuries, lower respiratory tract infections, urinary tract infections and delirium (Draper, Karmel et al. 2011).

The design of hospitals and the focus on the treatment of physical conditions can pose risks to the person with dementia. People with dementia can find it hard to understand what they are required to do to enable treatment or to communicate their needs. The often noisy and unfamiliar hospital environment can exacerbate these problems by causing confusion and distress, leading to disruptive behaviour that is difficult for staff to manage. As a result, providing treatment to people with dementia in a busy hospital ward can be challenging and sometimes leads to unintended consequence such as physical and cognitive functional decline, under-nutrition, skin tears and fall-related injuries (Harrington 1998; Bergsland 2002; Marshall 2005; Draper, Karmel et al. 2011).

The complex needs of people with dementia and the difficulties with communication and cooperation with treatment can lead to a delay in their recovery and longer lengths of stay, increasing the risk of complications and impairing the patient's physical and mental state (Draper, Karmel et al. 2011). In New South Wales people with dementia stay in hospital almost twice as long as those without dementia, averaging 16.4 days of care compared with 8.9 days for other patients (Draper, Karmel et al. 2011; AIHW 2013). Looking at Australia as a whole, the average length of stay of people with a principle diagnosis of dementia who are admitted overnight is 22 days against the average for all hospitalisations involving an overnight stay of 6 days (AIHW 2012).

The average costs of hospital care for people with dementia are higher than for people without dementia. In 2006/7 the average cost per admission of people with a principal diagnosis of dementia was $13,434 per episode compared with $5,010 for people without dementia, a difference of $8,424. In other words, the average cost of hospitalisation for a person with a principle diagnosis of dementia is almost 2.7 times more than for a person without

dementia. The total cost of care for people with dementia in New South Wales public hospitals was estimated to be $462.9 million, of which 35% ($162.5 million) is estimated to be additional costs that might be associated with a patient's dementia status (AIHW 2013).

While the causes of the complications and increased length of stay are multifactorial and benefit from multifactorial responses (Harris, McBride et al. 2002; Naue and Kroll 2011; Sabat, Johnson et al. 2011), it is becoming increasingly accepted that the modification of the built environment (or preferably, the original design of the built environment) has an important place in responding to this unsatisfactory situation:

> "Improved hospital design and dementia-friendly environments are needed to meet the specific needs of people with dementia. Poorly designed hospital wards contribute to greater confusion and stress for the patient, as well as an increased risk of falls and adverse events.
>
> … I just believe though that no matter how much education (of staff)—although that helps and it will have an impact—and in certain places and depending on the patient, will help—but the environment has the ultimate impact, and if it's not a suitable environment for these types of patients and there's unsuitable mix, and the quantity of these people you're putting together is quite a lot—I think even with the education that it can still be very, very challenging and difficult to manage them safely and effectively. (Nurse Unit Manager, HDS site hospital)"
>
> (AIHW 2013) Page 74.

1.4 People with dementia in the community

Approximately 70% of people with dementia live in the community and there is a great deal of effort being put into the development of services that will enable them to stay there (Elliott). However, we do not yet know much about their needs, particularly the 11.9% of people with dementia who live by themselves (AIHW 2012). We do know that people with dementia in the community, and/or their carers, are reluctant to access respite care (Phillipson, Magee et al. 2013) and that both respite and day care have unintended negative consequences, such as accelerating the progression to a nursing home (Vandepitte, Van Den Noortgate et al. 2016). It is possible that improving the design of respite and day care facilities may lead to an increase in their acceptability to consumers and an improvement in the outcomes from their service.

Recently there has been a recognition that delivering services in the home, or providing access to day or respite care is not all that is needed. These services, indeed even the way in which we regard the provision of services, need to be seen through the lens of creating a Dementia Friendly Community (Alzheimer's Australia 2014). There is an emerging body of literature on the design of dementia friendly communities. This work has been led by Mitchell and Burton and their colleagues (Mitchell, Burton et al. 2003; Mitchell, Burton et al. 2004; Mitchell and Burton 2010; Burton 2012). Their work has resulted in a clear statement of the desirable aspects of the streetscape of a dementia friendly community described in relation to six principles (Mitchell and Burton 2010):

Familiarity

Familiar surroundings enable people to recognise and understand their surroundings, which helps to prevent and alleviate spatial disorientation and confusion and to aid short-term memory

Legibility
People can understand where they are and identify which way they need to go, helping to prevent and alleviate spatial disorientation, confusion and anxiety

Distinctiveness

People's attention and concentration are captured by the distinctiveness of the various parts of the neighbourhood, which aids orientation and wayfinding

Accessibility

People are able to reach, enter, use and move around the places and spaces they need or wish to visit, regardless of any physical, sensory or cognitive impairment

Comfort

People feel at ease and are able to visit, use and enjoy places and spaces of their choice without physical or psychological discomfort

Safety

People are able to use, enjoy and move around the neighbourhood without fear of coming to harm

The research on the built environmental aspects of dementia friendly communities has sparked some innovative methods. Van Schaik (Van Schaik, Martyr et al. 2008), using virtual environments, showed that: navigability, legibility, safety and environmental attractiveness are the key elements for successful way-finding and enjoyment of outdoor spaces. A key message from his research was that real town centres offer relatively few obstacles for people with mild to moderate dementia, and that sometimes relatively straightforward changes, such as improvements to signage, could lead to measurable differences in wayfinding and thereby improve quality of life and wellbeing.

A review of the literature by John Keady and his colleagues (Keady, Campbell et al. 2012) highlights the advantages of involving the person with dementia in evaluating the environments, for example, by undertaking accompanied walks (Mitchell, Burton et al. 2004). This strategy has revealed valuable insights into the sensory experience of getting out and about for people with dementia. The research found that noise, smells and a multitude of visual stimuli had an influence on how participants negotiated journeys around their neighbourhood. The sense of a journey to a destination and the ability of that destination to support the desired activity is captured in a very practical way in the work of Boex and Boex (Boex and Boex 2012). They introduced the idea of 'touch points' that can be used to map the physical journey taken by a person with dementia. The first touch point in a typical journey may be the car park, followed by the entrance to the building, then the entry space (perhaps a waiting room), corridors (or aisles in a supermarket) and finally the work area (the counter in a bank, the interior of a library the shelves in a supermarket).

While the research on the contribution the built environment can make to a dementia friendly community is at a very early stage it has, in conjunction with the research from residential and health care environments, resulted

in the development of some tools to assist us to understand the strengths and weaknesses of our existing environments and design better ones for the future (Burton, Mitchell et al. 2004; Fleming and Bennett 2015).

PART 2

A REVIEW OF THE LITERATURE ON ENVIRONMENTAL DESIGN FOR PEOPLE WITH DEMENTIA

PART 2
A REVIEW OF THE LITERATURE ON ENVIRONMENTAL DESIGN FOR PEOPLE WITH DEMENTIA

There has been a substantial amount of research on the effects of aspects of the built environment on people with dementia. It has usually been aimed at identifying how the environment can be designed, or modified, to reduce the difficulties experienced by the person with dementia who is in either residential care or hospital.

The following review of the literature is an extension of a review first published in 2008 (Fleming, Crookes et al. 2008) and updated in 2010 (Fleming and Purandare 2010). The extension has been informed by recent systematic reviews (Marquardt, Bueter et al. 2014; Joseph, Choi et al. 2015), including a review focussed on the design of hospitals (Dobrohotoff and Llewellyn-Jones 2011). In order to maintain readability and keep the review to a reasonable length, the strength of the evidence to be found in the papers referenced here is not reported in a systematic way. Readers who wish to be able to assess the strength of the evidence behind the papers are invited to look at the systematic reviews (Fleming and Purandare 2010; Marquardt, Bueter et al. 2014; Joseph, Choi et al. 2015). However, this review does not shy away from the difficulties inherent in conducting research on the impact of the built environment. The problems with trying to tease out the effects of particular modifications against the background of other changes are highlighted frequently. Nevertheless, it is apparent that the accumulation of evidence is providing us with more confidence in our understanding of the elements that are critical to the provision of an environment that supports people with dementia.

The findings from the literature have been organised around ten principles of design. This will assist the reader to understand the structure and the content of the assessment tools provided in the later sections. Quotations are provided to give the reader a flavour of the research. It is important to recognise that the language in some of these includes terms that would no longer be used.

A list of acronyms is provided at the end of this review.

2.1 Unobtrusively reduce risks

People with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks such as steps must be removed. All safety features must be unobtrusive as obvious safety features, such as fences or locked doors, can lead to frustration, agitation and anger or apathy and depression.

One of the most common problems associated with caring for people with dementia is that of keeping them safe from the danger of wandering away and perhaps getting lost or run over (Rosewarne, Opie et al. 1997). The most obvious response to this issue is to provide a secure perimeter, preferably one that allows for safe movement and access to an outside area.

Positive effects have been found when unobtrusive means are used to provide a secure perimeter:

> "Depression was negatively correlated with another environmental factor exit design. Residents in facilities whose exits were well camouflaged and had silent electronic locks rather than alarms tended to be less depressed. A hypothesis to explain this correlation is that residents try to elope less in such settings and that caregivers - tending to consider such environments safer - afford residents greater independence of movement. Residents who experience this greater freedom, and hence have less conflict about trying to leave the SCU, feel a greater sense of control and empowerment, leading in turn to less depression. Until further research is carried out measuring personal state-of-mind variables that might be implicated in such a process, this explanation remains only a hypothesis" (Zeisel, Silverstein et al. 2003).

This feature is mentioned as one of the central characteristics of the special nursing home unit evaluated by Wells and Jorme (Wells and Jorm 1987) which found that residents did as well as those cared for at home.

Security features are also central to the group living facilities developed in Sweden and Italy (Annerstedt 1993; Bianchetti, Benvenuti et al. 1997). However, none of these studies attempts to define clearly what is meant by 'security' or to quantify its provision.

Annerstedt clarified the purpose of providing a safe environment as enabling the resident to have the opportunity to focus on the identity preserving features of group living (GL):

> "The safety provided in GL makes environmental barriers easy to overcome. Energy can be used to extend the territory and the demented can benefit from everyday activities, the accessibility of cues in social life and the external memory aids built into the setting"
>
> (Annerstedt 1997).

There is no attempt, however, to quantify or fully describe the safety and security features.

The provision of hidden or subtle locks on doors may have some beneficial effects (Zeisel, Silverstein et al. 2003) but it does raise the question 'Wouldn't it be better if residents could go through the door and be safe?' This question was answered elegantly (Namazi and Johnson 1992a) in a study involving 22 residents with probable Alzheimer's disease who were observed for 30 minutes after trying outside doors leading to a safe area. In one situation, the doors were locked and in the other open. While the authors make no attempt to calculate the significance of the results, it is clear that there was a dramatic, positive difference in agitation, aggression and wandering following an encounter with an open door compared with a locked door.

There is a suggestion that establishing a secure perimeter may have the unwanted side effect of restraining people with dementia who, while confused, are not likely to leave. In a cross sectional study of 11 nursing homes, Low found that harmful behaviours, particularly risk taking and passive self harm, were associated with greater security features and an increased number of special design features for frail residents and residents with dementia (Low, Draper et al. 2004). This supported the hypothesis that an emphasis on safety can have unwanted side effects. This view was also supported by a study carried out in the UK (Torrington 2006).

> "Safety and health was the only domain in the DICE study that had a

> negative association with the quality of life scores. The low dependency group of residents had lower scores for enjoyment of activities and ability to control the environment in buildings with higher scores for safety and health. Large buildings had consistently high scores in this area with median scores of 79% as against 66% and 65% for small and medium homes".

A small study (Chafetz 1991) comparing decline in a special care unit and a mainstream nursing home provided information on two safety features, the securing of exits and the securing of drawers and cupboards. (These were the major environmental changes made in establishing the special care unit.) Results of the study suggest that these interventions had no significant effect on the rate of cognitive decline or the presence of behavioural disturbance.

2.1.1 FALLS PREVENTION

The prevention of falls is another key safety concern (Pynoos 1991; Scandura 1995; Morgan 1999.). People with dementia are eight times more likely to experience a fall than those of the same age without dementia (Allan, Ballard et al. 2009). The provision of care in a specialised behavioural management area has been shown to reduce falls (Gonski and Moon 2012). A significant reduction in injuries associated with falls has been achieved by providing furniture that puts the person with dementia closer to the ground through the use of bean bag chairs, futons and mattresses placed on the floor (Scandura 1995). This approach is in direct contrast to the practice of putting up bed rails, which simply ensure that if a fall does take place, it occurs from a greater height than normal.

In extreme circumstances carers sometimes feel driven to the use of physical restraints to safeguard residents and patients. Physical restraint is defined as

> "the intentional restriction of a resident's voluntary movement or behaviour by the use of a device, or removal of mobility aids, or physical force" (Department of Health and Ageing 2012, p. 24). Examples of physical restraint include lap belts, bed rails, posey restraints or similar, chairs with tables attached, and chairs or mattresses that are difficult to get out of such as tip back chairs, water chairs, bean bags and curved edge mattresses.

Even in extreme cases there are limits to the use of restraints

> "Devices that are categorised as extreme restraint and should at no time be used in residential aged care are: posey criss-cross vest, leg or ankle restraint, manacles/shackles, soft wrist/hand restraints". (DoHA 2012, p.25)

The research literature does not support the effectiveness of this approach. Engberg et al. (2008) found that physical restraint use has negative consequences that include lower cognitive performance, poorer performance of activities of daily living and higher walking dependence. The inappropriateness of physical restraint is corroborated in a study involving 2000 patients which suggests that the physical restraint of cognitively impaired patients does not reduce the risk of falls (Kwok, Bai et al. 2012). This lends weight to the point of view expressed by advocates for a genuinely person–centred approach to the care of people with dementia, e.g. Al Powers who states

> "With a restraint free approach, the use of any restraint must always be the last resort after exhausting all reasonable alternative management options. Stopping a resident without their consent from doing what

> they appear to want to do, or are doing, is restraint. Any device that may stop a resident getting out of a bed or a chair and/or stops their free movement is restraint. Restraint is any aversive practice, device or action that interferes with any person's ability to make a decision or which restricts their free movement. The application of restraint, for ANY reason, is an imposition on an individual's rights and dignity and, in some cases, may subject the person to an increased risk of physical and/or psychological harm. The inappropriate use of restraint may constitute assault, battery, false imprisonment or negligence. Staff need to identify, in a proactive approach with management, how to prevent situations that may lead to a perceived need for restraint." (http://changingaging.org/author/powerup/).

The benefits of preventing falls by rearranging furniture, removing objects that may precipitate falls, maintaining step surfaces, removing loose carpets, providing grab bars, improving lighting, repositioning beds, adjusting bed and chair heights, repairing roller walkers and removing obstacles have been identified (Kallin, Jensen et al. 2004).

A review of the literature on people with dementia falling in hospitals concluded that multi-faceted approaches are required to reduce falls, and that there is insufficient evidence to support dependence on any single approach, such as the use of restraints or modifications to the environment (Oliver, Connelly et al. 2007). This view is supported in a thorough review of the use of restrictive devices to minimise the risk of falling in people with dementia (Capezuti 2004).

2.1.2 OVER EMPHASIS ON SAFETY

There is some evidence of an over emphasis on safety in healthcare facilities providing care to people with dementia in Britain (Parker, Barnes et al. 2004) and Australia (Moyle, Borbasi et al. 2011). Sometimes this is caused by giving priority to the safety of other patients. If an inpatient unit is likely to be used by people with dementia who may harm themselves or others, then access to a segregated area may be required (Remen 1992). It is suggested that these areas include more space (at least 30 square meters per patient) (O'Brien and Cole 2003), a garden, a quiet area, a seclusion suite, activity and games room as well as a specific model of care (Remen 1992; Thomas, Jones et al. 2006; Zieschang, Dutzi et al. 2010).

Even in these areas though, the issue of whether the doors should be locked is under debate (Dobrohotoff and Llewellyn-Jones 2011). The prevalence of locked psychiatric units in the U.K. and Sweden ranges from 25–73% (Bowers, Crowhurst et al. 2002; Haglund, Von Knorring et al. 2006). Gudeman (Gudeman 2005) stated that acute psychiatric units in general hospitals are locked because of community perception that the patients are dangerous, for the convenience of staff, and because of stigma and hospital-wide resistance. His opinion is that when units are unlocked few disasters occur and patients are less stigmatised and better able to integrate into the community. There is evidence that staff of psychiatric facilities find there are more disadvantages than advantages in having locked doors (Haglund et al. 2005, Haglund, von Knorring et al. 2006). A study carried out in 100 UK psychiatric acute admission wards showed that while a significant proportion were locked at all times, there was an extremely large variation in the approach to safety. It is argued that this was due to the tension between the nurses' desire to foster dignity and freedom, and the need to provide

security (Bowers, Crowhurst et al. 2002). There is little, if any, literature on the effect of locked doors on outcomes, such as prevention of harm, use of psychopharmacology or staffing levels.

2.2 Provide a human scale

The scale of a building can affect the behaviour and feelings of a person with dementia. The experience of scale is influenced by three key factors; the number of people that the person encounters, the overall size of the building and the size of the individual components (such as doors, rooms and corridors). A person should not be intimidated by the size of the surroundings or confronted with a multitude of interactions and choices. Rather the scale should encourage a sense of wellbeing and enhance the competence of a person.

Size may be defined in terms of the number of places (often referred to as beds) per facility or by the area available per person. In the residential aged care field the development of special care units for people with dementia has been influenced by the view that larger facilities increase agitation and are confusing for residents (Sloan 1998; Isaksson, Åström et al. 2009; Hagglund and Hagglund 2010) and high quality care is easier to provide in small groups (Annerstedt 1993; Reimer, Slaughter et al. 2004). However, small size in residential aged care is almost always accompanied by particular approaches to the delivery of care, such as providing a homelike environment (Verbeek, Zwakhalen et al. 2012). The variation in models of care may contribute to the contradictory findings on this topic.

The contradictory nature of the evidence can be illustrated by looking at the results of investigations that included evaluation of the effect of scale on behavioural disturbance. Support for a reduction in behavioural disturbance has been reported in some studies (Proctor, Brook et al. 1985; Annerstedt 1997; Cutler and Kane 2009). However, an increase in behavioural disturbance has been found in others (Kihlgren 1992; Sloane, Mitchell et al. 1998), and in complete contrast no effect in behavioural disturbance has been found in yet other studies (Dean, Briggs et al. 1993; Suzuki, Kanamori et al. 2008; te Boekhorst, Depla et al. 2009; Verbeek, Zwakhalen et al. 2012). The difficulties of coming to a conclusion on this apparently simple question are illustrated in the following descriptions of key papers.

2.2.1 NUMBER OF PLACES (BEDS) IN THE FACILITY

The effects of having fewer beds in a facility was investigated by comparing a Special Care Facility (SCF) with 'traditional institutional facilities (Reimer, Slaughter et al. 2004).

> "The SCF, which received a new-construction design award from the Society for the Advancement of Gerontological Environments, featured a decreased density of residents, with 10 people living in each of six separate and self-contained semi-attached bungalows…"

The comparison showed that SCF residents experienced

> "Less decline in activities of daily living, more sustained interest in the environment, and less negative affect than residents in the traditional institutional facilities. There were no differences between groups in concentration, memory, orientation, depression, or social withdrawal".

However the SCF also had

> "... enhanced staffing ratios, which enable the integration of personal care, leisure, and rehabilitation activity into the role of the staff caregiver (rather than an expert model of episodic therapist intervention); and a biodiverse environment (e.g. multigenerational, live-in pets, plants). The physical environment and daily activities were arranged like a typical home, with residents able to help in the kitchen, sweep the floor, sit by the fireplace, or go outside into a small enclosed garden area"

and there was no way to evaluate the separate impact of these interventions.

A study which controlled for most of these factors (Zeisel, Silverstein et al. 2003) showed that there may be a benefit in resulted in a positive finding for having larger facilities:

> "The larger the facility - the more residents there are in the SCU - the lower the social withdrawal scores tend to be".

A comparison of residents of small group living facilities and residents of traditional nursing homes (Annerstedt 1993) showed that smaller unit size makes it easier for residents and staff to work together as a group. Smaller unit size is associated with higher levels of competence and job satisfaction. However, the additional staff training provided in the smaller units was not controlled for. The study also reported better motor functions, slightly improved or maintained activities of daily living and smaller doses of both antibiotics and psychotropic drugs.

A similar result was reported in a later paper by the same author (Annerstedt 1997), comparing life for 28 people with dementia in a Group Living (GL) environment with life in a nursing home (NH), for 29 people matched on age, diagnosis, physical and social dependency. The GL environment was deliberately made small (9 beds) but also incorporated features to make it familiar, homelike and safe.

> "During the first year of observation there was a positive development in the GL patient compared to the NH group. However in the more severely impaired residents less effects of the environmental engineering were observed, i.e. (a) the GL residents preserved intellectual and motoric abilities and practical abilities better which was reflected in ADL performances; (b) the GL residents exhibited less aggressiveness anxiety and depression; (c) the use of neuroleptics and tranquilisers was lower In GL care and (d) the numbers of fractures and Incontinent residents were fewer in GL (non-significant). There was a time related decline of the difference between the groups. After 3 years there were no differences to be noticed between the GL and NH groups in physical and mental dependency" (Annerstedt 1997).

In a survey of 53 special care units (SCU's) for people with dementia (Sloan 1998) found strong associations between larger unit sizes and higher resident agitation-levels, increased intellectual deterioration and greater emotional disturbances. The association of larger unit size

> "...with higher agitation supports the popular design concept that small units, or the division of large units into smaller functional subunits, will minimise resident agitation by reducing the potential for overstimulation"

In contrast, in a sample of 695 residents of SCU's and traditional nursing homes (Leon and Ory 1999) no significant correlation was found between facility size, in terms of number of residents, and physically aggressive behaviours. However, this study defined large facilities as those with more

than 150 beds, a definition that may have swamped the effects of genuinely small facilities.

A qualitative comparison in which a specialised dementia unit with 11 places was compared with a 4 storey nursing home suggests that small size is associated with better community life. It is clear, however, that the author was unable to separate out the effects of the size of the unit from the other factors that were active.

> "The social model of care practiced at Fairhaven, including staff continuity in resident care and an encouragement of staff relationships with individual residents, appears to have encouraged community formation. Also of importance was the small scale of the facility as well as the residents' ready access to a range of environmental settings, including areas that are conducive to community-like behavior such as kitchens, small spaces for informal interaction, and outdoor spaces that can be used by residents on their own. The design of formal activities at Fairhaven, including attempts to engage residents in a round of expressive activities and to adapt activities to their changing needs and competencies, was another key factor. Underlying and supporting these environmental and programmatic features was an institutional philosophy that promoted flexibility, freedom of choice, and a focus on the continuation of the individual's functional abilities and independence" (McAllister and Silverman 1999.).

A quantitative comparison between 10 large facilities (16 or more places) and 12 small facilities (Quincy, Adam et al. 2005) indicated no relationship between the size of the facility and quality of life of residents with dementia or their neuropsychiatric symptoms (delusions, hallucinations, agitation or aggression, dysphoria, anxiety, euphoria, apathy, disinhibition, irritability, aberrant motor behaviour, sleep, and appetite and eating disorders). Quality of life was measured using the ADRQL (Rabins, Kasper et al. 2000), an observer rating scale that is not particularly sensitive.

Contrary findings came from another cross sectional study (Torrington 2006) involving 38 residential and care homes in the UK. In this study, small unit size was defined as having fewer than 31 places, medium as 31-40 and large as greater than 40. Small homes scored best in terms of comfort, normalness, choice and control. "The overall well-being scores [as measured by Dementia Care Mapping] were consistently lower in the large homes (13%) than in the small and medium ones, which scored 38% and 33% respectively."

Another cross sectional comparison of large and small facilities (Kuhn, Kasayka et al. 2002), adds to the confusion. In this investigation

> "Key differences were noted between residents living in small, dementia-specific sites (10 to 28 residents) and those living in large sites that were not dementia-specific (40 to 63 residents). The latter group fared better overall with respect to quality of life and diversity of interactions and activities".

No attempt was made to control for levels of dementia or different care practices. The results are therefore severely limited and at best illustrate the inability of cross sectional studies to provide information on causality.

These studies clearly illustrate the problems associated with coming to a conclusion on the effect of the size (number of people living in a unit). To date, size has never been varied while all other conditions are kept constant. Purpose designed small units are very likely to be homelike, familiar and

safe. While there is a range of evidence that supports the view that small numbers of people in dementia units are better than large numbers, it is not conclusive. The evidence also suggests that the combination of small unit size with the other attributes of specialised units is not demonstrably beneficial in the later stages of dementia.

2.2.2 PHYSICAL SIZE OF THE FACILITY

The relationship between behavioural disturbance and the size of the space in which the group lives has also been investigated. A domestic scale and feel have been recommended in the acute care setting in order to make the inpatient experience more familiar and less confusing (Remen 1991; Fottler, Ford et al. 2000; New_Zealand_Ministry_of_Health 2002). Compact units have been found to provide greater comfort, a more homelike atmosphere and better opportunities for monitoring patients (Morgan and Stewart 1999). A high proportion of violent behaviour has been found to be associated with more beds, more ward area/resident, longer corridors, and more corridor area when compared with units where fewer residents had violent behaviour (Isaksson, Åström et al. 2009).

2.2.3 SOCIAL DENSITY

The impact of social density, i.e. the relationship between the number of people and the size of the space they are in, has also been investigated. There is some inconsistency in the findings. A lack of association between the amount of space available in a ward and the level of behavioural disturbance has been found:

> "It has been assumed that GL (Group Living) units should be small, to prevent disorientation or confusion. However, we found no relation between confusional reactions and total area, total activity area, or proportion of activity area out of total area" (Elmstahl, Annerstedt et al. 1997).

However, a decrease in disruptive behaviour and aggression was found in residents who were relocated from a high to a low density unit (Morgan and Stewart 1998; Morgan 1998.; Morgan and Stewart 1999). These findings are supported by two studies which found more violent behaviour in units with a higher number of residents (Nelson 1995.; Isaksson, Åström et al. 2009). Positive results in the form of more active and engaged behaviour in a lower density environment were also found in residents in double versus multi-occupancy bedrooms (Hsieh 2010). This is supported by the finding of higher well being in residents who moved from shared to private bedrooms (Morgan 1999.).

There is evidence that lower social density is associated with better care outcomes: private bedrooms lead to improved sleep (Morgan and Stewart 1998); increasing the number and size of bathrooms made it easier for staff to assist with toileting (Hutchinson, Leger-Krall et al. 1996) and units with a higher number of residents had higher drug prescriptions than units with a lower number of residents (Zuidema, de Jonghe et al. 2010).

However, there may be some disadvantages to lower social density. Hsieh (2010) observed fewer opportunities for social interaction between residents, supporting the finding that social withdrawal scores tend to be lower in larger facilities with more residents (Zeisel, Silverstein et al. 2003). There is some evidence that low social density is associated with boredom (Morgan 1999).

A comparison of behaviour and use of spaces before and after transfer from traditional nursing home to an SCU (Kovach, Weisman et al. 1997) showed increased social activity which was attributed to the small physical

and numerical size of the unit. Results from a qualitative study of staff and family members views (Morgan and Stewart 1997) indicated that there were positive effects in providing additional space for wanderers in a lower density environment in a new unit, as this resulted in less noise and general activity. However, the increased space and smaller number of residents decreased social interaction. A combination of small numbers of residents in a compact design was recommended to overcome this problem.

A study that compared behaviour problems before and after transfer to a unit where the dining area was both physically and numerically smaller (Schwarz, Chaudhury et al. 2004) also demonstrated beneficial effects:

> "The new dining spaces served eight to 10 residents compared with the 25 to 30 residents who had their meals in the large dining area before the renovation. Behavioral mapping data indicated that there were fewer incidents of disruptive and agitated behaviors in the new dining areas than in the larger dining space that served the residents prior to the renovation. Staff members seemed to be having more sustained conversations with the residents in the new dining spaces than they were having in the old dining space. The reduction of group size in the new dining areas reduced the possibility of the chain reaction of disruptive behaviors during mealtimes."

A qualitative comparison between a purpose built Alzheimer's facility and a traditional nursing home (McAllister and Silverman 1999) suggested that the small scale of the special unit contributed to the higher level of community formation and social interaction found there. An interesting association between large homes and an emphasis on health and safety issues resulting in lower enjoyment of activities and less ability to control the environment has been found in a UK study (Torrington 2006).

2.3 Allow people to see and be seen

The provision of an easily understood environment will help to minimise confusion. It is particularly important for people with dementia to be able to recognise where they are, where they have come from and where they can go. When a person can see key places, such as a lounge room, dining room, their bedroom, kitchen and an outdoor area they are more able to make choices and see where they want to go. Buildings that provide these opportunities are said to have good visual access. Good visual access opens up opportunities for engagement and gives the person with dementia the confidence to explore their environment. It can also enable staff to see residents. This reduces staff anxiety about the residents' welfare and reassures the residents.

The observation that 'people with dementia stand a better chance of finding something if they can see it from where they are' led to the idea of 'Total Visual Access'. Total visual access was incorporated into the design of the NSW Health Department for the confused and disturbed elderly. These units, which became known as CADE units (Fleming and Bowles 1987), focussed on a very simple, corridor free environment.

The evaluation of the first of the CADE units suggested that the main impacts of this style of environment were to be found in improvements in self help, socialisation and behaviour (Fleming 1989), although it is clear that these changes were brought about by the combination of both the environmental and psychosocial factors in operation in this specialised unit for people with dementia.

2.3.1 WAYFINDING

More recent research has shown that a simple building 'where residents should be able to proceed from one decision point to the next as they walk along without having to plan for future decisions' is beneficial for resident orientation. It also suggests that the simple environment must be supplemented with a certain amount of explanation or training for the residents to function better (Passini, Rainville et al. 1998.) Direct visual access to relevant places along with the integration of reference points and the implementation of several zones with a unique character have been identified as helpful for a resident's wayfinding. (Netten 1989; Elmstahl, Annerstedt et al. 1997; Passini, Pigot et al. 2000; Marquardt and Schmieg 2009).

2.3.2 BENEFITS FOR STAFF

Good visual access also provides benefits for the staff. If staff can see the residents from the places where they spend most of their time they are less likely to feel anxious. At the same time the visibility of the staff to the residents helps them to feel supported. Staff working in healthcare facilities with good visual access spend less time locating and monitoring their patients (Morgan and Stewart 1999). Good sight lines between the nurses' station and other key locations have been found to be influential in prompting or supporting informal social interactions (Campo and Chaudhury 2012). In hospitals, the decentralisation of the nurses station to small bays located to improve monitoring by staff, and visibility of staff to patients, has been found to reduce the use of the nurse call system and, by implication, improve contact between staff and patients (Burns 2011).

2.4 Reduce unhelpful stimulation

Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not specifically helpful to the resident, such as unnecessary or competing noises and the sight of signs, posters, spaces and clutter that are of no use to the resident. The full range of senses must be considered. Too much visual stimulation is as stressful as too much auditory stimulation.

People with dementia have difficulties in dealing with high levels of stimulation. Their ability to screen out unwanted visual and auditory stimuli appears to be reduced. They can become more confused, anxious and agitated when over stimulated (Cleary, Clamon et al. 1988.; Netten 1993.). Common causes of over stimulation are busy entry doors that are visible to residents, clutter, public address (p.a.) systems, (Cohen 1991; Brawley 1997), alarms, loud televisions (Hall 1986.; Evans 1989.), corridors and crowding (Nelson 1995).

There is strong evidence from the Zeisel et al study that residents are less verbally aggressive

> "where sensory input is more understandable and where such input is more controlled" (Zeisel, Silverstein et al. 2003)

Hospital patients are extremely sensitive to their auditory environment and in particular to noise levels which at times may be high. This calls for a high degree of control of the acoustics in the inpatient common spaces (Lawton, Fulcomer et al. 1984; Bergsland 2002; Harris, McBride et al. 2002; Edvardsson and Nay

2009) if aggression is to be avoided (Cohen-Mansfield and Werner 1995).

An environmental approach to reducing stimulation was demonstrated in a Reduced Stimulation Unit housing 11 residents

> "...where the doors could be easily closed and camouflaged. Small tables for eating and for small group activities were set up in four of the rooms. Visual aspects of the unit (for example, pictures and wall colors) were neutral in design and color. There were no potential sources of stimulation from televisions, radios and telephones except one telephone for emergencies. Residents were free to ambulate anywhere as well as eat and rest whenever they wished on the unit. A planned, consistent daily routine scheduled rest and small-group activity periods" (Cleary, Clamon et al. 1988).

Three months after admission the residents were significantly more involved in ADLs and required significantly less restraint than 3 months prior to admission. Agitation and wandering had decreased while medication usage had not changed. Improved relationships between residents and between residents and staff were noted but not measured. The results were modest and whether they were the effect of better care practices or by the environment or a combination of these, could not be determined.

A soothing environment has been associated with periods when wandering did not occur (Algase, Antonakos et al. 2011). On the other hand, brighter light and more variation in sound levels have been associated with more wandering behaviour than low light and low levels of sound (Algase et al., 2010).

Improvement in the attention of residents, less weight loss and reduction in the use of restraints have been brought about by using internal partitions to reduce distractions, minimising distractions from televisions and phones and camouflaging exit doors, (Cleary, Clamon et al. 1988). Studies involving the combination of reduced stimulation with other environmental and care practice manipulations have shown reductions in behavioural disturbance (Bianchetti, Benvenuti et al. 1997; Bellelli, Frisoni et al. 1998).

An increasing risk of falls has been associated with the presence of unhelpful stimulation. Bold floor patterns and dark lines or surfaces can disorient people with dementia (Passini, Pigot et al. 2000) and texture, joint presence and colour have been associated with risks of falling on pathways (Zamora 2008).

2.4.1 OVER-STIMULATING ENTRY DOORS

Busy entry doors pose particular problems for staff and residents. They are a constant source of over stimulation and tempt residents to try to leave, especially if they are locked. Several ways to avoid these problems have been described and evaluated, such as hiding the door or door handle (Namazi 1989.; Dickinson, McLain-Kark et al. 1995) and installing blinds when a door offers tantalising views of the outside world to head off attempts to leave (Dickinson, McLain-Kark et al. 1995; Dickinson and McLain-Kark 1998). These studies show that the attraction of a view to the outside is very strong. It can overcome the aversive effect of dazzling and confusing patterns painted on the floor (Namazi 1989.; Chafetz 1991), indicating that there is likely to be an advantage to reducing the stimulation provided by these views. This is best done by using blinds or curtains, rather than adding to the stimulation by painting grids on the floor. Another way of reducing the attention on paid to a door is to disguise it with a mural (Kincaid and Peacock 2003) or placing a mirror on it (Mayer and Darby 1991). The use of mirrors has, however, been found to be disturbing for some people with dementia so mirrors should be used with great care.

2.4.2 NOISE AND TEMPERATURE

Noise and temperature have been shown to be independently associated with quality of life among residents. Specifically, high temperature in the resident's bedroom was associated with lower quality of life, and high noise levels in the living room were associated with low levels of social interaction (Garre-Olmo, López-Pousa et al. 2012).

The reduction of night time noise and light levels in a nursing home has been shown to improve sleep during the night and reduce day time sleeping (Alessi, Martin et al. 2005). High levels of noise are associated with increased wandering and aggressive and disruptive behaviour (Cohen-Mansfield and Werner 1995; Nelson 1995.; Algase, Beattie et al. 2010; Garcia, Hébert et al. 2012) and agitation (Joose 2012). Behavioural disturbances and violence are reduced when noise is avoided by turning down the volume of electronic devices, the distribution of earphones and reducing staff talking (Meyer, Dorbacker et al. 1992). However, there is not universal agreement on the link between noise and behavioural disturbance. Ouslander (2006) did not find such a link, nor did this study show a link between noise levels and quality of life or well being (Ouslander, Connell et al. 2006) as was found in another study (Garcia, Hébert et al. 2012). This contradictory finding may be explained by the difficulty Ouslander team's had reducing sound levels sufficiently.

While high sound levels have been shown to reduce levels of social interaction (Garre-Olmo, López-Pousa et al. 2012), moderate levels of sound appear to be associated with more engaged behaviours (Cohen-Mansfield, Thein et al. 2010), giving rise to the idea that a very quiet environment may not be comfortable.

There is a small but growing body of literature on the detrimental effects of extremes of temperature on people with dementia (van Hoof, Kort et al. 2010). A comfortable room temperature has been associated with less agitated or disruptive behaviour (Cohen-Mansfield and Werner 1995; Cohen-Mansfield and Parpura-Gill 2007) and an uncomfortable room climate with lower quality of life (Garre-Olmo, López-Pousa et al. 2012). However, another study did not observe an impact of a room's temperature or humidity on wandering behavior (Algase, Beattie et al. 2010).

Some of the decision making problems experienced by people with dementia can be explained in terms of the effects of unnecessary stimulation. They commonly have problems in choosing what to wear from the variety of clothes hanging in a wardrobe. This problem can be alleviated by having two wardrobes, one obvious and one hidden, with the obvious wardrobe containing only one or two sets of clothes. The overwhelming choice is then reduced to manageable proportions. This can be taken a step further by designing the wardrobe to enable staff to display clothing in a pre-selected order (underwear first, shirt, trousers, etc). This has been found to increase residents' independence in dressing and reduce the amount of physical help the person with dementia required (Namazi 1992).

2.5 Optimise helpful stimulation

Enabling the person with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty. Consideration needs to be given to providing redundant cueing i.e. providing a number of cues to the same thing, recognising that what is meaningful to one person will not necessarily be meaningful to another. Using text and image in signs is a simple way to do

this. Encouraging a person to recognise their bedroom through the presence of furniture, the colour of the walls, the design of a light fitting and/or the bedspread is a more complex one. Cues need to be carefully designed so that they do not add to clutter and become over stimulating.

2.5.1 SIGNAGE

One way of enhancing helpful stimulation is the provision of signs and aids to assist wayfinding. This is integral to the design of many special environments for people with dementia (Grant, Kane et al. 1995).

> "Signs may help to recognize places when architectural and interior design features are not sufficient in passing the message. They may provide directional information to remind the residents of where facilities are located and of how to return to their points of origin"(Passini, Pigot et al. 2000).

The available evidence suggests that signage is of limited effectiveness but can be improved when combined with verbal prompting from the staff (Hanley 1981).

Evaluation of an Italian approach to the design of SCUs incorporating the use of signs associates them with reductions in behavioural symptoms (Bianchetti, Benvenuti et al. 1997). The placement and nature of the signs is important; signs placed low and using words rather than pictograms are most effective (Namazi and Johnson 1991b; Scialfa, Spadafora et al. 2008). Signs should be clear and highlighted by a contrasting background, while those that are only relevant to staff should not have high levels of contrast (Dinshaw 2006).

A sign naming a feature is a poor replacement for seeing the feature, as demonstrated in a study in which people with dementia were able to see the toilet directly. Clear visibility of the toilet increased its use eightfold (Namazi and Johnson 1991a).

The best place for the signs is not at the top of the door but low down, even on the floor, to compensate for the downcast gaze of many people with dementia (Namazi and Johnson 1991b). This study indicated that the best results for getting residents to use a publicly available toilet on their unit were obtained by using the word 'toilet' on an arrow on the floor pointing to the toilet. The placing of a graphic depicting a toilet on the toilet door at eye level was also effective, but not as effective as the arrow on the floor. (In practice however, the use of arrows on floors can be confusing, as it is rare that people only move in on direction to one destination.)

The signs must be large enough to be seen by people with poor vision. In a study with a small sample it has been shown that large signs when combined with orientation training were effective, but not when simply put up without drawing residents' attention to them (Hanley 1981).

> "Signposts alone then do not seem to be generally effective in facilitating improvement in ward orientation. However, in combination with a preceding ward orientation training or more especially an accompanying ward orientation and signs training, improvements are effected, which for two of the four residents above, are maintained fully at three month follow up". (Hanley 1981).

Some signs and cues can have a negative impact. Exit signs and panic bars on exit doors, for example, appear to cue residents to try to leave the facility. These can be countered in a number of ways. In a study with a small sample, placing a horizontal grid of black tape in front of an exit reduced

contact with the door by up to 97% in 4 people with Alzheimer's disease (Hewawasam 1996). The presence of a mirror in front of an exit cues the response 'not to touch', reducing attempts to leave by 50% (Mayer and Darby 1991). In another study investigating ways to reduce attempts to leave the unit (Dickinson and McLain-Kark 1998), residents were exposed to three test conditions: a mini-blind that concealed the view from the door, a cloth panel that concealed the panic bar of the door, and both the mini-blind and the cloth panel. The findings indicated that hiding the panic bar behind a cloth panel reduced the number of attempts to leave. (While research suggests such measures may prove effective, compliance with current Building Code requirements must not be compromised.)

The debilitating effects of signs in public buildings are carefully and considerately described in an analysis of the wayfinding problems encountered by people with Alzheimer's disease trying to find locations in a hospital (Passini, Rainville et al. 1998.). This research describes the frustration of trying to read textual signs and the searching behaviour that continued after a sign had been read indicating that the destination had been reached. Passini et al highlight the problem of depending on conventional signage:

> "One of the major recommendations emerging from this research is to clean up information clutter on circulation routes. The non-discriminatory reading of information by DAT residents is among the most confusing interferences in the wayfinding process. Graphic wayfinding information notices along circulation routes should be clear and limited in number and other information should be placed somewhere else. It is quite feasible to create little alcoves specifically designed for posting public announcements, invitations and publicity, and these areas could even become small gathering places encouraging social interaction.
>
> The graphic information provided would be of consistent design and systematically located so that the user knows what to look for and where to look for information. This rule facilitates graphic communication and also reduces chances of the user being overloaded by information" (Passini, Rainville et al. 1998.).

Relevant (and only relevant) information needs to be presented in a variety of ways to maximise the chances of it being noticed and understood. Signs and cues in the form of text and graphics are not the only way in which information about the location of spaces can be made available:

> "The physical environment not only creates the wayfinding problems people have to solve but it can also provide information to solve these problems. … Information should be presented by different means to allow for personal preferences and redundancy. … Attention has to be paid to avoid distracting residents by non relevant information displays. The environment has to speak a language that the user, the Alzheimer's patient, can understand" (Passini, Pigot et al. 2000).

2.5.2 USING FAMILIAR OBJECTS

The recognisability of personally familiar objects can be used to aid orientation (Gross, Harmon et al. 2004). Featuring personal items, selected by relatives because of their significance, in display cases outside residents' rooms is a more effective approach than displaying distinctive, but non-personal items (Namazi, Rosner et al. 1991). Personally significant memorabilia were most useful for people with moderate dementia; higher

functioning residents were able to orient with familiar but non-personal memorabilia as well. Sadly the findings suggest that neither approach was helpful for lower functioning residents. In a replication of this study which more carefully focused on the precise nature of the memorabilia (Nolan, Mathews et al. 2002), some improvement in the location of rooms was found when photographs of the person in their youth were prominently displayed. This effect was contrasted with the ineffectiveness of current photos. The 6 residents in the small sample had moderate dementia.

The beneficial effect of displaying personal objects outside a resident's room has been suggested:

> "Special glass cases installed outside residents' rooms enable a display of favorite personal objects and pictures. Having personal memorabilia in the shared spaces would provide the possibility of remembering the stories, events, people, and places associated with them. The items also provide an opportunity for the staff to know more about the residents, understanding the individuals as persons with preferences, attitudes, and values" (Kovach, Weisman et al. 1997).

This approach has been supported by other researchers (Namazi, Rosner et al. 1991) and extended to hospital environments by placing personal objects close to the patient's bed, preferably with the relatives helping the patient to choose and place them (New_Zealand_Ministry_of_Health 2002).

Residents' ability to perform activities of daily living can be improved by placing labels on drawers and cupboard doors, making objects visible through the doors and removing distracting items (Chard, Liu et al. 2008). Repetitive questioning about food and meal-times are reduced when a clock and signs are provided in the dining room (Nolan and Mathews 2004).

2.5.3 CONTRAST

Contrasting objects with their background is one of the most powerful ways of optimising helpful stimulation. A contrasting toilet seat is particularly useful in helping the resident, or patient, see the toilet. Contrast is also useful to help residents eat well. Brighter light and greater colour contrast between the tablecloth, place mats and dishes results in more eating and less agitation (Koss and Gilmore 1998; Brush, Meehan et al. 2002). There is some evidence that the use of colour to distinguish the doors to resident's rooms has a beneficial effect (Lawton 1984.) but the experimental design leaves open the possibility that it was the contrast, not the colour, that contributed to the outcomes.

Contrast can have negative effects when it creates an appearance of sharp edges between floorcoverings or geometric patterns. These can be seen as steps by people with dementia (Whall and Conklin 1985; Perritt, McCune et al. 2005).

2.5.4 GOOD ILLUMINATION

The provision of adequate levels of illumination is fundamental to enhancing helpful stimulation. Wayfinding, for example, is impaired in low light levels (Netten 1989) and lower lighting conditions have been associated with more signs of lower wellbeing (Garre-Olmo, López-Pousa et al. 2012). As higher overall light levels are associated with improved function (Brush, Meehan et al. 2002), there has been a great deal of interest in the potentially beneficial effects of increasing light levels to overcome the exceptionally low

exposure to bright light experienced by many people with dementia living in institutions (Ancoli-Israel, Clopton et al. 1997) (Brawley 1997) (Campbell, Kripke et al. 1988).

Increasing illumination to typical day time levels has been shown to regulate circadian rhythms and improve sleep patterns for people with dementia (Satlin 1992; Mishima 1994). However, some studies have shown that high levels of illumination are associated with increased agitation (Satlin 1992; Mishima 1994; Lovell 1995.; Barrick, Sloane et al. 2010) and wandering (Algase, Beattie et al. 2010).

There is some evidence suggesting that sunlight in patient rooms can reduce depression, which is often found in people with dementia (Beauchemin and Hays 1996).

A very well constructed randomised control trial (RCT)(Ancoli-Israel, Gehrman et al. 2003) involving a comparison between morning and evening bright light sessions (mean of 105 minutes exposure to 2,500 lux) with similar exposure to dim red light and normal, baseline light exposure showed that:

> "...the effect of light treatment on sleep and circadian activity rhythms in residents with AD suggest that increased bright light exposure, whether in the morning or in the evening, consolidates night time sleep by lengthening the maximum sleep bouts during the night. There was, however, no effect of light treatment on total sleep time nor on wake time during the night or day. In other words, sleep was consolidated but overall time asleep did not change as there were longer but fewer sleep bouts. The magnitude of this effect was also clinically meaningful. Morning light increased the maximum sleep bout length by over 30 min while evening light increased the maximum sleep bout length by over 20 min. As night time sleep disruption is detrimental to caregivers as well as to residents, the patient's more consolidated sleep may decrease both caregivers' sleep disruption and their concerns about the patient during the night. Therefore, even though the patient's total sleep time is not increased, both the patient and caregiver are likely to sleep better when the patient's sleep is more consolidated".

Early work (Satlin 1992) supports the use of light therapy but is marred somewhat by having the people with dementia restrained in chairs in front of the light box for 2 hours. This work was extended (Mishima 1994) to show that 2 hours of light box therapy providing more intense light, 3,000 to 5,000 lux, not only improved sleep but also reduces behavioural disturbance.

The application of this approach in a more naturalistic way, i.e. avoiding the restrictions inherent in getting people with dementia to sit beside light boxes for extended periods by providing elevated light levels in public areas, has been well investigated (Sloane, Christianna et al. 2007).

> "Analyses of data from this cluster-unit intervention trial of persons with dementia in two care facilities indicate that high-intensity ambient light therapy in the morning or throughout the day resulted in a small but statistically significant increase in night time sleep minutes and inconsistent effects on night time sleep consolidation and daytime sleepiness. ...The study also demonstrated that bright light was well tolerated and was not associated with adverse effects. The light delivery method used in this study involved remodelling the activity and dining areas of institutional settings, thereby providing passive light exposure. Data on intervention fidelity indicate that this

> method produced median light intensities close to the target level of 2,500 lux. Furthermore, mean participant exposure was comfortably above the target of 1 to 2 hours per treatment day, and more than 85% of participants received at least 1.5 hours of exposure regardless of treatment. ...These results suggest that environmental modification may be superior to light boxes, the current therapeutic standard, as a light delivery method. Although statistically significant, the clinical significance of the finding that total sleep time was 11 minutes longer under morning or all-day light is unclear".

The authors go on to provide a standard by which the significance of these changes can be assessed.

> "To better gauge the clinical significance of this finding, the results were compared with those of published clinical trials of commonly prescribed sleep medications. Zolpidem and temazepam, the most commonly prescribed sleep medications in 2005, produce approximately 30 minutes of additional sleep in young adults and healthy elderly volunteers, but the favorable effect of hypnotic medication appears attenuated in older persons. One randomized trial in 72 elderly persons with chronic insomnia, for example, reported only 4.4 more minutes of sleep with temazepam than with placebo. Furthermore, in long-term care populations, the risks of (adverse effects from) sedative–hypnotic medications are particularly high".

Unlike the light box therapy approach, this methodology does not appear to involve any additional staff resident interactions. The positive results are therefore more likely to be due to the increase in light levels than to the beneficial effects of spending time with staff.

In addition to beneficial effects on sleep patterns the provision of very high light levels (10,000 lux) during a 30 minute breakfast period has been shown to have positive effects on behavioural disturbance as measured by the Cohen Mansfield Agitation Index (Thorpe, Middleton et al. 2000). The provision of simulated dawn/dusk variations in light produced consolidation in sleeping patterns (Gasio, Kräuchia et al. 2003). Significant improvement in MMSE scores (p=0.0012) was obtained in a group of 9 nursing home residents with either Alzheimer's disease or vascular dementia given 2 hours of bright light therapy (3,000 lux) each day for 10 days. No improvement was observed in the randomly allocated control group (Graf, Wallner et al. 2001).

However, some studies have shown that high levels of illumination are associated with increased agitation (Satlin 1992; Mishima 1994; Lovell 1995.; Barrick, Sloane et al. 2010). A recent review of non-pharmacological therapies for agitation in dementia (Livingston, Kelly et al. 2014) summarised the evidence for the benefits of light therapy provided in three randomised controlled trials and came to a negative conclusion:

> "Light therapy hypothetically reduces agitation through manipulating circadian rhythms, typically by 30–60 min daily bright light exposure. We included three RCTs, all in care homes (Ancoli-Israel, Gehrman et al. 2003; Dowling, Graf et al. 2007; Burns 2009). Among participants with some or significant agitation, light therapy either increased agitation or did not improve it. The SES was 0.2 (for improvement) to 4.0 (for worsening symptoms) compared with the control group. There is therefore no evidence that light therapy reduces symptomatic or severe agitation in care homes and it may worsen it."

There is some evidence suggesting that in hospitals sunlight in patient rooms can reduce depression, which is often found in people with dementia (Beauchemin and Hays 1996).

2.6 Support movement and engagement

Purposeful movement can increase engagement and maintain a person's health and wellbeing. It is encouraged by providing a well-defined pathway, free of obstacles and complex decision points, that guides people past points of interest and opportunities to engage in activities or social interaction. The pathway should be both internal and external, providing an opportunity and reason to go outside when the weather permits.

Poorly designed environments can contribute to the agitated wandering sometimes seen in people with dementia (Neistein and Siegal 1996). Planned movement has two components: the provision of a well-defined path, and the access the path provides to a range of experiences that might encourage the person with dementia to engage in something other than wandering. The specific characteristics of indoor and outdoor walking paths that encourage walking have been found to be: the presence of attractive destinations, less fragmentation (i.e. few decision points), absence of steps and attractive views (Joseph and Zimring 2007).

2.6.1 ACCESS TO NATURE

The benefits of going outside into a natural environment or being involved in indoor gardening include better self-reported health (Rappe and Kivelä 2005), reduction in stress as indicated by lowering of cortisol levels (Rodiek 2002; Lee and Kim 2008), improved cognition (Lee and Kim 2008), reduced agitation (Detweiler, Murphy et al. 2008; Lee and Kim 2008), improved sleep-related outcomes, reduced use of antipsychotics, and fewer falls and fall-related morbidity (Detweiler, Murphy et al. 2009).

Access to a secure out door area has been shown to be one of the defining features of an SCU (Grant, Kane et al. 1995). The beneficial effects on levels of agitation of being able to get outside have been well demonstrated (Namazi and Johnson 1992a) and described under 'Unobtrusively reduce risks'.

There have been studies of environments that have outside areas incorporated into their design as an amenity to be used by residents (Wells and Jorm 1987), but it is impossible to identify the relative contribution that the outside area has made to the beneficial effects (in this case of maintaining the function of the residents). It is unfortunate that an attempt to include access to a garden in a very well controlled study (Zeisel, Silverstein et al. 2003) was thwarted by lack of information on whether residents could actually access the gardens that had been identified as being present.

2.6.2 THE ROLE OF STAFF IN FACILITATING THE USE OF THE GARDEN

An Australian study was the first to demonstrate empirically an increase in pleasure associated with being in a landscaped garden (Cox, Burns et al. 2004). This study examined how effective two types of multisensory environments were in improving the wellbeing of older individuals with dementia. The two multisensory environments were a Snoezelen room and a landscaped garden in a nursing home. These environments were compared to the experience an environment without these features. The observed

response of 24 residents with dementia was measured during time spent in the Snoezelen room, in the garden, and in the living room. Both the Snoezelen room and the garden decreased the signs of sadness shown by residents in comparison with the living room, and significantly increased the signs of pleasure. However, there was a significant increase in pleasure in the three environments when the residents were approached by staff. The authors concluded that

> "... in terms of the relative effectiveness of each environment in improving well-being of participants, the quantitative data indicate few differences between them. Qualitative data obtained by interviewing staff and caregivers indicated that 'No matter which of the three environments was being spoken of, it was the opportunities of a one-to-one relationship, quality time, and to feel closer, that was valued..."

Wood (2005) supports this stating that the presence of a pleasant, safe outside space had no effect that could be attributed to it that was not secondary to the impact of the relationships with the staff (Wood, Harris et al. 2005).

So while

> "Gardens are a lovely and interesting way to provide a source of sensory stimulation and avoid monotony - a virtual symphony of sight, sound, light, color, fragrance, birds, and small animals. Outdoor spaces offer unique opportunities for a wide range of stimulating, potentially life-enriching activities such as assisting someone who has been a lifetime gardener to maintain some form of small outside gardening spot" (Brawley 2001).

Their use, however, requires the support of staff. Perhaps the least contribution staff could make to the use of outside spaces would be to ensure that the access to them is open. Even when a garden provides opportunities for social interaction and engagement in activities it may not be used (Cohen-Mansfield and Werner 1999).

2.6.3 OPPORTUNITIES FOR ENGAGEMENT

The provision of access to an outdoor area is not in itself sufficient. If the space is unfriendly, too large, or too complicated, it is unlikely to be used. A systematic approach to developing a 'therapeutic garden' with points of interest and opportunities to engage in activities or social interaction is required to encourage residents to use it. This may explain the finding that the availability of a garden area, whether well designed or not, appeared to reduce aggression and falls in comparison to a facility without a garden (Mooney 1992).

The enrichment of the experimental facility by the provision of an outside patio (in conjunction with improving security features) had no differential impact on the behavioural or cognitive course of the dementia of residents when compared to the non-enriched, control environment (Chafetz 1991).

A U.S. wide survey of long term care facilities with outdoor areas investigated the characteristics and features of these areas and how they related to the perceived impact on their users. (Cohen-Mansfield and Werner 1999). Most respondents rated outdoor spaces as very useful and as having a great benefit for users. The perceived benefit was related to the presence of design features, such as the presence of gazebos, and to the number of activities offered in the area. Despite these positive findings respondents stated the areas were not used as much as possible.

An innovative study of the external environment in the community provides

some clear guidance on the characteristics that make the outside world friendly to people with dementia. It should be familiar, legible, distinctive, accessible, comfortable and safe (Mitchell and Burton 2006).

2.7 Create a familiar place

A person with dementia is more able to use and enjoy places and objects that are familiar to them from their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours. The personal backgrounds of the residents need to be reflected in the environment. The involvement of the person with dementia in personalising the environment with their familiar objects should be encouraged.

The opportunity for residents of aged care facilities to increase the familiarity of their surroundings by the personalising the environment, often by bringing in their own belongings, has been associated with the maintenance of activities of daily living and reductions in aggression, anxiety and depression (Greene and Asp 1985; Annerstedt 1997; Morgan and Stewart 1999; Zeisel, Silverstein et al. 2003; Charras, Zeisel et al. 2012; Garcia, Hébert et al. 2012). It has also been associated with higher levels of quality of life (Fleming, Goodenough et al. 2014).

In contrast, the provision of a non-familiar atmosphere in a bathroom has been shown to cause problematic behaviours (Namazi and Johnson 1996). However, there is no way of identifying what contribution staff attitudes and training, or other environmental features of the group living units, contributed to this result.

Making the healthcare environment as familiar as possible has been recognised as contributing to the avoidance of agitation and disorientation (Marshall 2005; Cunningham 2006) and to improving staff morale on institutional psychiatric wards (Devlin 1992). An early study emphasising the need for a familiar environment (Greene and Asp 1985) suggested that improvements in behaviour were measurable in 50% of the residents.

2.7.1 TECHNOLOGY

While it is possible for people with dementia to learn to use new technologies, this is not easy and requires a great deal of support from skilled staff (Lekeu, V et al. 2002; Fleming and Sum 2014). It is much easier, more practical, and possibly more pleasant, for the person with dementia to be provided with fittings, e.g. taps, of a design that they can operate because their use is recorded in their long term memory.

2.7.2 CULTURAL DIFFERENCES

People with dementia who come from other cultures are at particular risk of finding themselves in an unfamiliar environment. A detailed knowledge of their heritage, customs and beliefs is required to provide an environment that will help them make the most of their abilities (Day and Cohen 2000).

2.8 Provide a variety of places to be alone or with others-in the unit

People with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of places in the unit, some for quiet conversation and some for larger groups, as well as places

where people can be by themselves. These internal and external places should have a variety of characters, e.g. a place for reading, looking out of the window or talking, to cue the person to engage in relevant activity and stimulate different emotional responses.

This principle suggests the need for places that range from the public to the private. The presence of separate social spaces has been shown to differentiate SCUs from non-SCUs in a statewide survey involving 436 Minnesota nursing homes (Grant, Kane et al. 1995). The strongest evidence for its importance comes from Zeisel's well controlled study that provides some certainty about the contribution of the individual factors to the well-being of the residents (Zeisel, Silverstein et al. 2003). It contains findings of direct relevance to the principle as the following quotations demonstrate.

> "The degree of privacy-personalisation in the SCUs studied was negatively correlated with patient scores on the Cohen-Mansfield total aggression scale. Residents in facilities with more privacy - more rooms that are individual and more opportunities for personalization - generally scored lower on this scale, representing less anxiety and aggression".
>
> "The amount of variability among common spaces in a facility was negatively correlated with patient social withdrawal scores. The degree of social withdrawal among residents decreased as the variability among the common spaces in a facility increased".
>
> "Those living in environments scoring high on privacy-personalization tended to have lower scores on the psychotic problem scale".
>
> "Characteristics of the environment associated with reduced depression, social withdrawal, misidentification, and hallucinations include common areas that vary in ambience".

Residents in homes with more gradation between private, semi-private, and public spaces are likely to experience higher wellbeing, in addition to more environmental control than residents living in homes with less privacy gradation (Barnes 2006). It is possible that environments that have well defined spaces with different functions are easier for people with Alzheimer's disease to navigate (Passini, Rainville et al. 1998.; Passini, Pigot et al. 2000).

In a paper full of clearly described hints on creating environments that are thought to be helpful to people with dementia, Hoglund et al (Hoglund, Dimotta et al. 1994) stated that

> "...one thing that works well is having a variety of rooms and allowing them to have a definite purpose, rather than being a multipurpose space".

While not being able to tease out the characteristics individually there is strong evidence of the benefits of providing spaces that are clearly private:

> "The degree of privacy-personalisation in the SCUs studied was negatively correlated with patient scores on the Cohen-Mansfield total aggression scale (p=0.019). Residents in facilities with more privacy - more rooms that are individual and more opportunities for personalisation - generally scored lower on this scale, representing less anxiety and aggression"(Zeisel, Silverstein et al. 2003).

A significant reduction in psychotic symptoms was also found in this study.

An investigation of the relationships between quality of life and the sub-scale scores of the Environmental Assessment Tool (Fleming 2011), which measures the quality of the environment against the ten principles of design

used in this literature review, revealed a significant, positive correlation between quality of life and the provision of a range of spaces. This study involved 275 residents in 35 aged care homes and controlled for high/low care, gender, age, time in care, marital status, ethnic background, type of dementia, global deterioration score, Barthel Index score, physical incapacities, number of psychiatric diagnoses and the number of regular medications (Fleming, Goodenough et al. 2014).

2.8.1 SINGLE ROOMS

The advantages of single rooms have been summarised as including: the opportunity to choose between privacy and socialisation; the ability to personalise the space, providing familiarity and continuity with the past; support for a sense of security and individual identity, and allowing residents to control levels of stimulation (Morgan and Stewart 1998). Single rooms are important for most people with dementia in that they provide them with an opportunity to withdraw when they feel threatened (Osmond 1957; Shrivastava, Kumar et al. 1999). They have been associated with a reduction in the need for intervention, including medications, and improvements in sleeping (Morgan and Stewart 1998). Rather than increasing loneliness, when there are opportunities for the person with dementia to spend time elsewhere, single rooms contribute to privacy and choice (Ittleson, Proshansky et al. 1970). Uncooperative behaviours have been found to be associated with shared rooms (Low, Draper et al. 2004).

2.8.2 VARIETY OF SPACES IN HOSPITALS

Specific recommendations for providing a variety of spaces in a hospital inpatient unit have been provided, and they include

> 'dedicating space for social interaction, clearly indicating a room's intended use, making areas visually distinct so that the intended use of different parts can be delineated from their appearance, using colours to enhance activities and spaces, using various materials to provide different tactile and visual experiences, using lighting to help define space, and finally, making the spaces that have special meaning to patients stand out'(Kumar and Ng 2001).

2.9 Provide a variety of places to be alone or with others-in the community

Without constant reminders of who they are, a person with dementia will lose their sense of identity. Frequent interaction with friends and relatives can help to maintain that identity and visitors should be able to drop in easily and enjoy being in places that encourage interaction.

Stigma remains a problem for people with dementia so the unit should be designed to blend with the existing community and not stand out as a 'special' unit. Where possible a 'bridge' should be built between the unit and the community by providing a place that is shared by the community and people with dementia. A coffee shop near the unit, for example, may enable a person with dementia to go there easily without needing assistance. Where the unit is a part of a larger site, there should be easy access around the site so people with dementia, their families and friends can interact with other people who live there.

In an early statement of the principles of good design for people with

dementia (Fleming and Bowles 1987), it was stated that facilities should be placed close to the community of origin of the person because the identity of a person who has lost their recent memories can be more easily supported by familiar sights and visits from friends and relatives. This view has been supported (Chiarelli, Bower et al. 2005), but there have been very few empirical investigations of the advantages of having easy access to the local community (Keady, Campbell et al. 2012). One example is a comparison between residents in assisted living facilities with residents in a residential aged care facilities. Those in assisted living had higher perceived levels of privacy and autonomy, greater satisfaction with going out into the community and communicating with family and friends, and lower reported rates of boredom and less depression (Robison, Shugrue et al. 2011).

2.9.1 LINKS TO THE COMMUNITY IN HOSPITALS

The provision of links to the community in a healthcare context involves encouraging visitors. This has been picked up by some architects as described by Poulter (Lisa Poulter 1998). "The idea is to include in the design a welcoming, caring environment for the patient, the visitor, and the neighborhood,". This is achieved by creating spaces that are sensitive to the patient and family experience, welcoming visitors, mimimising patient confusion and anxiety, offering positive diversion to patients and families, providing features that are visually and audibly soothing (e.g. water features) and encouraging wonder and playfulness.

2.10 Design in response to vision for way of life

The choice of life style, or philosophy of care, will vary between facilities. Some will choose to focus on engagement with the ordinary activities of daily living and have fully functioning kitchens. Others will focus on the ideas of full service and recreation, while still others will emphasise a healthy life style or, perhaps, spiritual reflection. The way of life offered needs to be clearly stated and the building designed both to support it and to make it evident to the residents and staff. The building should be the embodiment of the philosophy of care, constantly reminding the staff of the values and practices that are required while providing them with the tools they need to do their job.

Over the last twenty five years there has been extensive interest in providing 'homelike' environments for people with dementia (Verbeek, van Rossum et al. 2009). It has almost seemed that the only legitimate approach to providing residential care to people with dementia was by providing them with access to small facilities that emphasise involvement in the ordinary activities of daily living. Recently however, there has been a move away from this, and it may well be that the next generation of people in a dementia specific facility will not want to be involved in washing the dishes or hanging out the washing. They may want an environment that provides them with opportunities to engage in a variety of other activities, such as keeping fit, eating well and enjoying virtual experiences. People from different cultural, geographic and economic backgrounds will also have very different experiences and expectations.

This experience is showing that the provision of a 'domestic' or 'homelike' environment' is simply one example of an over-arching principle of providing a building that responds to a clearly articulated vision for a way of life. A building should be the physical embodiment of this vision and capable

of providing the staff and residents, or patients, with the amenities they need to put these values into action. The need to have a clearly formulated philosophy of care to guide the design of healthcare facilities has been recognised. Poulter describes this:-

> "Health care providers are beginning to recognize the important role physical space plays in defining quality care experiences- not only for patients, but also for visitors, families, physicians, and staffers. One of the most notable trends is many hospitals' efforts to incorporate the concept of holistic care in facility design. Whether it's the familiar Planetree modeL philosophies such as "Patients First" or the "Healing Environment," or some other attitudinal framework, the goal is to meet patients' biological, psychological, and social needs and help them attain higher levels of wellness. And these efforts are paying off-in increased patient, family, and physician satisfaction"(Poulter 1998).

In the hospital setting, the advantages of going beyond a simple medical model aimed at the efficient delivery of medical services is becoming apparent (Edvardsson and Nay 2009). A successful example of this in Australia can be seen in the design of the new Royal Childrens' Hospital in Melbourne.

2.10.1 DOMESTIC OR HOMELIKE ENVIRONMENTS

The domestic, or homelike, environment continues to be of interest, however, and is the most researched example of the relationship between a philosophy of care and the design of an environment for people with dementia. There is strong, but not uncontested (Samus, Rosenblatt et al. 2005), support for the link between homelike qualities and improvements in the quality of life of the residents (Minde, Haynes et al. 1990; Gnaedinger, Robinson et al. 2007; Charras, Zeisel et al. 2012; Garcia, Hébert et al. 2012; Fleming, Goodenough et al. 2014).

In a domestic or homelike environment, the goal is to encourage the person to undertake the tasks of daily life for as long as possible. This requires that a person has access to all of the normal household facilities, including a kitchen (Marsden, Meehan et al. 2001), and is encouraged to use their abilities (Scott, Ryan et al. 2011). It has been shown that the introduction of a small number of homelike features into an institutional environment resulted in a reduction in pacing, agitation and exit seeking (Cohen-Mansfield and Werner 1998) and improved social interaction and eating behaviour (Melin and Gotestam 1981). The presence of homelike features has also been associated with higher food and fluid intake (Reed, Zimmerman et al. 2005) and less tube feeding (Lopez, Amella et al. 2010).

The rigorous assessment of the effects of providing a homelike environment have taken two basic forms: a comparison of care in a homelike facility with care in the community, and comparisons between facilities that vary in their level of homelike qualities.

The first randomised control trial of admission to a purpose designed, homelike environment was conducted in Australia (Wells and Jorm 1987). The nature of the environment was described in the following way:

> "The interior and garden areas are as secure as possible and reflect a homelike atmosphere. Most rooms are single and residents bring their own beds and small items of furniture. There are several multi-purpose living or activity areas and a kitchen/dining room. Where possible domestic furnishings and fittings have been used including carpet

> tiles in all but the bedroom and bathrooms. The care programme involves all staff working in the unit and is based on the philosophy of normalisation. It includes continuing assessment and individual program review".

Residents showed no difference in their rate of deterioration when compared with a matched group of people with dementia dwelling in the community who accessed community services, such as respite care. This is described as a successful outcome as the trauma and difficulties associated with admission to residential care were thought to be likely to accelerate decline. An important additional benefit was found in that the carers of those admitted showed improvements in their stress levels.

However, it is clear from the description of the environment that the contribution of the care staff in undertaking systematic assessments and developing individual programs was seen as central to the provision of appropriate residential care. There is no suggestion that this was provided for the community sample. The results therefore reflect the impact of a range of interventions that include the provision of a homelike environment.

In a similar vein, a comparison between the Quality of Life (QoL) of 62 people with dementia living in a secure care facility (SCF) which is "more comfortable and more like home and offers more choice and more privacy than traditional setting" (Reimer, Slaughter et al. 2004) and 123 matched people living in a number of traditional nursing homes showed positive results for people in the mid to late stages of dementia.

> "The SCF … featured a decreased density of residents, with 10 people living in each of six separate and self-contained semi-attached bungalows; enhanced staffing ratios, which enable the integration of personal care, leisure, and rehabilitation activity into the role of the staff caregiver (rather than an expert model of episodic therapist intervention); and a biodiverse environment (e.g., multigenerational, live-in pets, plants). The physical environment and daily activities were arranged like a typical home, with residents able to help in the kitchen, sweep the floor, sit by the fireplace, or go outside into a small enclosed garden area".

While it proved impossible for the authors to allocate residents randomly to these settings, the matching of residents on age, sex, Global Deterioration Scale results and co-morbidities provided a firm foundation for comparison.

> "This is the first study to directly compare SCF with traditional institutions using prospective follow-up and data collection. Taken as a whole, the findings of the study suggest that QoL for adults with middle-to late-stage dementia is the same or better across time in a SCF than in traditional institutional facilities. This is the first longitudinal study of its type to demonstrate positive effect on QoL over time in these later stages of dementia. Specifically, the group living in the SCF had significantly better ADL function over time than the two control groups, as measured using the FAST. In addition, affect for the residents living in the SCF was better, with increased interest and less anxiety/fear. This study suggests that a purposively designed physical and social environment has a positive effect on QoL."

The reduction in anxiety and an increase in interest in their surroundings were sometimes accompanied by an increase in agitation which was described as not necessarily

> "a negative finding, because it may indicate that residents had the environmental and biochemical freedom for such activity".

This study again demonstrates the positive impact of a complex collection of interventions and leaves open the question of how much the physical environment contributed to the improvement and how much was contributed by the "enhanced knowledge and skills of caregivers."

A serious attempt to control for these variables has been made in a very sophisticated study involving comparisons between 15 special care units (Zeisel, Silverstein et al. 2003). Statistical controls were included for the influence of, among others, cognitive status, need for assistance with activities of daily living, prescription drug use, amount of Alzheimer's staff training and the staff-to-resident ratio. This study extended the boundaries of experimental design beyond the traditional randomised control trial. A hierarchical modelling technique was used to emphasise the variability between settings that would not have been apparent in a random sample and overcomes the problems associated with studies of intervention effects when SCU's are assigned to experimental or control conditions, but the individual is the unit of analysis.

While the study is exciting in its design, the findings in relation to homelike qualities are not dramatic

> "Persons living in SCU's with a more residential, less institutional environment expressed lower levels of overall aggression than those living in more institutional settings".

There was no relationship between homelike qualities and agitation, depression, social withdrawal or psychotic symptoms.

Perhaps the most obvious features of a domestic environment are the 'homelike' furnishings and fittings. A very well controlled investigation of the effects of introducing a few of the most basic elements of a homelike environment into a very institutional nursing home (Cohen-Mansfield and Werner 1998) showed that residents chose to spend time in a corridor containing comfortable chairs, pictures, coffee table, books and the aroma of citrus in comparison with a normal corridor. There was a weak trend to reduced agitation, pacing and exit seeking in comparison to behaviour in a normal corridor, but this positive trend was stronger when instead of a domestic setting being provided, a setting reminiscent of a natural outdoor setting was provided. The differences between the two enhanced settings were small. This study is probably best interpreted as supporting taking any and all steps available to break the institutional character of nursing homes with long hospital style corridors and shiny floors. It does have the advantage of controlling for staff skills and knowledge and other features of the social environment.

Does a homelike environment have any effect on the rate of functional decline of people with dementia? If it can be assumed that homelike qualities are a feature of SCUs in the USA, and there is some doubt about this (Chappel and Reid 2000), then the findings of the 4 State study of 800 facilities (Phillips 1997) are relevant. This showed that SCU residents declined at the same rate as non-SCU residents matched for base line cognitive status, behavioural problems, age, sex and length of stay.

A systematic attempt to define homelike qualities (Quincy, Adam et al. 2005) used the Hopkins Homelike Environmental Rating Scale (HHERS) in a comparison of 22 facilities.

> "This 14-item measure was designed to capture the overall homelike climate of each facility. It consists of two subscales: family-like social climate (e.g., "Facility caregivers interact socially with the residents") and homelike physical environment (e.g., "Residents' rooms are tailored to their personal taste")."

The study concluded with the observations that:

> "Contrary to our hypotheses, environmental factors, specifically size and homelike setting, were not significant correlates of quality of life. Homelike environment and size also did not appear to moderate many of the affects of agitation, depression, apathy, or irritability on quality of life".

A similarly negative finding concerning the relationship between homelike qualities, as measured by the Therapeutic Environment Screening Scale (TESS-2+), and agitation, measured by the Resident and Staff Observation Checklist (RSOC) (Sloane, Mathew et al. 1991), was found in a cross sectional survey of 53 special care units for people with dementia (Sloane, Mitchell et al. 1998). While low stimulation, characterised by having residents in bed for part of the day, and small size predicted lower level of agitation, homelike qualities did not.

An Australian qualitative investigation of the views of staff and relatives on a new purpose designed (Cioffi, Fleming et al. 2007) suggested that homelike qualities are related to concepts such as a pleasant milieu, looking homely, a home-like eating environment, feeling homely, like a kitchen at home, tranquillity, light and airy, serene, unrestricted, inviting for relatives and comfortable for children. The authors concluded that:

> "This study has shown that an improved environment, such as an SCU, can enhance the QoL for residents, the 'nursing home' experience for relatives and the working environment for staff. For residents, the QoL improved as a result of decreased agitation, better sleeping patterns, greater freedom and increased appetite. For the relatives, the nursing home experience was improved as the lighter airy home-like atmosphere with garden access increased their comfort with visiting and with having their family member in care. For staff, their work environment was improved by better access to equipment, and greater ability to monitor residents and provide better care. They were able to feel more comfortable about the safety of the residents.
>
> The main features of SCU design that relatives appreciated were the home-like family environment and tranquil atmosphere; these design features resulted in a SCU that was conducive to visitors. The SCU kitchen and dining room were described as very homely and this resulted in residents gaining weight".

The appearance of domesticity, i.e. the 'homelike design of the environment, is only part of a domestic environment. As well as looking like home, a truly domestic environment must provide residents with opportunities to engage in the ordinary activities of daily living that characterise life at home. Many of these activities centre on the kitchen and dining room. The fundamental idea behind these activities is that the resident should not be a passive recipient of services but should be afforded the opportunity of making a contribution, however small, and be recognised as a competent partner (Kihlgren, Hallgren et al. 1994).

The strongest evidence to support this approach (Reimer, Slaughter et al. 2004) comes from a study of a special care facility where "The physical

environment and daily activities were arranged like a typical home, with residents able to help in the kitchen, sweep the floor, sit by the fireplace, or go outside into a small enclosed garden area." The results included less decline in ADL functions than in the control groups (p=0.16), less anxiety (p=0.003) and increased interest (=-0.017). However, this environment was also designed to be smaller and more domestic than those it was compared with and the effects of these characteristics cannot be extracted from the findings. In a similarly generalised way, it has been observed that a homelike kitchen can become the centre of activity (Marsden, Meehan et al. 2001).

In what may be the most basic demonstration of the positive impact of engaging residents in an ordinary activity, providing a familiar dining experience around a table rather than serving meals to residents in their chairs in corridors was linked with increased social interaction and improved eating behaviour. (Melin and Gotestam 1981.) The authors note:

> "However, changes in the patient's environment do not automatically lead to increased activity. To ensure a positive effect on the patient behavior, contingency analyses have to be made. The ward milieu has to be created to increase the possibility to communicate and to obtain reinforcers, not just by putting the residents close together but also by making them dependent on each other if possible. In the present study this was done by changing the meal situation so that the residents had to communicate to get what they wanted from the table" (Melin and Gotestam 1981).

Simply changing the seating arrangements can result in increasing communication (Gotestam and Melin 1987).

A homelike environment has also been associated with higher food and fluid intake (Reed, Zimmerman et al. 2005), as well as less tube feeding (Lopez, Amella et al. 2010).

Ordinary activities can also include more personal care, such as grooming. There is clear evidence of the beneficial effects on QoL of engaging residents in these activities in a rich environment that included the opportunity to engage in activities such as food preparation (Wood, Harris et al. 2005). However, this study indicates the need for the active and focused intervention of staff for the environmental provisions to have an effect.

> "The most enabling environmental presses occurred when staff managed activity situations in ways that continually supported residents' positive behaviors and affect. ADL times and some activity groups constituted such situations". (Wood, Harris et al. 2005)

Wood et al conclude that

> "Perhaps most importantly, therefore, attention must be paid to how therapeutically designed, beautiful, and homelike architectural spaces can best be transformed into alive occupational spaces, as well as to what personal and institutional contributions and commitments are needed to make such transformations a reality".

It is clear that there is little evidence to support the idea that the provision of a homelike environment in itself will bring about positive results for people with dementia. It has to be combined with appropriate philosophies of care, well skilled staff and good management practices (Atkinson 1995; Rosewarne, Opie et al. 1997; Moore 1999.). CADE units in NSW were designed to provide the opportunity for the involvement of residents in domestic activities and staff were trained and encouraged to do this (Atkinson 1995).

The evaluation of the first 15 months of operation of the first of these units (Fleming 1989) indicated significant improvement in self-help skills, social interaction and behaviour when compared to baseline measurements established in a long stay ward in a psychiatric hospital.

Supportive evidence of the significance of ordinary activities in establishing social networks and a sense of community has been found (Campo and Chaudhury 2012) and described in a well-executed qualitative study (McAllister and Silverman 1999) which compared a small, homelike facility with a traditional nursing home. One of the residents remarked:

> "'They cook your meals; sometimes I do the dishes—I don't have to but I help out'. She also told me she's glad she doesn't have to cook here, though 'it was OK cooking at home because you knew what they liked'" (McAllister and Silverman 1999).

This highlights that not only do environmental characteristics and staff practices influence the effectiveness of interventions, but resident perceptions and wishes are also very important.

2.11 Summary

An over emphasis on safety may have detrimental effects. There is good evidence that making safety features less obtrusive, for example avoiding obviously locked doors, improves resident well-being, especially depression.

While there is evidence supporting the proposition that small unit size is associated with a variety of positive outcomes for people with dementia, it has not yet been possible to be certain about the contribution that the size of the unit makes in comparison with the other environmental factors that are commonly associated with a purposely designed, small unit e.g. homelike qualities, safety and familiarity. The evidence does support the proposition that there is an optimum balance between the physical size of a space and the number of people in it. Large, empty spaces and small, crowded spaces should be avoided.

The evidence supports the inclusion of clear lines of sight (good visual access) that enable residents and patients to see where they want to go and to see staff. This also benefits staff by enabling them to monitor residents and patients easily.

The careful reduction of unhelpful stimulation and enhancement of helpful stimulation is well supported. While well designed signage and the strategic positioning of personal memorabilia are of some help in wayfinding, the effect is not large. Levels of illumination and contrast need to be high to overcome the effects of ageing on the eye, but the provision of very high levels of illumination has not yet proven to be of benefit.

There is good evidence for the provision of a variety of places in environments for people with dementia. These assist in reducing anxiety and depression while improving social interaction, and they may assist the resident to find their way around. However, specific evidence for benefits of gardens per se, without enhanced staff interaction, is weak. It has been observed that many outdoor spaces are under utilised.

The literature supports the provision of a familiar environment, especially when that is taken to include the provision of single rooms that facilitate personalisation.

While there are examples of providing ways to link a residential facility to the

community through the inclusion of environmental features, such as a coffee shop, their effects on the wellbeing of patients and residents is yet to be systematically evaluated.

The strongest evidence in the research of a link between a philosophy of care, the built environment and wellbeing is to be found in the area of the domestic or homelike environment. However, the difficulties of distinguishing between the effects of the philosophy of care, staff skills, good management practices and the physical environment make it difficult to conclude that a homelike physical environment has a broad impact, especially in the case of people with advanced dementia. There is, however, good evidence that it reduces aggression.

Acronyms

ACFI	Aged Care Funding Instrument
AD	Alzheimers Disease
ADL	Activities of Daily Living
ADRQL	Alzheimer's Disease Related Quality of Life (scale)
AIHW	Australian Institute of Health & Welfare
DAT	Dementia Alzheimers Type
DICE	Design in Caring Environments
FAST	Functional Assessment Staging Test
GL	Group Living
HDS	Hierarchical Dementia Scale
NH	Nursing Home
QoL	Quality of Life
RACF	Residential Aged Care Facility
SCF	Special Care Facility
SCU	Special Care Unit

RESOURCE 1

Using the built environment to create comprehensible, manageable and meaningful environments for people with dementia

PART 3
REFERENCES

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Access_Economics (2009). Making choices, Future dementia care: projections, problems and preferences.

AIHW (2012). Dementia in Australia. Canberra, Australian Institute of Health and Welfare, Commonwealth of Australia.

AIHW (2013). Dementia care in hospitals: costs and strategies. Canberra, Australian Institute of Health and Welfare.

AIHW. (2012). Dementia in Australia. Canberra, Australian Institute of Health and Welfare.

Alessi, C. A., J. L. Martin, et al. (2005). "Randomized, controlled trial of a nonpharmacological intervention to improve abnormal sleep/wake patterns in nursing home residents." Journal of the American Geriatrics Society **53**(5): 803-810.

Algase, D. L., C. Antonakos, et al. (2011). "Estimates of Crowding in Long-Term Care: Comparing Two Approaches." Health Environments Research & Design Journal (HERD) (Vendome Group LLC) **4**(2): 61-74.

Algase, D. L., E. R. A. Beattie, et al. (2010). "Wandering and the Physical Environment." American Journal of Alzheimer's Disease and Other Dementias **25**(4): 340-346.

Allan, L. M., C. G. Ballard, et al. (2009) "Incidence and prediction of falls in dementia: a prospective study in older people." PLoS ONE [Electronic Resource] 4(5): e5521.

Alzheimer's Australia (2014). Creating a dementia friendly Australia.

Ancoli-Israel, S., P. Clopton, et al. (1997). "Use of wrist activity for monitoring sleep/wake in demented nursing home patients. ." Sleep **20**: 24-27.

Ancoli-Israel, S., P. Gehrman, et al. (2003). "Increased light exposure consolidates sleep and strengthens circadian rhythms in severe Alzheimer's disease patients." Behavioral Sleep Medicine **1**(1): 22-36.

Annerstedt, L. (1993). "Development and consequences of group living in Sweden : A new mode of care for the demented elderly." Social Science & Medicine **37**(12): 1529-1538.

Annerstedt, L. (1997). "Group-living care: An alternative for the demented elderly." Dementia and Geriatric Cognitive Disorders **8**(2): 136-142.

Atkinson, A. (1995). "Managing people with dementia: CADE units... confused and disturbed elderly." Nursing Standard **9**(25): 29-32.

Barnes, S. (2006). "Space, Choice and Control, and Quality of Life in Care Settings for Older People " Environment and Behavior **38**(5): 589-604.

Barrick, A. L., P. D. Sloane, et al. (2010). "Impact of ambient bright light on agitation in dementia." International Journal of Geriatric Psychiatry **25**(10): 1013-1021.

Beauchemin, K. M. and P. Hays (1996). "Sunny hospital rooms expedite recovery from severe and refractory depressions." Journal of Affective Disorders **40**(1–2): 49-51.

Bellelli, G., G. Frisoni, et al. (1998). "Special care units for demented patients: a multicenter study." Gerontologist **38**(4): 456-462.

Bergsland, K. (2002). "Space in mind." Journal for Healthcare Design and Development **33**: 18-24.

Bianchetti, A., P. Benvenuti, et al. (1997). "An Italian model of dementia special care unit: Results of a pilot study." Alzheimer Disease & Associated Disorders **11**(1): 53-56.

Boex, W. and S. Boex (2012). "Well-being through design: Transferability of design concepts for healthcare environments to ordinary community settings." Housing, Care and Support **15**(3): 120-128.

Bowers, L., N. Crowhurst, et al. (2002). "Safety and security policies on psychiatric acute admission wards: results from a London-wide survey." Journal of Psychiatric and Mental Health Nursing **9**(4): 427-433.

Brawley, E. C. (1997). "Designing for Alzheimer's disease. Strategies for creating better care environments." New York: Wiley,.

Brawley, E. C. (2001). "Environmental design for Alzheimer's disease: a quality of life issue." Aging & Mental Health **5**(2 supp 1): 79 - 83.

Brush, J. A., R. A. Meehan, et al. (2002). "Using the environment to improve intake for people with dementia." Alzheimer's Care Quarterly **3**(4): 330-338 339p.

Burns, A. (2009). "Bright light therapy for agitation in dementia: a randomized controlled trial." International psychogeriatrics **21**(04): 711-721.

Burns, A. (2011). "Help patients see more clearly." The Health Service Journal **121**(6282): 26-27.

Burton, E. (2012). "Streets ahead? The role of the built environment in healthy ageing." Perspectives in Public Health **132**(4): 161-162.

Burton, E., L. Mitchell, et al. (2004). Neighbourhoods for life: Designing dementia friendly outdoor environments, Oxford Institute for Sustainable Development, Oxford Brookes University.

Campbell, S. S., D. F. Kripke, et al. (1988). "Exposure to light in healthy elderly subjects and Alzheimer's patients." Physiology and Behaviour, **42**,: 141-144.

Campo, M. and H. Chaudhury (2012). "Informal social interaction among residents with dementia in special care units: Exploring the role of the physical and social environments." Dementia (14713012) **11**(3): 401-423 423p.

Capezuti, E. (2004). "Minimizing the use of restrictive devices in dementia patients at risk for falling." Nursing Clinics of North America **39**(3): 625-+.

Chafetz, P. K. (1991). "Behavioral and cognitive outcomes of SCU care." Clinical Gerontologist, **11**,: 19-38.

Chappel, N. L. and C. R. Reid (2000). "Dimensions of care of dementia sufferers in long-term care institutions: Are they related to outcomes?" The Journals of Gerontology **55B**(4): S234.

Chard, G., L. Liu, et al. (2008). "Verbal cueing and environmental modifications: Strategies to improve engagement in occupations in persons with alzheimer disease." Physical and Occupational Therapy in Geriatrics **27**(3): 197-211.

Charras, K., J. Zeisel, et al. (2012).

Effect of personalization of private spaces in special care units on institutionalized elderly with dementia of the Alzheimer type. Dementia: Non-Pharmacological Therapies: 119-135.

Chiarelli, P., W. Bower, et al. (2005). "Estimating the prevalence of urinary and faecal incontinence in Australia: systematic review." Australasian Journal on Ageing **24**(1): 19-27.

Cioffi, J. M., A. Fleming, et al. (2007). "The effect of environmental change on residents with dementia: The perceptions of relatives and staff." Dementia 6(2): 215-231.

Cleary, T. A., C. Clamon, et al. (1988.). "A reduced stimulation unit: Effects on patients with Alzheimer's Disease and related disorders." The Gerontologist, **28**,: 511-514.

Cohen-Mansfield, J. and A. Parpura-Gill (2007). "Bathing: A framework for intervention focusing on psychosocial, architectural and human factors considerations." Archives of Gerontology and Geriatrics **45**(2): 121-135.

Cohen-Mansfield, J., K. Thein, et al. (2010). "Engaging nursing home residents with dementia in activities: The effects of modeling, presentation order, time of day, and setting characteristics." Aging and Mental Health **14**(4): 471-480.

Cohen-Mansfield, J. and P. Werner (1995). "Environmental influences on agitation: An integrative summary of an observational study." American Journal of Alzheimer's Disease and Other Dementias **10**(1): 32-39.

Cohen-Mansfield, J. and P. Werner (1998). "The effects of an enhanced environment on nursing home residents who pace." Gerontologist **38**(2): 199-208.

Cohen-Mansfield, J. and P. Werner (1999). "Outdoor wandering parks for persons with dementia: a survey of characteristics and use." Alzheimer Disease & Associated Disorders **13**(2): 109-117.

Cohen, U., & Weisman, G.D. (1991). "Holding on to home: Designing environments for people with dementia." Baltimore: Johns Hopkins University Press,.

Cox, H., I. Burns, et al. (2004). "Multisensory environments for leisure: promoting well-being in nursing home residents with dementia." Journal of Gerontological Nursing **30**(2): 37-45.

Cunningham, C. (2006). "Understanding challenging behaviour in patients with dementia. [Review] [23 refs]." Nursing Standard **20**(47): 42-45.

Cutler, L. J. and R. A. Kane (2009). "Post-occupancy evaluation of a transformed nursing home: The first four Green House® settings." Journal of Housing for the Elderly **23**(4): 304-334.

Day, K. and U. Cohen (2000). "The Role of Culture in Designing Environments for People with Dementia: A Study of Russian Jewish Immigrants." Environment and Behavior **32**(3): 361-399.

Dean, R., K. Briggs, et al. (1993). "The domus philosophy: A prospective evaluation of two residential units for the elderly mentally ill." International Journal of Geriatric Psychiatry **8**(10): 807-817.

Detweiler, M. B., P. F. Murphy, et al. (2009). "Scheduled medications and falls in dementia patients utilizing a wander garden." American Journal of Alzheimer's Disease and Other Dementias 24(4): 322-332.

Detweiler, M. B., P. F. Murphy, et al. (2008). "Does a wander garden influence inappropriate behaviors in dementia residents?" American Journal of Alzheimer's Disease and Other Dementias **23**(1): 31-45.

Devlin, A. S. (1992). "Psychiatric Ward Renovation: Staff Perception and Patient Behavior." Environment and Behavior **24**(1): 66-84.

Dickinson, J. I. and J. McLain-Kark (1998). "Wandering behavior and attempted exits among residents diagnosed with dementia-related illnesses: A qualitative approach." Journal of Women & Aging **10**(2): 23.

Dickinson, J. I., J. McLain-Kark, et al. (1995). "The effects of visual barriers on exiting behavior in a dementia care unit." Gerontologist **35**(1): 127-130.

Dinshaw, C. (2006). "Surveying nursing practice on wards for older people with mental health needs." Nursing Older People **18**(10): 25-31.

Dobrohotoff, J. T. and R. H. Llewellyn-Jones (2011). "Psychogeriatric inpatient unit design: a literature review." International Psychogeriatrics / IPA **23**(2): 174-189.

Dobrohotoff, J. T. and R. H. Llewellyn-Jones (2011). "Psychogeriatric inpatient unit design: a literature review." International Psychogeriatrics **23**(2): 174-189.

Dowling, G. A., C. L. Graf, et al. (2007). "Light treatment for neuropsychiatric behaviors in Alzheimer's disease." Western Journal of Nursing Research **29**(8): 961-975.

Draper, B., R. Karmel, et al. (2011). "The Hospital Dementia Services Project: age differences in hospital stays for older people with and without dementia." International Psychogeriatrics **23**(10): 1649-1658.

Edvardsson, D. and R. Nay (2009). "Acute care and older people: challenges and ways forward." Australian Journal of Advanced Nursing **27**(2): 63-69.

Elliott, K.-E. J. "Perspectives of the community-based dementia care workforce: "occupational communion" a key finding from the Work 4 Dementia Project." International psychogeriatrics **25**(05): 765-774.

Elmstahl, S., L. Annerstedt, et al. (1997). "How should a group living unit for demented elderly be designed to decrease psychiatric symptoms?" Alzheimer Disease & Associated Disorders **11**(1): 47-52.

Engberg, J., N. G. Castle, et al. (2008). "Physical Restraint Initiation in Nursing Homes and Subsequent Resident Health." The Gerontologist **48**(4): 442-452.

Evans, B. (1989.). "Managing from day to day: Creating a safe and workable environment." Minneapoolis, MN: Department of Veterans Affairs Medical Centre,.

Fleming, R. (2011). "An environmental assessment tool suitable for use in homelike facilities for people with dementia." Australasian Journal on Ageing **30** (3):

108-112.

Fleming, R. and K. Bennett (2015). Dementia Friendly Communities Environmental Assessment Tool, Alzheimers Australia WA.

Fleming, R. and J. Bowles (1987). "Units for the confused and disturbed elderly: Development, Design, Programmimg and Evaluation." Australian Journal on Ageing 6(4): 25-28.

Fleming, R., Bowles, J. and Mellor, S. (1989). "Peppertree Lodge: Some observations on the first fifteen months of the first C.A.D.E. unit." Australian Journal on Ageing **8**(4): 29-32.

Fleming, R., P. Crookes, et al. (2008). A review of the empirical literature on the design of physical environments for people with dementia. Sydney, Australia., Primary Dementia Collaborative Research Centre, UNSW.

Fleming, R., B. Goodenough, et al. (2014). "The relationship between the quality of the built environment and the quality of life of people with dementia in residential care." Dementia.

Fleming, R. and N. Purandare (2010). "Long-term care for people with dementia: environmental design guidelines." International Psychogeriatrics **22**(7): 1084-1096.

Fleming, R. and S. Sum (2014). "Empirical studies on the effectiveness of assistive technology in the care of people with dementia: A systematic review." Journal of Assistive Technologies **8**(1): 14-34.

Fottler, M. D., R. C. Ford, et al. (2000). "Creating a healing environment: the importance of the service setting in the new consumeroriented healthcare system." Journal of Healthcare Management **45**: 91-106.

Garcia, L. J., M. Hébert, et al. (2012). "Perceptions of family and staff on the role of the environment in long-term care homes for people with dementia." International Psychogeriatrics **24**(5): 753-765.

Garre-Olmo, J., S. López-Pousa, et al. (2012). "Environmental determinants of quality of life in nursing home residents with severe dementia." Journal of the American Geriatrics Society 60(7): 1230-1236.

Gasio, P. F., K. Kräuchia, et al. (2003). "Dawn–dusk simulation light therapy of disturbed circadian rest–activity cycles in demented elderly." Experimental Gerontology 38(1-2): 207-216. 38(1-2): 207-216.

Gnaedinger, N., J. Robinson, et al. (2007). "Renovating the built environment for dementia care: lessons learned at the Lodge at Broadmead in Victoria, British Columbia." Healthcare Quarterly **10**(1): 76-80.

Gonski, P. N. and I. Moon (2012). "Outcomes of a behavioral unit in an acute aged care service." Archives of Gerontology and Geriatrics **55**(1): 60-65.

Gotestam, K. G. and L. Melin (1987). Improving well-being for patients with senile dementia by minor changes in the ward environment. Society, stress and disease. L. Levi. Oxford, England, Oxford University Press. **5**: 295-297.

Government, A. (2004). Australia's Demographic Challenges. Parkes, ACT, The Treasury.

Graf, A., C. Wallner, et al. (2001). "The effects of light therapy on mini-mental state examination scores in demented patients." Biological Psychiatry **50**(9): 725-727.

Grant, L. A., R. A. Kane, et al. (1995). "Beyond labels: nursing home care for Alzheimer's disease in and out of special care units." Journal of the American Geriatrics Society **43**(5): 569-576.

Greene, J. A. and J. Asp (1985). "Specialized management of the Alzheimer's disease patient: does it make a difference? A preliminary progress report." Journal of the Tennessee Medical Association **78**(9): 559-563.

Gross, J., M. E. Harmon, et al. (2004). "Recognition of Self Among Persons With Dementia: Pictures Versus Names as Environmental Supports." Environment and Behavior **36**(3): 424-454.

Gudeman, J. (2005). "Closing Doors on Acute Psychiatric Units: Time to Change?" Psychiatric Services **56**(9): 1047-1047.

Hagglund, D. and D. Hagglund (2010). "A systematic literature review of incontinence care for persons with dementia: the research evidence." Journal of Clinical Nursing **19**(3-4): 303-312.

Haglund, K., L. von Knorring, et al. (2006). "Psychiatric wards with locked doors -- advantages and disadvantages according to nurses and mental health nurse assistants." Journal of Clinical Nursing **15**(4): 387-394 388p.

Haglund, K., L. Von Knorring, et al. (2006). "Psychiatric wards with locked doors – advantages and disadvantages according to nurses and mental health nurse assistants." Journal of Clinical Nursing **15**(4): 387-394.

Hall, G., Kirschling, M.V., & Todd, S. (1986.). "Sheltered freedom - An Alzheimer's unit in an ICF." Geriatric Nursing, **7**,: 132-137.

Hanley, I. G. (1981). "The use of signposts and active training to modify ward disorientation in elderly patients." Journal of Behavior Therapy & Experimental Psychiatry **12**(3): 241-247.

Hanley, I. G. (1981.). "The use of signposts and active training to modify ward disorientation in elderly patients." Journal of Behavioural Therapy and Experimental Psychiatry, **12**,: 241-247.

Harrington, T. (1998). Perception and physiological psychology in design for older people. 14th Nordic Geodetic Commission. Trondheim.

Harris, P. B., G. McBride, et al. (2002). "A place to heal: environmental sources of satisfaction among hospital patients." Journal of Applied Social Psychology **32**: 1276-1279.

Hewawasam, L. C. (1996). "The use of two-dimensional grid patterns to limit hazardous ambulation in elderly patients with Alzheimer's disease." Nursing Times Research **1**(3): 217-227.

Hoglund, J. D., S. Dimotta, et al. (1994). "Long-term care design: Woodside Place--the role of environmental design in quality of life for residents with dementia." Journal of Healthcare Design **6**: 69-76.

Hsieh, Y. (2010). "Investigation on the day-to-day behavior of a taiwanese nursing organization's residents through shared bedroom style." Journal of Asian Architecture and Building Engineering **9**(2): 371-378.

Hutchinson, S., S. Leger-Krall, et al. (1996). "Toileting: a biobehavioral challenge in Alzheimer's dementia care." Journal of gerontological nursing **22**(10): 18-27.

Isaksson, U., S. Åström, et al. (2009). "Factors associated with the prevalence of violent behaviour among residents living in nursing homes." Journal of Clinical Nursing **18**(7): 972-980 979p.

Ittleson, W. H., H. M. Proshansky, et al. (1970). "Bedroom Size and Social Interaction of the Psychiatric Ward." Environment and Behavior **2**(3): 255-270.

Joose, L. (2012). "Do Sound Levels and Space Contribute to Agitation in Nursing Home Residents with Dementia?" Research in Gerontological Nursing **5**(3): 174-184.

Jorm, A. F., A. E. Korten, et al. (1987). "The prevalence of

dementia: A quantitative integration of the literature." Acta Psychiatrica Scandinavica **76**(5): 465-479.

Joseph, A., Y.-S. Choi, et al. (2015). "Impact of the Physical Environment of Residential Health, Care, and Support Facilities (RHCSF) on Staff and Residents: A Systematic Review of the Literature." Environment and Behavior.

Joseph, A. and C. Zimring (2007). "Where Active Older Adults Walk: Understanding the Factors Related to Path Choice for Walking Among Active Retirement Community Residents." Environment & Behavior **39**(1): 75-105.

Kallin, K., J. Jensen, et al. (2004). "Why the elderly fall in residential care facilities, and suggested remedies." Journal of Family Practice **53**(1): 41-52.

Keady, J., S. Campbell, et al. (2012). "Neighbourhoods and dementia in the health and social care context: A realist review of the literature and implications for UK policy development." Reviews in Clinical Gerontology **22**(2): 150-163.

Kihlgren, M., Brane, G., Karlsson, I., Leissner, P., & Norberg, A. (1992). "Long-term influences on demented patients in different caring mileaus, a collective living unit and a nursing home: A descriptive study." Dementia, **3**,: 342-349.

Kihlgren, M., A. Hallgren, et al. (1994). " Integrity promoting care of demented patients: Patterns of interaction during morning care. ." International Journal of Aging and Human Development **39**(4): 303-319.

Kincaid, C. and J. R. Peacock (2003). "The Effect of a Wall Mural on Decreasing Four Types of Door-Testing Behaviors." Journal of Applied Gerontology **22**(1): 76-88.

Koss, E. and G. C. Gilmore (1998). Environmental interventions and functional ability of AD patients. Research and practice in Alzheimer's disease. B. Vellas, F. Fitten and G. Frisoni. New York, Springer: 185-193.

Kovach, C., G. Weisman, et al. (1997). "Impacts of a therapeutic environment for dementia care." American Journal of Alzheimer's Disease and Other Dementias **12**(3): 99-110.

Kuhn, D., R. E. Kasayka, et al. (2002). "Behavioral observations and quality of life among persons with dementia in 10 assisted living facilities." American Journal of Alzheimer's Disease and Other Dementias **17**(5): 291-298.

Kumar, S. and B. Ng (2001). "Crowding and violence on psychiatric wards: explanatory models." Canadian Journal Of Psychiatry. Revue Canadienne De Psychiatrie **46**(5): 433-437.

Kwok, T., X. Bai, et al. (2012). "Effect of Physical Restraint Reduction on Older Patients' Hospital Length of Stay." Journal of the American Medical Directors Association **13**(7): 645-650.

Larson, E. B., S. Marie-Florence, et al. (2004). "Survival after Initial Diagnosis of Alzheimer Disease." Annals of Internal Medicine **140**(7): 501-509.

Lawton, M., M. Fulcomer, et al. (1984). "Architecture for the mentally impaired elderly." Environment and Behavior **16**(6): 730-757.

Lawton, M. P., Fulcomer, M., & Kleban, M. (1984.). "Architecture for the mentally impaired elderly." Environment and Behaviour, **16**,: 730-757.

Lee, Y. and S. Kim (2008). "Effects of indoor gardening on sleep, agitation, and cognition in dementia patients—a pilot study." International Journal of Geriatric Psychiatry **23**(5): 485-489.

Lekeu, F., W. V, et al. (2002). "Training early Alzheimer patients to use a mobile phone." Acta Neurol Belg. **102**(3): 114-121.

Leon, J. and M. G. Ory (1999). "Effectiveness of Special Care Unit (SCU) placements in reducing physically aggressive behaviors in recently admitted dementia nursing home residents." American Journal of Alzheimer's Disease and Other Dementias **14**(5): 270-277.

Lisa Poulter, H. (1998). "Satisfaction by design." Marketing Health Services **18**(3): 4-8.

Livingston, G., L. Kelly, et al. (2014). "Non-pharmacological interventions for agitation in dementia: systematic review of randomised controlled trials." British Journal of Psychiatry **205**(6): 436-442.

Lopez, R. P., E. J. Amella, et al. (2010). "The influence of nursing home culture on the use of feeding tubes." Archives of Internal Medicine **170**(1): 83-88.

Lovell, B. B., Ancoli-Israel, S., & Gevirtz, R. (1995.). "Effect of bright light treatment on agitated behaviour in institutionalised elderly subjects." Psychiatry Research, **57**,: 7-12.

Lövheim, H., P.-O. Sandman, et al. (2008). "Behavioral and psychological symptoms of dementia in relation to level of cognitive impairment." International Psychogeriatrics **20**(4): 777-789.

Low, L. F., B. Draper, et al. (2004). "The relationship between self-destructive behaviour and nursing home environment." Aging & Mental Health **8**(1): 29-33.

Marquardt, G., K. Bueter, et al. (2014). "Impact of the Design of the Built Environment on People with Dementia: An Evidence-Based Review." HERD: Health Environments Research & Design Journal **8**(1): 127-157.

Marquardt, G. and P. Schmieg (2009). "Dementia-friendly architecture. Environments that facilitate wayfinding in nursing homes." Zeitschrift fur Gerontologie und Geriatrie **42**(5): 402-407.

Marsden, J. P., R. A. Meehan, et al. (2001). "Therapeutic kitchens for residents with dementia." American Journal of Alzheimer's Disease and Other Dementias **16**(5): 303-311.

Marshall, M., Ed. (2005). Perspectives on Rehabilitation and Dementia. London, Jessica Kingsley.

Mayer, R. and S. J. Darby (1991). "Does a mirror deter wandering in demented older people?" International Journal of Geriatric Psychiatry **6**(8): 607-609.

McAllister, C. L. and M. A. Silverman (1999.). "Community formation and community roles among persons with Alzheimer's disease: A comparative study of experiences in a residential Alzheimer's facility and a traditional nursing home." Qualitative Health Research, **9**,: 65-85.

Melin, L. and K. G. Gotestam (1981.). "The effects of rearranging ward routines on communication and eating behaviours of psychogeriatric patients." Journal of Applied Behaviour Analysis, **14**,: 47-51.

Meyer, D. L., B. Dorbacker, et al. (1992). "Effects of a'quiet week'intervention on behavior in an Alzheimer boarding home." American Journal of Alzheimer's Disease and Other Dementias **7**(4): 2-7.

Minde, R., E. Haynes, et al. (1990). "The ward milieu and its effect on the behaviour of psychogeriatric patients." Canadian Journal of Psychiatry - Revue Canadienne de Psychiatrie **35**(2): 133-138.

Mishima, K., Okawa, M., Hishikawa, Y., Hozumi, S., Hori, H., & Takahashi, K. (1994). "Morning bright light therapy for sleep and behaviour disorders in elderly patients with dementia." Acta Psychiatry Scandinavia, **89**,: 1-7.

Mitchell, L. and E. Burton (2006). "Neighbourhoods for life: Designing dementia-friendly outdoor environments." Quality

in Ageing **7**(1): 26-33.

Mitchell, L. and E. Burton (2010). "Designing dementia-friendly neighbourhoods: Helping people with dementia to get out and about." Journal of Integrated Care **18**(6): 11-18.

Mitchell, L., E. Burton, et al. (2004). "Dementia-friendly cities: Designing intelligible neighbourhoods for life." Journal of Urban Design **9**(1): 89-101.

Mitchell, L., E. Burton, et al. (2003). "Making the outside world dementia-friendly: design issues and considerations." Environment & Planning B: Planning & Design **30**(4): 605-632.

Mooney, P., & Nicell, P.L. (1992.). "The importance of exterior environment for Alzheimer residents: Effective care and risk management." Healthcare Management Forum, **5**,: 23-29.

Moore, K. D. (1999.). "Dissonance in the dining room: A study of social interaction in a special care unity." Qualitative Health Research, **9**,: 133-155.

Morgan, D. G. and N. J. Stewart (1997). "The importance of the social environment in dementia care." Western Journal of Nursing Research **19**(6): 740-761.

Morgan, D. G. and N. J. Stewart (1998). "Multiple Occupancy Versus Private Rooms on Dementia Care Units." Environment and Behavior **30**(4): 487-503.

Morgan, D. G. and N. J. Stewart (1999). "The physical environment of special care units: needs of residents with dementia from the perspective of staff and family caregivers." Qualitative Health Research **9**(1): 105-118.

Morgan, D. G. and N. J. Stewart (1999). "The Physical Environment of Special Care Units: Needs of Residents with Dementia from the Perspective of Staff and Family Caregivers." Qualitative Health Research **9**(1): 105-118.

Morgan, D. G. S., N.J. (1998.). "High versus low density special care units: Impact on the behaviour of elderly residents with dementia." Canandian Journal on Aging, **17**,: 143-165.

Morgan, D. G. S., N.J. (1999.). "The physical environment of special care units: Needs of residents with dementia from the perspective of staff and caregivers." Qualitative Health Research, **9**,: 105-118.

Moyle, W., S. Borbasi, et al. (2011). "Acute care management of older people with dementia: a qualitative perspective." Journal of Clinical Nursing 20(3/4): 420-428.

Namazi, K. H., & Johnson, B.D. (1992). "Dressing independently: A closet modification model for Alzheimer's disease patients." American Journal of Alzheimer's Care and Related Disorders and Research, **7**,: 22-28.

Namazi, K. H. and B. D. Johnson (1991a). "Environmental effects on incontinence problems in Alzheimer's disease patients." American Journal of Alzheimer's Disease and Other Dementias **6**(6): 16-21.

Namazi, K. H. and B. D. Johnson (1991b). "Physical environmental cues to reduce the problems of incontinence in Alzheimer's disease units." American Journal of Alzheimer's Disease and Other Dementias **6**(6): 22-28.

Namazi, K. H. and B. D. Johnson (1992a). "Pertinent autonomy for residents with dementias: Modification of the physical environment to enhance independence." American Journal of Alzheimer's Disease and Other Dementias **7**(1): 16-21.

Namazi, K. H. and B. D. Johnson (1996). "Issues related to behavior and the physical environment: Bathing cognitively impaired patients:." Geriatric Nursing **17**(5): 234-238.

Namazi, K. H., T. T. Rosner, et al. (1991). "Long-term memory cuing to reduce visuo-spatial disorientation in Alzheimer's disease patients in a special care unit." American Journal of Alzheimer's Disease and Other Dementias **6**(6): 10-15.

Namazi, K. H., Rosner, T.T., & Calkins, M.P. (1989.). "Visual barriers to prevent ambulatory Alzheimer's patients from exiting through an emergency door." The Gerontologist **29**,: 699-702.

Naue, U. and T. Kroll (2011). "A reply to 'The "demented other" or simply "a person"? Extending the philosophical discourse of Naue and Kroll through the situated self' by John Keady, Steven Sabat, Ann Johnson, and Caroline Swarbrick." Nursing Philosophy **12**(4): 293-296.

Neistein, S. and A. P. Siegal (1996). "Agitation, wandering, pacing, restlessness, and repetitive mannerisms." International Psychogeriatrics **8**(Suppl 3): 399-402.

Nelson, J. (1995.). "The influence of environmental factors in incidents of disruptive behaviour." Journal of Gerontological Nursing, **21**,((5),): 19-24.

Netten, A. (1989). "The effect of design of residential homes in creating dependency among confused elderly residents: A study of elderly demented residents and their ability to find their way around homes for the elderly." International Journal of Geriatric Psychiatry **4**(3): 143-153.

Netten, A. (1989.). "The effect of design of residential homes in creating dependency among confused elderly residents: A study of elderly demented residents and their ability to find their way around homes for the elderly." International Journal of Geriatric Psychiatry, **4**,: 143-153.

Netten, A. (1993.). "A positive environment? Physical and social influences on people with senile dementia in residential care." Aldershot, England: Ashgate.

New_Zealand_Ministry_of_Health. (2002). "Criteria for the design and refurbishment of psychiatric acute and intensive care facilities: a statement from the Ministry of Health." Retrieved June 2013, from http://www.health.govt.nz/publication/criteria-design-and-refurbishment-psychiatric-acute-and-intensive-care-facilities.

Nolan, B., R. Mathews, et al. (2002). "Evaluation of the effect of orientation cues on wayfinding in persons with dementia." Alzheimers Care Quarterly **3**(1): 46-49.

Nolan, B. and R. M. Mathews (2004). "Facilitating Resident Information Seeking Regarding Meals in a Special Care Unit: An environmental design intervention." Journal of Gerontological Nursing. **30**(10).

O'Brien, L. and R. Cole (2003). "Close-observation areas in acute psychiatric units: A literature review." International Journal of Mental Health Nursing.

Oliver, D., J. B. Connelly, et al. (2007). "Strategies to prevent falls and fractures in hospitals and care homes and effect of cognitive impairment: systematic review and meta-analyses." British Medical Journal **334**(7584): 82-85.

Osmond, H. (1957). "Function as the basis of psychiatric ward design." Mental Hospitals **8**: 23-30.

Ouslander, J. G., B. R. Connell, et al. (2006). "A nonpharmacological intervention to improve sleep in nursing home patients: results of a controlled clinical trial." Journal of the American Geriatrics Society **54**(1): 38-47.

Parker, C., S. Barnes, et al. (2004). "Quality of life and building design in residential and nursing homes for older people." Ageing & Society

24(06): 941-962.

Passini, R., H. Pigot, et al. (2000). "Wayfinding in a Nursing Home for Advanced Dementia of the Alzheimer's Type." Environment and Behavior **32**(5): 684-710.

Passini, R., C. Rainville, et al. (1998.). "Wayfinding with dementia: Some research findings and a new look at design." Journal of Architectual and Planning Research, **15**,: 133-151.

Perritt, M. R., E. D. McCune, et al. (2005). "Empirical Findings Suggest Recommendations for Carpet Pattern and Texture." Alzheimer's Care Quarterly **6**(4): 300.

Phillips, C. D., Sloan, P.D., Howes, C., & Koch, G. (1997.). "Effects of residence in Alzheimer disease special care units on functional outcomes." Journal of American Medical Association, **278**,: 1340-1344.

Phillipson, L., C. Magee, et al. (2013). "Why carers of people with dementia do not utilise out-of-home respite services." Health & Social Care In The Community **21**(4): 411-422.

Poulter, L. (1998). "Satisfaction by design." Marketing Health Services **18**(3): 4-8.

Proctor, L. P., P. Brook, et al. (1985). "Residents' functioning and staff perceptions of 'ease of management' in two types of old peoples' homes." Social Science and Medicine **21**(12): 1315-1318.

Pynoos, J., & Ohta, R.J. (1991). "In-home interventions for persons with Alzheimer's disease and their caregivers." Physical & Occupational Therapy, **93**,((3-4),): 83-92.

Quincy, M. S., R. Adam, et al. (2005). "The Association of Neuropsychiatric Symptoms and Environment With Quality of Life in Assisted Living Residents With Dementia." The Gerontologist **45**(1): 19.

Rabins, P. V., J. D. Kasper, et al. (2000). Concepts and methods in the ADRQL: an instrument for assessing health-related quality of life in persons with Alzheimer's disease. New York, Springer Publishing Company.

Rappe, E. and S.-L. Kivelä (2005). "Effects of Garden Visits on Long-term Care Residents as Related to Depression." HortTechnology **15**(2): 298.

Reed, P. S., S. Zimmerman, et al. (2005). "Characteristics associated with low food and fluid intake in long-term care residents with dementia." Gerontologist: 74-80 77p.

Reimer, M., A. , S. Slaughter, et al. (2004). "Special Care Facility Compared with Traditional Environments for Dementia Care: A Longitudinal Study of Quality of Life." Journal of the American Geriatrics Society **52**(7): 1085.

Remen, S. (1991). "Signs symbols and the psychiatric environment." Psychiatric Hospital **22**: 113-118.

Remen, S. (1992). "How can you keep your psychiatric patients safe?" Michigan Hospitals **28**: 21-27.

Robison, J., N. Shugrue, et al. (2011). "Community-Based Versus Institutional Supportive Housing: Perceived Quality of Care, Quality of Life, Emotional Well-Being, and Social Interaction." Journal of Applied Gerontology **30**(3): 275-303 229p.

Rodiek, S. D. (2002). "Influence of an outdoor garden on mood and stress in older persons." Journal of Therapeutic Horticulture **13**: 13-21.

Rosewarne, R., J. Opie, et al. (1997). Care Needs of People with Dementia and Challenging Behaviour Living in Residential Facilities. Canberra, Commonwealth Dept. of Health and Family Services.

Sabat, S. R., A. Johnson, et al. (2011). "The 'demented other' or simply 'a person'? Extending the philosophical discourse of Naue and Kroll through the situated self." Nursing Philosophy **12**(4): 282-292.

Samus, Q. M., A. Rosenblatt, et al. (2005). "The association of neuropsychiatric symptoms and environment with quality of life in assisted living residents with dementia." Gerontologist **45 Spec No 1**(1): 19-26.

Satlin, A., Volicer, L., Ross, V., Herz, L., & Campbell, S. (1992). "Bright light treatment of behavioural and sleep disturbances in patients with Alzheimer's Disease." American Journal of Psychiatry, **149**,: 1028-1032.

Scandura, D. A. (1995). "Freedom and safety: A Colorado centre cares for Alzheimer's patients." Health Progress, **76**,((3),): 44-46.

Schwarz, B., H. Chaudhury, et al. (2004). "Effect of design interventions on a dementia care setting." American Journal of Alzheimer's Disease and Other Dementias **19**(3): 172-176.

Scialfa, C. T., P. Spadafora, et al. (2008). "Iconic sign comprehension in older adults: The role of cognitive impairment and text enhancement." Canadian Journal on Aging **27**(3): 253-265.

Scott, A., A. Ryan, et al. (2011). "Perceptions and implications of violence from care home residents with dementia: a review and commentary." International Journal of Older People Nursing **6**(2): 110-122.

Shrivastava, R., S. Kumar, et al. (1999). "Psychiatric units in district general hospitals: design issues." International Medical Journal **6**: 119-124.

Sloan, P. D., Mitchell, C.M., Preisser, J.S., Phillips, C., Commander, C., & Burker, E. (1998). "Environmental correlates of resident agitation in Alzheimer's disease special care units." Journal of American Geriatrics Society, **46**,: 862-869.

Sloane, P. D., P. Christianna, et al. (2007). "High-Intensity Environmental Light in Dementia: Effect on Sleep and Activity." Journal of the American Geriatrics Society **55**(10): 1524.

Sloane, P. D., L. J. Mathew, et al. (1991). "Physical and pharmacologic restraint of nursing home patients with dementia. Impact of specialized units. [see comment]." JAMA **265**(10): 1278-1282.

Sloane, P. D., C. M. Mitchell, et al. (1998). "Environmental correlates of resident agitation in Alzheimer's disease special care units." Journal of American Geriatrics Society **46**,: 862-869.

Suzuki, M., M. Kanamori, et al. (2008). "One-year follow-up study of elderly group-home residents with dementia." American Journal of Alzheimer's Disease and other Dementias **23**(4): 334-343.

te Boekhorst, S., M. F. I. A. Depla, et al. (2009). "The effects of group living homes on older people with dementia: a comparison with traditional nursing home care." International Journal of Geriatric Psychiatry **24**(9): 970-978.

Thomas, B., M. Jones, et al. (2006). "P.r.n. medication use in a psychiatric high-dependency unit following the introduction of a nurse-led activity programme." International Journal of Mental Health Nursing **15**(4): 266-266.

Thorpe, L., J. Middleton, et al. (2000). "Bright light therapy for demented nursing home patients with behavioral disturbance." American Journal of Alzheimer's Disease and Other Dementias 15(1): 18-26.

Torrington, J. (2006). "What has architecture got to do with dementia care? Explorations of the relationship between quality of life and building design in two EQUAL projects." Quality in Ageing **7**(1): 34.

van Hoof, J., H. S. M. Kort, et al. (2010). "Thermal comfort and the integrated design of homes for older people

with dementia." Building and Environment **45**(2): 358-370.

Van Schaik, P., A. Martyr, et al. (2008). "Involving persons with dementia in the evaluation of outdoor environments." Cyberpsychology & Behavior: The Impact Of The Internet, Multimedia And Virtual Reality On Behavior And Society **11**(4): 415-424.

Vandepitte, S., N. Van Den Noortgate, et al. (2016). "Effectiveness of respite care in supporting informal caregivers of persons with dementia: a systematic review." International Journal Of Geriatric Psychiatry.

Verbeek, H., E. van Rossum, et al. (2009). "Small, homelike care environments for older people with dementia: a literature review." International Psychogeriatrics **21**(2): 252-264.

Verbeek, H., S. M. G. Zwakhalen, et al. (2012). "Small-scale, homelike facilities in dementia care: A process evaluation into the experiences of family caregivers and nursing staff." International Journal of Nursing Studies **49**(1): 21-29.

Wells, Y. and A. F. Jorm (1987). "Evaluation of a special nursing home unit for dementia sufferers: a randomised controlled comparison with community care." Australian & New Zealand Journal of Psychiatry **21**(4): 524-531.

Whall, A. L. R. N. P. C. S. and C. Conklin (1985). "Why a Psychogeriatric Unit?" Journal of Psychosocial Nursing & Mental Health Services **23**(5): 23-27.

Wood, W., S. Harris, et al. (2005). "Activity situations on an Alzheimer's disease special care unit and resident environmental interaction, time use, and affect." American Journal of Alzheimer's Disease and Other Dementias **20**(2): 105-118.

Zamora, T. (2008). "Influence of pavement design parameters in safety perception in the elderly." International journal of industrial ergonomics **38**(11-12): 992-998.

Zeisel, J., N. M. Silverstein, et al. (2003). "Environmental correlates to behavioral health outcomes in Alzheimer's special care units." The Gerontologist **43**(5): 697.

Zeisel, J., N. M. Silverstein, et al. (2003). "Environmental correlates to behavioral health outcomes in Alzheimer's special care units." Gerontologist **43**(5): 697-711.

Zieschang, T., I. Dutzi, et al. (2010). "Improving care for patients with dementia hospitalized for acute somatic illness in a specialized care unit: a feasibility study." International Psychogeriatrics **22**(1): 139-146.

Zuidema, S. U., J. F. M. de Jonghe, et al. (2010). "Environmental correlates of neuropsychiatric symptoms in nursing home patients with dementia." International Journal of Geriatric Psychiatry **25**(1): 14-22.

APPLYING THE KEY DESIGN PRINCIPLES
IN ENVIRONMENTS FOR PEOPLE WITH DEMENTIA

RICHARD FLEMING
KIRSTY A BENNETT

RESOURCE 2

Environmental Design Resources

February 2017

Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

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Dementia Training Australia

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February 2017

This resource is No 2 in a set of six Environmental Design Resources.

DEMENTIA TRAINING AUSTRALIA

ENVIRONMENTAL DESIGN RESOURCES

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INTRODUCTION

The review of the literature shows that there is sufficient support for the principles of design to be used to structure the way we understand the effects that a built environment will have on people with dementia. (Refer Resource 1 of these Environmental Design Resources for more information.) That is not to say that the principles provide a black or white answer, a right or wrong view. They are best seen as a starting point for a conversation, and there are a number of factors to take into account when applying them.

RESOURCE 2

Applying the key design principles in environments for people with dementia

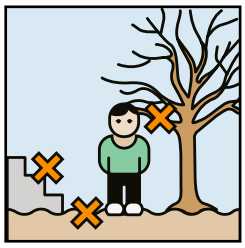
PART 1
KEY DESIGN PRINCIPLES

PART 1
KEY DESIGN PRINCIPLES

Throughout this Suite of Resources, reference will be made to a set of principles. They form the basis for the review of the literature (Resource 1), and are at the heart of three assessment tools (Resources 3, 4 & 5) and a design guide (Resource 6). These principles are an extension of work first published in 1987 (Fleming and Bowles 1987), continued in 2003 (Fleming, Forbes and Bennett. 2003) and refined in 2014 (Fleming and Bennett 2014).

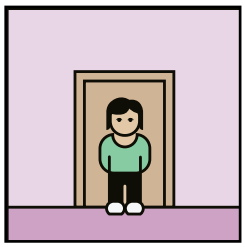
The design principles are:-

1. UNOBTRUSIVELY REDUCE RISKS



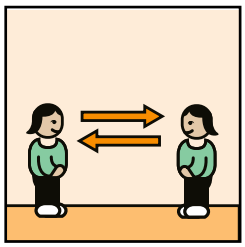
People with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks such as steps must be removed. All safety features must be unobtrusive as obvious safety features, such as fences or locked doors, can lead to frustration, agitation and anger or apathy and depression.

2. PROVIDE A HUMAN SCALE



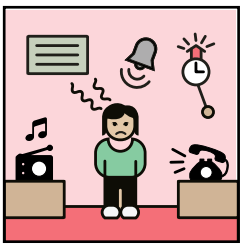
The scale of a building can affect the behaviour and feelings of a person with dementia. The experience of scale is influenced by three key factors; the number of people that the person encounters, the overall size of the building and the size of the individual components (such as doors, rooms and corridors). A person should not be intimidated by the size of the surroundings or confronted with a multitude of interactions and choices. Rather the scale should encourage a sense of wellbeing and enhance the competence of a person.

3. ALLOW PEOPLE TO SEE AND BE SEEN



The provision of an easily understood environment will help to minimise confusion. It is particularly important for people with dementia to be able to recognise where they are, where they have come from and where they can go. When a person can see key places, such as a lounge room, dining room, their bedroom, kitchen and an outdoor area they are more able to make choices and see where they want to go. Buildings that provide these opportunities are said to have good visual access. Good visual access opens up opportunities for engagement and gives the person with dementia the confidence to explore their environment. It can also enable staff to see residents. This reduces staff anxiety about the residents' welfare and reassures the residents.

4. MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION

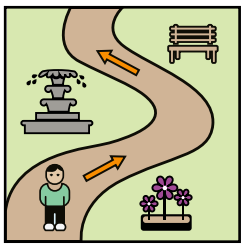


Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not specifically helpful to the resident, such as unnecessary or competing noises and the sight of signs, posters, places and clutter that are of no use to the resident. The full range of senses must be considered. Too much visual stimulation is as stressful as too much auditory stimulation.

5. MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION

Enabling the person with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty. Consideration needs to be given to providing redundant cueing i.e. providing a number of cues to the same thing, recognising that what is meaningful to one person will not necessarily be meaningful to another. Using text and image in signs is a simple way to do this. Encouraging a person to recognise their bedroom through the presence of furniture, the colour of the walls, the design of a light fitting and/or the bedspread is a more complex one. Cues need to be carefully designed so that they do not add to clutter and become over stimulating.

6. SUPPORT MOVEMENT AND ENGAGEMENT

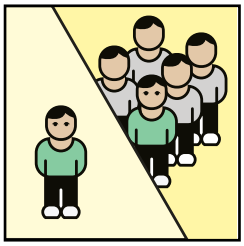


Purposeful movement can increase engagement and maintain a person's health and wellbeing. It is encouraged by providing a well defined pathway, free of obstacles and complex decision points, that guides people past points of interest and opportunities to engage in activities or social interaction. The pathway should be both internal and external, providing an opportunity and reason to go outside when the weather permits.

7. CREATE A FAMILIAR PLACE

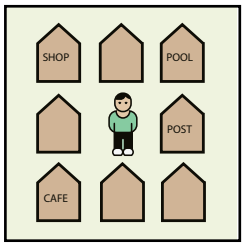
A person with dementia is more able to use and enjoy places and objects that are familiar to them from their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours. The personal backgrounds of the residents need to be reflected in the environment. The involvement of the person with dementia in personalising the environment with their familiar objects should be encouraged.

8. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE UNIT



People with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of places in the unit, some for quiet conversation and some for larger groups, as well as places where people can be by themselves. These internal and external places should have a variety of characters, e.g. a place for reading, looking out of the window or talking, to cue the person to engage in relevant activity and stimulate different emotional responses.

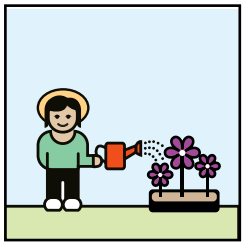
9. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY



Without constant reminders of who they are, a person with dementia will lose their sense of identity. Frequent interaction with friends and relatives can help to maintain that identity and visitors should be able to drop in easily and enjoy being in places that encourage interaction.

Stigma remains a problem for people with dementia so the unit should be designed to blend with the existing community and not stand out as a 'special' unit. Where possible a 'bridge' should be built between the unit and the community by providing a place that is shared by the community and people with dementia. A coffee shop near the unit, for example, may enable a person with dementia to go there easily without needing assistance. Where the unit is a part of a larger site, there should be easy access around the site so people with dementia, their families and friends can interact with other people who live there.

10. DESIGN IN RESPONSE TO VISION FOR WAY OF LIFE



The choice of life style, or philosophy of care, will vary between facilities. Some will choose to focus on engagement with the ordinary activities of daily living and have fully functioning kitchens. Others will focus on the ideas of full service and recreation, while still others will emphasise a healthy life style or, perhaps, spiritual reflection. The way of life offered needs to be clearly stated and the building designed both to support it and to make it evident to the residents and staff. The building should be the embodiment of the philosophy of care, constantly reminding the staff of the values and practices that are required while providing them with the tools they need to do their job.

These principles are an extension of work first published in 1987 [1] and continued in 2003[2].

References

1. Fleming, R. and J. Bowles, Units for the confused and disturbed elderly: Development, Design, Programming and Evaluation. Australian Journal on Ageing, 1987. 6(4): p. 25-28.
2. Fleming, R., I. Forbes, and K. Bennett, Adapting the ward for people with dementia, 2003. Sydney: NSW Department of Health.

RESOURCE 2

Applying the key design principles in environments for people with dementia

PART 2
PRINCIPLES NOT CHECKLIST

PART 2
PRINCIPLES NOT CHECKLIST

The principles described throughout these Resources are just that: principles. They are not a checklist of items to be ticked off one by one. They are not rules to be applied in the same way in every situation. Instead, they are principles to be explored and interpreted in each setting to determine how they can be applied.

The application of the principles can be very different, depending on where the building is and who will live there. It will vary according to the cultural setting, geography, climate, remoteness (which affects things such as the availability of materials, supplies and staff) and the funding available.

The enormous variety in the application of the principles can be illustrated by considering how they might work in an unusual setting, such as a remote indigenous facility.

Consider the principle of 'Unobtrusively Reduce Risks'. A common focus of this principle is the provision of safety by managing people entering and leaving the facility. This is often achieved by using a fence. In an Indigenous setting, however, the role of a fence needs to be carefully considered from a range of perspectives. Some of the questions that need to be taken into account are:

- is it to keep people in, or to keep 'trouble makers' out? Or both?
- is it to define a person's place and so be a positive, rather than a negative, feature?
- will it enable or obstruct a connection to country?
- should this connection be visual or physical?

A fence can be seen as a positive element by Indigenous people, one that defines a person's place and gives them peace and security from the goings on outside the boundary. In these instances, fences are seen as positive and not something to be hidden. They are unobtrusive in the sense that they do not intrude on, or frustrate, the wishes of the residents. A view to country can be vital for a person's spiritual wellbeing and Indigenous people who live in remote Australia can be used to looking into vast distances. To attempt to screen these views would not reduce risk.

Ticking boxes in a checklist in such a situation is likely to only result in identifying the presence or absence of a fence. Discussing the variety of ways to manage people entering and leaving the facility and the implications of these can result in the emergence of a shared understanding of the strengths and weaknesses of the ways in which the environment can promote safety. The most appropriate response to the principle of 'Unobtrusively Reduce Risks will then become apparent.

Whether we are applying the principles to help with decisions on how to remodel an existing facility, or to improve the plans for a new one, the task is not to tick off what is in (or out of) the building. Rather it is to have a conversation about the principles and their meaning with key people so that they understand why the building performs the way it does. It is much more informative to use the presence or absence of a fence as an example of something that could be an obtrusive security feature, than it is to simply record whether or not a fence is present.

The difference between these two approaches may become clearer as you go through the process of deciding which tools you would prefer to use to assist you in remodeling existing environments or planning new ones.

RESOURCE 2

Applying the key design principles in environments for people with dementia

PART 3
ASSESSMENT TOOLS

PART 3
ASSESSMENT TOOLS

There are a variety of assessment tools available to help you evaluate environments for people with dementia. In recent years, tools for evaluating the support provided to people with dementia while they use public and commercial buildings have been added to those available for health and aged care settings. This section will help you to select those that are most suited to your needs.

3.1 Selection of an assessment tool

Tools are now available that are designed to be used in healthcare, residential aged care and community settings, depending on your area of interest. It is suggested that looking at the available assessment tools from four points of view will help you to decide which one is most appropriate for your needs.

FOCUS ON HEALTHCARE, RESIDENTIAL AGED CARE OR LIFE IN THE COMMUNITY:

Some assessment tools have been developed in a health (hospital) care context and others in an aged care context. The main difference between these contexts is the expected length of stay. Hospitals are typically designed on the assumption that the patient will be staying for a relatively short time, while residential aged care facilities are designed to provide residents with the amenities to spend most of the rest of their lives there. This distinction does not always hold though. The literature shows that people with dementia stay in acute care hospitals for lengthy periods and some hospital settings, e.g. Multi-Purpose Services in New South Wales, provide long term accommodation. In this instance, an assessment tool developed in an aged care context will be appropriate for use in a health care setting.

The increasing awareness that people with dementia can be supported to live in the community has been accompanied by efforts to develop Dementia Friendly Communities. This has encouraged the development of tools to help us evaluate the support provided to a person with dementia as they go about their business in a town centre.

AGED CARE OR DEMENTIA SPECIFIC:

There are some tools that are very useful in a general aged care setting. They can also be relevant in environments for people with dementia because people with dementia share all of the frailties of old age with other older people. They do not, however, provide a specific focus on the needs of people with dementia. If the environment to be assessed is intended to be used specifically by people with dementia it would be sensible to select a dementia specific assessment tool.

CHECKLISTS OR PRINCIPLE BASED:

Some assessment tools are essentially a list of features that are considered to be desirable, even essential, in environments for people with dementia. The rater checks these off and the more features that are checked the better the environment is considered to be. This is an accepted practice and has some value, not least because it makes it easy to look at all the features in one room or area at a time and then move to the next space. However, no checklist can include every positive (or negative) feature so the tool will not be able to account for all circumstances. There is little opportunity to respond specifically to local context. A checklist also has little educational value.

It is suggested that assessment tools based on principles of design provide a better way of understanding the environment. In these tools, the items are not regarded as being an exhaustive list of desirable features but as a set of examples that illustrate the application of a particular principle e.g. Create a familiar place. The ratings made are not meant to be the final product in the assessment process. Rather they are intended to provide information that stimulates a conversation about 'How well have we applied this principle?'. This may in turn lead to interventions that are not covered by the specific items in the tool, but are nonetheless worthwhile as they respond to the principles. The use of the tool educates the raters to see the environment through the lens of the principles and, after a while, they are able to judge the quality of the environment against the principles with little reference to the assessment tool. They have learned how to understand the environment, with the added advantage that the principles give them a framework that they can use to communicate their views to their colleagues.

EVALUATED OR NOT EVALUATED:

It is one thing to assemble a list of desirable characteristics into an assessment tool. It is quite another to develop an assessment tool that enables the user to measure quality in a reliable and valid way. The development of a tool may well begin with a list of desirable characteristics or questions based on principles, but ideally it continues with the painstaking work of checking to see if when used by two people independently, the two people agree with each other on the ratings (inter-rater reliability) and whether the items in the tool are sufficiently closely related to be considered to belong in the tool (internal consistency). It also takes into account the assessment of validity, i.e. whether the tool actually measures what it says it measures. This usually involves comparing the scale with other tools that have been used to measure the same characteristics. Only after tools have undergone this evaluation and can be shown to be reliable, internally consistent and valid can they be used for measurement. Unfortunately, many of the current checklists have not been subject to these assessments and are therefore of dubious use as measurement tools. This limits their application when comparisons between facilities or measurements of change are required.

3.2 Available assessment tools

While the focus of this resource is on the assessment tools developed from the work on the principles of design described earlier, the reader may wish to explore the use of other tools. The following information is provided to assist in accessing a range of tools and making a comparison and informed choice between them. Some key tools, in chronological order of their development, are:-

1. Therapeutic Environment Screening Survey for Nursing Homes (Tess-NH) (Sloane, Mitchell et al. 2002) – probably the most widely used environmental audit tool in the research setting. An extensive tool, most applicable to institutional style, residential care.
2. The Environmental Assessment Tool (EAT)* (Fleming, Forbes and Bennett 2003, Fleming 2011, Smith, Fleming et al. 2012) – used extensively in the evaluation of residential aged care facilities and can be usefully applied to healthcare settings where the length of stay is greater than a few days.
3. The Code Plus audit tool (Parke and Friesen 2003) – developed in Canada for use in healthcare settings providing care to elderly people.
4. Checklist of characteristics of dementia-friendly neighbourhoods (Burton, Mitchell et al. 2004) – pioneering work using walking interviews of people with dementia resulted in the first tool for the evaluation of the town centre environment.
5. The Improving the Environment for Older People in Healthcare Audit Tool (Black, Nankervis et al. 2006) – developed in Australia for use in healthcare settings providing care to elderly people (under review 2017).
6. Dementia Design Audit Tool (Dementia Services Development Centre 2011) – used extensively in the UK for the evaluation of nursing home environments
7. Residential Care Environment Assessment (Topo, Kotilainen et al. 2012) – developed in Finland to explore the 'affordances' provided by the environment, i.e. the positive or negative possibilities for action.
8. The Enhancing Healthy Environments (EHE) Assessment Tool (The Kings Fund 2014) – developed in the UK for use in healthcare settings providing care to people with dementia.
9. The General Hospital Audit tool/checklist (Cunningham, Galbraith et al. 2012) - developed in the UK for use in healthcare settings providing care to people with dementia.
10. Design Smart (Cunningham and McIntosh 2015) – developed in Australia to aid the evaluation residential aged care facilities.
11. The Environmental Assessment Tool* – Higher Care (EAT-HC) (Fleming and Bennett 2015) – a revision of the earlier EAT that is more sensitive to the needs of the less mobile person with dementia.
12. The Dementia Friendly Community – Environmental Assessment Tool (DFC-EAT) (Fleming, Bennett et al. International Psychogeriatrics: page 1 of 9 © International Psychogeriatric Association 2016 doi:10.1017/S1041610216001678) – developed in Australia to assist in the development of dementia friendly communities. Builds on the experience gained in the development of the EAT and EAT-HC.

* This tool has previously used Audit in the title rather than Assessment.

These tools are compared in Table 1.

Table 1: Comparison of Assessment Tools

	Healthcare v Residential Aged Care v Community Buildings	Checklist v Principles	Aged Care v Dementia Care	Evaluated v Not Evaluated	Availability
1. Therapeutic Environment Screening Survey for Nursing Homes (Tess-NH)	Residential aged care	Checklist	Dementia care	Evaluated and found to have high inter-rater reliability, satisfactory internal consistency and high validity.	Free from http://www.unc.edu/depts/tessnh/pdf_files/tess-nh_8_18_00.pdf
2. Environmental Assessment Tool (EAT)*	Residential Care and Extended care in a healthcare setting	Principles – designed to structure a conversation about the strengths and weaknesses of the environment	Dementia care	Evaluated and found to have high inter-rater reliability, satisfactory internal consistency and high validity.	Free from www.enablingenvironments.com.au Copyright: NSW Health
3. The Code Plus audit tool	Healthcare	Checklist	Dementia care	Not evaluated	Free from: http://www.fraserhealth.ca/media/CodePlus%20-%20Physical%20Design%20Components%20for%20an%20Elder%20Friendly%20Hospital.pdf Copyright: Fraser Health
4. Checklist of characteristics of dementia-friendly neighbourhoods	Community Buildings	Principles	Dementia care	Not evaluated	Free from: http://www.idgo.ac.uk/about_idgo/docs/NfL-FL.pdf
5. The Improving the Environment for Older People in Healthcare Audit Tool	Healthcare	Extensive checklist	Aged care	Not evaluated	Free from http://docs.health.vic.gov.au/docs/doc/Improving-the-environment-for-older-people-in-hospitals:-An-audit-tool
6. Dementia Design Audit Tool	Residential Care and Extended care in a healthcare setting	Extensive checklist	Dementia care	Not evaluated	Tool and license to use it available from http://dementiashop.co.uk/products/dementia-design-audit-tool for £95
7. Residential Care Environment Assessment	Residential aged care	Principles – designed to stimulate consideration of how the environment assists the person.	Dementia care	Not evaluated	Contained in Topo, P., H. Kotilainen and U. Eloniemi-Sulkava (2012). "Affordances of the Care Environment for People With Dementia--An Assessment Study." Health Environments Research & Design Journal (HERD) 5(4): 118-138.

	Healthcare v Residential Aged Care v Community Buildings	Checklist v Principles	Aged Care v Dementia Care	Evaluated v Not Evaluated	Availability
8. The Enhancing Healthy Environments (EHE) Assessment Tool	Healthcare	Principles – designed to structure a conversation about the strengths and weaknesses of the environment	Dementia care	Not evaluated	Free from http://www.kingsfund.org.uk/projects/enhancing-healing-environment/ehe-design-dementia
9. The General Hospital Audit tool/checklist	Healthcare	Extensive checklist	Dementia care	Not evaluated	Tool and license to use it available from http://www.dementiashop.co.uk/products/dementia-design-general-hospitals-and-emergency-departments-audit-toolchecklist for £95
10. Design Smart	Residential Care and Extended care in a healthcare setting	Extensive checklist	Dementia care	Not evaluated	Tool and license to use it available from http://www.dementiacentre.com.au/shop/design-for-dementia/DesignSmart for $159.95
11. Environmental Assessment Tool – Higher care (EAT-HC)*	Residential Care and Extended care in a healthcare setting	Principles – designed to structure a conversation about the strengths and weaknesses of the environment	Dementia care	Evaluated and found to have high inter-rater reliability, satisfactory internal consistency and high validity.	Free from http://www.enablingenvironments.com.au/audit-tools--services.html
12. The Dementia Friendly Community-Environmental Assessment Tool (DFC-EAT)	Community Buildings	Principles – designed to structure a conversation about the strengths and weaknesses of the environment	Dementia care	Evaluated and found to have high inter-rater reliability, satisfactory internal consistency.	Free from http://www.enablingenvironments.com.au/audit-tools--services.html

* This tool has previously used Audit in the title rather than Assessment.

RESOURCE 2

Applying the key design principles in environments for people with dementia

PART 4

USING THE EAT FAMILY OF TOOLS

PART 4
USING THE EAT FAMILY OF TOOLS

These tools are used to collect information to inform a systematic conversation about the strengths and weaknesses of an environment and then to lead on to the identification of areas which have room for improvement. The intended result is a plan that identifies the improvements recommended and places these into a time frame based on ease of implementation of the recommendations.

This process requires the collaboration of a team. The ideal team includes an expert in environmental design for people with dementia; the architect/designer, the person responsible for capital works in the organisation; senior managers, senior clinicians, nursing/direct care staff and a person with dementia (or their representative), who has had experience of using the type of setting that is being discussed. However, the lack of one or two of these should not prevent the assessment and discussions taking place. The EAT, EAT-HC, DFC-EAT and EHE are designed to be able to be used by staff who have not been trained in their use. Familiarity with the evidence base supporting the design principles is, however, essential if the tools are to be used confidently and to best effect.

There are some general considerations that need to be taken into account when using the tools to help the team understand the strengths and weaknesses of their building or plan. These are described below.

4.1 Consultation

In order to be able to understand what is important to people and what is the most appropriate response to a principle, it is vital to spend time talking to the people who are most intimately involved in the setting and community. The need to ask questions and listen to answers cannot be overemphasised. This will only be meaningful, however, if people are in a position to answer the questions and engage in conversation. Time needs to be spent gaining people's trust and trying to understand their point of view. It is important to determine who are the best people to talk to, and who is well suited (and has the authority) to speak on behalf of others. It may be that briefing needs to be done via a third person due to the relationships which exist (or do not exist) between people. It is also important to consider the best way to have these conversations. Who should be present? How many people should be there? How often should there be meetings? Where should conversations be held? How much time should be allowed for making decisions?

4.2 Listening

The importance of listening cannot be underestimated. We need to listen so we can understand the best way to apply the principles. It is also important to recognise that we may not be given the full story: it may be that it is not appropriate for us to be told certain information. In some situations we may be given an answer which we think we understand and only later realise that we really had no idea what the person was talking about. It may also be that we do not like the answers we are given. We need to recognise our assumptions and acknowledge our biases. We need to respect local knowledge. We need to hear what people say and try to understand this. We need to bring an open mind, as well as our experience.

4.3 Priorities

In any project, whether it be a new building or a refurbishment, large works or small, it will be important to determine the most important priorities. Equal weight cannot be given to each design consideration and the weight that is to be given to each principle will need to be carefully considered. It will be vital to understand the vision/philosophy of care that is to guide the operation of the setting and to use this to determine priorities when applying the principles.

RESOURCE 2

Applying the key design principles in environments for people with dementia

PART 5

STEPPING THROUGH THE CONVERSATION

PART 5
STEPPING THROUGH THE CONVERSATION

The following steps have been found to result in a productive and enjoyable, systematic conversation. They are described below in relation to the use of the Environmental Assessment Tool (EAT), but are also applicable when the Environmental Assessment Tool - Higher Care (EAT-HC) and the Dementia Friendly Community - Environmental Assessment Tool (DFC-EAT) are used.

1. It is important that the person completing the EAT is familiar with the design principles underpinning the EAT. Attending a presentation by a person who is experienced in using the principles is a good way of gaining an understanding of the principles.

2. Prior to starting the assessment, users should familiarise themselves with the EAT by reading it thoroughly.

   If a group of people is completing the EAT there are two ways to approach this:

   - The group completes the assessment tool together and the answers are determined by consensus. This encourages discussion, familiarises more people with the design principles and facilitates ownership of the results of the assessment.
   - A number of people complete the assessment independently. (In this case the different results are entered and an overall average is provided in a spreadsheet (refer to Part 3 of this handbook). A discussion about the different scores can be part of this process.)

3. Undertaking the assessment

   Before commencing the EAT, it is important to clearly define the area that is to be assessed i.e. the extent of the unit and what features are included in it. Is the courtyard garden, for example, part of the unit being assessed, another unit or both? In a large facility, it may be helpful to assess units separately as this will allow for more accurate responses to questions. Ask someone who knows the unit well about the boundaries of the unit so that the area that is to be assessed is accurately defined.

   It is important to ensure that the questions are answered as accurately as possible. Spending time in the facility and observing daily life will help generate a feel for the place. This will also create opportunities for interaction with residents so that they can enjoy the visit, rather than being the subject of scrutiny.

   The EAT questions typically require a ‘yes’ or ‘no’ answer.

   Some questions are best answered by sitting in a central position and others by moving around. If the correct answer is not obvious, ask a staff member who works in that part of the facility, e.g.” Is the wardrobe that the resident uses full of a confusing number of clothes?” It may be that there is a difference of opinion between the staff and the person

completing the EAT, for example as to whether the noise from the kitchen is too great. In this case the person completing the EAT will need to determine what the correct response is. If in doubt as to the intent or aim of the question, refer to part 4 of this handbook where information about each question is provided.

It may be that on the day of the visit something is observed that is unusual and not representative of a typical day. Before leaving the facility confirm the results with the manager (or the liaison person).

4. Scoring of the EAT. The results of the EAT can be entered into an Excel spreadsheet which is available at http://www.dementiatrainingaustralia.com.au. This allows the data to be shown graphically and enables the creation of a Room for Improvement (RFI) report.

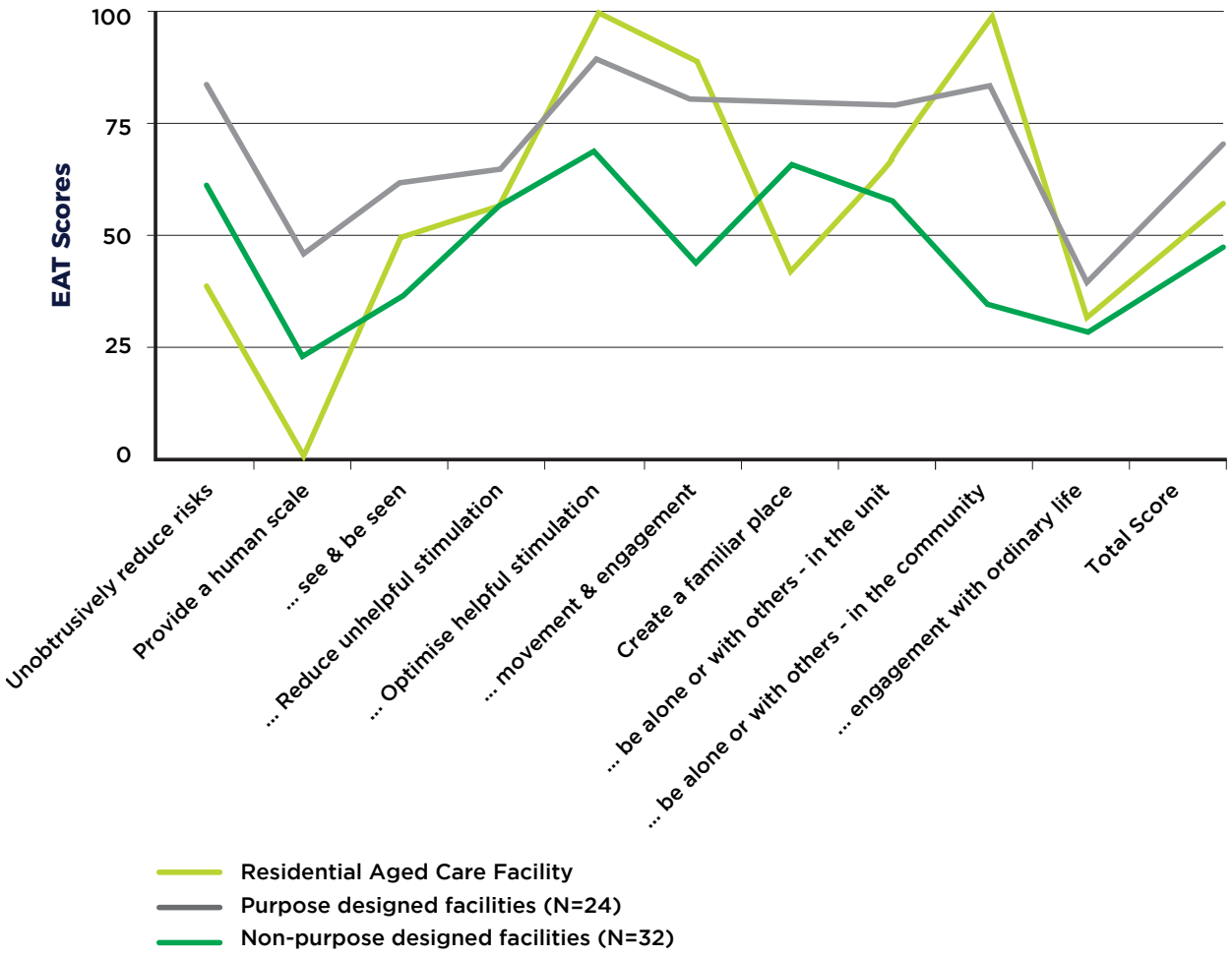
The spreadsheet allows the scores of up to five EAT users to be entered. In this instance the average of the ratings is used in the graphs and reports generated.

5. Discussion of the results.
   a. Look at the overall picture presented by the graph that summarises the sub-scale scores. When the EAT is used, this graph enables a comparison to be made with a sample of purpose designed and non purpose designed residential aged care facilities.

In the example in Figure 1, the EAT has been used to evaluate a residential aged care facility. It can be seen that the facility compares well with a sample of purpose designed and non purpose designed facilities in some areas, but not in others. The most obvious area of concern is the principle of 'Provide a human scale'. 'Create a familiar place' and 'Provide opportunities for engagement with ordinary life'* also do not score well. On the other hand, the facility responds well to the principles 'Optimise helpful stimulation' and 'Provide a variety of places to be alone or with others - in the community'. There is clear room for improvement with the principles 'Allow people to see and be seen' and 'Reduce unhelpful stimulation'.

* In the EAT-HC, this principle is entitled 'Design in response to vision for way of life'. This reflects a development in the understanding of this prinicple.

Figure 1: Residential Aged Care Facility EAT results



b. Look at the 'Room for Improvement' (RFI) report

The spreadsheet provides the means of generating a 'Room for Improvement' (RFI) report for the EAT. This is simply a table in which the EAT items are ranked according to the amount of room for improvement that is available, i.e. the possible maximum score minus the actual score. When a number of people complete the EAT and enter the data into the spreadsheet, the 'actual score' in the table will be the median of the scores entered.

The RFI table can be used to structure the discussion. Start at the top and discuss the items one by one until the point where there is no room for improvement (because the item is scored at the maximum). This will ensure that all of the main points are discussed.

The Not Applicable items (N/A) have been placed at the top of the list to encourage consideration of the possibility that they may be relevant. In the example in Table 2, a number of items regarding the lounge room have been scored N/A. Putting these at the top of the RFI report provides an opportunity to discuss whether the provision of a lounge room is important in the facility.

Table 2: Abbreviated EAT 'Room for Improvement' report

EAT ITEM	Actual score	Maximum possible score	RFI score	Relevant Principle
Look at the items below that have been scored as Not Applicable (N/A). Would the facility be improved if they were considered to be applicable?				
Visibility of a toilet from lounge room	N/A	1	N/A	Allow people to see and be seen
Visibility of bedroom doors to residents from lounge room	N/A	4	N/A	Allow people to see and be seen
Visibility of dining room from lounge room	N/A	1	N/A	Allow people to see and be seen
Visibility of door to garden from lounge room	N/A	1	N/A	Allow people to see and be seen
Visibility of kitchen from lounge room	N/A	1	N/A	Allow people to see and be seen
Discuss the following items in turn. These are ordered according to where there is the most room for improvement.				
Size of unit	0	3	3	Provide a human scale
Visibility of dining room from bedrooms	1	4	3	Allow people to see and be seen
Access to kitchen	0	2	2	Provide opportunities for engagement with ordinary life
Involvement in main meal preparation	0	2	2	Provide opportunities for engagement with ordinary life
Involvement in making snacks	0	2	2	Provide opportunities for engagement with ordinary life
The items below (RFI =0) do not need as much discussion (but still may have room for improvement).				
All areas used by residents well lit?	1	1	0	Unobtrusively reduce risks
Visibility of kitchen from dining room	1	1	0	Allow people to see and be seen
Doorbell intrusive	1	1	0	Reduce unhelpful stimulation
Too much noise from kitchen	1	1	0	Reduce unhelpful stimulation

c. Use the structure of the Planning Template in Table 2 to guide the discussion and to record proposed actions

The discussion should begin by asking the question 'Can we improve this situation by using our existing resources differently?' '*How can we re-use what is there?'* There might be some chairs available, for example, that can be used to furnish a small area for conversation.

If this isn't the case then the next question is *'What can we do in the short term?'*, which may mean 'What can we do with the money in the petty cash?' or 'What can we do as part of our planned maintenance works?'

If this isn't sufficient to improve the situation the next question is '*What can we do in the medium term?',* e.g. 'What can we do at the end of the financial year when there are some funds left over or when the Auxiliary has held their jumble sale? Can we allocate some money in next year's budget to achieve this change? Can we apply for a grant or contact the local service organisation?'

The final question is '*What can we do in the long term?'* or 'Does this need to be put into the capital works budget? Does this need to be the subject of ongoing strategic planning and fundraising?'

When action items have been agreed, add the response to the appropriate cell of the table according to the relevant principle(s) and the time frame that is proposed. In the example shown in Table 3, the use of the EAT identified that there was little for residents to do outside apart from move about. Chairs or benches were not available for them to sit on and shade was not provided along the path. Discussion focussed on how this could be addressed, and it was agreed that the first step was to take some vinyl chairs from inside and put them outside. While not a long term response, staff felt this was something that could be done quickly and easily, *re-using* what is already there. Intentionally using the garden for activities that already occur, such as morning tea, was seen as another easy thing to do and so this was a *short term* action item. More permanent seating will take time and require some work on the path to ensure easy access to the seats and so this was seen as a *medium term* solution. Finally, the provision of a permanent shade structure was seen as ideal but a *long term* goal.

It is important to recognise that making changes can take time. Some changes, such as altering the layout of the building, will be possible but very expensive. Others, such as moving a piece of furniture will be relatively easy to implement. Don't lose heart! The advantage of systematically considering environmental changes is that it is possible to identify a schedule of priorities and then work through them as opportunities arise and as part of a regular maintenance program.

Table 3: EAT/EAT-HC Planning template with example (full scale master in Appendix 1)

KEY DESIGN PRINCIPLES											
		Unobtrusively reduce risks	**Provide a human scale**	**Allow people to see and be seen**	**Manage levels of stimulation - reduce unhelpful stimulation**	**Manage levels of stimulation - optimise helpful stimulation**	**Support movement and engagement**	**Create a familiar place**	**Provide a variety of places to be alone or with others - in the unit**	**Provide a variety of places to be alone or with others - in the community**	**Provide opportunities for engagment with ordinary life (EAT) Design in response to vision for way of life (EAT-HC)**
ACTIONS	**ISSUES**						Nothing to do outside No seats No shade				
	How can we **re-use** what is there?						Take some seats and put them outside				
	What can we do in the **short** term?						Plan to have morning tea outside on fine days Use an umbrella to provide shade				
	What can we do in the **medium** term?						Increase path width and create permanent seating areas				
	What can we do in the **long** term?						Build a shade structure				

RESOURCE 2

Applying the key design principles in environments for people with dementia

PART 6

CASE STUDIES

Dementia Training Australia

FOUNDATION

DESIGNING FOR PEOPLE WITH DEMENTIA

PART 6
CASE STUDIES

6.1 HAVING A CONVERSATION ABOUT THE PLANS - MURRAY HOUSE, WENTWORTH

Introduction

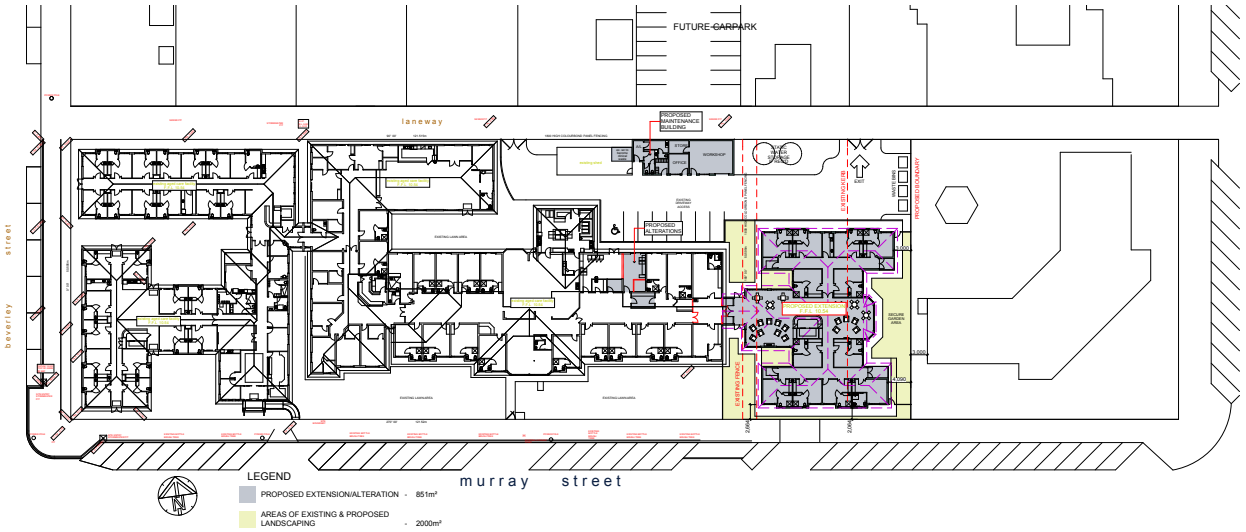
Murray House in Wentworth NSW illustrates how key design principles can be applied even once the design of a project is well underway. While working within the existing building layout and planning approval, a number of areas were identified which could be altered relatively simply to better respond to key design principles and meet residents' needs.

Background

Murray House is a residential aged care facility that is home to 42 people. It is operated by the Wentworth District Hostel Society. Situated in a small town on the NSW/Victorian border, there is strong local involvement and attachment to Murray House.

In early 2016, a group of 6 including carers, care managers, maintenance, the CEO and the architect sat down with the Designing for People with Dementia (DPD) service to discuss plans for a new cluster of 12 places for people living with dementia. The design had been prepared by Geoff Sparkes, a principal of local firm GSD Architects that has been involved in aged care projects in the region since 1989.

The CEO Sid Duckett is passionate about making sure that the new cluster doesn't contribute to the stigma that we know exists for many people with a diagnosis of dementia. He stated at the outset 'I don't want there to be any distinction made between where people with dementia live and other parts of Murray House. It is very important that the new unit is not seen as second class.'



THE PROPOSAL

The new building will provide an additional 12 places and is located on the eastern part of the existing site. The extent of the site which is available for the new building is constrained by the existing building to the west, Murray St on the south, the council building on the eastern boundary and service areas and laneway on the north.

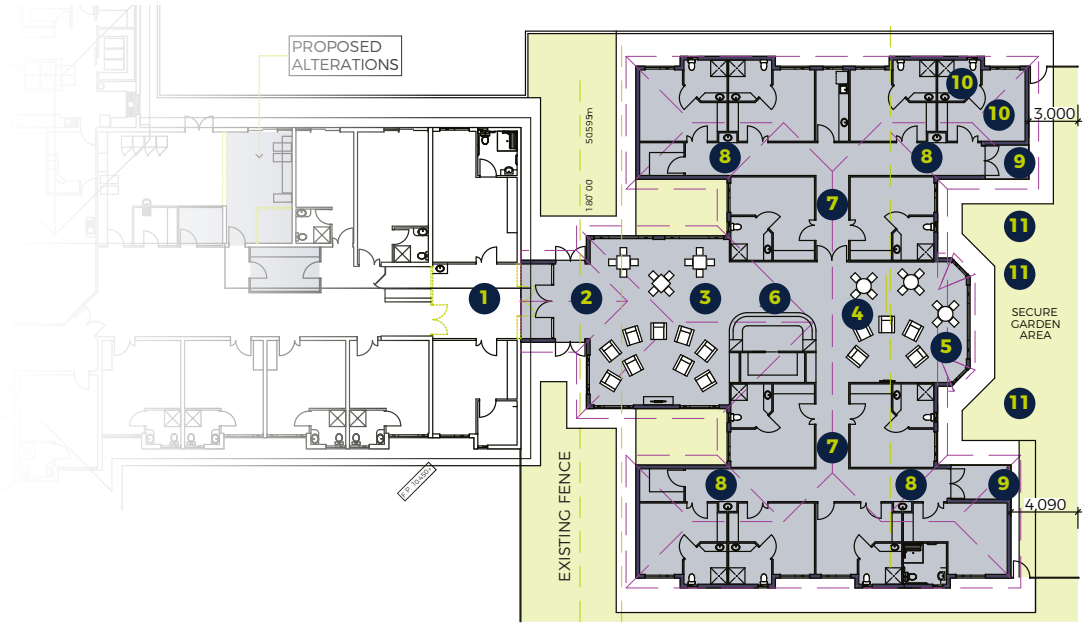
Geoff told us that 'a key design goal is to have the ability to close the unit to create a secure environment when needed, but not to isolate or separate the unit from the rest of Murray House'. GSD Architects placed social spaces at the junction between the old and the new buildings so these can be used to break down any perceived barriers between the old and the new. It will also enable these spaces to be used by residents from other parts of Murray House, and so remove any perceived separation of residents. The new unit will contain 12 single rooms with ensuites, a small lounge/dining room, a garden and a staff base.

RESPONSE TO THE KEY DESIGN PRINCIPLES

At the time of DPD's visit, an application for planning approval had been submitted but the design was still being developed. There was scope for internal changes and input on the selection of fixtures, finishes and fittings. Having taken part in the DPD design education session (where key principles of designing for people with dementia and examples were discussed), the conversation turned to the proposed new cluster.

The discussion focussed on how the principles were already being applied in the design, and how their application could be enhanced. The EAT was used to guide this conversation. Rather than complete the audit tool step by step and produce a Room for Improvement report, the questions in the EAT were used as a starting point. Time was spent exploring how the response to the questions and the principles as a whole would be realised in the design.

Key aspects of the conversation as they relate to each room/area are provided below, and the key principles that these ideas and observations respond to are indicated in italics. Each of these areas has also been referenced on the floor plan.



ENTRY

The new unit will be entered from within Murray House and approached along a bedroom corridor. The entrance is not to give an impression of a locked unit and so there is to be a feeling of openness upon arrival.

Highlight important stimulation, Create a familiar environment, Support movement and engagement

- It was noted that it is important for this to be a positive journey, one where there is no sense of retreating, or leaving the heart of the facility. (The location of the new cluster at one end of Murray House near an older wing has the potential to give residents, staff and visitors the feeling that this unit is' tucked away' or 'out of sight'.)

The use of finishes in the approach corridor and the design of the doors into the unit (which may be closed) need to reinforce a positive ambience. (1)

A small alcove is proposed at the entry, which opens directly into large social spaces. Doors lead off the alcove to service areas and a garden.

Reduce unhelpful stimulation

- It was identified that the proposed size of the alcove (and location of the doors on either side) will limit the alcove's use. The sense of arrival at this point will also be compromised as the alcove will be a busy thoroughfare. People will enter directly into the social space, potentially causing disruption and interference to the activities going on there.

Increasing the size of the alcove to create a lobby, relocating the entry doors, removing the service doors and the door to a (largely hidden) garden area from the alcove were all seen as ways to address this. This will mean a rethink about the way deliveries are made and waste is removed. The scope of proposed works in the approach corridor will need to be reinvestigated too as a possible solution to this. (2)

ACTIVITIES

This space will be used by the 12 residents in the new cluster as well as residents from other parts of Murray House. It will be light and open with views to gardens.

Provide a human scale, Reduce unhelpful stimulation, Create a familiar environment

- The scale of the room was discussed. The importance of creating spaces for residents that are not overwhelming (due to the size of the room and/or the number of people present) was identified. The potential disruption to the activities space by the movement of people through the room as they enter the unit was highlighted, especially if the entry remains open as is hoped.

Particular attention will be paid to furniture arrangements, finishes, acoustic measures to break up the scale of the room for its everyday use, while allowing for the room to be treated as one when an occasion requires this. The entry door will be highlighted from the approach corridor but hidden from inside the social space so that when it is closed attention is not drawn to it. (3)

LOUNGE DINING

The lounge dining room is intended to be a smaller, separate, familiar room for the 12 residents in the new cluster.

Reduce unhelpful stimulation, Provide opportunities for privacy and community

- While there are advantages in having an open plan lounge-dining room, it was noted that there will be little acoustic privacy if the room is open. Noise and movement from the social space, corridor and staff base will all impact on this area. This will also impact on the privacy of the room.

The introduction of walls and doors to the lounge-dining to create a room which can be closed off will be explored. (4)

Provide opportunities for privacy and community, Support movement and engagement

- The lounge-dining looks out on to a garden area, but access to outdoors is intended to be from the bedroom corridors.

Creating access to the garden directly from the lounge dining room was discussed and seen an advantage. This will encourage the use of outdoors and allow a porch are to be created which can be easily seen by staff and residents and provide another sitting opportunity. (5)

STAFF BASE

A staff base has been planned in a central location to allow for ready visual and physical connection between staff and residents.

Seeing and being seen, Create a familiar place

- While allowing for visual access, the placement of the office directly opposite the lounge-dining has the potential to conflict with the ambience of the lounge-dining room.

When developing the design the décor of the staff base will be given careful attention so that it adds to the ambience of the cluster. An office has the potential to conflict with the ambience of the lounge-dining room, whereas a study or library would complement it. (6)

BEDROOM CORRIDORS

There are two short bedroom corridors each with 6 bedrooms and ensuites. A door leads out to the garden from each of the bedroom corridors.

Seeing and being seen, Highlighting important stimulation, Reduce unhelpful stimulation, Support movement and engagement

- There will be no direct view to bedrooms from the centre of the unit. It will be important to address this so that residents have an idea of the way to their bedroom and whether to turn left or right when they arrive in the unit or leave the lounge dining room.

Ways to distinguish between the two bedroom wings were discussed, including the use of colour, finishes, artwork and other finishes. Cues will need to be provided at the end of corridors to help distinguish one wing from another. (7)

Once in the corridor, residents will need to be able to identify which is their bedroom and so the finish of bedroom doors and door frames will need to be recognizable and highlight entry. One is idea is to treat bedroom doors as front doors. Service entries should be painted out so that they do not attract attention. (8)

Highlighting important stimulation, Support movement and engagement

- Doors lead out from each bedroom corridor to the garden. These will be important in supporting movement and engagement and enable residents to move easily from inside to outside and vice versa.

Doors will need to be clearly recognisable from the garden so residents know how to enter the unit and have a way of distinguishing between the two entries. Creating a different recognizable identity in each corridor will be important so that when residents enter from outside they have a sense of where they are. (9)

BEDROOMS AND ENSUITES

Each resident will have a single bedroom which has its own ensuite. The ensuite is located on the external wall of the building to gain natural light and ventilation.

Highlighting important stimulation, Create a familiar space

- There is unlikely to be a direct view from the bed to the WC, but this location of the ensuite was chosen as it has other planning advantages.

The entry to the ensuite will be highlighted by distinguishing the finish of the ensuite door from the bedroom door, and providing contrast between the door and door frame. The WC will be clearly identifiable by ensuring there is contrast between the WC and floor and walls, and the use of a contrasting WC seat. A night light over the toilet will also be considered. The basin will contrast with the joinery and familiar tap fittings chosen. The powdercoating of grab rails will be explored as this can be a way to ensure contrast while creating a more welcoming ambience in the ensuite. (10)

GARDENS

Three garden areas are intended to be created as part of these works. Consideration has been given to creating a continuous path for residents outside an to orienting gardens to the east and south to ensure plants survive.

Highlighting important stimulation, Support movement and engagement

- The gardens are yet to be designed and the conversation centred around ways to encourage movement and engagement.

Clearly identifying the entries to the building from the gardens will be important. Planning the gardens to encourage residents to enter the unit via lounge or either of the bedroom corridors will have a positive impact. Activation of the garden will also be explored by using raised garden beds and sitting areas and the role of a destination on any path was discussed. (11)

NEXT STEPS

Following the DPD visit, the architects and client continued to explore the key design principles and how they could be addressed at Murray House in the areas that had been identified. Possible responses were then prepared by the architect for the client's consideration.

6.2 WORKING ON AN EXISTING BUILDING – MELALEUKA, GLENGOWRIE

Introduction

This case study presents an excellent example of how an existing residential aged care facility can be changed relatively easily to great effect. A key factor is that the time was right for change: management and staff were ready to try some new things and alter the status quo. The chosen changes were simple and inexpensive, yet made a big difference. Staff were very much engaged in the process and the changes responded to the residents' needs and community context, with an emphasis being placed on their Italian cultural background.

Background

Melaleuca is a seventeen person unit for people living with dementia and is one wing of a residential home operated by BlueCross in Glenroy, Victoria. Melaleuca is L shaped in plan, and has ready access to garden areas. BlueCross lease this facility.

In 2013 BlueCross Community and Residential Services (BlueCross) decided to take a proactive approach to improve services for people living with dementia. The National Ageing Research Institute (NARI) were engaged to review the best available evidence, to explore the views of staff and families and to investigate the needs of external stakeholders. They identified four common overarching themes from their consultations, surveys and the literature. These were that person-centered care is central, that participation in lifestyle activities is recognised as important, that design and environment underpins the provision of good care and that education and training are vital.

Four key areas for improvement were agreed by BlueCross:

- Specialist dementia services based on Dementia Care Mapping (DCM) and Montessori Models
- Environmental Design
- STARLife Clubs providing life style programs and dedicated areas to improve the experiences of people living with dementia
- Education

Environmental design

Preliminary meetings that BlueCross held with the staff at Melaleuca found that staff were keen for environmental improvement and that they were frustrated by some of the current practices, believing that systems did not support the use of the person centered skills that they had. First impressions of Melaleuca indicated a lack of pride in the environment, poor use of the available space (with residents spending the majority of their time in one room), the television being used unsuccessfully to occupy residents, and a lack of positive feelings.

Focusing on design principles

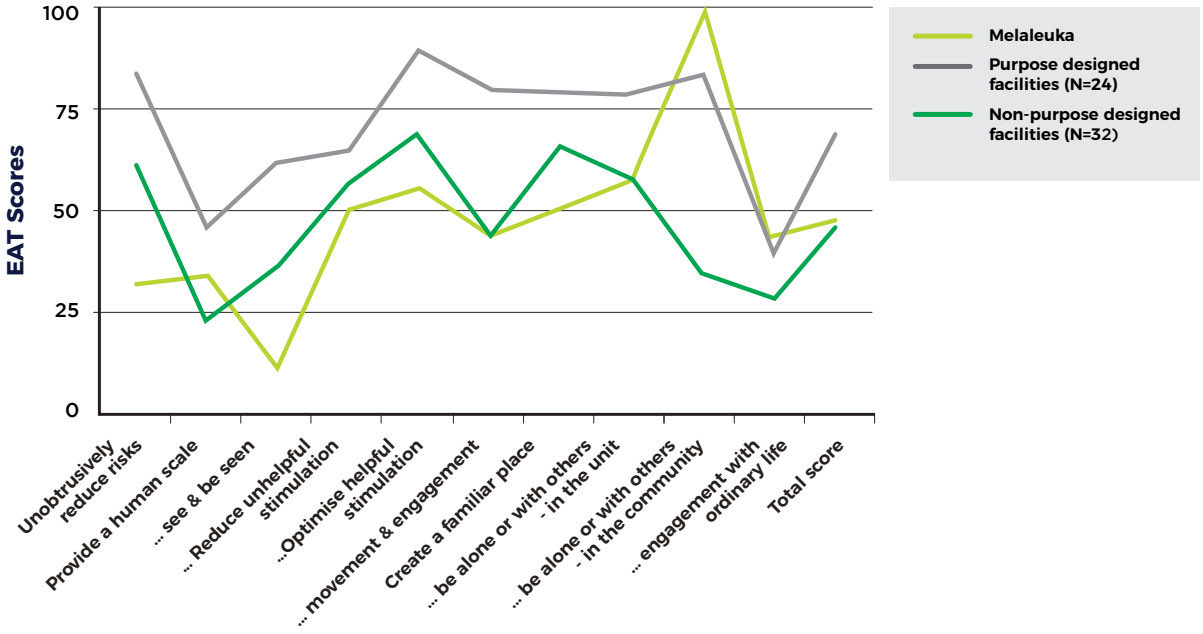
After the BlueCross Executive Team decided to invest in refurbishment and improvements to Melaleuca, Blue Cross contacted the Designing for People with Dementia (DPD) service to enquire about their design education service. The design education service focuses on two key elements: a conversation about key design principles and an audit of the built environment using the Environmental Audit Tool (EAT).

The education session was attended by a range of staff who worked in Melaleuca and explored design and raised awareness of the needs of people living with dementia. At the centre of this education session was the acknowledgement that the principles are there to support improvement and that “the heart of the home” is of great importance. Staff were able to relate their ideas to the needs of residents and talked about those who needed a quiet space, those who enjoyed walking outside and the cultural background and interests of residents.

RESULTS OF THE EAT

Following completion of the EAT, a report was prepared which presented the data graphically and identified some key areas for improvement. The 'Room for Improvement' report describes items in descending order, beginning with those areas that have the most room for improvement.

Comparison of Melaleuca with other facilities



Melaleuka Room For Improvement (RFI) Report

Colors have been used to indicated the RFI item that the recommendations that follow respond to.

DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Visibility of bedroom doors to residents	0	4	4	See and Be Seen
Visibility of lounge room from bedrooms	0	4	4	See and Be Seen
Visibility of dining room from bedrooms	0	4	4	See and Be Seen
Bedroom windows secure	0	2	2	Unobtrusively Reduce Risks
Easily supervised garden	0	2	2	Unobtrusively Reduce Risks
Access to kitchen for people safe to do so	0	2	2	Unobtrusively Reduce Risks
Lockable knife draw in kitchen	0	2	2	Unobtrusively Reduce Risks
Lounge room easily supervised from the point(s) where the staff spend most of their time?	0	2	2	Unobtrusively Reduce Risks
Size of unit	1	3	2	Provide a Human Scale

DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Furniture in lounge area is familiar	0	2	2	Familiar Place
Small areas available for conversation	1	3	2	Alone or with Others – In the Unit
Small areas have pleasant views	1	3	2	Alone or with Others – In the Unit
Involvement in main meal preparation	0	2	2	Way of Life
Involvement in keeping bedroom tidy	0	2	2	Way of Life
Involvement in personal laundry	0	2	2	Way of Life
Involvement in gardening	0	2	2	Way of Life
Secure garden	1	2	1	Unobtrusively Reduce Risks
Secure side doors	1	2	1	Unobtrusively Reduce Risks
Master switch quickly accessible	0	1	1	Unobtrusively Reduce Risks
Visibility of dining room from lounge room	0	1	1	See and Be Seen
Visibility of kitchen from lounge room	0	1	1	See and Be Seen
Visibility of a toilet from dining room	0	1	1	See and Be Seen
Visibility of a toilet from lounge room	0	1	1	See and Be Seen
Visibility into lounge from point where staff spend most of time	0	1	1	See and Be Seen
Doors to dangerous areas easily seen	0	1	1	Reduce Unhelpful Stimulation
Wardrobe full of too many clothes	0	1	1	Reduce Unhelpful Stimulation
Deliveries made across public areas	0	1	1	Reduce Unhelpful Stimulation
Intrusive public address or paging system	0	1	1	Reduce Unhelpful Stimulation
Dining room easily seen or signed	0	1	1	Optimise Helpful Stimulation
Lounge room easily seen or signed	0	1	1	Optimise Helpful Stimulation
Toilet bowl is visible when toilet door is opened	0	1	1	Optimise Helpful Stimulation

DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Lighting is free from glare	0	1	1	Optimise Helpful Stimulation
Path passes alternatives to wandering	0	1	1	Support Movement & Engagement
Path easily supervised by staff	0	1	1	Support Movement & Engagement
Sunny and shady areas along path	0	1	1	Support Movement & Engagement
Path passes a toilet	0	1	1	Support Movement & Engagement
Path clearly continues inside back to starting point	0	1	1	Support Movement & Engagement
Colours are familiar	1	2	1	Provide a Familiar Place
Taps, light switches etc are familiar	1	2	1	Provide a Familiar Place
Furniture in bedrooms is familiar	1	2	1	Provide a Familiar Place
Residents have own furniture in bedrooms	1	2	1	Provide a Familiar Place
Opportunity for small group activities	1	2	1	Alone or with Others – In the Unit
Involvement in making snacks	1	2	1	Way of Life
Secure front door	2	2	0	Unobtrusively Reduce Risks
Water temperature safe	1	1	0	Unobtrusively Reduce Risks
Floor areas safe from being slippery when wet	1	1	0	Unobtrusively Reduce Risks
All areas used by residents well lit?	1	1	0	Unobtrusively Reduce Risks
Visibility of door to garden from lounge room	1	1	0	See and Be Seen
Visibility of kitchen from dining room	1	1	0	See and Be Seen
Doorbell intrusive	1	1	0	Reduce Unhelpful stimulation
Too much noise from kitchen	1	1	0	Reduce Unhelpful stimulation
Front entrance easily visible	1	1	0	Reduce Unhelpful stimulation
Service entry easily visible	1	1	0	Reduce Unhelpful stimulation

DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Individual identification of bedrooms	1	1	0	Optimise Helpful stimulation
Shared bathrooms/toilets clearly signed	1	1	0	Optimise Helpful stimulation
Kitchen easily seen or signed	1	1	0	Optimise Helpful stimulation
A lot of natural light in lounge room	1	1	0	Optimise Helpful stimulation
Artificial light bright enough	1	1	0	Optimise Helpful stimulation
Clearly defined and easily accessible path that guides residents back to their starting point	1	1	0	Support Movement & Engagement
Path within a secure perimeter	1	1	0	Support Movement & Engagement
Seats available along path	1	1	0	Support Movement & Engagement
Internal path provides access to activities other than wandering	1	1	0	Support Movement & Engagement
Residents have own ornaments/photos in bedroom	2	2	0	Provide a Familiar Place
Opportunity for small groups to eat together	2	2	0	Alone or with Others – In the Unit
Opportunity for people to eat alone	2	2	0	Alone or with Others – In the Unit
Area for dining with families/friends	1	1	0	Alone or with Others – In the Community
Is this area familiar and reassuring	1	1	0	Alone or with Others – In the Community
Access to kitchen	2	2	0	Way of Life
Constant access to lounge	2	2	0	Way of Life
Constant access to dining room	2	2	0	Way of Life
Gas cooker	N/A	1	1	Unobstrusively Reduce Risks
Pots and pans of suitable size/weight	N/A	1	1	Unobstrusively Reduce Risks

Responding to the RFI report

The RFI report was discussed with staff and time was spent walking around Melaleuka.

Some of the key things the team decided were that the environment should support the culture of the Italian residents living in Melaleuca, that the 'public rooms' (ie lounge dining and sitting area) should be designed to meet different needs and to provide opportunities for engagement, family visits and quiet spaces.

Possible responses were identified and some specific actions agreed. These are described below. Colors have been used to indicated the RFI item that the recommendations respond to.

KITCHENETTE/DINING ROOM

• Encourage use of kitchenette by the introducing appliances such as a coffee maker, frying pan, kettle. (These can be placed in an appliance cupboard when not being used with staff.)	implemented

- Remove signage to improve familiarity and domestic nature of kitchenette
- Consider treatment of staff base window to minimise impact of office window in dining area (e.g. introduce curtains) and improve ambience/familiarity of room

• Consider layout of verandah furniture and ways to invite easy access to this area directly from the dining room to encourage resident use of outdoors	implemented
• Provide items such as a watering can and raised garden beds to encourage residents to use the garden area rather than simply walk past. Provide furniture and items of interest in gazebo to encourage use	implemented

ENTRY

• Redo mural, using an image such as alfresco dining that will create an appropriate mood in the area and also assist with wayfinding and encourage people to come to the dining room. This is important as visual access to the dining area is limited.	implemented

CORRIDORS

• Place items of interest on the side table near the lounge to draw residents along corridor from dining room and encourage them to stop and explore (e.g. phone, flowers, chair, books, teledex)	implemented
• Paint alcoves housing bedrooms doors to help residents find their way and break up the length of the corridor. (Currently all are cream.) Aim to create a palette of colours so that the alcoves have their own character in the corridor and then the bedrooms doors are highlighted within this colour scheme e.g. use a palette of blues and purples (and not contrasting primary colours)	implemented

- Introduce sound attenuation measures to the walls of the corridor to reduce noise. Consider using these acoustic panels to frame pictures (thereby create points of interest)
- Review use of trolleys and other equipment in corridor to reduce noise

• Paint lounge to assist familiarity and identity. Ensure colour can be seen on approach to the room to assist with wayfinding	implemented

BEDROOMS

• Modify wardrobes to reduce the amount of clothing residents have ready access to (and reduce unwanted stimulation)	implemented

SITTING AREA

• Review furniture in sitting area at end of corridor and remove unwanted items	implemented
• Determine the use of this room and furnish the sitting area accordingly to reinforce this (e.g. a busy area, quiet area, a place for music, place for a cuppa)	implemented
• Provide watering can and raised garden bed to encourage residents to use the garden area near sitting area	implemented

Changes to Melaleuka

Following the completion of the EAT, the preparation of the Room for Improvement Report and subsequent conversation, a number of changes were made to Melaleuka.

The Dining Room

The dining room was developed to reflect an Italian Café theme. The changes included red checked curtains one of which transformed the nurse station into a familiar home like setting and could be readily opened and closed to avoid a residents' constant sense of being observed.

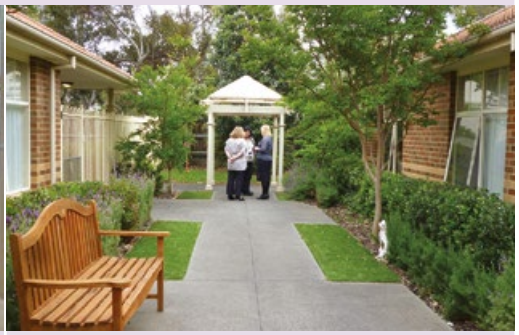
BEFORE

AFTER

The Kitchenette

The kitchenette was decluttered and its use was encouraged by adding familiar household items. The view to the garden from the dining room was emphasised by moving furniture so that the doors were not obscured.

BEFORE



AFTER

The Main Entrance

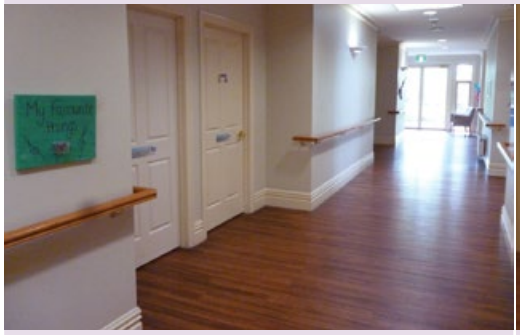
A mural representing an Italian street café was used to disguise the main entrance from within the unit. As the dining room is to the right of the mural it also was an important wayfinding prompt to head in that direction. This replaced the existing mural which had been ineffective in hiding the entry and offered no visual cue as to what is nearby.

BEFORE

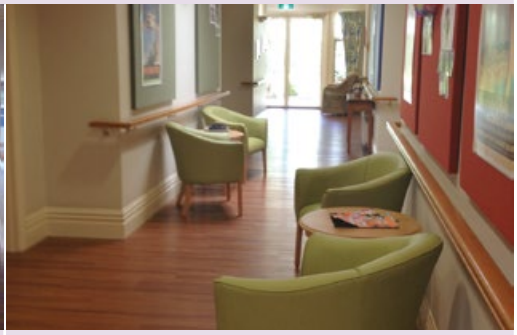
AFTER

The Corridors

The corridors in Melaleuca were found to be noisy and lacked points of interest, with walls painted in cream and lacking contrast and definition. Acoustic boards were mounted in the corridors. These not only reduced the sound levels but were also of contrasting colours and provided links to the green Garden Room in one direction and the red Italian café in the other. Attention was also paid to the amount of stimulation that is provided throughout the unit and how images can be presented in a positive way to encourage interaction and conversation (recognizing that too many images can be as unhelpful as too much noise). Items of interest were placed along the corridor and the acoustic boards were used to display visual cues.



BEFORE



AFTER

The Garden Room

The Garden Room was developed into a quiet space, with a green and blue palette of colours, a range of familiar activities such as knitting and reading materials and access to the gardens. This room is now often used for individual or small group activity.

BEFORE

AFTER

The main sitting area has been decluttered and with better use of the overall space is less crowded. This room has a table used to play games, a fish tank with colourful fish and a television that is purposefully used in smaller groups.

Not just the environment

Overall, these environmental changes have led to a renewed pride in Melaleuca.

There were many factors that led to meaningful change. The enthusiasm of the management (both on site and from head office) was crucial. Encouragement was given to the staff and manager of Melaleuca to make changes and these were celebrated and acknowledged.

It is significant that the changes to the environment were not made in isolation, but (as noted earlier) were part of a larger commitment by BlueCross to take a proactive approach to improve services for people living with dementia.

A key focus was the use of Dementia Care Mapping (DCM). The results of this initial map were presented to the team and the dining experience was identified by both care and hospitality staff as being a priority for improvement. Observations showed that residents were seated at the table as early as 11am which lead to restlessness and disengagement in some residents. A rushed meal service meant that residents were distracted from eating, as tables were cleared before they had finished eating and staff moved from one resident to another to assist them. The dining room was crowded as staff attempted to assist residents to eat while standing next to them as there was not enough room for staff to sit down. The overall dining experience was found to be detrimental to the psychological needs of the residents.

In response to these findings, the hospitality team organised individual trayed meals so that staff could deliver each course when the resident was ready. Melaleuca now has two meal sittings at lunchtime. The first sitting is for residents who are able to eat independently or with minimal supervision. Residents are encouraged to prepare the dining room for lunch and to lay tables, arrange flowers and pour drinks. On finishing the meal, the first sitting return to the main living room and participate in serving and drinking tea and coffee.

The second sitting is designed to meet the needs of residents requiring assistance. Staff are now able to sit with a resident and devote their time to ensuring that the meal is uninterrupted and that the resident has the full attention of the person helping them.

Both residents and staff have benefited. Repeat mapping showed one resident being very engaged in folding serviettes as the dining room was prepared, a resident sitting with space and time for her family to assist her to eat, a resident eating while laughing with a member of staff and asking her name. The calm and happy environment was captured in the comment of one resident saying 'I like it here, I have been lucky'. One member of staff reported that since the changes a resident regularly walks around and repositions furniture and puffs up the cushions very much as if she is in her own home.

The creation of a more familiar and inviting dining room set the stage for this change. BlueCross's approach at Melaleuca clearly demonstrates that the best results are achieved when the environment and staff are working together to meet the needs of people living with dementia.

Successful environmental change

Melaleuka is a great example of how an existing environment can be altered to have a positive impact on the lives of residents and staff. Applying the key design principles has made a significant difference. The changes to the built environment were simple, inexpensive, and required no major building work.

Increasing the awareness of key design principles and the role the environment can play in the care of people with dementia was an important precursor to using the EAT at Melaleuca. The preparation of the RFI report gave staff the opportunity to use this to have a structured conversation about the environment, and to discuss how and why changes might be made. The commitment of managers to improve the environment was critical. The discussion of the environment in the broader conversation about services for people living with dementia meant that environmental changes had an enormous impact on the lives of residents and staff.

The timeliness and involvement of staff in the education and subsequent changes mean that these will be sustainable. Staff were ready for change and will be able to apply this knowledge to respond to future residents' needs.

6.3 WORKING ON AN EXISTING BUILDING – FLAMETREE, IRT WOONONA

Introduction

This case study describes a series of changes that were made in an existing dementia specific unit over a number of years. The manager of the facility instigated the changes and had the backing of the executive of the organisation. As a result, a significant budget was available for the changes.

Background

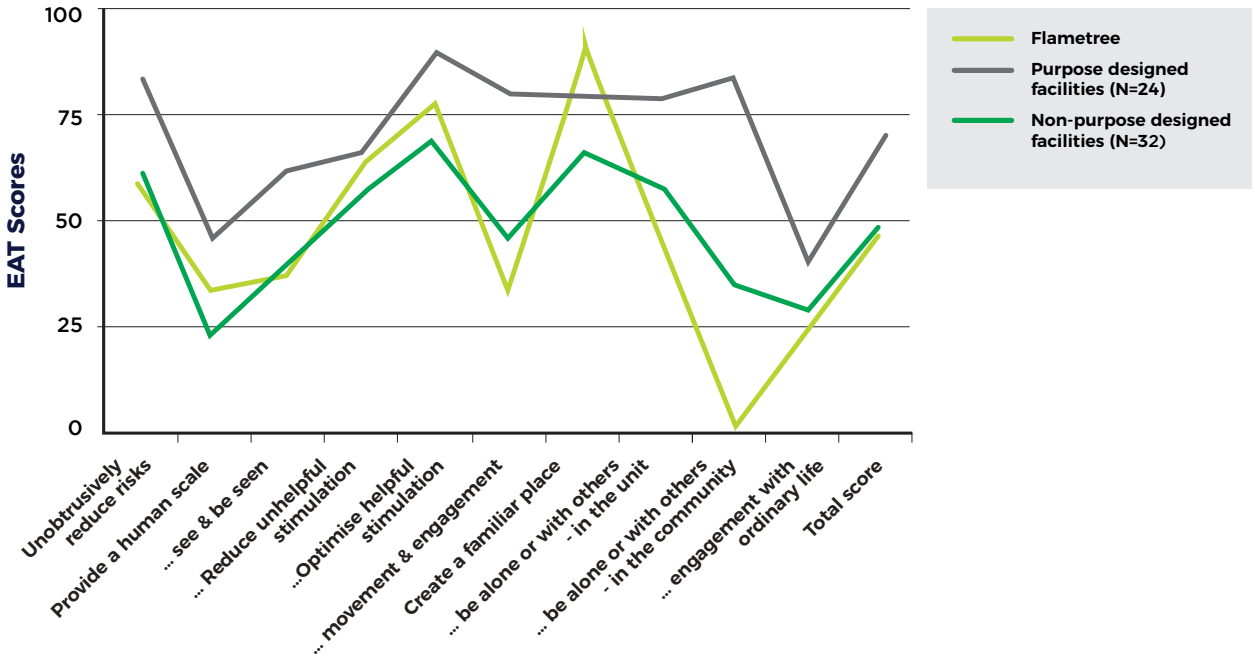
Flametree is a secure unit accommodating 34 residents owned by IRT in Woonona (a suburb of Wollongong) in NSW. It comprises two wings connected by a shared garden. While most of the residents were mobile at the beginning of the project, there was a small number of frail residents living there.

In 2013 the manager undertook a review of the service provided which highlighted some deficiencies in the design and operation of the unit. He sought assistance from the Designing for People with Dementia (DPD) service at the University of Wollongong based Dementia Training Study Centre. He described his goals as improving the functionality of the built environment, changing the resident profile so that the unit focussed on the needs of mobile people with dementia and introducing a Montessori based approach to care.

The programme described by the manager was larger in scope than could be provided through the DPD service so an application for the funding of an action research project was made to the IRT Research Foundation. The application was successful and funded a consultancy and research relationship which lasted for three years. The IRT Research Foundation also funded a related project to investigate the effects of the organisation wide introduction of a systematic approach to the design and refurbishment of accommodation for people with dementia. This case study will be restricted to describing the effects of these projects on Flametree. A description of some of the broader effects can be seen in a video describing the project available from the DTA website http://www.dementiatrainingaustralia.com.au.

Environmental Assessment

One of the first steps in the project was to provide education on the principles of design. This was quickly followed by using the EAT to assist the manager and his staff to understand the strengths and weaknesses of their environment. The graph summarising the EAT results clearly indicates weaknesses in the areas of Unobtrusively reducing risk, Seeing and being seen, Supporting movement and engagement, Providing a variety of places to be alone or with others – in the unit, Providing a variety of places to be alone or with others – in the community, and Design in response to a vision for way of life.



Flametree Room For Improvement (RFI) Report

DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Visibility of bedroom doors to residents	0	4	4	Seeing and being seen
Visibility of lounge room from bedrooms	0	4	4	Seeing and being seen
Visibility of dining room from bedrooms	0	4	4	Seeing and being seen
Small areas have pleasant views	0	3	3	Privacy & community
Easily supervised garden	0	2	2	Unobtrusive safety
Size of unit	1	3	2	Human scale
Small areas available for conversation	1	3	2	Privacy & community
Access to kitchen	0	2	2	Way of Life
Involvement in main meal preparation	0	2	2	Way of Life
Involvement in making snacks	0	2	2	Way of Life
Involvement in keeping bedroom tidy	0	2	2	Way of Life
Involvement in personal laundry	0	2	2	Way of Life
Involvement in gardening	0	2	2	Way of Life
Secure garden	1	2	1	Unobtrusively reduce risks

DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Secure side doors	1	2	1	Unobtrusively reduce risks
Bedroom windows secure	1	2	1	Unobtrusively reduce risks
Access to kitchen only for people who are safe in a kitchen	1	2	1	Unobtrusively reduce risks
Lounge room easily supervised from the point(s) where the staff spend most of their time?	1	2	1	Unobtrusively reduce risks
Wardrobe full of too many clothes	0	1	1	Reduce unhelpful stimulation
Front entrance easily visible	0	1	1	Reduce unhelpful stimulation
Service entry easily visible	0	1	1	Reduce unhelpful stimulation
Toilet bowl visible as soon as toilet door opened.	0	1	1	Optimise helpful stimulation
A lot of natural light in lounge room	0	1	1	Optimise helpful stimulation
A clearly defined and easily accessible path in the garden that guides the resident back to their starting point?	0	1	1	Movement & engagement
Path passes alternatives to wandering	0	1	1	Movement & engagement
Path easily supervised by staff	0	1	1	Movement & engagement
Path passes a toilet	0	1	1	Movement & engagement
Path clearly continues inside back to starting point	0	1	1	Movement & engagement
Internal path provides access to activities other than wandering	0	1	1	Movement & engagement
Taps, light switches etc are familiar	1	2	1	Create a familiar place
Opportunity for small group activities	1	2	1	...be alone or with others-in the unit
Area for dining with families/friends	0	1	1	...be alone or with others-in the community
Is this area familiar and reassuring	0	1	1	...be alone or with others-in the community

DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Secure front door	2	2	0	Unobtrusively reduce risks
Water temperature safe	1	1	0	Unobtrusively reduce risks
Floor areas safe from being slippery when wet (water or urine)?	1	1	0	Unobtrusively reduce risks
All areas used by residents well lit?	1	1	0	Unobtrusively reduce risks
Visibility of door to garden from lounge room	1	1	0	Seeing and being seen
Visibility of dining room from lounge room	1	1	0	Seeing and being seen
Visibility of kitchen from lounge room	1	1	0	Seeing and being seen
Visibility of kitchen from dining room	1	1	0	Seeing and being seen
Visibility of a toilet from dining room	1	1	0	Seeing and being seen
Visibility of a toilet from lounge room	1	1	0	Seeing and being seen
Visibility into lounge from point where staff spend most of time	1	1	0	Seeing and being seen
Doorbell intrusive	1	1	0	Reduce unhelpful stimulation
Too much noise from kitchen	1	1	0	Reduce unhelpful stimulation
Doors to dangerous areas easily seen	1	1	0	Reduce unhelpful stimulation
Deliveries made across public areas	1	1	0	Reduce unhelpful stimulation
Intrusive public address or paging system	1	1	0	Reduce unhelpful stimulation
Dining room easily seen or signed	1	1	0	Optimise helpful stimulation
Lounge room easily seen or signed	1	1	0	Optimise helpful stimulation
Individual identification of bedrooms	1	1	0	Optimise helpful stimulation
Shared bathrooms/toilets clearly signed	1	1	0	Optimise helpful stimulation

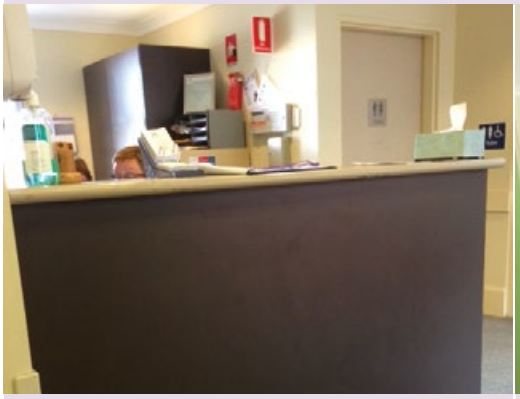
DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Kitchen easily seen or signed	1	1	0	Optimise helpful stimulation
Artificial light bright enough	1	1	0	Optimise helpful stimulation
Lighting is free from glare	1	1	0	Optimise helpful stimulation
Path within a secure perimeter	1	1	0	Movement & engagement
Seats available along path	1	1	0	Movement & engagement
Sunny and shady areas along path	1	1	0	Movement & engagement
Colours are familiar	2	2	0	Create a familiar place
Furniture in lounge area is familiar	2	2	0	Create a familiar place
Furniture in bedrooms is familiar	2	2	0	Create a familiar place
Residents have own ornaments/photos in bedroom	2	2	0	Create a familiar place
Residents have own furniture in bedrooms	2	2	0	Create a familiar place
Opportunity for small groups to eat together	2	2	0	...be alone or with others-in the unit
Opportunity for people to eat alone	2	2	0	...be alone or with others-in the unit
Constant access to lounge	2	2	0	Vision for way of life
Constant access to dining room	2	2	0	Vision for way of life
Lockable knife draw in kitchen	n/a	2	n/a	Unobtrusively reduce risks
Gas cooker	n/a	1	n/a	Unobtrusively reduce risks
Master switch quickly accessible	n/a	1	n/a	Unobtrusively reduce risks
Pots and pans of suitable size/weight	n/a	1	n/a	Unobtrusively reduce risks

Responding to the RFI report

The manager and staff were involved in discussions on the problems that were identified and decided to improve the environment by focussing on specific principles that they believed they could improve with the resources available to them. Changes included:

SEEING AND BEING SEEN

Improving sightlines between the nurses station and the lounge by lowering the height of the counter around the nurses station.



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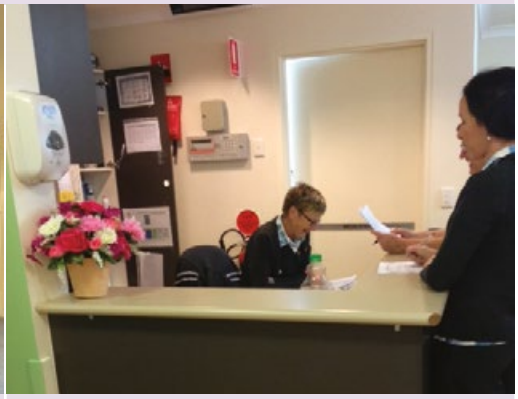
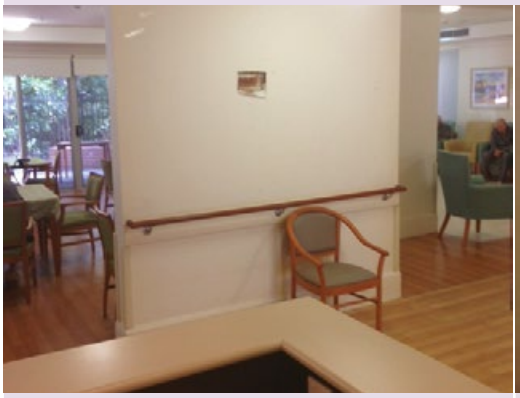


AFTER

Improving visibility of the lounge from the bedrooms and nursing station (and vice versa) by creating an opening in the wall.



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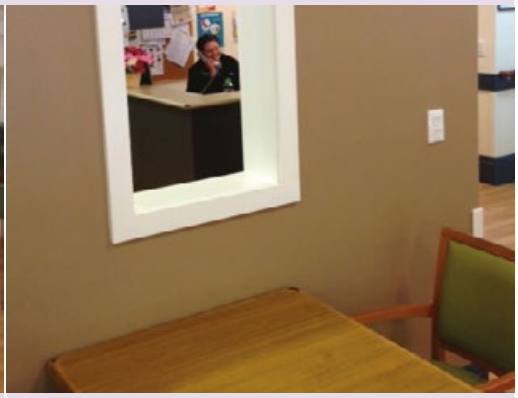


AFTER

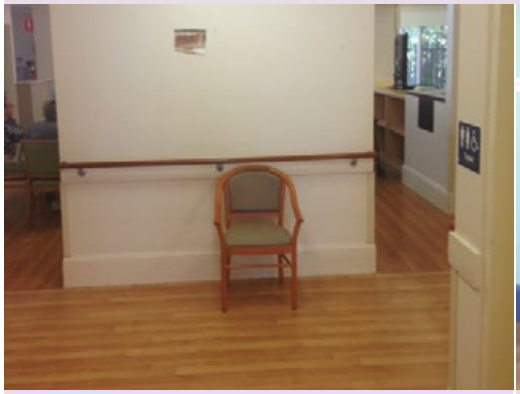
OPTIMISE HELPFUL STIMULATION

Distinguishing each corridor by painting the walls a different colour and providing a street name and theme for each corridor.

BEFORE

AFTER

Improving the contrast between the floors and the walls



BEFORE

AFTER

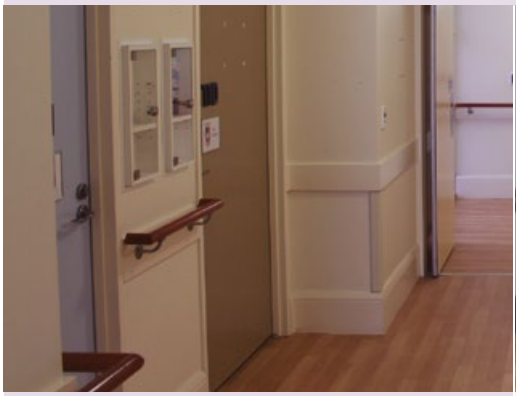
Improving the contrast between the toilets and their surroundings.

BEFORE

AFTER

OPTIMISE HELPFUL STIMULATION

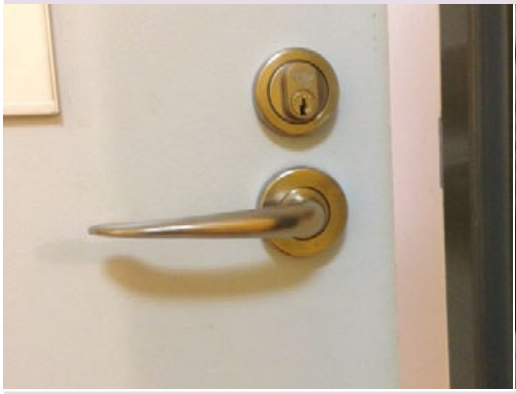
Making each bedroom door unique in colour and design.

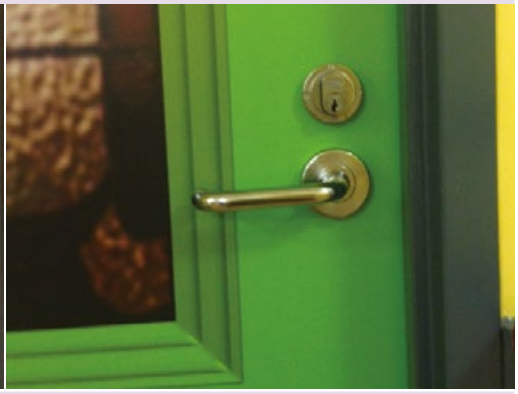


BEFORE

AFTER

Making each door handle feel different





Improving the memory boxes next to each door.

REDUCE UNHELPFUL STIMULATION

Camouflaging service doors by painting them the same colour as the walls and continuing the appearance of handrails and skirting boards across them or incorporating them into the street scene murals.

BEFORE

AFTER

Moving the television to a less prominent position and using more music.

UNOBTRUSIVELY REDUCE RISK

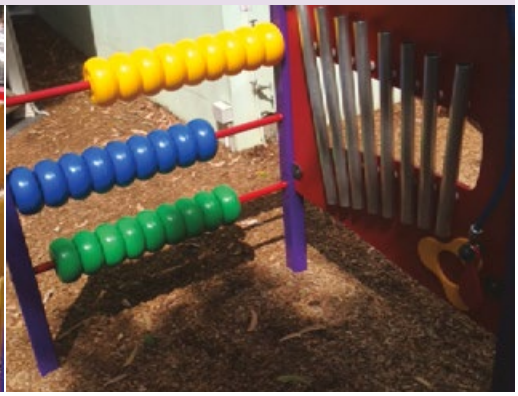
Covering the obvious metal railing fence with an attractive 50m long mural depicting a rural scene.

BEFORE

AFTER

PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS – IN THE COMMUNITY

Providing play equipment in the garden to encourage relatives to bring children and to relax in the garden.



SUPPORTING MOVEMENT AND ENGAGEMENT

Ensuring the path in the garden leads residents on a journey that passes interesting features (a car, shed, lawn mower, fishpond, wheelbarrow, picnic tables and goes through shady areas.

SUPPORTING MOVEMENT AND ENGAGEMENT

Giving the garden area an identity by introducing large scale murals depicting street scenes and incorporating the doors into the unit in them.

BEFORE

AFTER

Responding to 'Design in response to vision for way of life' by improving access to the kitchen and encouraging involvement in the preparation of meals was seen as being highly desirable, but not achievable with the resources available.

Successful environmental change

The changes to the Flametree environment have provided a foundation for the emergence of a new identity for the unit as a place that specialises in the care of mobile people with dementia. This was facilitated by the progress of another project to focus the care provided in a first floor unit on frail, immobile people with dementia. The combination of the new environmental features and the more specialised resident profile has revitalised Flametree and provided an example for other IRT units to follow.

This project took three years to complete, largely because of the need to source the funds and the limitations on the speed with which significant environmental change can be made. It takes time to get the builders and painters in. In some ways this was an advantage, as it allowed time for staff education and to ensure that the relatives of the residents were well informed on the developments.

The benefits from the environmental changes were seen in staff surveys conducted over the course of the project. At the beginning 52.5% of the staff described the unit as homely, at the end the proportion was 86.2%; at the beginning 55% of staff said that it was hard for the residents to find their way around, this reduced to 25% at the end; the unit was described as having a pleasant atmosphere by 55% at the beginning of the project and 82.8% at the end; staff perception of residents being able to access the outside space increased from 65% to 89.7% and agreement with the statement 'I would like to live here if I had dementia' increased from 25.6% to 62.1%.

6.4 WORKING ON AN EXISTING BUILDING – MULTI PURPOSE SERVICE OBERON

Introduction

The MPS at Oberon is a great example of how change can be made with a small budget when staff are involved and inspired. The residential aged care service at Oberon was housed under the same roof as the acute service.

Background

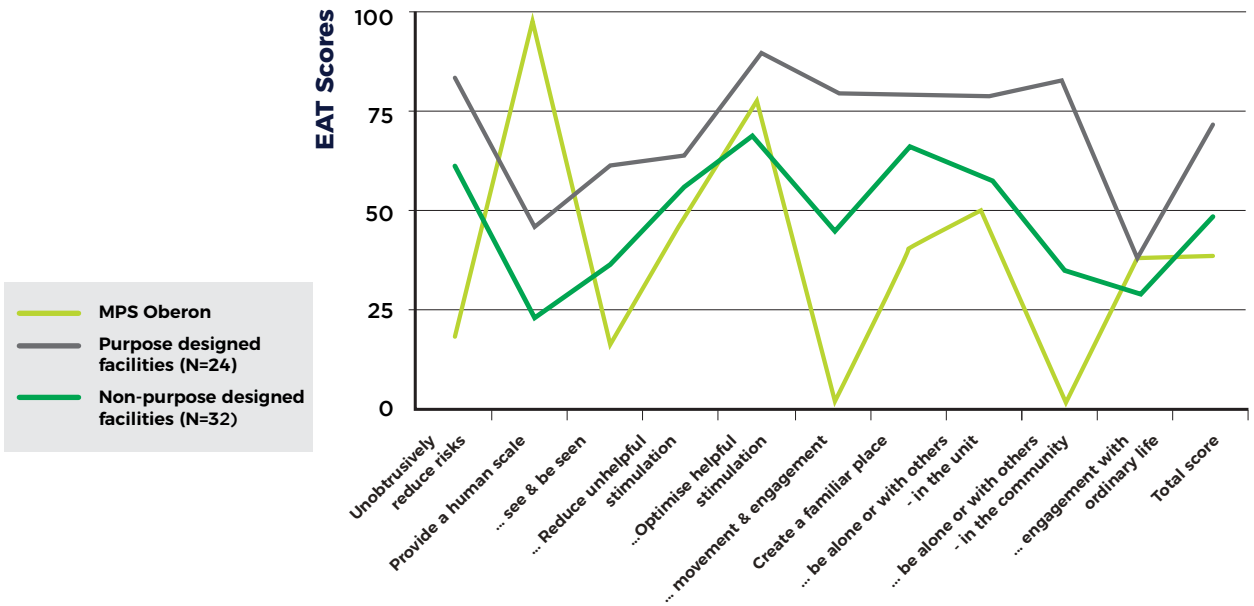
The MPS at Oberon is a small multipurpose facility in a country town. It provides both acute and residential aged care. All services are provided within the one building, with a number of areas shared. The discussions at Oberon with key staff centred around how the key design principles could be used to modify the existing environment, recognising that there was little money available at that time to undertake capital improvements.

RESULTS OF THE EAT

Following a discussion of the principles, the EAT was completed. The graph of the sub-scale scores provided a comparison with both residential aged care facilities that were, and were not, purpose designed for people with dementia. This is a meaningful comparison as the function of the MPS includes providing long term care for elderly people, including some who have dementia.

It was obvious that the MPS did not do well when compared with facilities that were purposed designed for people with dementia. This was not surprising, as Oberon had not been designed for this purpose. Of more concern, were its poor results when compared with non purpose designed facilities. 'Unobtrusively reduce risks', 'Allow people to see and be seen', 'Support movement and engagement' and 'Provide opportunities to be alone or with others – in the community' were very low. The principles of 'Optimise helpful stimulation' and 'Reduce unhelpful stimulation' were not addressed well.

Figure 1: Comparison of Oberon MPS with purpose and non-purpose designed aged care facilities



A much more detailed view of the areas that had potenital for modification was obtained from the Room for Improvement table which was generated using the excel spreadsheet. This is reproduced below. Areas which had the most room for improvement are listed first.

ROOM FOR IMPROVEMENT REPORT ITEM	SCORE	POSSIBLE SCORE	RFI SCORE
Visibility of bedroom doors to residents	0	4	4
Visibility of lounge room from bedrooms	0	4	4
Visibility of dining room from bedrooms	0	4	4
Secure garden	0	2	2
Secure front door	0	2	2
Secure side doors	0	2	2
Easily supervised garden	0	2	2
Access to kitchen only for people who are safe in a kitchen	0	2	2
Lockable knife draw in kitchen	0	2	2
Lounge room easily supervised from the point(s) where the staff spend most of their time?	0	2	2
Taps, light switches etc are familiar	0	2	2
Furniture in bedrooms is familiar	0	2	2
Small areas available for conversation	1	3	2
Small areas have pleasant views	1	3	2
Involvement in main meal preparation	0	2	2
Involvement in making snacks	0	2	2
Involvement in keeping bedroom tidy	0	2	2
Involvement in personal laundry	0	2	2
Involvement in gardening	0	2	2
Bedroom windows secure	1	2	1
Gas cooker	0	1	1
Master switch quickly accessible	0	1	1
Pots and pans of suitable size/weight	0	1	1
Visibility of door to garden from lounge room	0	1	1
Visibility of a toilet from dining room	0	1	1

ROOM FOR IMPROVEMENT REPORT ITEM	SCORE	POSSIBLE SCORE	RFI SCORE
Visibility of a toilet from lounge room	0	1	1
Visibility into lounge from point where staff spend most of time	0	1	1
Doorbell intrusive	0	1	1
Doors to dangerous areas easily seen	0	1	1
Intrusive public address or paging system	0	1	1
Front entrance easily visible	0	1	1
Individual identification of bedrooms	0	1	1
Shared bathrooms/toilets clearly signed	0	1	1
A clearly defined and easily accessible path in the garden that guides the resident back to their starting point?	0	1	1
Path passes alternatives to wandering	0	1	1
Path within a secure perimeter	0	1	1
Path easily supervised by staff	0	1	1
Seats available along path	0	1	1
Sunny and shady areas along path	0	1	1
Path passes a toilet	0	1	1
Path clearly continues inside back to starting point	0	1	1
Internal path provides access to activities other than wandering	0	1	1
Colours are familiar	1	2	1
Furniture in lounge area is familiar	1	2	1
Residents have own furniture in bedrooms	1	2	1
Opportunity for small groups to eat together	1	2	1
Opportunity for people to eat alone	1	2	1
Area for dining with families/friends	0	1	1
Is this area familiar and reassuring	0	1	1
Water temperature safe	1	1	0
Floor areas safe from being slippery when wet (water or urine)?	1	1	0

ROOM FOR IMPROVEMENT REPORT ITEM	SCORE	POSSIBLE SCORE	RFI SCORE
All areas used by residents well lit?	1	1	0
Size of unit	3	3	0
Visibility of dining room from lounge room	1	1	0
Visibility of kitchen from lounge room	1	1	0
Visibility of kitchen from dining room	1	1	0
Too much noise from kitchen	1	1	0
Wardrobe full of too many clothes	1	1	0
Deliveries made across public areas	1	1	0
Service entry easily visible	1	1	0
Dining room easily seen or signed	1	1	0
Lounge room easily seen or signed	1	1	0
Kitchen easily seen or signed	1	1	0
Toilet bowl visible as soon as toilet door opened.	1	1	0
A lot of natural light in lounge room	1	1	0
Artificial light bright enough	1	1	0
Lighting is free from glare	1	1	0
Residents have own ornaments/photos in bedroom	2	2	0
Opportunity for small group activities	2	2	0
Access to kitchen	2	2	0
Constant access to lounge	2	2	0
Constant access to dining room	2	2	0

Responding to the RFI Report

On the basis of the RFI report, it was possible to readily identify which areas (according to the principles) were likely to have the most room for improvement and therefore were most in need of attention.

As noted previously, there was little scope for major changes to the building at Oberon, and the staff were keen to have an overview which could guide them as they make changes over time. It was decided to look at each of

the key areas individually and to discuss each one by asking the questions, 'what can be done reusing what we have?' '*what can be done in the short term?*' '*what can be done in the medium term?*' and '*what can be done in the longer term*?' The items were grouped under six key headings and tables were prepared for each area so that staff would be able to refer to these over time and make changes in a coordinated way. The placing of items in either short, medium or long term was based on conversations with staff about how likely it was for a particular measure to be implemented, either due to existing practices, operational considerations, approval processes, or cost. This was very important, as the team at Oberon needed to sign off on these tables if they were to be at all useful to them in working to improve the environment over time. Where no action was proposed and/or agreed under a principle, or in a particular timeframe, the table was left blank. The principles were not considered in the typical order, but in each room the first principle considered was 'Engagement with activities of ordinary life'. This reflected the importance of responding to this principle if positive change was to be achieved.

The team decided to discuss the modifications by focusing on five key areas in the building, the Dining/Lounge, Sitting, Bedrooms, Corridors and Wet Areas. The results are shown on the tables on the following pages.

DINING/LOUNGE ROOM

		... engagement with ordinary life	Unobtrusively reduce risks, ... movement & engagement	... be alone or with others – in the unit	Create a familiar place	Reduce unhelpful stimulation	... see & be seen, Optimise helpful stimulation
ACTIONS	**ISSUES**	Furniture (style, materials)	No access to outside	All social spaces in one (isolated) location Lack of use	Lack of resident input (e.g. furniture, paintings)	Acute care style signage and information dominates entry	Acute care style signage and information dominates entry
	How can we **re-use** what is there?	(see familiarity)		Plan for use (e.g. music, activities) to encourage residents to come to Dining/Lounge room	Encourage residents and families to bring small pieces of furniture	Review signage and information (design and location)	
	What can we do in the **short** term?	Provide new furniture with patterned fabrics	Use balcony which opens off bedrooms Introduce umbrellas and seating to balcony outside bedrooms			Provide new signage as appropriate/ required	Provide new signage as appropriate/ required
	What can we do in the **medium** term?						
	What can we do in the **long** term?						

SITTING AREAS

		... engagement with ordinary life	Unobtrusively reduce risks, ... movement & engagement	... be alone or with others – in the unit	Create a familiar place	... see & be seen, Optimise helpful stimulation
ACTIONS	**ISSUES**	Finishes Furniture (style, materials)	No access to outside (significantly above ground level)	All social spaces in one (isolated) location Lack of use Limited by furniture selection and arrangement Limited by penetration of heat and cold	Lack of resident input (e.g. furniture, paintings)	Poor visual access from other areas Isolated location
	How can we **re-use** what is there?	(see familiarity)		Plan for use (e.g. music, activities) to encourage residents to come to sitting room when weather permits	Encourage residents and families to bring small pieces of furniture	
	What can we do in the **short** term?	Provide new cane furniture for sitting room (or similar to contrast with lounge furniture)		Review finishes to sitting room to improve thermal performance (insulation, roofing, shading)		Introduce cueing and introduce stimulation to encourage use
	What can we do in the **medium** term?			Consider installation of AC		
	What can we do in the **long** term?			Change finishes (wall and roof) as part of extension		

BEDROOMS

		.. engagement with ordinary life	Create a familiar place	Reduce unhelpful stimulation	.. see & be seen, Optimise helpful stimulation
ACTIONS	**ISSUES**	Acute style entry Few domestic finishes Little domestic detailing Lack of decoration	Personalization of bedrooms limited	Acute care style signage and information dominates bedroom entry	Lack of identity and distinguishing features Glare from shiny vinyl floors
	How can we **re-use** what is there?	(see familiarity) (see reduce unhelpful stimulation)	Encourage residents and families to bring small pieces of furniture and decoration	Review signage and information (design and location)	Review signage and information (design and location)
	What can we do in the **short** term?	Introduce feature paint colours to create identity and distinguish between bedrooms		Provide new signage as appropriate/ required e.g. use classy name plates on bedroom doors	(see way of life) (see reduce unhelpful stimulation)
	What can we do in the **medium** term?				
	What can we do in the **long** term?				Alter floor finish

CORRIDORS

		...engagement with ordinary life, Create a familiar place	... be alone or with others – in the unit	Reduce unhelpful stimulation	Optimise helpful stimulation
ACTIONS	**ISSUES**	Poor ambience Non domestic scale and finish Lack of resident input (e.g. furniture, paintings)	Lights turned off in afternoon for 'rest' period	Acute care style signage and information dominates	Lack of identity and distinguishing features Door finishes do not indicate use (e.g. smoke doors same as bedroom doors) Equipment stored in corridor Glare from shiny vinyl floors
	How can we **re-use** what is there?		Leave lights on to encourage movement	Review signage and information (design and location)	Remove clutter (equipment)
	What can we do in the **short** term?	Introduce feature colours and decorative dados Create identity in corridors especially outside lounge room Distinguish between corridors of nursing home and acute Add colour, shadow boxes, paintings to corridor walls Change light fittings and review lighting levels to reduce glare			Distinguish between doors Paint out architraves of doors to service areas and cupboards (see way of life) (see reduce unwanted stimulation)

WET AREAS

		Optimise helpful stimulation
ACTIONS	**ISSUES**	Lack of identity and distinguishing features Door finish does not indicate use
	How can we **re-use** what is there?	
	What can we do in the **short** term?	Introduce paint finish to ensuite door to identify use
	What can we do in the **medium** term?	Introduce contrasting toilet seats
	What can we do in the **long** term?	

The information was also summarised for Oberon according to timeframe:

- **How can we re-use what is there?**
  - Encourage residents and families to bring small pieces of furniture and decoration
  - Leave lights on in corridors during afternoon to encourage movement
  - Remove clutter (equipment) from corridors
  - Review signage and information (design and location)
  - Plan activities to encourage residents to come to dining/lounge room and sitting room

- **What can we do in the short term?**
  - Change screen wall and locate to reduce waiting area to create lobby to residential aged care. Introduce comfy chairs, hall table, hat stand
  - Distinguish between corridors of nursing home and acute. Introduce feature paint colours to lobby & nursing home corridor
  - Introduce paint colours to create identity and distinguish between bedrooms, to distinguish ensuite door from bedroom door
  - Paint out architraves of doors to service areas and cupboards
  - Add colour, shadow boxes, paintings to corridor walls
  - Change light fittings in corridor and review lighting levels to reduce glare
  - Provide cueing to entry to draw attention to Dining/Lounge from corridor
  - Introduce stimulation to sitting and lounge room to encourage use
  - Review finishes to sitting room to improve thermal performance (insulation, roofing, shading)
  - Provide new cane furniture for sitting room (or similar to contrast with lounge furniture)
  - Provide new furniture with patterned fabrics to lounge room
  - Provide new signage as appropriate/ required
  - Use classy name plates on bedroom doors
  - Introduce umbrellas and seating to balcony outside bedrooms and encourage use

- **What can we do in the medium term?**
  - Introduce contrasting toilet seats
  - Consider installation of AC

- **What can we do in the long term?**
  - Change finishes (wall and roof) as part of extension to sitting room

Changes at Oberon

As a result of this process, Oberon made some important changes to the sitting rooms and corridors over a short time. These immediately improved the environment for people with dementia. Two of these changes are illustrated below.

Sitting Room

(Principles Applied: Provide opportunities for engagement with ordinary life, Provide a variety of places to be alone or with others - in the unit, Create a familiar place)

The sitting room was a room which was not used often. It tended to be used to store furniture, and was not furnished in a way that was appealing. Seating was not inviting and it was not arranged to encourage interaction. Following our conversations, Oberon bought new furniture and plants for the room. Old furniture was removed and the furniture was rearranged to encourage conversation.

BEFORE

AFTER

Providing new furniture has made the most of a space that already existed but was underused. It now provides a much needed second social space. Selecting cane furniture ensured that the room has a very different feel to the adjacent lounge dining room. It builds on the light and airy feel of the space with its floor to ceiling windows. It introduces variety and diversity into the environment and gives residents a chance to spend time in rooms which offer them a different experience.

Corridors

(Principles Applied: Reduce unhelpful stimulation, Create a familiar place)

As this aged care facility is part of a hospital, there was a requirement to provide access outside each bedroom door for patient records and medication. Medication was in a locked cabinet with a medical cross on the exterior. Following conversations, the cross was removed and a photo of the resident's choice was placed on the cabinet instead so that the entry to the room is more personal. At the conclusion of our involvement there were plans to make further changes and the introduction of a painting to screen the cabinet and records or a new cabinet with a timber finish was being considered.

BEFORE

AFTER

While the removal of the medical cross from the cabinet is a relatively simple change which has only a small impact, it is nonetheless a change for the better. It is important not to underestimate the worth of making a start. Small things do matter! This change was able to be done quickly and does not limit the opportunity for a more significant change to take place in the future. It may even give some impetus for further change.

Successful Environmental Change

As a result of using the EAT and creating an RFI report, Oberon was able to take a systematic approach to improving their environment. Items could be identified and prioritised so that staff were able to do what they could immediately, and be ready for future opportunities as they arise. Items could be considered according to time frame or room location. The use of the EAT and RFI report meant it was possible to see how each change fitted into the bigger picture, ensuring a coherent approach to environmental change rather than a piecemeal one, where changes may not be effective or may need to be redone at a later date.

1 The authors acknowledges the input of residents and staff at Tjilpiku Pampa Ngura and of Nganampa Health Council in the preparation of this case study.

6.5 PLANNING A CULTURALLY APPROPRIATE PLACE - TJILPIKU PAMPAKU NGURA

Introduction

Tjilpiku Pampaku Ngura, meaning 'a home for older men and women', is an example of how key design principles can be applied in a culturally appropriate way, in this case in a place where Indigenous people live. The principles of design were considered in some detail as part of consultation and briefing to see what they might mean in this context, and were taken into account in the design and planning phase of the project.

Background

Tjilpiku Pampaku Ngura is a multi purpose service on the Aṉangu Pitjantjatjara Yankunytjatjara (APY) Lands in the remote north west of South Australia near the tristate border with the Northern Territory and Western Australia. It accommodates up to 16 Aṉangu either for respite or a longer term residential care.

Tjilpiku Pampaku Ngura (TPN) comprises a series of separate bedroom buildings, each containing 2 bedrooms (which can have three or four people living in them) and an ensuite bathroom. These units are placed in the landscape and connected by open walkways to a central building which contains a lounge/ dining area, staff facilities and communal toilets and bathrooms.

Responses to the key design principles are seen in the completed building as described and illustrated below.

UNOBTRUSIVELY REDUCE RISKS

TPN is surrounded by a (somewhat distant) high fence. It is easy to see and is an obvious barrier. In this setting, this is a deliberate design response.

Fences are seen as a positive thing on the APY Lands, perhaps in a similar way people from other cultures may view the wall of a lounge room. The fence serves a number of purposes. One is to prevent residents at TPN leaving. Another is to prevent non-residents coming to TPN uninvited. Another is to identify this place as the older person's place, thereby offering them peace and security. Care has been taken, however, to ensure that the fence does not dominate the view and the landscape.

Perimeter fence at TPN

PROVIDE A HUMAN SCALE

Aṉangu have an interesting appreciation of scale as they live with the vastness of the landscape and the smallness of a wiltja (traditional outdoor shelter). The TPN is a small facility that has then been broken up into a number of small buildings. Bedroom units are separate buildings that are distant from communal areas. All the buildings are placed in the landscape and this vastness is reinforced by the buildings' separateness. The buildings are designed to be small objects in a vast landscape, rather than be a significant presence.

Bedroom unit at TPN

ALLOW PEOPLE TO SEE AND BE SEEN

When the Aṉangu sit in or leave the lounge/dining room at TPN they see the sheltered path that leads to the bedroom units and the surrounding landscape. When the Aṉangu leave their bedroom unit they see the lounge/dining room and the landscape. In this way Aṉangu have a clear view of the places that are of interest and importance to them and so can choose where they wish to go.

View to country at TPN

Sheltered path to bedroom unit at TPN

MANAGE LEVELS OF STIMULATION – REDUCE UNHELPFUL STIMULATION

'Back of house' path to bedroom unit at TPN

At TPN the kitchen and laundry are placed away from resident areas and away from the view. There are two circulation systems: a 'front of house' way for residents and a 'back of house' route for staff. This allows residents to be undisturbed by the servicing and operation of the building and instead to focus on the areas that are of interest to them such as a bedroom unit and the lounge/dining room.

MANAGE LEVELS OF STIMULATION – OPTIMISE HELPFUL STIMULATION

For many Aṉangu it will be the outdoor environment that will offer the most meaningful stimulation and cues. Rocks, views, mountains and fire are all likely to assist wayfinding and orientation. As a person moves around TPN there are constant views and engagement with the outdoor environment. Aṉangu are directed toward bedroom units and the lounge/dining area by the covered pathway.

Internally, a large painting by local Aṉangu provides a landmark to help the residents find the lounge room. Otherwise, internal finishes are durable and simple in response to the harsh demands of the environment.

Painting by Aṉangu marks the (internal) approach to the lounge room

SUPPORT MOVEMENT AND ENGAGEMENT

There are many ways people can move about at TPN. The outdoor environment is deliberately free from paths and instead remains in a more natural state. People are able to move about outside from place to place as they wish, following their own routes and creating new ways as appropriate.

Circulation between buildings is clearly defined by covered walkways. A simple path is laid under the walkway. This is designed to be easy for people to move about on in wheelchairs, on foot or by crawling.

Covered walkway at TPN

CREATE A FAMILIAR SPACE

For Aṉangu, outdoor shelters (wiltjas) are a very familiar part of their lives. The outdoor environment was designed for these to be introduced and removed as appropriate over time.

Aṉangu sitting in a wiltja at TPN

Rooms have been designed to be of a size that is familiar to Aṉangu, recognising that they are used to being inside in a small space or outside in big country.
The ensuite layout is similar to the layout of bathrooms in houses on the APY Lands, as are the finishes. Even if the older people have not lived in a house they may have visited one and so the design could be familiar.

PROVIDE A VARIETY OF SPACES TO BE ALONE OR WITH OTHERS – IN THE UNIT

Much of life in Indigenous communities is lived in public. On the other hand, privacy between different skin groups and genders is very important.

There are many ways people can be with others or alone at TPN. The lounge/dining room is a place for people to gather and be together in small or large groups. It is important, however, not to assume that all things are done in public. Privacy in bedrooms is a big issue at TPN. Visitors are not allowed in residents' bedrooms. Bedrooms are seen as private secure places rather than as meeting places. Outdoors, verandahs, wiltjas and trees provide many opportunities for people to sit (or lie) and be with others or alone.

A place to be on one's own or with others outside at TPN

PROVIDE A VARIETY OF SPACES TO BE ALONE OR WITH OTHERS – IN THE COMMUNITY

The relationship between TPN and the community is best reflected in the selection of the site itself.

Despite older Aṉangu's strong desire to take part in the life of the APY Lands, it was seen as very important that older people were given a quiet place to live, away from the noise and humbug (or bother) of the community. This is entirely consistent with the way older people choose to live in tents on the edge of the town centre so they are away from the noise and any trouble.

View of site

The selection of the site and its cultural and spiritual significance was seen as much more important than the design of the facility itself. It was important that the site was a place where all Aṉangu could feel welcome, recognizing that people will come from all parts of the Lands and so for many people TPN will be on someone else's country. The importance of site selection is reflected in the time taken to choose a site: three years. This included an extensive process of visiting all parts of the Lands to talk through the issues. Many Aṉangu travelled great distances to take part in these meetings. It also included making an inventory of all the things that were required to make the facility work in each community, such as good power supply, good water supply, access to a health clinic, staff, good roads, a (food) store and an airstrip.

DESIGN IN RESPONSE TO VISION FOR WAY OF LIFE

For Aṉangu a 'domestic' environment would mean having easy access to the outdoors and being able to sit around, eat outside, sleep outside, and see the surrounding country with adequate shade and shelter. It means having access to fire to make a cup of tea, make a spear, to cook, to make artifacts, to keep spirits away, to provide warmth and to dance and sing. (All of these activities and tasks require different sorts of fires.) It means having a fire that can be moved during the day to suit the sun and wind.

View to country

Painting in the lounge/dining at TPN

Older people at TPN are able to continue to do much of what they would like to do. This includes painting, sitting outside under a wiltja, looking out long way to country and watching the path of the moon and the stars.

IMPORTANCE OF APPLYING PRINCIPLES

The experience of planning for, and with, a group of people so different in their needs from those who use mainstream health and aged care facilities highlighted the strength of the principles based approach. The design could not have been developed by the use of any existing checklist; rather, a knowledge of the principles of good design provided a sound framework for discussion and decision making.

RESOURCE 2

Applying the key design principles in environments for people with dementia

APPENDIX 1
PLANNING TEMPLATE

EAT/EAT-HC PLANNING TEMPLATE

(FACILITY NAME) - NEXT STEPS

	KEY DESIGN PRINCIPLES					
		Unobtrusively reduce risks	Provide a human scale	Allow people to see and be seen	Manage levels of stimulation - reduce unhelpful stimulation	Manage levels of stimulation - optimise helpful stimulation
ACTIONS	**ISSUES**					
	How can we **re-use** what is there?					
	What can we do in the **short** term?					
	What can we do in the **medium** term?					
	What can we do in the **long** term?					

(FACILITY NAME) - NEXT STEPS

KEY DESIGN PRINCIPLES						
		Support movement & engagement	**Create a familiar place**	**Provide a variety of places to be alone or with others - in the unit**	**Provide a variety of places to be alone or with others - in the community**	**Provide opportunities for engagment with ordinary life (EAT) Design in response to vision for way of life (EAT-HC)**
ACTIONS	**ISSUES**					
	How can we **re-use** what is there?					
	What can we do in the **short** term?					
	What can we do in the **medium** term?					
	What can we do in the **long** term?					

ENVIRONMENTAL ASSESSMENT TOOL
HANDBOOK

RICHARD FLEMING
KIRSTY A BENNETT

RESOURCE 3

Environmental Design Resources

February 2017

Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

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Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

ENVIRONMENTAL ASSESSMENT TOOL HANDBOOK

RICHARD FLEMING
KIRSTY A BENNETT

RESOURCE 3

Environmental Design Resources

February 2017

DEMENTIA TRAINING AUSTRALIA

ENVIRONMENTAL DESIGN RESOURCES

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INTRODUCTION

This handbook is Resource 3 in a set of six Environmental Design Resources. The purpose of this handbook is to assist users of the Environmental Assessment Tool (EAT) to systematically review and create better environments for people living with dementia. The EAT was first published by NSW Health in 2003 as the Environmental Audit Tool.[1] It is organised around a number of key design principles.

There are four parts in the handbook.

Part 1 'Key Design Principles' contains a description of key design principles.

Part 2 'The Environmental Assessment Tool' introduces the EAT and provides directions for its use.

Part 3 'Using the Spreadsheet' contains a guide to scoring the EAT and showing the results graphically.

Part 4 'Applying the Principles' provides information about the questions contained in the EAT and outlines design considerations for each of the questions.

References

1. Fleming, R., I. Forbes, and K. Bennett, Adapting the ward for people with dementia, 2003. Sydney: NSW Department of Health.

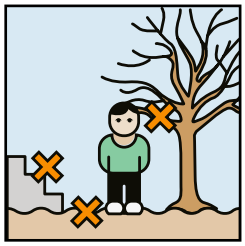
RESOURCE 3

Environmental Assessment Tool Handbook

PART 1
KEY DESIGN PRINCIPLES

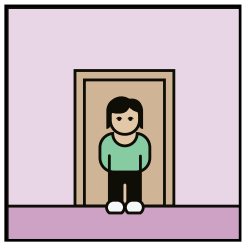
PART 1
KEY DESIGN PRINCIPLES

1. UNOBTRUSIVELY REDUCE RISKS



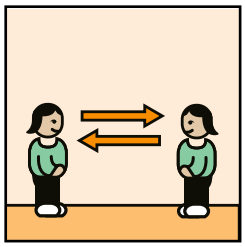
People with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks such as steps must be removed. All safety features must be unobtrusive as obvious safety features, such as fences or locked doors, can lead to frustration, agitation and anger or apathy and depression.

2. PROVIDE A HUMAN SCALE



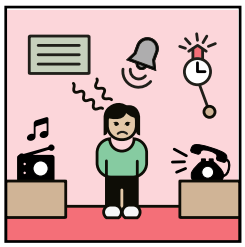
The scale of a building can affect the behaviour and feelings of a person with dementia. The experience of scale is influenced by three key factors; the number of people that the person encounters, the overall size of the building and the size of the individual components (such as doors, rooms and corridors). A person should not be intimidated by the size of the surroundings or confronted with a multitude of interactions and choices. Rather the scale should encourage a sense of wellbeing and enhance the competence of a person.

3. ALLOW PEOPLE TO SEE AND BE SEEN



The provision of an easily understood environment will help to minimise confusion. It is particularly important for people with dementia to be able to recognise where they are, where they have come from and where they can go. When a person can see key places, such as a lounge room, dining room, their bedroom, kitchen and an outdoor area they are more able to make choices and see where they want to go. Buildings that provide these opportunities are said to have good visual access. Good visual access opens up opportunities for engagement and gives the person with dementia the confidence to explore their environment. It can also enable staff to see residents. This reduces staff anxiety about the residents' welfare and reassures the residents.

4. MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION

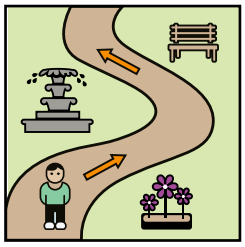


Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not specifically helpful to the resident, such as unnecessary or competing noises and the sight of signs, posters, spaces and clutter that are of no use to the resident. The full range of senses must be considered. Too much visual stimulation is as stressful as too much auditory stimulation.

5. MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION

Enabling the person with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty. Consideration needs to be given to providing redundant cueing i.e. providing a number of cues to the same thing, recognising that what is meaningful to one person will not necessarily be meaningful to another. Using text and image in signs is a simple way to do this. Encouraging a person to recognise their bedroom through the presence of furniture, the colour of the walls, the design of a light fitting and/or the bedspread is a more complex one. Cues need to be carefully designed so that they do not add to clutter and become over stimulating.

6. SUPPORT MOVEMENT AND ENGAGEMENT

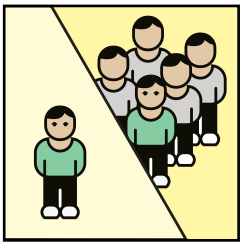


Purposeful movement can increase engagement and maintain a person's health and wellbeing. It is encouraged by providing a well defined pathway, free of obstacles and complex decision points, that guides people past points of interest and opportunities to engage in activities or social interaction. The pathway should be both internal and external, providing an opportunity and reason to go outside when the weather permits.

7. CREATE A FAMILIAR PLACE

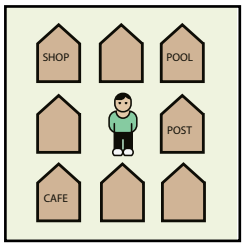
A person with dementia is more able to use and enjoy places and objects that are familiar to them from their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours. The personal backgrounds of the residents need to be reflected in the environment. The involvement of the person with dementia in personalising the environment with their familiar objects should be encouraged.

8. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE UNIT



People with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of places in the unit, some for quiet conversation and some for larger groups, as well as places where people can be by themselves. These internal and external places should have a variety of characters, e.g. a place for reading, looking out of the window or talking, to cue the person to engage in relevant activity and stimulate different emotional responses.

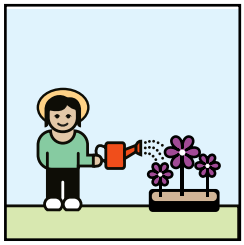
9. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY



Without constant reminders of who they are, a person with dementia will lose their sense of identity. Frequent interaction with friends and relatives can help to maintain that identity and visitors should be able to drop in easily and enjoy being in places that encourage interaction.

Stigma remains a problem for people with dementia so the unit should be designed to blend with the existing community and not stand out as a 'special' unit. Where possible a 'bridge' should be built between the unit and the community by providing a space that is shared by the community and people with dementia. A coffee shop near the unit, for example, may enable a person with dementia to go there easily without needing assistance. Where the unit is a part of a larger site, there should be easy access around the site so people with dementia, their families and friends can interact with other people who live there.

10. PROVIDE OPPORTUNITIES FOR ENGAGEMENT WITH ORDINARY LIFE



An environment that provides opportunities for engagement with ordinary life allows people to make decisions and exercise choice and independence, both in the way they spend time and what they do. The environment should allow people to continue to do the things that they have done throughout their lives. These activities will vary enormously as they will be influenced by people's expectations and life experiences. The places found in a familiar house are often important (such as a lounge room, dining room, kitchen and outside area) so that people have the chance to use their remaining abilities.

These principles are an extension of work first published in 1987 [1] and continued in 2003[2].

References

1. Fleming, R. and J. Bowles, Units for the confused and disturbed elderly: Development, Design, Programming and Evaluation. Australian Journal on Ageing, 1987. 6(4): p. 25-28.
2. Fleming, R., I. Forbes, and K. Bennett, Adapting the ward for people with dementia, 2003. Sydney: NSW Department of Health.

RESOURCE 3

Environmental Assessment Tool Handbook

PART 2

ENVIRONMENTAL ASSESSMENT TOOL (EAT)

PART 2
ENVIRONMENTAL ASSESSMENT TOOL (EAT)

INTRODUCTION TO THE EAT

The Environmental Assessment Tool (EAT) was developed to provide a systematic framework for reviewing the environment and identifying areas for improvement. It is organised around key design principles and contains questions that respond to each principle. These principles are evidence based (refer to Resource 1 of these Environmental Design Resources for more information).

A copy of the Environmental Assessment Tool can be found in Appendix 1 at the back of this handbook.

BACKGROUND TO THE EAT

The EAT was first designed to assist with identifying modifications to wards in rural New South Wales hospitals so they could be more suitable for the people with dementia who tended to be admitted for prolonged periods. It was published by NSW Health in a book 'Adapting the Ward' (R Fleming, I. Forbes and K. Bennett 2003). It was subsequently modified in the light of surveys of the literature (Fleming, Crookes et al. 2008; Fleming and Purandare 2010). It has been used extensively in residential aged care settings and its psychometric properties have been examined (Fleming 2011). Refer to Resource 2 for more information.

USING THE EAT

The EAT is designed to be used by a non-design professional and can be completed by a member of staff or a person visiting the facility.

Some key steps have been identified as valuable when using the EAT:

1. It is important that the person completing the EAT is familiar with the design principles underpinning the EAT (refer to Part 1 of this handbook). Attending a presentation by a person who is experienced in using the principles is a good way of gaining an understanding of the principles.
2. Prior to starting the assessment, users should familiarise themselves with the EAT by reading it thoroughly.

   If a group of people is completing the EAT there are two ways to approach this:

   a. The group completes the assessment together and the answers are determined by consensus. This encourages discussion, familiarises more people with the design principles and facilitates ownership of the results of the assessment.

   b. A number of people complete the assessment independently. (In this case the different results are entered and a median score is provided in a spreadsheet (refer to Part 3 of this handbook).

3. Undertaking the assessment

   Before commencing the EAT, it is important to clearly define the area that is to be assessed i.e. the extent of the unit and what features are included in it. Is the courtyard garden, for example, part of the unit being assessed, another unit or both? In a large facility, it may be helpful to assess units separately as this will allow for more accurate responses to questions. Ask someone who knows the unit well about the boundaries of the unit so that the area that is to be assessed is accurately defined.

   It is important to ensure that the questions are answered as accurately as possible. Spending time in the facility and observing daily life will help generate a feel for the place. This will also create opportunities for interaction with residents so that they can enjoy the visit, rather than being the subject of scrutiny.

The EAT questions typically require a 'yes' or 'no' answer.

Some questions are best answered by sitting in a central position and others by moving around. If the correct answer is not obvious, ask a staff member who works in that part of the facility, e.g. 'Is the wardrobe that the resident uses full of a confusing number of clothes?' It may be that there is a difference of opinion between the staff and the person completing the EAT, for example as to whether the noise from the kitchen is too great. In this case the person completing the EAT will need to determine the correct response. If in doubt as to the intent or aim of the question, refer to part 4 of this handbook where information about each question is provided.

It may be that on the day of the visit something is observed that is unusual and not representative of a typical day. Before leaving the facility confirm the results with the manager (or the liaison person).

RESULTS OF THE EAT

The results of the EAT can be entered on an Excel spreadsheet which is available at http://www.dementiatrainingaustralia.com.au. This allows the data to be shown graphically and enables the creation of a *Room for Improvement (RFI)* report as discussed in Part 3 of this handbook.

It is important to remember that the purpose of the EAT is not to achieve a particular score, but to provide a framework for reviewing the environment and identifying areas for improvement.

RESOURCE 3

Environmental Assessment Tool Handbook

PART 3

USING THE SPREADSHEET

PART 3
USING THE SPREADSHEET

ENTERING THE DATA

The results of the EAT can be entered into an Excel spreadsheet which is available at http://www.dementiatrainingaustralia.com.au. This allows the data to be shown graphically and enables the creation of a *Room for Improvement (RFI)* report.

The spreadsheet allows the scores of up to five EAT users to be entered. In this instance the median of the ratings is used in the graph and *RFI* report.

WHAT DO THE EAT SCORES MEAN?

It is important to remember that the purpose of the EAT is not to achieve a particular score. There is no perfect design. Even the best facilities can do things better. The purpose of the EAT is to provide a systematic framework for reviewing the environment and identifying areas for improvement.

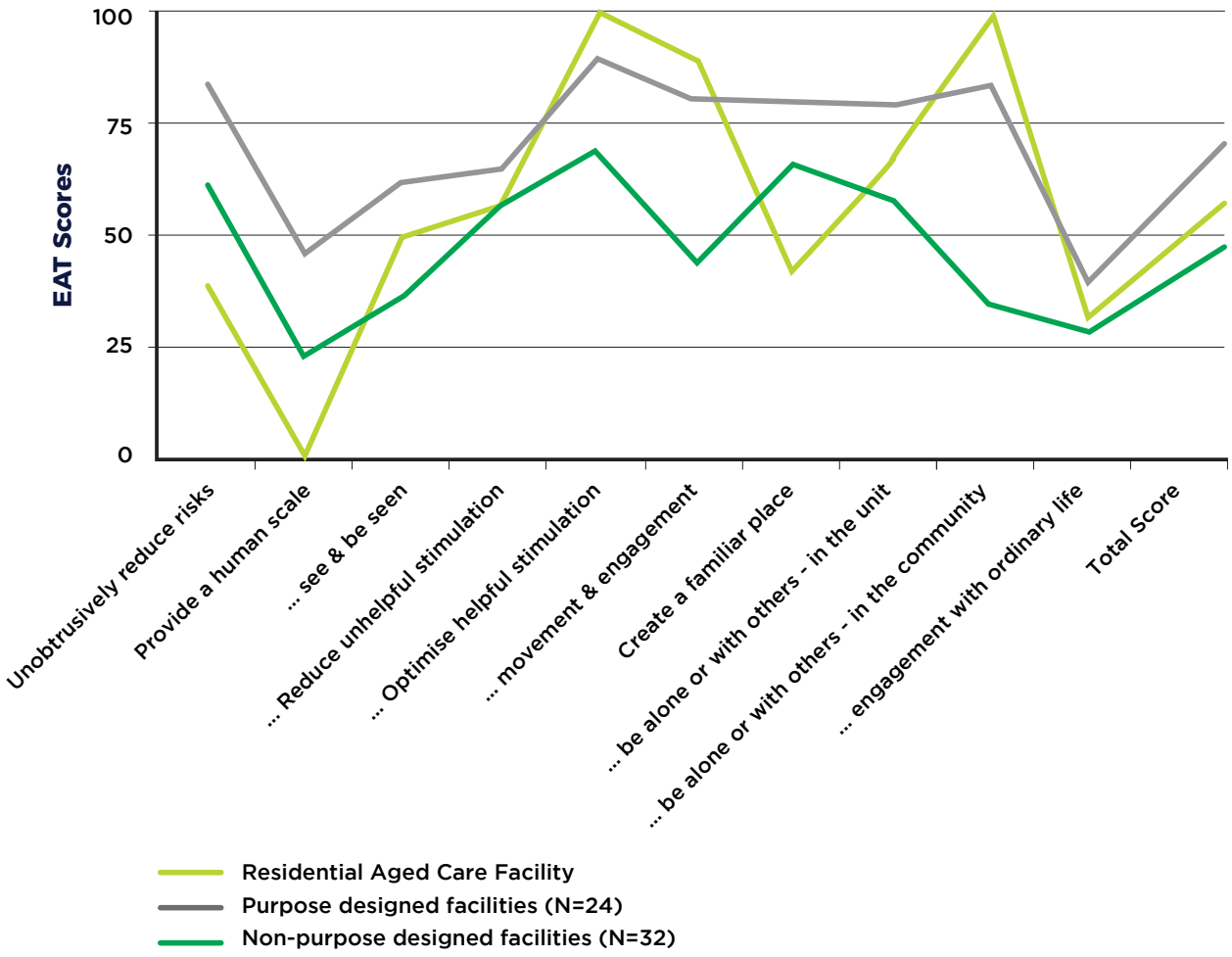
It is important to recognise that the EAT questions are not a set of rules that are to be applied in the same way every time. There are many ways in which the EAT questions and principles can be applied. How the design principles are best interpreted will depend on the particular context of the facility. Geographic location, climate, site, culture, socio economic background and lifestyle of the residents are just some of the things that will influence the responses to the principles. They will be applied differently in different settings and in response to a range of needs.

DISCUSSION OF RESULTS

a. Look at the overall picture presented by the graph that summarises the sub-scale scores. This graph enables a comparison to be made with a sample of purpose designed and non-purpose designed Australian residential aged care facilities.

In the example in Figure 1, the EAT has been used to evaluate a residential aged care facility. It can be seen that the facility compares well with a sample of purpose designed and non purpose designed facilities in some areas, but not in others. The most obvious area of concern is the principle of 'Provide a human scale'. 'Create a familiar place' and 'Provide opportunites for engagement with ordinary life' also do not score well. On the other hand, the facility responds well to the principles 'Optimse helpful stimulation' and 'Provide a variety of places to be alone or with others - in the community'. There is clear room for improvement with the principles 'Allow people to see and be seen' and 'Reduce unhelpful stimulation'.

Figure 1: Residential Aged Care Facility EAT results



b. Look at the 'Room for Improvement' (RFI) report

The spreadsheet provides the means of generating a 'Room for Improvement' (RFI) report for the EAT. This is simply a table in which the EAT items are ranked according to the amount of room for improvement that is available, i.e. the possible maximum score minus the actual score. When a number of people complete the EAT and enter the data into the spreadsheet, the 'actual score' in the table will be the median of the scores entered.

The RFI table can be used to structure the discussion. Start at the top and discuss the items one by one until the point where there is no room for improvement (because the item is scored at the maximum). This will ensure that all of the main points are discussed.

The Not Applicable items (N/A) have been placed at the top of the list to encourage consideration of the possibility that they may be relevant. In the example in Table 1, a number of items regarding the lounge room have been scored N/A. Putting these at the top of the RFI report provides an opportunity to discuss whether the provision of a lounge room is important in the facility.

Table 1: Abbreviated EAT 'Room for Improvement' report

EAT ITEM	Actual score	Maximum possible score	RFI score	Relevant Principle
Look at the items below that have been scored as Not Applicable (N/A). Would the facility be improved if they were considered to be applicable?				
Toilet is seen from lounge room	N/A	1	N/A	Allow people to see and be seen
Bedrooms are seen from lounge room	N/A	4	N/A	Allow people to see and be seen
Dining room is seen from lounge room	N/A	1	N/A	Allow people to see and be seen
Garden exit is seen from lounge room	N/A	1	N/A	Allow people to see and be seen
Kitchen is seen from lounge room	N/A	1	N/A	Allow people to see and be seen
Discuss the following items in turn. These are ordered according to where there is the most room for improvement.				
Dining room is seen from bedrooms	1	4	3	Allow people to see and be seen
Number of people in unit	0	3	3	Provide a human scale
Residents have kitchen access	0	2	2	Provide opportunities for engagement with ordinary life
Residents involved in main meal preparation	0	2	2	Provide opportunities for engagement with ordinary life
Residents involved in making snacks	0	2	2	Provide opportunities for engagement with ordinary life
The items below (RFI = 0) do not need as much discussion (but may still have room for improvement).				
Resident areas are well lit	1	1	0	Unobtrusively reduce risks
Kitchen is seen from dining room	1	1	0	Allow people to see and be seen
Doorbell is intrusive	1	1	0	Reduce unhelpful stimulation
Kitchen is noisey	1	1	0	Reduce unhelpful stimulation

c. Use the structure of the Planning Template in Table 2 to guide the discussion and to record proposed actions

The discussion should begin by asking the question 'Can we improve this situation by using our existing resources differently?' '*How can we re-use what is there?'* There might be some chairs available, for example, that can be used to furnish a small area for conversation.

If this isn't the case then the next question is *'What can we do in the short term?'*, which may mean 'What can we do with the money in the petty cash?' or 'What can we do as part of our planned maintenance works?'

If this isn't sufficient to improve the situation the next question is '*What can we do in the medium term?',* eg 'What can we do at the end of the financial year when there are some funds left over or when the Auxiliary has held their jumble sale? Can we allocate some money in next year's budget to achieve this change? Can we apply for a grant or contact the local service organisation?'

The final question is '*What can we do in the long term?'* or 'Does this need to be put into the capital works budget? Does this need to be the subject of ongoing strategic planning and fundraising?'

When action items have been agreed, add the response to the appropriate cell of the table according to the relevant principle(s) and the time frame that is proposed. In the example shown in Table 2, the use of the EAT identified that there was little for residents to do outside apart from move about. Chairs or benches were not available for them to sit on and shade was not provided along the path. Discussion focussed on how this could be addressed, and it was agreed that the first step was to take some vinyl chairs from inside and put them outside. While not a long term response, staff felt this was something that could be done quickly and easily, *re-using* what is already there. Intentionally using the garden for activities that already occur, such as morning tea, was seen as another easy thing to do and so this was a *short term* action item. More permanent seating will take time and require some work on the path to ensure easy access to the seats and so this was seen as a *medium term* solution. Finally, the provision of a permanent shade structure was seen as ideal but a *long term* goal.

It is important to recognise that making changes can take time. Some changes, such as altering the layout of the building, will be possible but very expensive. Others, such as moving a piece of furniture will be relatively easy to implement. Don't lose heart! The advantage of systematically considering environmental changes is that it is possible to identify a schedule of priorities and then work through them as opportunities arise and as part of a regular maintenance program.

Table 2: EAT Planning template (full scale version in Appendix 2)

KEY DESIGN PRINCIPLES											
		Unobtrusively reduce risks	Provide a human scale	Allow people to see and be seen	Manage levels of stimulation - reduce unhelpful stimulation	Manage levels of stimulation - optimise helpful stimulation	Support movement and engagement	Create a familiar place	Provide a variety of places to be alone or with others - in the unit	Provide a variety of places to be alone or with others - in the community	Provide opportunities for engagment with ordinary life
ACTIONS	**ISSUES**						Nothing to do outside No seats No shade				
	How can we **re-use** what is there?						Take some seats and put them outside				
	What can we do in the **short** term?						Plan to have morning tea outside on fine days Use an umbrella to provide shade				
	What can we do in the **medium** term?						Increase path width and create permanent seating areas				
	What can we do in the **long** term?						Build a shade structure				

RESOURCE 3

Environmental Assessment Tool Handbook

PART 4

APPLYING THE PRINCIPLES

PART 4
APPLYING THE PRINCIPLES

This section is organised around the key design principles contained in the EAT and the questions that relate to each principle (refer to Part 1 and Appendix 1 of this handbook).

Each question in the assessment tool is discussed. Under each question there is a brief statement of what is important and why, and some key design considerations. For most (but not all) items three categories follow: Ensure, Avoid and Consider. These give suggestions and examples of design responses, problem areas to avoid, and items that may be considered depending on the particulars of a project and the people who will live there.

Some questions are found under more than one principle and some information is duplicated. This section has been designed so that each question stands alone, allowing the reader to use it as a reference document rather than being required to read it from beginning to end.

The Indigenous Aged Care Design Guide by Paul Pholeros, Kirsty Bennett, Adrian Welke and Maureen Arch is a key source document for this part of the handbook (Resource 6 of these Environments Design Resources or http://www.dementiatrainingaustralia.com.au).

1. UNOBTRUSIVELY REDUCE RISKS

1.1 Is the garden secure i.e. are residents prevented from getting over/under fence or out of the gate without the assistance of a staff member?

It may be important that the environment is able to be secured to prevent residents leaving the unit. Having a fence and gate that are sturdy and difficult to climb (or go under) is vital in this regard.

The gate needs to be able to be locked while allowing for exit in an emergency (if this is part of an emergency evacuation route). Mechanical keypads or keypads which are linked to a staff call system can be installed on gates. If keypads are linked to a staff call system, they will release automatically in the event of a fire.

Double handles/latches and handles which open in an anti clockwise direction may also be effective to prevent easy opening by residents from within the grounds. It is also important that residents cannot reach over a gate and open it from the outside while inside the grounds.

It is important that measures to create a secure garden are as unobtrusive as possible to avoid frustration, agitation and anger.

ENSURE:

- fence is continuous and well maintained
- fence is 1.8m high
- fence design does not allow for climbing (in or out)
- gates are secured but allow for controlled coming and going

AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds
- planting near the fence which can be used for climbing
- latch on outside of the gate

CONSIDER:

- designing the fence so that it blends into the landscape
- using vegetation to hide the fence so it is not foreboding or institutional
- creating a front yard which can be easily accessed from the street to encourage entry to the front door and a side/back garden which is secure
- double handles/latches, handles which open in an anti clockwise direction, keypads to secure exit

1.2 If the front door leads out of the unit is it secure?

It may be important that the front door of the facility is able to be secured to prevent residents leaving the unit. The front door should be able to be secured but allow for controlled coming and going. Internally, the front door should be screened inside the unit to prevent residents being continually confronted by a locked door.

ENSURE:

- the front door is clearly recognisable from outside
- the front door can be secured

CONSIDER:

- screening the front door from inside the unit to prevent residents being continually confronted by a locked door
- location of the front door within the facility
- the type of security mechanism selected to allow for ease of use by staff

1.3 Are all side doors leading out of the unit secure?

It may be important that all side doors leading out of the unit are able to be secured to prevent residents leaving the unit. Side doors should be be able to be secured but allow for controlled coming and going. The type of security mechanism selected will be important to allow for ease of use by staff. Any measures should be unobtrusive to avoid residents being confronted by locked doors.

NB Side doors that do not lead out of the unit (but, for example, lead to a secure garden) are not the subject of this question.

ENSURE:

- side doors can be secured

AVOID:

- residents being confronted by locked doors

CONSIDER:

- screening side doors from inside the unit to prevent residents being continually confronted by a door which may be locked
- designing side doors so that they do not lead out of the unit (and so do not need to be secured)

1.4 Are bedroom windows restricted in the extent to which they open so that residents cannot climb out?

The extent to which bedroom windows can be opened is another component of creating a secure environment. Limiting the opening of bedroom windows can prevent residents leaving the unit if they shouldn't and people coming in through the window and bothering residents. Climbing out of windows is dangerous. Awning, double hung and sliding windows can all be unobtrusively modified to ensure that they cannot be opened wide enough to allow a person to pass through.

ENSURE:

- extent of window opening is controlled

AVOID:

- windows that can be opened and allow for climbing in or out

1.5 Is the garden easily supervised from the point(s) where staff spend most of their time?

It is important that residents are able to spend time outdoors and enjoy fresh air and sunshine. It is important that staff can easily see residents when they are outside and are able to assist them if required. This will help staff to feel comfortable about encouraging residents to go outside. Supervision of the garden should be unobtrusive.

ENSURE:

- good visual access to the garden from different parts of the facility and in particular the point(s) where staff spend most of their time

AVOID:

- a large, official, central staff base (which can be intimidating)

CONSIDER:

- general transparency of building (planning, placement of windows, sill height, glazed doors)

1.6 Is there a way to keep residents who are not safe with knives and/or appliances out of the kitchen?

The ability to restrict access to certain areas helps to create a safe environment for residents. Some residents may present a danger to themselves or to others in a kitchen, and so access to the resident kitchen needs to be able to be controlled. It is important, however, that this does not result in all residents being denied access to the kitchen. The design and layout of the kitchen will be instrumental in allowing controls to be well designed and effective. The measures used (such as a half door or bench with a raised ledge on one side of the bench to limit access) need to be discreet and integrated into the design, so that they cannot be easily removed and so that the limits which are being put in place are not being emphasised. Demands on staff time will be reduced if residents can potter in a kitchen.

ENSURE:

- design allows for access to resident kitchen to be discreetly restricted if required

AVOID:

- open plan kitchen

CONSIDER:

- half height door with key pad, swipe card or magnetic lock
- bench with a raised ledge on one side

1.7 If the kitchen is used by residents is there a lockable knife drawer in the kitchen?

The ability to restrict access to certain areas helps to create a safe environment for residents. Some residents and visitors may present a danger to themselves or to others when using knives. Knives should be placed in a lockable drawer. This should be done unobtrusively so that it does not become a source of frustration for residents.

ENSURE:

- knives are placed in a lockable drawer

AVOID:

- making lockable drawer obvious

CONSIDER:

- including one cupboard which contains appliances, a lockable knife drawer and switch to control power

1.8 If the kitchen is used by residents is the cooker a gas cooker?

A gas cook top is preferred for resident use as there is no residual heat once a gas flame has been extinguished, thereby minimising the risk of injury to residents. Also, a gas flame can easily be seen and so a person is able to know that the cook top is in use.

ENSURE:

- auto ignition on cook top
- automatic shut off on cook top

AVOID:

- electric hot plates

1.9 If the kitchen is used by residents is there a master switch that can be turned off quickly?

It is important that electrical power to the resident kitchen is controlled so that residents who are not able to use appliances and power points safely are not prevented from entering the kitchen to undertake other tasks, such as washing dishes and wiping benches.

The ability to isolate the power will also mean that those residents who are able to use electrical appliances safely can continue to do so. This control needs to be discreet, so that it cannot be easily overridden and so that the limits which are being put in place are not being emphasised.

ENSURE:

- power to both stove and power points can be isolated

AVOID:

- isolating fridge and lights

CONSIDER:

- including a lockable cupboard which contains appliances
- including a lockable knife drawer

1.10 Is the temperature of the water from all taps accessible to residents limited so that it cannot scald?

People with dementia are less able to respond to water temperature and react appropriately if water is too hot. Water temperature must be controlled to ensure residents' safety.

ENSURE:

- water temperature is controlled
- water temperature control systems are maintained in accordance with statutory requirements

AVOID:

- systems which are not easy to maintain and service (e.g. due to lack of qualified tradespeople in the area)

1.11 If the residents are involved in meal preparation are the pots and pans used small enough for them to lift easily?

If residents are to participate in cooking the pots and pans will need to be able to be lifted easily. This will impact on the size of the pot or pan and the material from which it is made.

ENSURE:

- pots and pans are light
- handles are firmly fixed and heat resistant

AVOID:

- large, heavy pots and pans
- metal handles

1.12 Are all floor areas safe from being slippery when wet (water or urine)?

A fall can result in a significant injury for an older person and so it is important to create an environment which minimises the risk of slipping and tripping. Floor finishes need to be slip resistant, even when they are wet. An appropriate cleaning regime is essential to ensure that the slip resistance of the outside finish is maintained.

ENSURE:

- floor finishes are even and slip resistant
- an appropriate cleaning regime is in place

AVOID:

- unnecessary changes in floor finishes
- strong contrast between changes in floor surfaces as these can result in the floor being perceived as a step or hole

CONSIDER:

- a selection of materials to retain domestic finish

1.13 Is the lounge room easily supervised from the point(s) where staff spend most of their time?

It is important that residents are able to spend time in the lounge room on their own or with other people as they choose. It is important that staff can easily see residents and can assist them if required. Supervision of the lounge room should be unobtrusive.

ENSURE:

- good visual access to the lounge room from different parts of the facility and in particular the point(s) where staff spend most of their time

AVOID:

- a large, official, central staff base (which can be intimidating)

CONSIDER:

- general transparency of building (planning, placement of windows, window sill height, glazed doors)

1.14 Are all areas used by residents well lit?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient natural and artificial lighting to ensure that residents are able to see rooms and what is in them at all times. Glare must be avoided.

ENSURE:

- sufficient natural (and artificial) lighting for daytime and nighttime use

AVOID:

- glare

CONSIDER:

- lighting that uses dimmers, task lighting for reading and craft
- the design of window furnishings

2. PROVIDE A HUMAN SCALE

2.1 How many people live in the unit?

It has been shown that small scale settings are beneficial for older people and especially for older people with dementia. Group size, or the number of people in a unit, is the most important factor in achieving a small scale setting. In a small unit, a resident needs to relate to fewer people, and is able to do things in a group which is more familiar to them. There are less comings and goings, and less noise and distractions.

The number of residents in a unit has a big impact on the overall size of the unit, as the number of bedrooms and the amount of circulation space that is required increase with more people. By default, a smaller group size means a smaller unit.

A small scale environment can be successfully created in many ways. A large facility can be made up of many units, each of which contains the areas that are important in the residents' daily life, such as the lounge room, dining room, residents' kitchen, bedroom, sitting areas and outdoor areas.

ENSURE:

- creating a unit for around 15 people or less
- staffing models are prepared at the design stage to confirm the best mix of unit size and operation

AVOID:

- larger unit sizes greater than 15 people

CONSIDER:

- creating units for 10 people for less
- breaking up larger units into smaller units

3. ALLOW PEOPLE TO SEE AND BE SEEN

3.1 What proportion of confused residents can see their bedroom door from the lounge room?

Bedrooms are important in the lives of residents as they are likely to want to spend time there and return there at different times of the day and night. Bedrooms need to be easy to find and recognise. If residents can see their bedroom door when they leave the lounge room this will help them know where they are heading and give them a hint of what they will find when they get there.

ENSURE:

- bedrooms are located near the lounge room
- bedroom doors are identifiable (e.g. by the use of colour and other finishes)

AVOID:

- repetition of finishes which don't distinguish between bedroom doors

CONSIDER:

- how clear lines of sight between bedrooms and lounge room can be created

3.2 What proportion of confused residents can see the lounge room as soon as they leave their bedroom?

The lounge room is a place where residents are likely to want to spend time relaxing and socialising with others or on their own. It needs to be easy to find and recognise. If residents can see the way to the lounge room when they leave their bedroom this will help them know where they are heading and give them a hint of what they will find when they get there.

ENSURE:

- the lounge room is located in a prominent position in the unit
- the lounge room is identifiable when leaving the bedroom (e.g. by furniture, furnishings and/or colour)

CONSIDER:

- how clear lines of sight between bedrooms and lounge room can be created

3.3 What proportion of confused residents can see the dining room as soon as they leave their bedroom?

The dining room is a place where residents are likely to want to spend time eating, relaxing and socialising with others or on their own. It needs to be easy to find and recognise. If residents can see the way to the dining room when they leave their bedroom this will help them know where they are heading and give them a hint of what they will find when they get there.

ENSURE:

- the dining room is located in a prominent position in the unit
- the dining room is identifiable when leaving the bedroom (e.g. by furniture, furnishings and/or colour)

CONSIDER:

- how clear lines of sight between bedrooms and dining room can be created

3.4 Can the exit to the garden be seen from the lounge room?

The lounge room is likely to be the place where residents spend most of their time. Being outside for part of the day is important so it is vital that residents are able to see the way to go outside from the lounge room.

ENSURE:

- that the door to outside is clearly recognisable as a door
- clear lines of sight to outside areas where activities may be occurring
- easy access to outside area

AVOID:

- obstructing the view of the door to outside
- obstructing the view out of the lounge room

CONSIDER:

- window design to ensure windows can't be confused with doors

3.5 Can the dining room be seen into from the lounge room?

When the lounge room and dining room are visually connected a resident can easily see another place that could be of interest to them. They can also see how they can go from one of these places to another.

ENSURE:

- the dining and lounge room are located near each other
- there is a clear visual connection between lounge and dining room
- a clear path of travel between lounge and dining rooms

AVOID:

- obstructing the view from the dining to the lounge room

3.6 Can the kitchen be seen into from the lounge room?

When the lounge room and resident kitchen are visually connected a resident can easily see another place that may be of interest to them. They can also see how they can go from one of these places to another. Being able to see the activities in the kitchen also helps the resident to keep track of time and alerts them to what is expected of them, e.g. to come for a meal.

ENSURE:

- resident kitchen can be seen from the lounge room
- clear path between resident kitchen and lounge room

AVOID:

- obstructing the view of the resident kitchen from the lounge room
- obstructing the path between resident kitchen and lounge room

CONSIDER:

- keeping the benchtop hob height low to enable easy viewing into the kitchen by residents and staff
- planning the kitchen layout so that the connection to the lounge room allows for conversation between the rooms

3.7 Can the kitchen be seen into from the dining room?

When the dining room and resident kitchen are visually connected a resident can easily see another place that may be of interest to them. They can also see how they can go from one of these places to the other. Being able to see the activities in the kitchen also helps the resident to keep track of time and alerts them to what is expected of them, e.g. to come for a meal.

ENSURE:

- resident kitchen can be seen from the dining room
- clear path between resident kitchen and dining room

AVOID:

- obstructing the view of the resident kitchen from the dining room

CONSIDER:

- keeping the benchtop hob height low to enable easy viewing into the kitchen by residents and staff
- planning the kitchen layout so that the connection to the lounge room allows for conversation between the rooms

3.8 Can a toilet be seen from the dining room?

A toilet is a room which needs to be used often and therefore needs to be easy to find and get to. If it is in close proximity to the dining room this can be helpful for both residents and staff.

ENSURE:

- toilet is visible but still private
- clear path between toilet and dining room

AVOID:

- locating the toilet so that it dominates the dining room view
- locating the toilet pan so that if the door is left open residents' privacy is compromised
- obstructing the view between dining room and the toilet

CONSIDER:

- the location of screens and the placement of fixtures in the dining room
- use of appropriately adjusted door closer so that the toilet door closes but residents can easily open the door

3.9 Can a toilet be seen from the lounge room?

A toilet is a room which needs to be used often and therefore needs to be easy to find and get to. If it is in close proximity to the lounge room this can be helpful for both residents and staff.

ENSURE:

- toilet is visible but still private
- clear path between toilet and lounge room

AVOID:

- locating the toilet so that it dominates the lounge room view
- locating the toilet pan so that if the door is left open residents' privacy is compromised
- obstructing the view between lounge room and the toilet

CONSIDER:

- the location of screens and the placement of fixtures in the lounge room
- use of appropriately adjusted door closer so that the toilet door closes but residents can easily open the door

3.10 Can the lounge room be seen into from the point(s) where staff spend most of their time?

Residents are likely to be reassured if they know staff are around and so good visual access between the point(s) where staff spend most of their time and the lounge room is important. Staff have a responsibility for responding to residents' needs. If they can see the residents from where they spend most of their time they are able to do this more easily and they feel more at ease.

ENSURE:

- good visual access to circulation routes around the lounge room

AVOID:

- central staff base (which can be intimidating)

CONSIDER:

- general transparency of building (through planning, placement of windows, sill height and glazed doors). Perforated screens, small inside windows and low walls may increase the transparency between rooms and curtains, whereas solid walls and furniture may decrease the transparency
- Placing kitchen or small work area, e.g. roll top desk, in a central location

4. MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION

4.1 Does the doorbell attract the attention of residents?

The sound of a doorbell can be intrusive and disturbing to residents, especially if they are unable to answer the front door. In these instances it can highlight that the front door is a barrier, and that residents do not have the freedom to come and go.

ENSURE:

- doorbell is used by visitors only (and not for deliveries)

AVOID:

- loud, piercing tones

CONSIDER:

- separating service and visitor entries so that door bell is only relevant to residents

4.2 Is the noise from the kitchen distracting for residents?

Distracting noise from kitchens can be the banging of pots and pans, or loud conversation. (These are often most prevalent in non resident kitchens as they are predominantly staff work areas.) Such noise can significantly add to the amount of unhelpful stimulation the resident is exposed to.

ENSURE:

- non resident kitchen is separated from all residents' areas

AVOID:

- direct sound paths from kitchens to residents' areas

CONSIDER:

- planning/location of kitchen
- placement of doors and windows
- services access
- acoustic isolation measures

4.3 Are doors to cleaner's cupboards, store rooms and other areas where residents may find danger easily seen (i.e. not hidden or painted to merge with the walls)?

Residents have no need to open doors to cleaners' cupboards. More importantly, these cupboards will contain equipment that could be harmful. It is important that residents' attention is drawn only to those doors which they can open and may lead to somewhere of interest, rather than to those which may be locked, are irrelevant or present a potential danger to the resident or visitors.

ENSURE:

- doors to cleaners' cupboards are unobtrusive
- doors to cleaners' cupboards and doors to residents' areas are not the same

AVOID:

- doors to cleaners' cupboards in residents' areas

CONSIDER:

- planning/location of cleaners cupboards
- locating cleaners' cupboards in staff zones

4.4 Is the wardrobe that the resident uses full of a confusing number of clothes?

It is important that residents have the opportunity to put their clothes or possessions away. Sometimes, however, too many choices aren't helpful and can leave a person feeling frustrated and confused. Limiting the number of things that can be easily accessed in a wardrobe is a good way of minimising this. Providing a hidden wardrobe, where the majority of clothes are stored, and an obvious wardrobe with only two sets of clothing (preferably chosen by the resident) is one approach.

ENSURE:

- residents have access to a wardrobe containing only a small number of items
- simple layout of wardrobes

AVOID:

- large wardrobes with many wardrobe doors
- locking all wardrobe doors
- overcrowding wardrobe with a lot of contents

CONSIDER:

- hiding some wardrobe doors
- reducing the number of wardrobes

4.5 Are deliveries of food, linen etc taken across public areas such as the lounge or dining room?

A residential aged care facility requires many deliveries. These are 'back of house' functions and need to remain that way. The introduction of unnecessary noise and the visual distraction of trolleys and new people making deliveries may interrupt residents' lives and compromises their ability to focus on the important things.

ENSURE:

- there are separate entrances and circulation routes for deliveries

AVOID:

- deliveries through residents' areas

CONSIDER:

- zoning activities within the building to ensure service areas (such as laundry washing and drying, food preparation and bulk supplies and cleaning stores) do not conflict with resident areas

4.6 Is there a public address, staff paging or call system in use that involves the use of loud speakers, flashing lights, bells etc?

The noise from public address and staff paging systems can be disturbing. Bells, lights and public announcements can interrupt residents' daily life and cause distraction and confusion. They often give information which is not directed to the residents, and so provide an unnecessary and unwelcome intrusion.

There are many types of staff call systems available. All have advantages and disadvantages and it is important to do research to determine which is the most appropriate system in a particular location. There are also a number of additional items which are available and can be linked to a staff call system (such as a bed sensor). These can significantly enhance the ability of the staff to do their work and play an important role in meeting residents' needs.

ENSURE:

- staff paging systems are unobtrusive
- staff call system is operational and can be maintained

AVOID:

- loud, bells, flashing lights and public announcements

CONSIDER:

- whether a public address system is required

4.7 Is the front entry to the unit easily visible to the residents?

Activity at the front door can be disturbing for residents if they are not able to come and go as they wish. It is important that such activity is screened so that residents are not constantly prompted to think about trying to leave or faced with unnecessary distractions.

ENSURE:

- design allows for a discreet entry that is not easily observed from the main public areas of the facility

AVOID:

- direct entry into lounge or dining rooms

CONSIDER:

- making an obvious entry less obvious by painting it the same colour as the wall or disguising it in another way, e.g. with a mural. (It is important to carefully consider the content of any mural so that it is relevant, age appropriate and not confusing.)

4.8 Is the service entry (where food, linen etc is delivered to) easily visible to the residents?

As with activity at the front door, activity at the service entry is unhelpful for residents. These functions relate to the 'back of house' services of a unit which should be carried out unobtrusively. The service entry should be screened and hidden so that it is not a focus for residents and instead their attention is drawn to other more fulfilling areas of the unit. For staff, this separation will make their job easier as the likelihood of inappropriate involvement by residents is minimised.

ENSURE:

- separate unobtrusive service entry

AVOID:

- deliveries through the front door
- noise from service entry interrupting residents

CONSIDER:

- if no separate service entry, using side gates and doors for deliveries

5. MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION

5.1 Is the dining room either looked into from the lounge room or clearly marked with a sign or symbol?

The dining room is a key place in a facility. Therefore it is important that it can be easily recognisable through visual connection and/or through signs or symbols so that residents find it easy to locate. An indication from outside the room as to what is inside can help highlight the room for residents.

ENSURE:

- the dining room is recognisable
- the presence of multiple visual, auditory and olfactory cues

AVOID:

- barring entry to the dining room either physically or visually

CONSIDER:

- the transparency of the dining room (for example, perforated screens, glass, small inside windows and low walls may increase the transparency between rooms and curtains, solid walls and furniture may decrease the transparency)
- introducing signs or symbols near the dining room approach such as a painting of food on the wall, menu board, hall table
- promoting food smells, the sight of tables being laid

5.2 Is the lounge room either looked into from the dining room or clearly marked with a sign or symbol?

The lounge room is a key place in a facility. Therefore it is important that it can be easily recognisable through visual connection and /or through signs or symbols so that residents find it easy to locate. An indication from outside the room as to what is inside can help highlight the room for residents.

ENSURE:

- the lounge room is recognisable
- the use of multiples cues such as visual, auditory and/or olfactory cues

AVOID:

- barring entry to the lounge room either physically or visually

CONSIDER:

- the transparency of the lounge room (for example, perforated screens, glass, small inside windows and low walls may increase the transparency between rooms and curtains, solid walls and furniture may decrease the transparency)
- introducing signs or symbols near the lounge approach such as arts and crafts by residents, newspapers and magazines, photos of recent outings
- encouraging music and conversation

5.3 Do bedrooms have a sign, symbol or display that identifies them as belonging to a particular individual?

It is important to be able to identify the room before the door is opened so that residents can find it and feel confident it is theirs. The finish on bedroom doors can be varied (in texture or colour). Name plates, photos, art work and shadow boxes which allow a person to display some of their favourite things outside their door can all be used to identify bedrooms from outside the room as belonging to a particular person.

ENSURE:

- residents have the opportunity to identify their room from outside the door
- residents can personalise their rooms

AVOID:

- repetition (for example of door finish, colour, layout)

CONSIDER:

- colour, name plates, photos, art work and shadow boxes

5.4 Are the shared bathrooms and/or toilets clearly marked with a sign, symbol or colour coded door?

Shared bathrooms and toilets need to be clearly recognisable. These rooms will be used frequently, and if they can be easily found when they are needed it will reduce stress and anxiety. The finish to doors to shared bathrooms and toilets should be different from bedroom doors. All signage should be in an appropriate size and language. Signs should combine words and symbols, be placed at eye level or lower, and contrast with the background.

ENSURE:

- doors are recognisable

AVOID:

- doors to bathrooms and toilets being same colour and finish as bedroom doors

CONSIDER:

- colour, plates, sign, symbol, lighting

5.5 Is the kitchen either looked into from the lounge or dining room or clearly marked with a sign or symbol?

A resident kitchen can play an important part of the life of the facility. Therefore it is important that it can be easily seen and recognised from the lounge and dining room so that residents can find it easy to move between these places. If there is no visual connection between these rooms an indication from outside the room as to what is inside can also help identify the room for residents.

ENSURE:

- resident kitchen is recognisable
- the use of multiples cues (include visual, auditory and olfactory)

CONSIDER:

- placing resident kitchen near lounge and dining
- introducing signs or symbols near the kitchen approach and promoting food smells

5.6 Are toilets visible as soon as the toilet/bathroom door is opened?

If residents are able to see the toilet pan as soon as the toilet door is opened it will assist them to recognise the room and to use it. If the ensuite toilet door can be left open at night so that the resident can see the toilet pan from the bed it will be easier for them to find it. This can reduce inappropriate use of other parts of a room and minimise discomfort and embarrassment for the older person, their family and staff.

ENSURE:

- toilet pan is visible from doorway of shared ensuite, bathroom or toilet
- contrast between toilet seat and background
- contrast between the toilet pan, cistern and the background

AVOID:

- placing the toilet around a corner

CONSIDER:

- a low level of night lighting to the toilet and ensuite area
- placing a skylight over toilet

5.7 Is there a lot of natural lighting in the lounge room?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient natural lighting in the lounge room so that artificial lighting is not required during the daytime. This will increase the usability of the room and ensure that residents are able to see the room and what is in it at all times, rather than being reliant on someone turning on the light for them. Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within the room and to the outside.

ENSURE:

- sufficient natural lighting for daytime use

AVOID:

- glare

CONSIDER:

- lighting that uses dimmers, task lighting for reading and craft
- the design of window furnishings

5.8 Is the artificial lighting bright enough in all areas?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient artificial lighting in all areas so that people can use a room irrespective of the time of day or night. Artificial lighting should be designed to avoid glare to ensure that residents can see easily within the room, and to outside.

ENSURE:

- sufficient artificial lighting for night time use

AVOID:

- glare

CONSIDER:

- lighting that uses dimmers, task lighting for reading and craft

5.9 Is the lighting free from glare, e.g. from bare bulbs, off shiny surfaces?

Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within a room and to outside. The type of lamp and light fitting, the selection of surfaces and finishes, and the use of glass (which can reflect the light) need to be considered.

ENSURE:

- light fittings and shades protect from glare

AVOID:

- highly reflective surfaces and finishes

CONSIDER:

- light paint colours around windows to reduce contrast around windows
- orientation of windows
- adjustable internal window shading treatment such as curtains or blinds
- outside awnings

6. SUPPORT MOVEMENT AND ENGAGEMENT

6.1a Is there a clearly defined and easily accessible (i.e. no locked exit) path in the garden that guides the resident back to their starting point without taking them into a blind alley?

It is important that residents are able to move freely and continuously when outside. They should not end up at a dead end where they cannot easily see how to go back. Paths need to be laid out so that residents can find their way back to their starting point easily, so that a pleasant walk outside doesn't become a nightmare as they feel lost and confused about where they are and where to go. This will give residents more confidence to explore the outside environment.

It is important to ensure that paths themselves are well designed. Attention needs to be given to the selection of path surfaces, edges, width, camber, drainage, and obstacles.

ENSURE:

- paths do not contain hazards such as potholes, slippery or uneven surfaces, overhanging branches
- that path edges are clearly marked with contrasting coloured materials or textures

AVOID:

- dead ends/paths that lead to nowhere
- multiple decision points

CONSIDER:

- widening paths occasionally to provide sitting areas

6.1b Does the external path allow the resident to see into areas that might invite participation in an appropriate activity other than wandering?

The goal of designing the path layout is not to keep residents moving, but rather to give them a rewarding experience. Residents may not have a clear idea of what they would like to do or what they are looking for. The journey should offer residents opportunities to engage with others, to sit quietly by themselves, to take in a view and to engage in activities, e.g. saying 'hello' to the birds in an aviary or using some tools. In this way residents are offered an experience that it is interesting and engaging.

ENSURE:

- places of interest are easy to see

AVOID:

- paths with no view to other areas

CONSIDER:

- changing landscaping to create a varied outside environment
- the range of things that a resident (their visitors and staff) may enjoy participating in

6.1c Is the path within a secure perimeter?

A secure perimeter will allow residents to be outside without the risk of leaving the facility (intentionally or unintentionally).

ENSURE:

- the fence is no less than 1.8m high
- the fence is continuous and well maintained
- the fence design does not allow for climbing (in or out)
- the fence is not obviously there to keep people in (see principle 1 'Unobtrusively reduce risks')

AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds for climbing
- planting or furniture near the fence which can be used for climbing

CONSIDER:

- designing the fence so that it is integrated with the landscape topography or is hidden by vegetation so that the height is not visually imposing

6.1d Can this path be easily and unobtrusively surveyed by staff members?

Staff are unlikely to allow residents to go outside to use the path if they cannot observe the residents from where they spend most of their time and assist them if required. Residents are also likely to be reassured if they can see where staff are and so good visual access between the point(s) where staff spend most of their time and the path is important.

ENSURE:

- good visual access to the full length of the path from the points where staff spend most of their time

AVOID:

- paths in seldom used parts of the site
- paths that lead residents a long way from points of entry

CONSIDER:

- general transparency of building (planning, placement of windows, sill height, glazed doors)

6.1e Are there chairs or benches along the path where people can sit and enjoy the fresh air?

A resident can become tired while walking and may need a place to rest to avoid a fall and injury or simply to enjoy being outside. The provision of seats and benches at frequent intervals around the path is important.

ENSURE:

- seating is provided at frequent intervals

AVOID:

- seating with sharp edges and rough surfaces

CONSIDER:

- a variety of different seats (heights, materials and locations)
- allowing for wheelchair stopping points near seating
- combinations of seats to allow people to be alone or in conversation with others.

6.1f Are there both sunny and shady areas along the path?

There will be times when sunshine is sought after and others when shade is required. Residents can become hot and dehydrated if they are outside in summer or cold if they are outside in winter. Opportunities to be in the shade or in the sun are therefore important if residents are to enjoy being outside.

ENSURE:

- places along the path offer residents shade and sun

AVOID:

- making outside sitting areas in places that are windy in summer and/or winter
- large surfaces that reflect the heat of the sun on to residents walking on the path

CONSIDER:

- where and when sun will be shine in winter and summer in relation to the building, outside structures and verandahs

6.1g Does the path take residents past a toilet?

Residents may have difficulty remembering where the toilet is. It is therefore important that there is ready access to a toilet while outside and that the toilet is easily found.

ENSURE:

- the toilet is at an appropriate height with grab rail supports
- direct and unobstructed path to toilet from outside area
- the toilet is made obvious by the use of multiple cues, e.g. colour of door and signage
- contrast between toilet seat and background
- contrast between toilet pan/cistern and background

AVOID:

- locating the toilet pan so that if the door is left open residents' privacy is compromised

CONSIDER:

- carefully siting the toilet to make it convenient to residents and staff whilst not dominating the outside area that it serves

6.2a Is there a clearly defined path inside that takes the resident around furniture and back to their starting point without taking them into a blind alley?

The need for uninterrupted and clear circulation is as important inside as it is outside. It is important the residents are able to move freely and continuously without confusion. They should not end up at a dead end where they can go no further and cannot easily find their way back. Corridors need to be laid out so that residents can see their way back to their starting point easily, so that a pleasant walk doesn't become frustrating or a cause of anxiety. This will also give residents more confidence to explore the inside environment.

ENSURE:

- corridors are kept to a minimum

AVOID:

- long corridors
- dead ends/corridors that lead to nowhere
- dog leg corridors

6.2b Does the internal path allow the resident to see into areas that might invite participation in an appropriate activity other than wandering?

The goal of designing the circulation within a building is not to keep residents moving, but rather to give them a rewarding experience. Residents may not have a clear idea of what they would like to do or what they are looking for. They may also have forgotten how to get to where they want to go. If places of interest are easy to see, or have clear markers along the way, they can reinforce the destination and make the journey more interesting. This journey should offer residents opportunities to engage with others, to sit quietly, to take in a view and to engage in some activities, e.g. look at a newspaper, fold some laundry, or reminisce and use some old garden implements. In this way residents are offered an experience that it is interesting and engaging.

ENSURE:

- there is good view to lounge room, dining room, outside veranda areas or outdoor shelter
- the internal path is clearly defined by the placement of furniture and the use of connecting corridors

AVOID:

- corridors with no view to other areas

7. CREATE A FAMILIAR PLACE

7.1 Are there any colours in the furnishings or the decoration that would not have been familiar to the majority of residents when they were 30 years old?

Colour plays a key part in creating an atmosphere in a room, as do the furnishings and decorations. It is important that the colours in the furnishings and decoration are familiar to residents, as this can contribute to a sense of wellbeing and calm. If these are familiar to residents the whole room will be more recognisable.

ENSURE:

- colour selection and layout for the lounge and dining areas are domestic, not commercial or institutional.

AVOID:

- dark colours throughout the lounge and dining areas

CONSIDER:

- colours which reduce outside glare in the lounge and dining areas
- materials and colours that may have special significance to the residents (sports teams, traditional colour combinations)

7.2 Are there any taps, light switches, door knobs that are to be used by residents that are of a design that would not have been familiar to the majority of residents when they were 30 years old?

It is important that taps, light switches and door handles are familiar to residents as these are all things that need to be used by them daily. If residents wish to wash their hands or get a drink of water, they will need to recognise the tap. Similarly, using easily recognised and operated light switches and door handles is vital if residents are to be able to go in and out of rooms safely.

ENSURE:

- capstan style (old fashioned cross) handles are used
- hot and cold indicators on the handles are clear and bold

AVOID:

- mixer taps with single handles that control water flow and temperature
- dark light switches
- architrave light switches as they are too small to be seen easily
- cylindrical shaped door handles and round door knobs

CONSIDER:

- larger rocker type light switches

7.3 Are there any pieces of furniture in the lounge room or the dining room that are of a design that would not have been familiar to the majority of residents when they were 30 years old?

Residents are likely to spend a large amount of time in the lounge and dining room. It is therefore important that these rooms are familiar to residents, as this can contribute to a sense of wellbeing and calm. The presence of familiar furniture will not only help to create a warm and inviting atmosphere in the room, but will encourage residents to use the places and enjoy them.

ENSURE:

- there is a variety of furniture types i.e. several familiar styles of chairs
- a variety of furniture heights
- a variety of familiar furniture coverings and finishes

AVOID:

- commercial or institutional furniture selection
- the use of only one type of furniture

7.4 Are there any pieces of furniture in the bedrooms that are of a design that would not have been familiar to the majority of residents when they were 30 years old?

As with the lounge and dining room, the bedroom should provide the comfort of familiarity. As the bedroom is often used only by one resident there are many opportunities to make the room reflect the early life of the individual. The selection of furniture can take many forms and will depend on the residents' life experiences and preferences. The presence of a lot of modern furniture will indicate that the room is unlikely to be familiar to the resident.

ENSURE:

- at least some of the furniture has been selected to reflect the experience and preferences of the person who will sleep there
- hooks and rails on walls to hang photos and other objects

AVOID:

- Selecting furniture without a clear understanding of the experiences and preferences of the residents

7.5 How many residents have their own ornaments, photos in their bedroom?

If residents' bedrooms are to be familiar to them, it will be vital that they are able to choose to decorate these themselves. The things people will wish to display will depend on the residents' life experiences, hobbies, likes and dislikes.

ENSURE:

- residents are able to hang pictures
- residents have places to put ornaments and photos

7.6 How many residents have their own furniture in their bedroom?

If residents' bedrooms are to be familiar to them, it will be vital that they are able to choose to furnish these themselves. The furniture people wish to bring will depend on the residents' life experiences, hobbies, likes, and dislikes.

ENSURE:

- bedrooms are not filled with built in furniture so there is no room for residents' furniture
- rooms are of an adequate size to allow for residents' own furniture while not impeding the use of necessary equipment

AVOID:

- decorating rooms prior to residents having an opportunity to personalise the room

8. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - in the unit

8.1 Are there small areas (nooks) that provide opportunities for casual interaction and quiet chats?

Small areas or nooks are an important way of giving people choices of places to be. They can be an area to the side of a corridor, a space at the end of a corridor, a bay window in a larger room, or a little room off a lounge or dining room. The provision of a number of these will enable residents and their visitors to choose an area that allows them to talk and hear each other comfortably.

ENSURE:

- small areas for quiet conversation/interaction are provided
- large lounge or dining rooms are edged with nooks and smaller areas for small groups and individuals
- corridors, especially long corridors, are broken up by the provision of a space and furniture that enables people to have a conversation

CONSIDER:

- varying corridor and hall widths to accommodate small sitting places

8.2 How many of these areas or nooks have views of pleasant or interesting scenes (outside, the living room, the nursing station)?

If small areas or nooks have views of pleasant or interesting scenes, not only will they be places where residents, friends, staff and families can sit, they will be places which can offer them a rich experience. They can have an inside focus, affording the opportunity to look at a painting or decoration or an outside focus, with a view to a garden or courtyard.

ENSURE:

- a good view from smaller sitting places to inside and/or outside

CONSIDER:

- where possible incorporating a close, mid and far view from sitting places

8.3 Do the shared living areas support small group activities (4-6 people) without rearranging the furniture?

People can do different things and feel different emotions when they gather in a small group. In a small group people may have a private conversation, listen to music, or play cards. It is important that small groups of people can comfortably gather in the lounge or dining room without rearranging the furniture. If the furniture has to be rearranged for people to gather in this way it is less likely to happen and so opportunities for people to enjoy social interaction will be lost.

ENSURE:

- furniture layouts accommodate small groups

CONSIDER:

- the use of main dining and lounge areas for different group sizes

8.4 Does the dining room provide opportunities for residents to eat in small groups (2-4)?

Food often plays an important part in the lives of residents and their families. Eating with a small number of people is a very different experience to eating in a group of five or more people. People's preferences for who they eat with will vary and will be influenced by their life experiences and their culture. Residents' preferences can also change according to the climate and the day, as some days are a cause for celebration and others for quiet reflection. It is important that residents have the opportunity to eat inside in a small group when they choose, as this is one way that they can influence how they live their lives.

ENSURE:

- dining room can accommodate small group dining
- furniture suits small group and individual dining

AVOID:

- large open dining rooms with undifferentiated furniture layouts only suited to dining in large groups
- fixed furniture that precludes small group dining

8.5 Does the dining area provide opportunities for people to eat alone?

Some people will prefer to eat alone, either all the time or sometimes. It is important that residents have the opportunity to eat alone when they choose, as this is one way in which they can influence how they live their lives.

ENSURE:

- opportunity for discreet individual dining

AVOID:

- large, open dining rooms with undifferentiated furniture layouts only suited to dining in large groups
- fixed furniture that precludes individual dining

9. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY

9.1 Is there an area or room somewhat removed from the main dining room where families can share meals with their relatives?

Sharing a meal together is a pleasure for many people. Much of life in a residential setting is communal and although this is often familiar and desirable, it is important that residents and their families also have the opportunity to gather in a more private setting to eat and relax if they wish to. The inclusion of such places are likely to encourage family and friends to visit a facility as they feel welcome and are able to interact with their loved one in the way they are used to.

ENSURE:

- one or more areas or rooms which can be used by families to dine with a resident

AVOID:

- distractions near the area such as main circulation pathways

CONSIDER:

- flexible furnishings, flexible screening to accommodate small or large groups

9.1a Is this room/area domestic and familiar in nature, to reassure family members and friends and encourage them to visit and to participate in the care of the resident?

While the first step is to provide a more private setting inside or outside where residents can eat and relax if they wish to, the way in which this is designed is important. For these places to be most meaningful, they need to be familiar and comfortable.

ENSURE:

- area is attractive and comfortable

AVOID:

- signage with lots of rules and instructions

10. PROVIDE OPPORTUNITIES FOR ENGAGEMENT WITH ORDINARY LIFE

10.1 How many residents have access to a kitchen?

A small kitchen may be important to allow residents to continue to use their remaining skills and encourage them to pursue tasks of daily living that are familiar to them. Whilst potential risks need to be managed unobtrusively (see principle 1), these should not limit possible access to a kitchen for all residents.

ENSURE:

- a small kitchen for resident use is provided
- familiar items are placed in this kitchen to encourage use

CONSIDER:

- providing galley style kitchens if there is insufficient room to provide a separate kitchen for resident use

10.2 How many residents have a significant involvement in main meal preparation?

It is important that if a facility contains a kitchen for residents, they are able to use it to do meaningful things. Making a meal with friends or family will reinforce the independence of residents. It may help retain skills and ensure that favourite foods continue to be enjoyed.

ENSURE:

- residents are able to enter and use a kitchen

CONSIDER:

- ways to remove objects that could be dangerous, and so allow for unrestricted use of the kitchen by residents and visitors (see principle 1 Unobtrusively reduce risks)

10.3 How many residents have a significant involvement in making snacks or drinks?

Enjoying snacks and drinks between main meals is a part of daily life for many people. Creating opportunities for residents and their families to be involved in making snacks or drinks will retain the informality associated with home life where meal times are not regimented.

ENSURE:

- residents are able to enter and use a kitchen

CONSIDER

- ways to remove objects that could be dangerous and so allow for unrestricted use of the kitchen by residents and visitors
  (see principle 1 Unobtrusively reduce risks)

10.4 How many residents have a significant involvement in keeping their bedroom clean and tidy?

Tidying personal places, organising personal belongings and doing even light cleaning can reinforce a resident's familiarity and sense of belonging in their living place as they are able to influence the day to day activities that take place there. Encouraging residents to be involved in keeping their bedroom clean and tidy will also allow residents to continue to use their remaining skills and to encourage them to pursue tasks of daily living that are familiar to them.

ENSURE:

- residents are given the opportunity to do the tasks they wish to contribute to keeping their bedroom clean and tidy (e.g. making the bed or dusting)

AVOID:

- adopting a cleaning regime which alienates residents

CONSIDER

- times and ways of cleaning bedrooms to involve residents, this may involve decision making rather than undertaking cleaning tasks.

10.5 How many residents have a significant involvement in personal laundry?

Having the ability to wash even a few, light personal items may help the resident retain the feeling of independence. Families may also like to take advantage of a laundry. A large tub, slip resistant flooring, water resistant power points and tempered water supply can make the activity safe for the resident.

ENSURE:

- a small laundry for resident use is provided

AVOID:

- laundries with 'commercial' items and fixtures that would be unfamiliar to residents

CONSIDER

- introducing washing, drying and folding of clothes into the daily lifestyle of residents so that residents can participate as they are able

10.6 How many residents are involved in gardening?

For many residents gardening may have been a large part of their lives. Having a small area where residents can garden will give residents, and their families, opportunities for meaningful activity, and a sense of the familiar.

ENSURE:

- garden beds and plants do not impede paths or cause trip hazards
- some raised garden beds are provided to improve residents' participation

AVOID:

- types of plants and gardens that would be unfamiliar to residents
- poisonous plants

CONSIDER

- linking gardens to living areas so the results of the gardening can easily be appreciated by staff and residents
- providing a small garden store room with simple tools and supplies close to the garden area

10.7 How many residents have constant and easy access to a lounge?

The lounge room is likely to be an important place for residents and their families and friends as they continue to try and do all the things they want to do in daily life. It can be a place to relax, to enjoy a chat, to gather to share stories, to listen to music.

ENSURE:

- residents are able to access and use the lounge easily

AVOID:

- restricting access to a lounge room

CONSIDER

- designing the lounge room to invite use through scale, layout, finishes and vision into room
- managing use of the lounge room to invite entry, for example by ensuring that the lights are on in the evening and temperature is appropriately controlled

10.8 How many residents have constant and easy access to a dining room?

The dining room is likely to be an important place for residents and their families and friends to enjoy meals together. It can be a place to relax, to enjoy a chat, to gather to share stories, and to eat a meal.

ENSURE:

- residents are able to access and use the dining room easily

AVOID:

- restricting access to a dining room

CONSIDER

- design of the dining room to invite use through scale, layout, finishes for easy cleaning, vision into the room
- managing use of the dining room to invite entry, for example by ensuring that the lights are on in the evening

RESOURCE 3

Environmental Assessment Tool Handbook

APPENDIX 1

ENVIRONMENTAL ASSESSMENT TOOL

ENVIRONMENTAL ASSESSMENT TOOL

Date: Time: Facility

Unit: Observer:

1	UNOBTRUSIVELY REDUCE RISKS	N/A	NO	YES	ADD 1 IF UNOBTRUSIVE	SCORE
1	Is the garden secure, i.e. are residents prevented from getting over/ under fence or out of the gate without the assistance of a staff member?	N/A	0	1	1	
2	If the front door leads out of the unit is it secure?	N/A	0	1	1	
3	Are all side doors leading out of the unit secure?	N/A	0	1	1	
4	Are bedroom windows restricted in the extent to which they open so that residents cannot climb out?	N/A	0	1	1	
5	Is the garden easily supervised from the point(s) where staff spend most of their time?	N/A	0	1	1	
6	Is there a way to keep residents who are not safe with knives and/or appliances out of the kitchen?	N/A	0	1	1	
7	If the kitchen is used by residents is there a lockable knife drawer in the kitchen?	N/A	0	1	1	
8	If the kitchen is used by residents is the cooker a gas cooker?	N/A	0	1		
9	If the kitchen is used by residents is there a master switch that can be turned off quickly?	N/A	0	1		
10	Is the temperature of the water from all taps accessible to residents limited so that it cannot scald?	N/A	0	1		
11	If residents are involved in meal preparation are the pots and pans used small enough for them to lift easily?	N/A	0	1		
12	Are all floor areas safe from being slippery when wet (water or urine)?	N/A	0	1		
13	Is the lounge room easily supervised from the point(s) where the staff spend most of their time?	N/A	0	1	1	
14	Are all areas used by residents well lit?	N/A	0	1		
	Total score					

2	PROVIDE A HUMAN SCALE	1-10	11-15	16-29	30+	SCORE
1	How many people live in the unit?	Score 3	Score 2	Score 1	Score 0	

3	ALLOW PEOPLE TO SEE AND BE SEEN							SCORE
1	What proportion of confused residents can see their bedroom door from the lounge room?	N/A	**0** Score 0	**25%** Score 1	**50%** Score 2	**75%** Score 3	**100%** Score 4	
2	What proportion of confused residents can see the lounge room as soon as they leave their bedroom?	N/A	**0** Score 0	**25%** Score 1	**50%** Score 2	**75%** Score 3	**100%** Score 4	
3	What proportion of confused residents can see the dining room as soon as they leave their bedroom?	N/A	**0** Score 0	**25%** Score 1	**50%** Score 2	**75%** Score 3	**100%** Score 4	
4	Can the exit to the garden be seen from the lounge room? If there is more than 1 lounge room answer with reference to the one used by most confused residents.	N/A		NO Score 0		YES Score 1		
5	Can the dining room be seen into from the lounge room? If there is more than 1 dining room or lounge room answer with reference to those used by most confused residents.	N/A		NO Score 0		YES Score 1		
6	Can the kitchen be seen into from the lounge room? If there is more than 1 lounge room answer with reference to the one used by most confused residents.	N/A		NO Score 0		YES Score 1		
7	Can the kitchen be seen into from the dining room? If there is more than 1 dining room answer with reference to the one used by most confused residents.	N/A		NO Score 0		YES Score 1		
8	Can a toilet be seen from the dining room? If there is more than 1 dining room answer with reference to the one used by most confused residents	N/A		NO Score 0		YES Score 1		
9	Can a toilet be seen from the lounge room? If there is more than 1 lounge room answer with reference to the one used by most confused residents.	N/A		NO Score 0		YES Score 1		
10	Can the lounge room be seen into from the point(s) where staff spend most of their time?	N/A		NO Score 0		YES Score 1		
							Total score	

4	MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION	YES	NO	SCORE
1	Does the doorbell attract the attention of the residents?	0	1	
2	Is the noise from the kitchen distracting for the residents?	0	1	
3	Are doors to cleaner's cupboards, storerooms and other areas where residents may find danger easily seen (i.e. not hidden or painted to merge with the walls)?	0	1	
4	Is the wardrobe that the resident uses full of a confusing number of clothes?	0	1	
5	Are deliveries of food, linen etc. taken across public areas such as the lounge or dining room?	0	1	
6	Is there a public address, staff paging or call system in use that involves the use of loud speakers, flashing lights, bells etc?	0	1	
7	Is the front entry to the unit easily visible to the residents?	0	1	
8	Is the service entry (where food, linen etc is delivered to) easily visible to the residents?	0	1	
	Score is number of NO responses			

5	MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION	NO	YES	SCORE
1	Is the dining room looked into from the lounge room or clearly marked with a sign or symbol?	0	1	
2	Is the lounge room either looked into from the dining room or clearly marked with a sign or symbol?	0	1	
3	Do bedrooms have a sign, symbol or display that identifies them as belonging to a particular individual?	0	1	
4	Are the shared bathrooms and/or toilets clearly marked with a sign, symbol or colour coded door?	0	1	
5	Is the kitchen either looked into from the lounge or dining room or clearly marked with a sign or symbol?	0	1	
6	Are toilets visible as soon as the toilet/bathroom door is opened?	0	1	
7	Is there a lot of natural lighting in the lounge room?	0	1	
8	Is the artificial lighting bright enough in all areas?	0	1	
9	Is the lighting free of glare, eg from bare bulbs, off shiny surfaces?	0	1	
	Total Score is number of YES responses			

6	SUPPORT MOVEMENT AND ENGAGEMENT	NO	YES	SCORE
1a	Is there a clearly defined and easily accessible (i.e. no locked exit) path in the garden that guides the resident back to their starting point without taking them into a blind alley?	0	1	
	If answer to 1a is YES answer 1b,1c,1d,1e,1f and 1g			
1b	Does the external path allow the resident to see into areas that might invite participation in an appropriate activity other than wandering?	0	1	
1c	Is the path within a secure perimeter?	0	1	
1d	Can this path be easily and unobtrusively surveyed by staff members?	0	1	
1e	Are there chairs or benches along the path where people can sit and enjoy the fresh air?	0	1	
1f	Are there both sunny and shady areas along the path?	0	1	
1g	Does the path take residents past a toilet?	0	1	
2a	Is there a clearly defined path inside that takes the resident around furniture and back to their starting point without taking them into a blind alley?	0	1	
	If answer to 2a is YES answer 2b			
2b	Does the internal path allow the resident to see into areas that might invite participation in an appropriate activity other than wandering?	0	1	
			Total Score is number of YES responses	

7	CREATE A FAMILIAR PLACE	MANY	A FEW	NONE	SCORE
1	Are there any colours in the furnishings or the decoration that would not have been familiar to the majority of residents when they were 30 years old?	0	1	2	
2	Are there any taps, light switches, door knobs that are to be used by residents that are of a design that would not have been familiar to the majority of residents when they were 30 years old?	0	1	2	
3	Are there any pieces of furniture in the lounge room or the dining room that are of a design that would not have been familiar to the majority of residents when they were 30 years old?	0	1	2	
4	Are there any pieces of furniture in the bedrooms that are of a design that would not have been familiar to the majority of residents when they were 30 years old?	0	1	2	
5	How many residents have their own ornaments, photos in their bedroom?	2	1	0	
6	How many residents have their own furniture in their bedroom?	2	1	0	
				Total Score	

8	PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE UNIT					SCORE
1	Are there small areas (nooks) that provide opportunities for casual interaction and quiet chats?	None Score 0	1 Score 1	2 Score 2	3 or more Score 3	
2	How many of these areas or nooks have views of pleasant or interesting scenes (outside, the living room, the nursing station)?	None Score 0	1 Score 1	2 Score 2	3 or more Score 3	
3	Do the shared living areas support small group activities (4-6 people) without rearranging the furniture?	N/A	NO Score 1	YES Score 2		
4	Does the dining room provide opportunities for residents to eat in small groups (2-4)?	N/A	NO Score 1	YES Score 2		
5	Does the dining area provide opportunities for people to eat alone?	N/A	NO Score 1	YES Score 2		
					Total score	

9	PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY	NO	YES	SCORE
1	Is there an area or room somewhat removed from the main dining room where families can share meals with their relatives?	0	1	
	If answer to 1 is YES answer 1a			
1a	Is this room/area domestic and familiar in nature, to reassure family members and friends and encourage them to visit and to participate in the care of the resident?	0	1	
			Total Score is number of YES responses	

10	PROVIDE OPPORTUNITIES FOR ENGAGEMENT WITH ORDINARY LIFE	NONE	UP TO 50%	MORE THAN 50%	SCORE
	How many residents:				
1	Have access to a kitchen?	0	1	2	
2	Have a significant involvement in main meal preparation?	0	1	2	
3	Have a significant involvement in making snacks or drinks ?	0	1	2	
4	Have a significant involvement in keeping bedroom clean and tidy?	0	1	2	
5	Have a significant involvement in personal laundry?	0	1	2	
6	Are involved in gardening?	0	1	2	
7	Have constant and easy access to a lounge?	0	1	2	
8	Have constant and easy access to a dining room?	0	1	2	
				Total Score	

SUMMARY OF SCORES	POSSIBLE SCORE	ACTUAL SCORE	PERCENTAGE
Unobtrusively reduce risks	22		
Provide a human scale	3		
Allow people to see and be seen	19		
Manage levels of stimulation - reduce unhelpful stimulation	8		
Manage levels of stimulation - optimise helpful stimulation	9		
Support movement and engagement	9		
Create a familiar place	12		
Provide a variety of places to be alone or with others - in the unit	12		
Provide a variety of places to be alone or with others - in the community	2		
Provide opportunities for engagement with ordinary life	16		
Total Score	**112**		

The Total score is the average of the percentage scores above.

The Environmental Assessment Tool copyright is held by NSW Health.

See - Fleming, R., I. Forbes and K. Bennett (2003). Adapting the ward for people with dementia. Sydney, NSW Department of Health.

RESOURCE 3

Environmental Assessment Tool Handbook

APPENDIX 2

EAT PLANNING TEMPLATE

EAT PLANNING TEMPLATE

(FACILITY NAME) - NEXT STEPS

KEY DESIGN PRINCIPLES						
		Unobtrusively reduce risks	**Provide a human scale**	**Allow people to see and be seen**	**Manage levels of stimulation - reduce unhelpful stimulation**	**Manage levels of stimulation - optimise helpful stimulation**
ACTIONS	**ISSUES**					
	How can we **re-use** what is there?					
	What can we do in the **short** term?					
	What can we do in the **medium** term?					
	What can we do in the **long** term?					

(FACILITY NAME) - NEXT STEPS

KEY DESIGN PRINCIPLES						
		Support movement & engagement	**Create a familiar place**	**Provide a variety of places to be alone or with others - in the unit**	**Provide a variety of places to be alone or with others - in the community**	**Provide opportunities for engagement with ordinary life**
ACTIONS	**ISSUES**					
	How can we **re-use** what is there?					
	What can we do in the **short** term?					
	What can we do in the **medium** term?					
	What can we do in the **long** term?					

ENVIRONMENTAL ASSESSMENT TOOL - HIGHER CARE (EAT-HC)
HANDBOOK

RICHARD FLEMING
KIRSTY A BENNETT

RESOURCE 4

Suite of Environmental Design Resources

February 2017

Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

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Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

ENVIRONMENTAL ASSESSMENT TOOL - HIGHER CARE (EAT-HC) HANDBOOK

RICHARD FLEMING
KIRSTY A BENNETT

RESOURCE 4

Environmental Design Resources

February 2017

DEMENTIA TRAINING AUSTRALIA

ENVIRONMENTAL DESIGN RESOURCES

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INTRODUCTION

This handbook is Resource 4 in a set of six Environmental Design Resources. The purpose of this handbook is to assist users of the Environmental Assessment Tool – Higher Care (EAT-HC)* to systematically review and create better environments for people living with dementia.

The Environmental Assessment Tool – Higher Care (EAT-HC) is intended to complement the original Environmental Assessment Tool (EAT)*, first published by NSW Health in the book 'Adapting the Ward' (Fleming, Forbes and Bennett. 2003).[1] It extends the focus of the environmental assessment to facilities providing care for the less mobile person with dementia. It has been developed with the support of the Dementia Collaborative Research Centre - Assessment and Better Care (DCRC-ABC).

The EAT-HC is based on the same principles as the EAT. However 'Reduce unhelpful stimulation' and 'Optimise helpful stimulation' have been measured under 'Manage levels of stimulation' to improve the internal validity of the tool. The same process has been applied to the "Privacy and Community' and 'Community Links' principles from the EAT, resulting in them being scored together under "Provide a variety of places to be alone or with others". A detailed explanation of the reasons behind the change has been provided by Fleming and Bennett (2015).[2]

There are four parts in the handbook.

Part 1 'Key Design Principles' contains a description of key design principles.

Part 2 'The Environmental Assessment Tool - Higher Care' introduces the EAT-HC and provides directions for its use.

Part 3 'Using the Spreadsheet' contains a guide to scoring the EAT-HC and showing the results graphically.

Part 4 'Applying the Principles' provides information about the questions contained in the EAT-HC and outlines design considerations for each of the questions.

1 Fleming, R., I. Forbes and K. Bennett (2003). Adapting the ward for people with dementia. Sydney, NSW Department of Health.

2 Fleming, R. and K. Bennett (2015). "Assessing the quality of environmental design of nursing homes for people with dementia: Development of a new tool." Australasian Journal on Ageing 34(3): 191-194.

* This tool has previously used Audit in the title rather than Assessment.

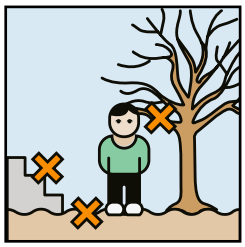
RESOURCE 4

Environmental Assessment Tool – Higher Care Handbook

PART 1
KEY DESIGN PRINCIPLES

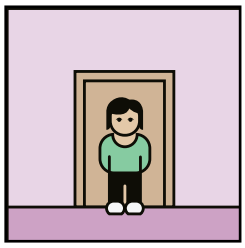
PART 1
KEY DESIGN PRINCIPLES

1. UNOBTRUSIVELY REDUCE RISKS



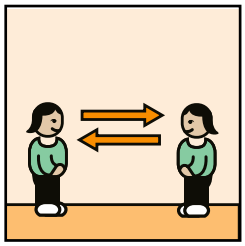
People with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks such as steps must be removed. All safety features must be unobtrusive as obvious safety features, such as fences or locked doors, can lead to frustration, agitation and anger or apathy and depression.

2. PROVIDE A HUMAN SCALE



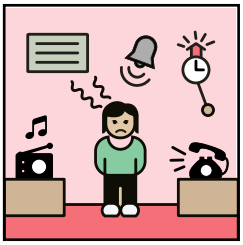
The scale of a building can affect the behaviour and feelings of a person with dementia. The experience of scale is influenced by three key factors; the number of people that the person encounters, the overall size of the building and the size of the individual components (such as doors, rooms and corridors). A person should not be intimidated by the size of the surroundings or confronted with a multitude of interactions and choices. Rather the scale should encourage a sense of wellbeing and enhance the competence of a person.

3. ALLOW PEOPLE TO SEE AND BE SEEN



The provision of an easily understood environment will help to minimise confusion. It is particularly important for people with dementia to be able to recognise where they are, where they have come from and where they can go. When a person can see key places, such as a lounge room, dining room, their bedroom, kitchen and an outdoor area they are more able to make choices and see where they want to go. Buildings that provide these opportunities are said to have good visual access. Good visual access opens up opportunities for engagement and gives the person with dementia the confidence to explore their environment. It can also enable staff to see residents. This reduces staff anxiety about the residents' welfare and reassures the residents.

4. MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION

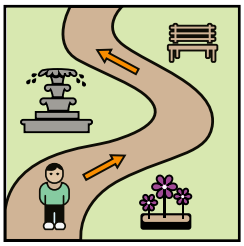


Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not specifically helpful to the resident, such as unnecessary or competing noises and the sight of signs, posters, places and clutter that are of no use to the resident. The full range of senses must be considered. Too much visual stimulation is as stressful as too much auditory stimulation.

5. MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION

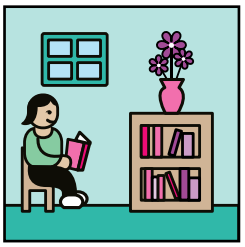
Enabling the person with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty. Consideration needs to be given to providing redundant cueing i.e. providing a number of cues to the same thing, recognising that what is meaningful to one person will not necessarily be meaningful to another. Using text and image in signs is a simple way to do this. Encouraging a person to recognise their bedroom through the presence of furniture, the colour of the walls, the design of a light fitting and/or the bedspread is a more complex one. Cues need to be carefully designed so that they do not add to clutter and become over stimulating.

6. SUPPORT MOVEMENT AND ENGAGEMENT



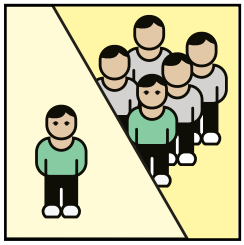
Purposeful movement can increase engagement and maintain a person's health and wellbeing. It is encouraged by providing a well defined pathway, free of obstacles and complex decision points, that guides people past points of interest and opportunities to engage in activities or social interaction. The pathway should be both internal and external, providing an opportunity and reason to go outside when the weather permits.

7. CREATE A FAMILIAR PLACE



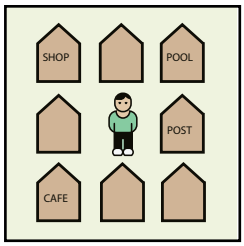
A person with dementia is more able to use and enjoy places and objects that are familiar to them from their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours. The personal backgrounds of the residents need to be reflected in the environment. The involvement of the person with dementia in personalising the environment with their familiar objects should be encouraged.

8. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE UNIT



People with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of places in the unit, some for quiet conversation and some for larger groups, as well as places where people can be by themselves. These internal and external places should have a variety of characters, e.g. a place for reading, looking out of the window or talking, to cue the person to engage in relevant activity and stimulate different emotional responses.

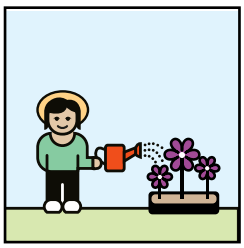
9. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY



Without constant reminders of who they are, a person with dementia will lose their sense of identity. Frequent interaction with friends and relatives can help to maintain that identity and visitors should be able to drop in easily and enjoy being in places that encourage interaction.

Stigma remains a problem for people with dementia so the unit should be designed to blend with the existing community and not stand out as a 'special' unit. Where possible a 'bridge' should be built between the unit and the community by providing a place that is shared by the community and people with dementia. A coffee shop near the unit, for example, may enable a person with dementia to go there easily without needing assistance. Where the unit is a part of a larger site, there should be easy access around the site so people with dementia, their families and friends can interact with other people who live there.

10. DESIGN IN RESPONSE TO VISION FOR WAY OF LIFE



The choice of life style, or philosophy of care, will vary between facilities. Some will choose to focus on engagement with the ordinary activities of daily living and have fully functioning kitchens. Others will focus on the ideas of full service and recreation, while still others will emphasise a healthy life style or, perhaps, spiritual reflection. The way of life offered needs to be clearly stated and the building designed both to support it and to make it evident to the residents and staff. The building should be the embodiment of the philosophy of care, constantly reminding the staff of the values and practices that are required while providing them with the tools they need to do their job.

These principles are an extension of work first published in 1987 [1] and continued in 2003[2].

References

1. Fleming, R. and J. Bowles, Units for the confused and disturbed elderly: Development, Design, Programming and Evaluation. Australian Journal on Ageing, 1987. 6(4): p. 25-28.
2. Fleming, R., I. Forbes, and K. Bennett, Adapting the ward for people with dementia, 2003. Sydney: NSW Department of Health.

RESOURCE 4

Environmental Assessment Tool – Higher Care Handbook

PART 2

ENVIRONMENTAL ASSESSMENT TOOL - HIGHER CARE (EAT-HC)

PART 2

ENVIRONMENTAL ASSESSMENT TOOL – HIGHER CARE

INTRODUCTION TO THE EAT-HC

The Environmental Assessment Tool - Higher Care (EAT-HC) provides a systematic framework for reviewing environments for mobile and less mobile people living with dementia and identifying areas for improvement. It is organised around key design principles and contains questions that respond to each principle. These principles are evidence based (refer to Resource 1 of these Environmental Design Resources for more information).

Scores can be summarised under each principle within the EAT-HC. Alternatively an Excel spreadsheet available at http://www.dementiatrainingaustralia.com.au can be completed, providing a graphical representation of the EAT-HC results. (For more information about scoring refer to Part 3 of this handbook).

A copy of the Environmental Assessment Tool - Higher Care is provided at the back of this handbook (Appendix 1).

BACKGROUND TO THE EAT-HC

The Environmental Assessment Tool – Higher Care (EAT-HC) is intended to complement the original Environmental Assessment Tool, first published by NSW Health in the book 'Adapting the Ward' (Fleming, Forbes, Bennett. 2003)[3], by extending the focus of the environmental assessment to facilities providing care for the less mobile person with dementia. It has been developed with the support of the Dementia Collaborative Research Centre - Assessment and Better Care (DCRC-ABC). Its psychometric properties have been examined (Fleming and Bennett 2015). Refer to Resource 2 for more information.

USING THE EAT-HC

The EAT-HC is designed to be used by a non-design professional and can be completed by a member of staff or a person visiting the facility.

Some key steps have been identified as valuable when using the EAT-HC:

1. It is important that the person completing the EAT-HC is familiar with the design principles underpinning the EAT-HC (refer to Part 1 of this handbook). Attending a presentation by a person who is experienced in using the principles is a good way of gaining an understanding of the principles.
2. Prior to starting the assessment, users should familiarise themselves with the EAT-HC by reading it thoroughly.

3 Fleming, R., I. Forbes and K. Bennett (2003). Adapting the ward for people with dementia. Sydney, NSW Department of Health.

If a group of people is completing the EAT-HC there are two ways to approach this:

a. The group completes the assessment together and the answers are determined by consensus. This encourages discussion, familiarises more people with the design principles and facilitates ownership of the results of the assessment.

b. A number of people complete the assessment independently. (In this case the different results are entered and a median score is provided in a spreadsheet (refer to Part 3 of this handbook). A discussion about the different scores can be part of this process.

3. Undertaking the assessment

Before commencing the EAT-HC, it is important to clearly define the area that is to be assessed i.e. the extent of the unit and what features are included in it. Is the courtyard garden, for example, part of the unit being assessed, another unit or both? In a large facility, it may be helpful to assessment units separately as this will allow for more accurate responses to questions. Ask someone who knows the unit well about the boundaries of the unit so that the area that is to be assessed is accurately defined.

It is important to ensure that the questions are answered as accurately as possible. Spending time in the facility and observing daily life will help generate a feel for the place. This will also create opportunities for interaction with residents so that they can enjoy the visit, rather than being the subject of scrutiny.

The EAT-HC questions typically require a 'yes' or 'no' answer.

Some questions are best answered by sitting in a central position and others by moving around. If the correct answer is not obvious, ask a staff member who works in that part of the facility, e.g. 'Is there a switch to turn off electricity to power points in the kitchen(s) the residents use?' It may be that there is a difference of opinion between the staff and the person completing the EAT-HC, for example as to whether glare can be avoided by using curtains and blinds. In this case the person completing the EAT-HC will need to determine the correct response. If in doubt as to the intent or aim of the question, refer to part 4 of this handbook where information about each question is provided.

It may be that on the day of the visit something is observed that is unusual and not representative of a typical day. Before leaving the facility confirm the results with the manager (or the liaison person).

RESULTS OF EAT-HC

The results of the EAT-HC can be entered into an Excel spreadsheet which is available at http://www.dementiatrainingaustralia.com.au. This allows the data to be shown graphically and enables the creation of a *Room for Improvement (RFI)* report as discussed in Part 3 of this handbook.

It is important to remember that the purpose of the EAT-HC is not to achieve a particular score, but to provide a framework for reviewing the environment and identifying areas for improvement.

RESOURCE 4

Environmental Assessment Tool – Higher Care Handbook

PART 3

USING THE SPREADSHEET

PART 3
USING THE SPREADSHEET

ENTERING THE DATA

The results of the EAT-HC can be entered into an Excel spreadsheet which is available at http://www.dementiatrainingaustralia.com.au. This allows the data to be shown graphically and enables the creation of a *Room for Improvement (RFI)* report.

The spreadsheet allows the scores of up to five EAT-HC users to be entered. In this instance, the median of the ratings is used in the graph and RFI report.

WHAT DO THE EAT-HC SCORES MEAN?

It is important to remember that the purpose of using the EAT-HC is not to achieve a particular score. There is no perfect design. Even the best facilities can do things better. The purpose of the EAT-HC is to provide a systematic framework for reviewing the environment and identifying areas for improvement.

It is important to recognise that the EAT-HC questions are not a set of rules that are to be applied in the same way every time. There are many ways in which the EAT-HC questions and principles can be applied. How the design principles are best interpreted will depend on the particular context of the facility. Geographic location, climate, site, culture, socio economic background and lifestyle of the residents are just some of the things that will influence the responses to the principles. They will be applied differently in different settings and in response to a range of needs.

DISCUSSION OF RESULTS

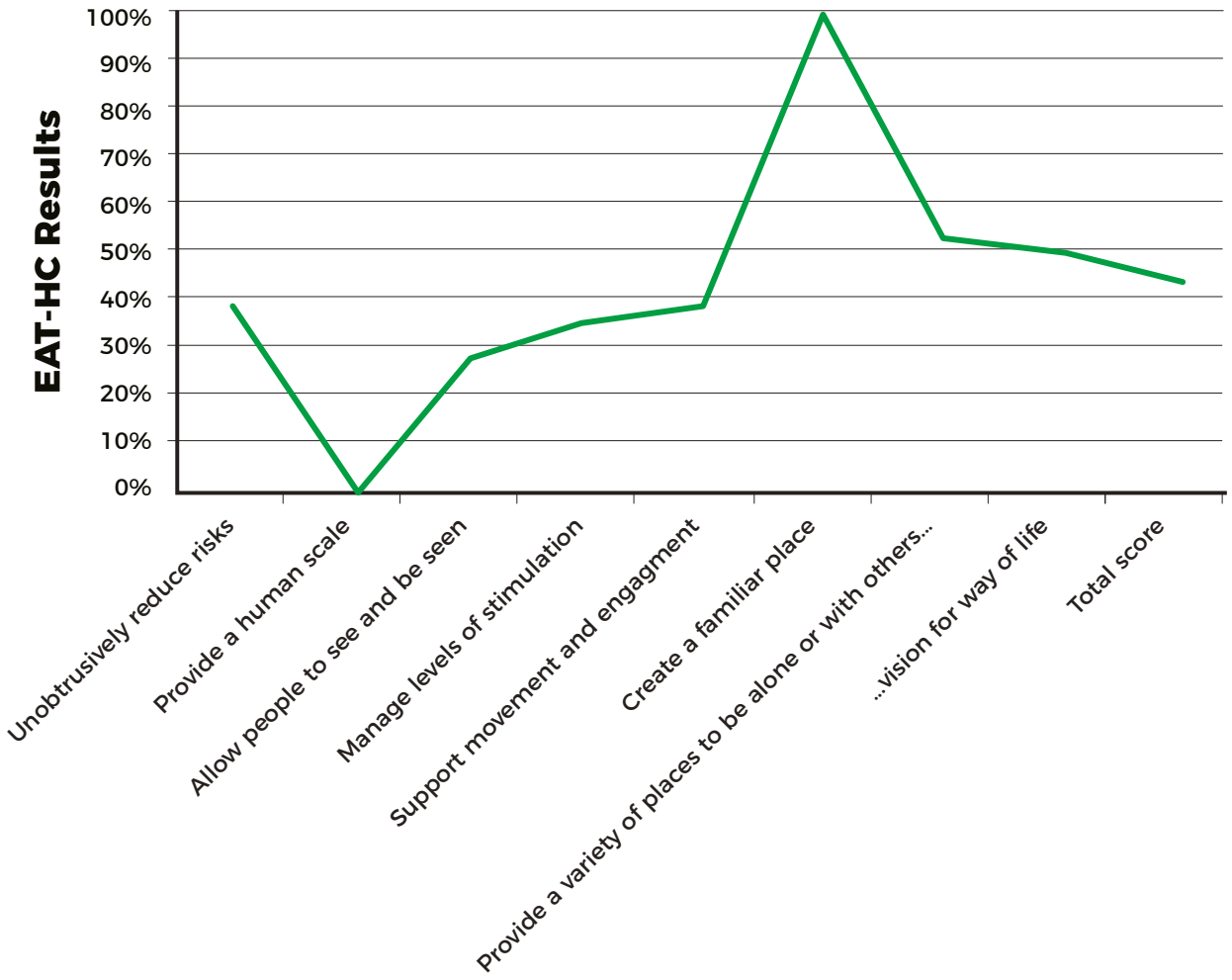
a. Look at the overall picture presented by the graph that summarises the sub-scale scores.

When the original EAT is used this graph enables a comparison to be made with a sample of purpose designed and non-purposed design residential aged care facilities.

However, this information is not currently available for the EAT-HC but as data is collected it will be added and made available from the same source as the spreadsheet.

In the example in Figure 1 the EAT-HC has been used to evaluate a residential aged care facility. The most obvious areas of concern are in the principles of 'Unobtrusively reduce risks', 'Provide a human scale' and 'Allow people to see and be seen'.

Figure 1: Residential Aged Care Facility EAT-HC results



b. Look at the specific items that have a high 'Room for Improvement Score'

The spreadsheet provides the means of generating a 'Room for Improvement' (RFI) report for the EAT-HC. This is simply a table in which the EAT-HC items are ranked according to the amount of room for improvement that is available, i.e. the possible score minus the actual score. When a number of people complete the EAT-HC and enter the data into the spreadsheet, the 'actual score' in the table will be the median of the scores entered.

The RFI table can be used to structure the discussion about the environment. Start at the top and discuss the items one by one until the point where there is no room for improvement (because the item is scored at the maximum). This will ensure that all of the main points are discussed.

The Not Applicable items (N/A) have been placed at the top of the list to encourage consideration of the possibility that they may be relevant. In the example in Table 1, the item on locking appliances away in the kitchen after residents use has been scored (N/A). Putting it at the top of the list provides an opportunity to discuss the use of the kitchen by the residents.

Table 1: Abbreviated EAT-HC 'Room for Improvement' report

EAT-HC ITEM	Actual score	Maximum possible score	RFI score	Principle
Look at the items below that have been scored as Not Applicable (N/A). Would the facility be improved if they were considered to be applicable?				
Resident's kitchen has safe appliances.	N/A	2	N/A	Unobtrusively reduce risks
Outside, ramps are wheelchair accessible.	N/A	1	N/A	Unobtrusively reduce risks
Lounge room is clearly recognisable.	N/A	1	N/A	Optimise helpful stimulation
Discuss the following items in turn. These are ordered according to where there is the most room for improvement.				
Bedroom is seen from Lounge room.	0	3	3	Allow people to see & be seen
Dining room is seen from bedrooms.	0	3	3	Allow people to see & be seen
Resident kitchen has master switch.	0	2	2	Unobtrusively reduce risks
Inside small group areas are available.	1	3	2	… a variety of places to be alone or with others
Front door can be secured.	1	2	1	Unobtrusively reduce risks
Outside, paths are appropriate widths.	0	1	1	Unobtrusively reduce risks
Inside, contrast between floor surfaces is avoided.	0	1	1	Unobtrusively reduce risks
The items below (RFI = 0) do not need as much discussion (but may still may have room for improvement).				
Lounge furniture is familiar.	2	2	0	Create a familiar place
Bedroom furniture is familiar.	2	2	0	Create a familiar place

c. Use the structure of the Planning Template in Table 2 to guide the discussion and to record the proposed actions.

The discussion should begin by asking the question 'Can we improve this situation by using our existing resources differently?' '*How can we reuse what is there?*' There might be some chairs available, for example, that can be used to furnish a small area for conversation.

If this isn't the case then the next question is '*What can we do in the short term?*', which may mean 'What can we do with the money in the petty cash?' or 'What can we do as part of our planned maintenance works?'

If this isn't sufficient to improve the situation the next question is '*What can we do in the medium term?*', e.g. 'What can we do at the end of the financial year when there are some funds left over or when the Auxiliary has held their jumble sale? Can we allocate some money in next year's budget to achieve this change? Can we apply for a grant or contact the local service organisation?'

The final question is '*What can we do in the long term?*' or 'Does this need to be put into the capital expenditure budget? Does this need to be the subject of ongoing strategic planning and fundraising?'

When action items have been agreed, add the response to the appropriate cell of the table according to the relevant principle(s) and the time frame that is proposed. In the example shown in Table 2, the use of the EAT-HC identified that there was little for residents to do outside apart from move about. Chairs or benches were not available for them to sit on and shade was not provided along the path. Discussion focussed on how this could be addressed, and it was agreed that the first step was to take some vinyl chairs from inside and put them outside. While not a long term response, staff felt this was something that could be done quickly and easily, *re-using* what is already there. Intentionally using the garden for activities that already occur, such as morning tea, was seen as another easy thing to do and so this was a *short term* action item. More permanent seating will take time and require some work on the path to ensure easy access to the seats and so this was seen as a *medium term* solution. Finally, the provision of a permanent shade structure was seen as ideal but a *long term* goal.

It is important to recognise that making changes can take time. Some changes, such as altering the layout of the building, will be possible but very expensive. Others, such as moving a piece of furniture will be relatively easy to implement. Don't lose heart! The advantage of systematically considering environmental changes is that it is possible to identify a schedule of priorities and then work through them as opportunities arise and as part of a regular maintenance program.

Table 2: EAT-HC Planning template (full scale version in Appendix 2)

KEY DESIGN PRINCIPLES											
		Unobtrusively reduce risks	Provide a human scale	Allow people to see and be seen	Manage levels of stimulation - reduce unhelpful stimulation	Manage levels of stimulation - optimise helpful stimulation	Support movement & engagement	Create a familiar place	Provide a variety of places to be alone or with others - in the unit	Provide a variety of places to be alone or with others - in the community	Design in response to vision for way of life
	ISSUE						Nothing to do outside No seats No shade				
	How can we re-use what is there?						Take some seats and put them outside				
	What can we do in the short term?						Plan to have morning tea outside on fine days use an umbrella to provide shade				
	What can we do in the medium term?						Increase path width and create permanent seating areas				
	What can we do in the long term?						Build a shade structure				

RESOURCE 4

Environmental Assessment Tool – Higher Care Handbook

PART 4

APPLYING THE PRINCIPLES

PART 4
APPLYING THE PRINCIPLES

This section is organised around the key design principles contained in the EAT-HC and the questions that relate to each principle (refer to Part 1 and Appendix 1 of this handbook).

Each question in the assessment tool is discussed. Under each question there is a brief statement of what is important and why, and some key design considerations. For most (but not all) items three categories follow: Ensure, Avoid and Consider. These give suggestions and examples of design responses, problem areas to avoid, and items that may be considered depending on the particulars of a project and the people who will live there.

Some questions are found under more than one principle and some information is duplicated. This section has been designed so that each question stands alone, allowing the reader to use it as a reference document rather than being required to read it from beginning to end.

The Indigenous Aged Care Design Guide by Paul Pholeros, Kirsty Bennett, Adrian Welke and Maureen Arch is a key source document for this part of the handbook (Refer Resource 6 of these Environmental Design Resources).

1. Unobtrusively reduce risks

1.1 Can people who live in the unit be prevented from leaving the garden/outside area by getting over or under the perimeter?

It may be important that the environment is secure to prevent residents leaving the unit if they shouldn't. Having a fence that is sturdy and difficult to climb (or go under) is vital in this regard.

The fence needs to be high enough to make it difficult for residents (and non-residents) to climb over when it is important that the unit is secure. The fence should be 1.8m high if this is the case. It should also be continuous and well maintained, and the fence design must not allow for climbing (in or out). It is important that measures to create a secure garden are as unobtrusive as possible to avoid frustration, agitation and anger.

ENSURE:

- fence is continuous and well maintained
- fence is 1.8m high where the perimeter is needed to be secure
- fence design does not allow for climbing (in or out)
- gates are able to be secured but allow for controlled coming and going

AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds
- planting near the fence which can be used for climbing
- latch on outside of the gate

CONSIDER:

- designing the fence so that it blends into the landscape
- using vegetation to hide the fence so it is not foreboding or institutional
- creating a front yard which has a lower fence and can be easily accessed from the street to allow entry to the front door and a side/back garden which can be secure

1.2 Can people who live in the unit be prevented from leaving the garden/outside area through the gate?

It may be important that the environment is secure to prevent residents leaving the unit if they shouldn't. Having a gate that is sturdy and difficult to climb (or go under) is vital in this regard.

The gate needs to be able to be locked while allowing for exit in an emergency (if this is part of an emergency evacuation route). Mechanical keypads or keypads which are linked to a staff call system can be installed on gates. (If keypads are linked to a staff call system, they will release automatically in the event of a fire). It is important that measures to create a secure garden are as unobtrusive as possible to avoid frustration, agitation and anger.

Double handles/latches and handles which open in an anti clockwise direction may also be effective to prevent easy opening by residents from within the grounds. It is also important that residents cannot reach over a gate and open it from the outside while inside the grounds.

ENSURE:

- gate design does not allow for climbing (in or out)
- gates are secured but allow for controlled coming and going
- fence is continuous and well maintained
- fence is 1.8m high where the perimeter is needed to be secure
- fence design does not allow for climbing (in or out)

AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds
- latch on outside of the gate

CONSIDER:

- designing the gate so that it blends into the fence
- double handles/latches, handles which open in an anti clockwise direction, keypads to secure exit
- designing the fence so that it blends into the landscape
- using vegetation to hide the fence so it is not foreboding or institutional
- creating a front yard which can be easily accessed from the street to allow entry to the front door and a side/back garden which can be secure

1.3 Can the front door leading out of the unit be secured?

It is important that the front door/gate of the unit can be secure to prevent residents leaving the unit if they shouldn't, and to prevent people coming in and bothering residents. The location of the front door within the facility and the type of security mechanism selected will be important to allow for ease of use by staff and visitors.

It is important that measures to create a secure front door are as unobtrusive as possible to avoid frustration, agitation and anger.

ENSURE:

- front door is clearly recognisable from outside
- front door can be secured

AVOID:

- front door/gate that is unwelcoming and uninviting upon approach

CONSIDER:

- location of the front door within the facility
- the type of security mechanism selected to allow for ease of use by staff and visitors
- screening the front door from inside the unit to prevent residents being continually confronted by a door that may be secured
- designing so individual units can be made secure at different times to suit different groups of residents' needs

1.4 Outside, is there step free access to all areas?

As many residents use mobility aids, step free access is important so that residents can easily move about outside. Step free access outside means that there are no steps between different surfaces and no changes of level between inside and outside, or between outside areas (such as a shelter and a path). Steps with risers of varying heights and small changes of level are unacceptable.

ENSURE:

- no steps or uneven surfaces outside

AVOID:

- any changes in levels (for example ridges, hobs, small steps)

CONSIDER:

- providing a ramp of suitable gradient to replace or complement existing steps

1.5 Outside, are all floor surface materials safe from being slippery when wet?

A fall can result in a significant injury for an older person and so it is important to create an environment which minimises the risk of slipping and tripping. Outside floor finishes need to be slip resistant, even when they are wet. An appropriate cleaning regime is essential to ensure that the slip resistance of the outside finish is maintained. Slip resistant outside floor finishes are also required to enable staff to assist residents safely.

ENSURE:

- floor finishes are even and slip resistant
- changes in floor surface are clearly marked with colour or texture
- clear differentiation between horizontal and vertical surfaces
- maintenance of floor surfaces

AVOID:

- unnecessary changes in floor finishes
- run off from air conditioners or rain water which wet outside floors
- strong contrast between changes in floor surfaces as these can result in the floor being perceived as a step or hole (refer 1.14)

CONSIDER:

- for hard surfaces, use concrete rather than pavers which can become uneven and cause tripping
- selection of materials to retain domestic finish

1.6 Outside, is the path surface even?

An even path surface will reduce the likelihood of residents tripping as they walk outside. Paths should be free from undulations, holes and ragged edges.

ENSURE:

- path surfaces are even and well maintained
- continuous materials, such as concrete, are used for path surfaces

AVOID:

- slippery surfaces
- bedding paving bricks in sand which may move over time
- uneven and undefined path edges
- glare from night lighting on paths

CONSIDER:

- in areas of high rainfall, raising the path so that the surface is well drained and remains dry (while maintaining step free access)
- selecting a surface that is most familiar to residents and their families
- connecting pathways are well lit at night
- protecting paths from driving rain and wind

1.7 Outside, are the paths clear of obstacles (e.g. trees, thorny plants) along and over the path?

Obstacles along a path present a great hazard to residents. Trees, plants and bushes can project onto paths (reducing their width) and creating tripping hazards. Twigs and leaves falling from trees can also be dangerous for residents. Branches which hang over the path can also be a hazard if they hang near head height.

ENSURE:

- plants close to paths are well maintained
- overhanging branches are regularly pruned

AVOID:

- thorny plants
- plants which grow too large near paths

CONSIDER:

- replacing inappropriate plants near pathways

1.8 Outside, are the paths wide enough to allow two wheelchairs to pass? (Minimum width is 1.8 metres)

Many residents in residential aged care facilities use walking aids such as wheelchairs or rollers. It is important that two people can walk together or pass each other along the path.

ENSURE:

- path is two metres wide in key areas

AVOID:

- narrow pathways, sharp turns

CONSIDER:

- widening the path occasionally to allow stopping without blocking the path flow

1.9 Outside, are all ramps of a gradient suitable for wheelchair use? (Gradient 1 in 14 or less)

It is not only important that ramps are used to respond to changes in level, but that these ramps are of a suitable gradient. If a ramp is too steep, it will be difficult for both residents and carers (who may be pushing residents) to use them.

ENSURE:

- ramps comply with the current Australian Standard AS 1428.1

AVOID:

- trees or vegetation likely to drop leaves over or near ramps making them slippery and unsafe
- uneven slopes on ramps

CONSIDER:

- making areas at the top and bottom of longer ramps not just to allow safe circulation but also to provide a good place for people to stop and have a rest

1.10 Is there a way to keep residents out of the kitchen if required?

The ability to restrict access to certain areas helps to create a safe environment for residents. Some residents, and visitors, may present a danger to themselves or to others in a kitchen, and so access to the resident kitchen needs to be able to be controlled. It is important, however, that this does not result in all residents being denied access to the kitchen. The design and layout of the kitchen will be instrumental in allowing controls to be well designed and effective. The measures used (such as a half door or bench with an up-stand) need to be discreet and integrated into the design, so that they cannot be easily removed and so that the limits which are being put in place are not being emphasised. Demands on staff time will be reduced if residents can potter in a kitchen. It is important that measures to keep residents out of the kitchen are as unobtrusive as possible to avoid frustration, agitation and anger.

ENSURE:

- planning and detailed design to discreetly control access to resident kitchen

AVOID:

- obvious measures to restrict access to the resident kitchen
- open plan kitchen

CONSIDER:

- half height door (designed to be part of kitchen joinery) with key pad, swipe card or magnetic lock
- bench with an up-stand or hob

1.11 Can appliances be locked away in the kitchen the residents use?

The ability to control access to certain appliances such as a toaster, kettle, or mixmaster helps to create a safe environment for residents. Some residents (and visitors) may present a danger to themselves or to others when using appliances and so access to these needs to be restricted, for example by placing them in a lockable cupboard. It is important, however, that this does not result in all residents being denied access to appliances. Demands on staff time will be reduced if residents can potter in a kitchen. It is important that measures to store appliances safely are as unobtrusive as possible to avoid frustration, agitation and anger.

ENSURE:

- the access to certain appliances is able to be controlled discreetly
- a lockable cupboard is provided discreetly

AVOID:

- unrestricted access to appliances which could be dangerous, such as a toaster, kettle, or mix master

CONSIDER:

- bench top appliance cupboard
- including one cupboard that contains appliances, a lockable knife drawer and switch to control power
- isolating the power as an alternative method of protecting residents from injury from appliances

1.12 Is there a switch to turn off electricity to power points in the kitchen the residents use?

It is important that electrical power to the resident kitchen is able to be controlled so that residents who are not able to use appliances and power points safely are not prevented from entering the kitchen to undertake other tasks, such as washing dishes and wiping benches. The ability to isolate the power will also mean that those residents who are able to use electrical appliances safely can continue to do so. This control needs to be discreet, so that it cannot be easily overridden and so that the limits which are being put in place are not being emphasised.

ENSURE:

- power to both stove and power points can be turned off discreetly

AVOID:

- turning off fridge and lights

CONSIDER:

- including one cupboard which contains appliances, a lockable knife drawer and switch to control power

1.13 Inside, are all floor surfaces safe from being slippery when wet?

A fall can result in a significant injury for an older person and so it is important to create an environment which minimises the risk of slipping. All internal floor finishes need to be slip resistant, as any surface can become wet. An appropriate cleaning regime is essential to ensure that the slip resistance of the floor finish is maintained. Slip resistant inside floor finishes are also required to enable staff to assist residents safely.

ENSURE:

- all internal floor finishes are slip resistant
- appropriate cleaning regime is in place to maintain surface integrity
- clear differentiation between horizontal and vertical surfaces

AVOID:

- changes in level
- strong contrast betweeen changes in floor surfaces as these can result in the floor being perceived as a step or hole (refer 1.14)

CONSIDER:

- selection of materials to retain domestic finish

1.14 Inside, is contrast between floor surfaces avoided (e.g. sharp distinction between bedroom floor and corridor)?

A person living with dementia may perceive two floor surfaces that have a high level of contrast between them as one floor surface which is adjacent to a hole or step or barrier. A resident may not wish to leave their bedroom, for example, as he/she perceives the corridor floor (which has a high level of contrast with the adjacent bedroom floor) is a danger to them. This can lead to falls, anxiety and limit a person's ability to move about freely and be independent. Patterns in floor finishes can have the same effect as residents try to step over or around patterns or pick up objects from the floor surface.

ENSURE:

- contrast between different floor finishes is minimised
- where contrast is used, it is used intentionally to guide a person (e.g. by using a contrasting border in front of a cleaner's cupboard to deter a person living with dementia from entering)
- clear differentiation between horizontal and vertical surfaces

AVOID:

- strong contrast betweeen changes in floor surfaces as these can result in the floor being perceived as a step or hole
- unnecessary features in floor finishes such as vinyl or carpet
- strong contrast complex patterns in floor finishes

CONSIDER:

- using floor finishes to guide and direct residents to places of interest and importance

1.15 Inside, are all ramps of a gradient suitable for wheelchair use? (Gradient 1 in 14 or less)

It is not only important that ramps are used to respond to changes in level, but that these ramps are of a suitable gradient. If a ramp is too steep, it will be difficult for both residents and carers (who may be pushing residents) to use them.

ENSURE:

- ramps comply with the current Australian Standard AS 1428.1

AVOID:

- soft floor finishes which can make ramps difficult to use with mobility aids and trolleys
- uneven slopes on ramps

CONSIDER:

- making areas at the top and bottom of longer ramps not just to allow safe circulation but also to provide a good place for people to stop and have a rest

1.16 Is it easy to transfer a non-ambulant person from their bed to the ensuite/WC (using appropriate equipment)?

It is important when a resident is non-ambulant that he/she can be easily assisted using mobility aids and lifting equipment. This should not, however, take away the ability for the resident and their family to furnish their bedroom. Room size will be important to allow for the easy use of equipment, and the subsequent furnishing of the room also needs to take this into account. The careful placement of doors and windows is also important to ensure the maximum usability of the room by everyone.

ENSURE:

- room is large enough to accommodate mobility aids and some pieces of a resident's furniture
- doors and windows are placed to maximise circulation space while providing places for pieces of furniture

AVOID:

- large pieces of heavy furniture which cannot easily be moved to accommodate the use of mobility aids if required
- limiting a resident's ability to furnish their room in case mobility aids are required in the future

CONSIDER:

- ways in which furniture can be changed to allow for the use of mobility aids when required, without limiting a resident's ability to furnish their room as they wish

2. Provide a human scale

2.1 How many people live in the unit?

It has been shown that small scale settings are beneficial for older people and especially for older people with dementia. Group size, or the number of people in a unit, is the most important factor in achieving a small scale setting. In a small unit, a resident needs to relate to fewer people, and is able to do things in a group which is more familiar to them. There are less comings and goings, and less noise and distractions.

The number of residents in a unit has a big impact on the overall size of the unit, as the number of bedrooms and the amount of circulation space that is required increase with more people. By default, a smaller group size means a smaller unit.

A small scale environment can be successfully created in many ways. A large facility can be made up of many units, each of which contains the areas that are important in the residents' daily life, such as the lounge room, dining room, residents' kitchen, bedroom, sitting areas and outdoor areas.

ENSURE:

- creating a unit for 15 people or less
- staffing models are prepared at the design stage to confirm the best unit size and how it will operate

AVOID:

- larger unit sizes greater than 15 people

CONSIDER:

- creating units for 10 people for less
- breaking up larger units into smaller units

2.2 Does the scale (height and width) of the common areas allow a person to feel comfortable (and not uneasy because they are too big or too small)?

The internal scale and detailing of a unit is important in creating a human scale. Common areas need to be of a size that allows people to feel comfortable and at ease, rather than lost or alone. The size of room for 4 people to sit in, for example, is quite different from the size of a room designed for 12 people to sit in. The meaning of human scale will vary according to people's living experiences, and so it is important to use a typical house/living environment as a reference point. Common areas have an important role to play in reinforcing the residential role of the facility, rather than a public one. The choice of furniture will be important in this regard, as will the selection of artwork, window furnishings, door furniture, taps, and flooring.

ENSURE:

- the unit is designed and detailed to create a human scale setting
- a cluster of domestic scale living and dining areas is created rather than one large space

AVOID:

- large institutional size rooms (especially for the living room, dining room)
- repetition of colour, materials, details
- institutional finishes
- 'office style' notice boards

CONSIDER:

- domestic scale dining tables
- a variety of furniture selection so that not all furniture looks the same
- domestic decoration (pictures, etc)

3. Allow people to see and be seen

3.1 What proportion of residents can see the inside of a lounge room as soon as they leave their bedroom?

The lounge room is a place where residents are likely to want to spend time relaxing and socialising with others or on their own. It needs to be easy to find and recognise. If residents can see the inside of a lounge room as soon as they leave their bedroom this will help them know where they are heading and give them a hint of what they will find when they get there. Seeing inside the room (rather than just the outside of the room) will give them added information and inspiration as they can see particular features, furniture and decoration, such as a fire place, painting, or an easy chair.

ENSURE:

- the lounge room is located in a prominent position in the unit
- the lounge room is identifiable when leaving the bedrooms, for example by the scale, form, colour
- entry door(s) to the lounge room are glazed to allow people to look inside
- windows have low sill height to encourage a view in and out from/to paths and circulation routes

AVOID:

- repetition of building form, scale and colour which doesn't distinguish the lounge room from other areas
- obstructing the view in or out of the lounge room, for example by closing curtains, using solid doors

CONSIDER:

- how to create clear lines of sight between bedrooms and lounge room
- sidelights to doors to allow people to see inside the lounge room

3.2 What proportion of residents can see their bedroom entry as soon as they leave a lounge room?

Bedrooms may be places where residents want to spend time relaxing with others or on their own. A resident's bedroom needs to be easy to find and recognise. Bedroom doors offer residents an important way to recognise their room, and consideration should be given to the finish and decoration of bedroom doors and information on the door. The placement of features near the door can also be important in highlighting the entry to a bedroom. These measures will help residents locate their bedroom.

ENSURE:

- bedroom doors can be clearly distinguished from one another
- bedoom doors are positioned so they can be easily seen
- where bedroom doors cannot be easily seen, the use of features near adjacent walls to identify bedrooms

AVOID:

- repetition of finishes and features, as this makes all bedroom doors and approaches to bedrooms appear to be the same

CONSIDER:

- how clear lines of sight can be provided to bedroom doors
- the use of redundant cueing, i.e. providing more than one cue to the same thing (for example, through the use of colour, texture, finish, names, numbers, images, artwork) recognising that different things can be meaningful to different residents and at different times.

3.3 What proportion of residents can see the inside of a dining room as soon as they leave their bedroom?

The dining room is a place where residents are likely to want to spend time relaxing and socialising with others or on their own. It needs to be easy to find and recognise. If residents can see the inside of the dining room when they leave their bedroom it will help them know where they are heading and what they will find when they get there. Seeing inside the room (rather than just the outside of the room) will give them added information and inspiration as they can see particular features, furniture and decoration, such as a table and chairs.

ENSURE:

- the dining room is located in a prominent position in the unit
- the dining room is identifiable when leaving the bedroom for example by the scale, form, colour
- entry doors to the dining room are glazed to allow people to look inside
- windows have low sill height to encourage view in and out from/to paths and circulation routes

AVOID:

- repetition of building form, scale and colour which doesn't distinguish the dining room from other areas
- obstructing the view in or out of the dining room, for example by closing curtains, using solid doors

CONSIDER:

- how clear lines of sight between bedrooms and dining room
- sidelights to doors to allow people to see inside the dining room

3.4 Can the exit to a garden or outside area be seen from the lounge or dining room that is used by most residents?

The lounge and dining rooms are likely to be an important place in the life of the unit. Spending time outside is important and so it is vital that residents are able to see the way to go outside from the lounge and the dining room.

ENSURE:

- that the door to outside is clearly recognisable as a door
- clear lines of sight to outside areas especially to places where activities may be occurring
- easy access to outside area

AVOID:

- obstructing the view of the door to outside
- obstructing the view out of the lounge and the dining room
- designing doors that could be mistaken for windows (and visa versa)

CONSIDER:

- using sidelights to doors
- ways to distinguish between windows and doors (e.g. design of mullions and transoms, size of glazing panels, sill heights, door furniture)

3.5 Can the dining room be seen into from the lounge room?

Ideally key inside areas such as lounge room and dining room should be visually connected. This will mean that a resident can easily see other places that will be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- the dining and lounge room are located near each other
- there is a clear visual connection between lounge and dining rooms
- a clear path between lounge and dining rooms

AVOID:

- obstructing the view from the dining to the lounge room

CONSIDER:

- emphasising the connecting path between the dining and lounge room, for example, by having it well defined and separate from other circulation

3.6 Can a toilet be seen from the lounge room that is used by most residents?

A toilet is a room which needs to be used often and therefore needs to be easily located. If it is not only in close proximity to the lounge room but can also be seen from the lounge room; it can act as an important prompt for residents.

ENSURE:

- toilet is visible but still private
- clear path between the toilet and lounge room

AVOID:

- locating the toilet so that it dominates the lounge room view
- locating the toilet pan so that if the door is left open residents' privacy is compromised
- obstructing the view between the lounge room and the toilet
- obstructing the path between the lounge room and the toilet
- the spread of toilet odours into the lounge room

CONSIDER:

- the location of screens and the placement of fixtures in the room
- use of appropriately adjusted door closer so that the toilet door closes but residents can easily open the door

3.7 Can a toilet be seen from the dining room that is used by most residents?

A toilet is a room which needs to be used often and therefore needs to be easily located. If it is not only in close proximity to the dining room, but can also be seen from the dining room; it can act as an important prompt for residents.

ENSURE:

- toilet is visible but still private
- clear path between the toilet and dining room

AVOID:

- locating the toilet so that it dominates the dining room view
- locating the toilet pan so that if the door is left open resident privacy is compromised
- obstructing the view between the dining room and the toilet
- obstructing the path between the dining room and the toilet
- the spread of toilet odours into the lounge room

CONSIDER:

- the location of screens and the placement of fixtures in the room
- use of appropriately adjusted door closer so that the toilet door closes but residents can easily open the door

3.8 Can the lounge room that is used by most residents be seen into from where staff spend most of their time?

Residents are likely to be reassured if they know staff are around and so good visual access between the point(s) where staff spend most of their time and the lounge room is important. As residents are likely to spend a lot of time in the lounge, it will also be an advantage if staff can easily see residents and assist them if required.

ENSURE:

- good visual access to the lounge room from staff areas, circulation routes and dining room

AVOID:

- a central staff base (which can be dominating)

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors). Perforated screens, small inside windows and low walls may increase the transparency between rooms, whereas solid walls and furniture may decrease the transparency

3.9 Can the dining room that is used by most residents be seen into from where staff spend most of their time?

Residents are likely to be reassured if they can see where staff are and so good visual access between the point(s) where staff spend most of their time and the dining room is important. As residents are likely to spend a lot of time in the dining room, it will also be an advantage if staff can easily see residents and assist them if required.

ENSURE:

- good visual access to the dining room from staff areas, circulation routes and lounge room

AVOID:

- a central staff base (which can be dominating)

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors). Perforated screens, small inside windows and low walls may increase the transparency between rooms, whereas solid walls and furniture may decrease the transparency

3.10 Can a garden or outside area for the residents be seen from where staff spend most of their time?

Residents are likely to be reassured if they can see where staff are and so good visual access between the point(s) where staff spend most of their time and outside areas is important. As it is important that residents spend time outside, it will also be an advantage if staff can easily see residents and assist them if required.

ENSURE:

- good visual access to outside from staff areas, circulation routes, lounge room and dining room

AVOID:

- a central staff base (which can be institutional)

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

4. MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION

4.1 Are doors to cleaner's cupboards, storerooms and other areas where residents may find danger easily seen?

Residents have no need to open doors to cleaners' cupboards or storerooms. More importantly, these will contain equipment that could be harmful. It is important that residents' attention is drawn only to those doors which they can open and may lead to somewhere of interest, rather than to those which may be locked, are irrelevant or present a potential danger to the resident or visitors.

ENSURE:

- doors to cleaners' cupboards (storerooms and other areas where residents may find danger) are unobtrusive
- doors to cleaners' cupboards (storerooms and other areas where residents may find danger) do not look the same as doors to residents' areas

AVOID:

- locating cleaners' cupboards (storerooms and other areas where residents may find danger) in residents' areas

CONSIDER:

- planning/location of cleaners' cupboards (storerooms and other areas where residents may find danger)
- locating cleaners' cupboards (storerooms and other areas where residents may find danger) in staff zones

4.2 Is the wardrobe (or cupboard) that the resident uses full of a confusing number of clothes and/or irrelevant objects?

It is important that residents have the opportunity to put their clothes or possessions away. Sometimes, however, too many choices aren't helpful and can leave a person feeling frustrated and confused. Limiting the number of things that can be easily accessed in a wardrobe is a good way of minimising this.

ENSURE:

- residents have access to a wardrobe containing only a small number of items
- simple layout of wardrobes

AVOID:

- large wardrobes with many wardrobe doors
- overfilling a wardrobe with contents
- locking all wardrobe doors

CONSIDER:

- making some wardrobe doors unobtrusive through use of colour, finishes and door furniture
- having a hidden wardrobe, where the majority of clothes are stored, and an obvious wardrobe with only two sets of clothing, preferably chosen by the resident

4.3 Is there a public address, staff paging or call system with bells, loudspeakers or flashing lights in use?

The noise from public address and staff paging systems can be disturbing. Bells, lights and public announcements can interrupt residents' daily life and cause distraction and confusion. They often give information which is not directed to the residents, and so provide an unnecessary interruption.

A staff call system plays an important role in a facility as it assists residents to contact staff and enables staff to respond to residents' needs. It must be reliable. There are many types of staff call systems which are available. All have advantages and disadvantages and it is important to do research to determine which is the most appropriate system in a particular location. There are also a number of additional items which are available and can be linked to a staff call system (such as a bed sensor). These can significantly enhance the ability of the staff to do their work and play an important role in meeting resident's needs.

ENSURE:

- staff paging systems are unobtrusive
- the staff call system is operational and can be maintained

AVOID:

- loud, bells, flashing lights and public announcements

CONSIDER:

- whether a public address system is required

4.4 Does the noise from closing doors disturb residents, (e.g. flapping kitchen doors, noisy automatic doors)?

The sound of doors closing in a unit can be very distracting for a resident. It is important that doors can be closed quietly and door closers are adjusted to close doors quietly.

ENSURE:

- doors close quietly

AVOID:

- door closers that are poorly adjusted

CONSIDER:

- installing cushioning seals around doors

4.5 Is there a lot of visual clutter in the unit (i.e. notices, objects, furniture that are either irrelevant to residents or make it hard for them to interpret their environment)?

Visual stimulation in a unit can be very distracting for residents. Notices and signs can become visual clutter when there are many of them, as they no longer stand out from the wall and catch people's attention. A room full of objects or furniture can make it difficult for someone to see what they are looking for. Furniture that is left inadvertently in a room can create an impression of a store room, rather than a lounge room. Signs next to a painting diminish the impact and ambience of the painting.

ENSURE:

- residents are able to focus on the most important objects in the room
- signs are only used when other environmental cues or means of communication are inadequate
- all signs and notices are current

AVOID:

- storing objects, equipment and furniture in rooms that are not store rooms
- clutter resulting from clinical information and objects

CONSIDER:

- regularly reviewing the environment for visual clutter

4.6 Inside, can glare be avoided by using curtains and blinds?

Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within a room and to outside. In particular this will have an impact on the type of lamp and light fitting that are selected, the selection of surfaces and finishes and the use of glass (which can reflect the light.)

ENSURE:

- ability to control glare from windows
- light fittings and shades that protect from glare

AVOID:

- highly reflective surfaces and finishes

CONSIDER:

- light paint colours around windows to reduce contrast around windows as this can reduce glare
- orientation of windows
- adjustable internal window shading treatment such as curtains or blinds
- outside awnings

5. MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION

5.1 Does each room have a distinctive character and feel? i.e. is it easy to identify a room as a dining room or a lounge room?

The environment can give us a strong indication of how we are to behave and what we are to do in a certain place. If a person is no longer able to initiate an action or remember what a certain room is for, it is especially important that he/she is able to receive this information from the environment and receive a cue as to the room's purpose. Each room should have its own distinctive characteristics so that its use is clearly identifiable, for example as a lounge or dining room. This also means that residents and staff are offered a variety of experiences.

ENSURE:

- that the purpose and identity of rooms are easily recognisable
- the use of multiples cues including furniture, room arrangement, furnishings and finishes

AVOID:

- using common colour schemes and furniture throughout a facility

CONSIDER:

- how identity can be created, e.g. by the use of different wall colours, artwork, fabrics in a variety of rooms

5.2 Is the dining room clearly recognisable from outside the room?

In most residential settings for older people the dining room is a key social place. Therefore it is important that it can be easily recognisable when it is seen, and/or through signs or symbols so that residents find it easy to locate the dining room. An indication from outside the room as to what is inside can help highlight the room for residents.

ENSURE:

- the dining room is recognisable
- the use of multiples cues such as visual, auditory and olfactory

AVOID:

- barring entry to the dining room
- closing the dining room doors and turning off lights when the room could be used

CONSIDER:

- the transparency of the dining room (for example perforated screens, glass, small inside windows and low walls may increase the transparency between rooms whereas curtains, solid walls and furniture may decrease the transparency)
- introducing images near the dining room approach such as a painting of food on the wall, menu board or hall table
- promoting food smells, the sight of tables being laid

5.3 What percentage of residents have a clearly defined path from their room to the dining room (e.g. by using colour objects and signage, or can see the dining room from their room)?

The dining room is a key social place in most residential settings for older people. Therefore it is important that it can be easily found and that residents can make their way there with little assistance. While it is desirable for residents to see the dining room from their bedrooms, this may not always be possible and so attention needs to be paid to the design of the way to the dining room.

ENSURE:

- residents can either see the dining room or the way to the dining room from their bedroom
- the way to the dining room is clearly recognisable e.g. through the use of artwork

AVOID:

- corridors which do not have an indication of where they are leading
- corridors that look like each other (refer 5.11)

CONSIDER:

- the transparency of the dining room (for example perforated screens, glass, small inside windows and low walls may increase the transparency between rooms whereas curtains, solid walls and furniture may decrease the transparency)
- introducing signs or symbols near the dining room approach such as a painting of food on the wall, menu board or hall table
- the use of multiples cues such as visual, auditory and olfactory (e.g. the smell of coffee brewing or toast being made)

5.4 Is the lounge room clearly recognisable from outside the room?

In most residential settings for older people the lounge room is a key social place. Therefore it is important that it can be easily recognisable when it is seen, and/or through signs or symbols so that residents find it easy to locate the lounge room. An indication from outside the room as to what is inside can help highlight the room for residents.

ENSURE:

- the lounge room is recognisable
- the use of multiples cues such as visual, auditory and olfactory

AVOID:

- barring entry to the lounge room
- closing the lounge room doors and turning off lights when the room could be used

CONSIDER:

- the transparency of the dining room (for example perforated screens, glass, small inside windows and low walls may increase the transparency between rooms whereas curtains, solid walls and furniture may decrease the transparency)
- introducing images near the lounge approach such as a painting of people sitting relaxing, lounge chairs etc
- promoting music, song and chatter

5.5 Are different corridors clearly recognisable so residents can identify where they are?

There can be many corridors within a unit and each corridor can be quite long if it leads to a number of rooms. It is therefore important that the corridors do not all appear the same, and that each corridor is broken up into different parts, to highlight, for example, a group of bedrooms, a sitting alcove, a view, or a door leading to outside. This can be done in many ways, for example, by using lighting (both natural and artificial), colour, a change in ceiling height or treatment, varied placement of windows, framing of a view or by varying the width of the corridor.

ENSURE:

- corridors have identifiable parts
- a range of features are included in a corridor

AVOID:

- repetitive corridors
- using the same features in different corridors

CONSIDER:

- introducing features such as lighting (both natural and artificial), colour, a change in ceiling height or treatment, sitting alcove, skylight, views, paintings, framing of a view, varying the width of the corridor, varying the placement of windows

5.6 Are personalised signs, symbols or displays prominently displayed to identify bedrooms?

It is important to be able to identify the room before the door is opened so that residents can find it and feel confident it is their room. The finish on bedroom doors can be varied (in texture or colour). Name plates, photos, art work and memory or shadow boxes which allow a person to display some of their favourite things outside their door can all be used to identify bedrooms from outside the room as belonging to a particular person.

ENSURE:

- residents have the opportunity to identify their room from outside the door
- residents can personalise their rooms

AVOID:

- repetition (for example of door finish, colour, layout)

CONSIDER:

- colour, name plates, photos, art work and memory or shadow boxes

5.7 Are shared ensuites/bathrooms/toilets clearly marked with a sign (text and symbol) or colour coded door?

Shared ensuites, bathrooms and toilets need to be clearly recognisable. These rooms will be used frequently, and if they can be easily found when they are needed it will reduce the stress and anxiety in older people. The finish to doors to shared ensuites, bathrooms and toilets should be different from bedroom doors. Any signage should be meaningful and appropriate in size, language, contrast and colour. Signs should combine words and symbols, be placed at eye level or lower and contrast with the background.

ENSURE:

- ensuite/bathroom/toilet doors are recognisable

AVOID:

- ensuite/bathroom/toilet doors being the same colour and finish as bedroom doors

CONSIDER:

- colour, contrast, plates, sign, symbol, lighting

5.8 Is, or can, the bed be placed so that it possible to see the toilet pan from the bed when lying down?

If residents are able to see the toilet pan as soon as the ensuite door is opened it will assist them to recognise the room and to use it. Placing the toilet pan in a prominent position in a room will reduce the chance of confusion as residents mistake the room for another purpose and so continue to look for a toilet. In particular at night, the visibility of a toilet pan will help an older person to maintain independence. This can reduce inappropriate use of other parts of a room and minimise discomfort and embarrassment for the older person, their family and staff.

ENSURE:

- toilet pan can be visible from the bed
- contrast between the toilet pan, floor and walls
- contrasting toilet seat

AVOID:

- obscuring the toilet pan

CONSIDER:

- artificial lighting over the toilet
- a low level of night lighting to the toilet and ensuite area
- skylight over toilet
- positioning of pan in the room

5.9 Do the toilet seats contrast with the background?

It is vital that toilet seats contrast with the background so that they can be easily seen and identified by the resident.

ENSURE:

- contrasting toilet seats
- contrast between the toilet pan, floor and walls
- toilet pan is visible from doorway of shared ensuite, bathroom or toilet

AVOID:

- white toilet seats with white pans and white tiling
- obscuring the toilet pan

CONSIDER:

- lighting over the toilet
- positioning of pan in the room

5.10 What percentage of residents have a window that provides an attractive view to the outside from their bed?

Residents may spend more time in their bed if they are less mobile, for example because they have difficulty moving about or are ill. It is particularly important that residents are not removed from contact with nature just because it is difficult for them to go outside. Having an attractive view to outside gives residents the opportunity to connect with nature, to be aware of the time of day, the season and the changes that take place in any day. An attractive view can provide an important source of stimulation and provide a good conversation point.

ENSURE:

- each bedroom has an attractive view to outside
- the bed can be located to take advantage of the view

AVOID:

- rooms which have a poor view to outside e.g. of a plain brick wall

CONSIDER:

- providing alternative bed locations in the bedroom

5.11 Inside, are contrasting materials used so that edges of surfaces and objects can be easily seen (e.g. coloured borders, different floor, wall and ceiling colour)?

If a resident is unable to see an object such as a chair, it is unlikely that they will be able to sit down. It is important that there is contrast between horizontal surfaces, e.g. chair seat and floor, table and seat, bench top and floor so that object stands out. Contrast between vertical surfaces is also necessary, for example so that doors can be easily seen, handles stand out against cupboard doors etc.

ENSURE:

- contrast is used so that objects can be seen easily

AVOID:

- bland environments where there is little contrast
- contrasting floor finishes (refer 1.14)

CONSIDER:

- the use of contrast when selecting colours, finishes and furniture

5.12 Inside, are olfactory cues (such as perfumed flowers or kitchen smells) used to provide a variety of experiences for a person with dementia and help them know where they are?

There are many cues that can be helpful to a person with dementia. It is important that all of the senses are considered when providing cues and the sense of smell has an important role to play. The smell of coffee brewing or toast being prepared can stimulate memories and help people find their way toward a kitchen or dining room. These cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing. Residents may have positive or negative associations with certain aromas and these need to be considered when using olfactory cues. Allergies will also need to be taken into account.

ENSURE:

- olfactory cues are considered and regularly reviewed to meet residents' needs

AVOID:

- multiple concurrent olfactory cues as this can be confusing

CONSIDER:

- how to change olfactory cues to reflect different times of day and seasons

5.13 Inside, are tactile cues used to provide a variety of experiences for a person with dementia and help them know where they are (e.g. different floor finishes, fittings such as door handles)?

There are many cues that can be helpful to a person with dementia. It is important that all of the senses are considered when providing cues and the sense of touch has an important role to play. The feel of different materials and surfaces can stimulate memories and give residents varied and rewarding experiences. Walking on tiles, for example, is a different experience to walking on carpet or timber. These cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing.

ENSURE:

- tactile cues are considered and regularly reviewed to meet residents' needs

AVOID:

- multiple concurrent tactile cues as this can be confusing
- high levels of contrast between floor finishes (refer 1.14)

CONSIDER:

- how to use tactile cues to offer a variety of experiences

5.14 Inside, are auditory cues used to provide a variety of experiences for a person with dementia and help them know where they are (e.g. music, sound of a water feature)?

There are many cues that can be helpful to a person with dementia. It is important that all of the senses are considered when providing cues and the sense of sound has an important role to play. Music can stimulate memories, alter moods and give residents a variety of experiences. Auditory cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing. Residents may have positive or negative associations with certain sounds and this also needs to be taken into account when using auditory cues.

ENSURE:

- auditory cues are considered and regularly reviewed to meet residents' needs

AVOID:

- multiple concurrent auditory cues as this can be confusing

CONSIDER:

- how to change auditory cues to reflect different times of day and seasons

5.15 Outside, are contrasting materials used so that edges of surfaces and objects can be easily seen (e.g. coloured borders on paths, different colours and materials for seats and ground surfaces)?

If a resident is unable to see the edge of a path it unlikely she/he will remain on it. If a resident cannot see an object such as a chair, it is unlikely that she/he will be able to sit down. It is important that there is contrast between horizontal surfaces, e.g. chair seat and path, table top and seat, table top and floor so that object stands out. Contrast between vertical surfaces is also necessary.

ENSURE:

- contrast is used so that objects can be seen easily

AVOID:

- bland environments where there is little contrast

CONSIDER:

- contrasting path surfaces (refer 1.14)
- the use of when selecting colours, finishes and furniture

5.16 Outside, are a variety of materials and finishes used to create an interesting and varied environment for a person with dementia and help them know where they are (e.g. brick, timber stone, grass)?

When a variety of materials is used, important stimuli can be emphasised, scale can be reduced (by avoiding repetition) and a more familiar environment can be created. The feel of different materials and surfaces can stimulate memories and give residents varied and rewarding experiences. Walking on tiles feels different to walking on carpet or timber. Materials need to be used carefully so that they do not compete with each other or become overwhelming and confusing.

ENSURE:

- a variety of materials and finishes are used to create an interesting and varied environment

AVOID:

- the repetitive use of materials and finishes
- contrasting path surfaces (refer 1.14)

CONSIDER:

- how to use a variety of materials and finishes to offer a range of experiences

5.17 Outside, are olfactory cues (such as perfumed plants) used to provide a variety of experiences for a person with dementia and help them know where they are?

There are many cues that can be helpful to a person with dementia. It is important that all of the senses are considered when providing cues and the sense of smell has an important role to play. The smell of lavender or basil can stimulate memories and help people find their way to a pergola or kitchen door. These cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing. Residents may have positive or negative associations with certain aromas and so these need to be taken into account when using olfactory cues. Allergies will also need to be taken into account.

ENSURE:

- olfactory cues are considered and regularly reviewed to meet residents' needs

AVOID:

- multiple concurrent olfactory cues as this can be confusing

CONSIDER:

- how to use olfactory cues to reflect different seasons

5.18 Outside, are auditory cues used to provide a variety of experiences for a person with dementia and help them know where they are (e.g. wind chimes)?

There are many cues that can be helpful to a person with dementia. It is important that all of the senses are considered when providing cues and the sense of sound has an important role to play. The sound of wind chimes, for example, can draw people to that part of the garden. Auditory cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing. Residents may have positive or negative associations with certain sounds and so this needs to be taken into account when using auditory cues.

ENSURE:

- auditory cues are considered and regularly reviewed to meet residents' needs

AVOID:

- multiple concurrent auditory cues as this can be confusing

CONSIDER:

- how to change auditory cues to reflect different times of day and seasons

5.19 Inside, is there an attractive view to outside from the lounge and/or dining room for a person seated or lying down?

Residents may spend time lying down, perhaps because they are ill. This should not mean that they need to remain in their bedrooms, just because they are not able to sit up. Having an attractive view when lying down gives residents the opportunity to connect with outdoors, to be aware of the time of day, the season and the changes that take place in any day. An attractive view can provide an important source of stimulation and provide a good conversation point.

ENSURE:

- sill height low e.g. 600 to allow a view outside when lying down
- lounge/dining room has an attractive view to outside
- when a bed is used in the lounge/dining room it can be located to take advantage of the view

AVOID:

- windows with high sill height

CONSIDER:

- how furniture can be arranged flexibly to meet different sitting/lying positions

6. SUPPORT MOVEMENT AND ENGAGEMENT

6.1 Is there a clearly defined accessible path that avoids dead ends and locked exits and guides the resident from inside to outside and back to their starting point?

It is important that residents are able to move freely and continuously when outside and reach destinations that are meaningful. They should not end up at a dead end where they can go no further and cannot easily see how to go back. Paths need to be laid out so that residents can see their way back to their starting point easily, so that a pleasant walk outside doesn't become a nightmare as they feel lost and confused about where they are and where to go. This will also give residents more confidence to explore the outside environment, providing a greater level of comfort and reducing stress.

Another aspect of encouraging residents to move about freely is to ensure that not only the path layout but the paths themselves are well designed. Attention needs to be given to the selection of path surfaces, edges, width, camber, drainage, and obstacles.

ENSURE:

- paths are continuous,
- paths do not contain hazards such as potholes, slippery or uneven surfaces or overhanging branches (refer 1.6, 1.7)
- that path edges are clearly marked with contrasting coloured materials or textures

AVOID:

- dead ends, paths that lead to nowhere
- multiple decision points

CONSIDER:

- widening paths occasionally to provide sitting areas and places off the main route but without dead ends
- using contrasting colours to mark the edges of paths
- using concrete or a concrete base to pavers to prevent settling and to ensure a smooth continuous surface

6.2 Outside, is there a path that guides residents past areas that might invite participation in an appropriate activity?

The goal of designing the path layout is not to keep residents moving, but rather to give them a rewarding experience. Residents may not have a clear idea of what they would like to do or what they are looking for. They may also have forgotten where the place they are looking for is located. If places of interest are easy to see, it can give residents an idea of what they might like to do.

This journey should offer residents opportunities to engage with others, engage with activities, a range of stimuli and other people or to sit quietly, for example to take in a view. In this way residents are offered experiences that are interesting and rewarding.

ENSURE:

- the path guides residents to points of interest and participation, such as raised garden beds

AVOID:

- paths that lead to nowhere

CONSIDER:

- changing landscaping to create a varied outside environment
- at some point along important paths ensuring there is a close view (residents and activities) and a medium view (possible destinations within the unit). Where residents are used to having a long view (e.g.view to the paddocks), this can also be appropriate.

6.3 Outside, is there a choice of activities for residents to participate in (such as sorting tools, seeing birds, checking the clothesline)?

Residents should be offered opportunities to engage with others, to sit quietly by themselves, to take in a view or engage in activities. In this way residents can choose what they wish to do and can be offered a variety of experiences that are interesting and engaging.

ENSURE:

- places of interest are easy to see
- paths guide residents to places of interest

AVOID:

- paths that lead to nowhere

CONSIDER:

- changing landscaping to create a varied outside environment
- a range of things for residents (their visitors and staff) to do (recognising people's preferences can vary enormously)

6.4 Outside, are there chairs or benches at frequent intervals so people can sit and enjoy the fresh air?

A resident can become tired while walking and may need a place to rest to prevent falls and injury, or to simply enjoy being outside. The provision of seats and benches at frequent intervals around the path is important.

ENSURE:

- seating is provided at regular intervals

AVOID:

- seating with sharp edges and rough surfaces

CONSIDER:

- a variety of different seats (heights, materials and locations)
- allowing for wheelchair stopping points near seating

6.5 Outside, are there both shady and sunny areas along the path?

There will be times when sunshine is sought after and others when shade is required. Residents can become hot and dehydrate if they are outside in summer, or cold if they are outside in winter. Opportunities to be in the shade or in the sun are therefore important if residents are to enjoy being outside.

ENSURE:

- places along the path offer residents shade and sun

AVOID:

- making outside sitting areas in places that are windy
- large surfaces that reflect the heat of the sun onto residents walking on the path

CONSIDER:

- where and when the sun will shine in winter and summer in relation to the building, outside structures and verandahs

6.6 Outside, does the path allow residents to be taken past a range of activities that they can passively participate in (such as looking at plants, watching birds)?

Residents who are not independently mobile still need to be offered opportunities to engage with others, to sit quietly by themselves, to take in a view and enjoy a pretty garden. In this way, residents can be offered an experience that it is interesting and engaging, even though they are not able to move about independently.

ENSURE:

- places of interest are easy to see
- there are different opportunities for passive engagement

AVOID:

- paths with no view to other areas

CONSIDER:

- changing landscaping to create a varied outside environment
- the range of things which a resident (their visitors and staff) may find engaging
- providing olfactory as well as visual experiences

6.7 Are there verandahs or shaded seating areas in close proximity to the building?

It is important that residents are encouraged to spend time outdoors, and that it is easy for them to do so. Verandahs and shaded seating areas provide a great opportunity for residents to enjoy fresh air, without being unduly exposed to the weather, be it rain, sunshine or heat.

ENSURE:

- there is good view from the building to outside verandah areas and shelters
- the exit to the outside verandah and seating areas is easily identified
- the path to the sitting areas is clearly defined

AVOID:

- placing sheltered seating areas out of sight and easy reach of the building

CONSIDER:

- direction of sun and wind to ensure that different areas can be used in different weather conditions
- furniture is inviting and ready to use (e.g. chairs not stacked in a corner)

6.8 Inside, is there a path that guides residents past areas that might invite participation in an appropriate activity (such as folding clothes, listening to music)?

The goal of designing the circulation within a building is not to keep residents moving, but rather to give them a rewarding experience. Residents may not have a clear idea of what they would like to do or what they are looking for. They may also have forgotten where the place they are looking for is. If places of interest are easy to see, and there are clear landmarks along the way, the destination can be highlighted and the journey will be more interesting. This journey could offer residents opportunities to engage with others, to sit quietly, to take in a view and to engage in some activities, e.g look at a newspaper, fold some laundry or reminisce about some old photos. In this way residents will be offered an experience that it is interesting and engaging.

ENSURE:

- the internal path is clearly defined and opportunities for participation are highlighted

AVOID:

- corridors with no view to other areas
- dead ends/corridors that lead to nowhere

CONSIDER:

- familiar landmarks along the way to important areas of the unit

6.9 Inside, does the path take residents past chairs that provide opportunities for rest and/or conversation?

It is important to recognise that residents may become tired while walking and so the environment needs to encourage them to take a rest when they need to do so. Seating areas should be readily seen and offer residents opportunities to engage with others, to sit quietly and/or to take in a view. The goal of designing the circulation within a building is not to keep residents moving, but rather to give them a rewarding experience. Places to sit are a key part of this experience.

ENSURE:

- the internal path is clearly defined and opportunities for sitting and resting or chatting are highlighted

AVOID:

- corridors with no view to other areas and no opportunities to rest

CONSIDER:

- familiar landmarks along the way to important areas of the unit so residents find it easy to have a sense of where they are

7. Create a familiar place

7.1 Are there any pieces of furniture in the lounge room that are of a design that are not familiar to the majority of residents?

Residents are likely to spend a large amount of time in the lounge and dining room. It is therefore important that these rooms are familiar to residents, as this can contribute to a sense of well being and calm. The presence of familiar furniture will not only help to create a warm and inviting atmosphere in the room, but will encourage residents to use the places and enjoy them. Materials and finishes need to be selected to allow for cleaning.

ENSURE:

- there is a variety of furniture types i.e. several styles of chairs
- a variety of furniture heights
- a variety of familiar furniture coverings
- finishes are selected to allow for cleaning of surfaces and fabrics

AVOID:

- commercial or institutional furniture selection
- repetitive use of furniture

CONSIDER:

- the domestic lounge and dining room as the model for furniture selection
- how familiar furniture can encourage people to find their favourite place
- furniture that is appropriate for inside and outside and can be easily moved from one to another

7.2 Are there any pieces of furniture in bedrooms that are of a design that are not familiar to the majority of residents?

As with the lounge and dining room, the bedroom should provide the comfort of familiarity. As the bedroom is often used only by one resident there are many opportunities to make the room reflect the early life of the individual. The selection of furniture can take many forms and will depend on the residents' life experiences and preferences.

ENSURE:

- at least some of the furniture has been selected to reflect the experience and preferences of the person who will sleep there
- hooks and rails on walls to hang photos and other objects

AVOID:

- extensive use of built in furniture
- selecting furniture without a clear understanding of the experiences and preferences of the person.

CONSIDER:

- which pieces of furniture are most familiar to a resident and how they can be accommodated

7.3 Have most of the residents decorated their bedrooms (e.g. with photos, pictures, objects)?

If residents' bedrooms are to be familiar to them, it will be vital that they are able to decorate them. This decoration can take many forms and will depend on the residents' life experiences, hobbies, likes and dislikes. For some people, a painting may suffice, for others photos of family and friends will be important. In a shared room, it is essential that residents are able to personalise a part of the room if they wish.

ENSURE:

- opportunity to display personal items
- hooks and rails on walls to hang photos and other objects

AVOID:

- decorating rooms prior to residents' having an opportunity to personalise the room

CONSIDER:

- areas of pin board or fabric covered materials that will allow an easily maintained surface for pinning photos and pictures onto the walls, while not compromising the domestic ambiance of the the room

7.4 Do residents have their own furniture in their own bedrooms?

If residents' bedrooms are to be familiar to them, it will be vital that they are able to choose to furnish them themselves. The furniture residents wish to bring will depend on the their life experiences, hobbies, likes, and dislikes. For some people, a simple piece of furniture may suffice, for others having a number of pieces of furniture will be important. In a shared room, it is essential that residents are able to personalise a part of the room if they wish.

ENSURE:

- bedrooms are not filled with built in furniture so there is no room for resident furniture
- rooms are of an adequate size to allow for resident furniture while not impeding the use of necessary equipment

AVOID:

- decorating rooms prior to residents' having an opportunity to personalise the room
- commercial or institutional furniture selection
- repetitive furniture and décor/colours

CONSIDER:

- the domestic bedroom as the model for furniture selection

8. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE UNIT

8.1 Within the unit, are there places where a small group of people can gather?

People can do different things and feel different emotions when they gather in a small group. For example, in a small group people may have a private conversation, listen to music or play cards. It is important that small groups of people can comfortably gather in the lounge or dining room without re-arranging the furniture. If the furniture has to be rearranged for people to gather in this way, it is less likely to happen and so opportunities for residents to experience a more private gathering will be lost.

ENSURE:

- furniture layouts accommodate small groups

AVOID:

- undifferentiated furniture arrangements that cater only for large groups
- furniture arrangements that require everyone to be together

CONSIDER:

- the varied use of dining and lounge areas for different group sizes
- flexible furniture design and layout to suit different group sizes

8.2 Within the unit, are there places where a person can be on their own and/or in private conversation (e.g. nooks, sitting areas)?

All units need to have a number of places where residents, friends, staff and families can sit, either on their own or with others. Small areas or nooks are an important way to give people many choices. They can be an area to the side of a corridor, a space at the end of a corridor, a bay window in a larger room, or a little room off a lounge or dining room. The more of these small areas or nooks there are in a unit, the greater the opportunity for residents to enjoy privacy or community.

ENSURE:

- small areas for quiet conversation/interaction are provided
- large lounge or dining rooms are edged with nooks and smaller areas for small groups and individuals
- nooks and the smaller edge rooms have a good view of the main room activities
- corridors, especially long corridors, are broken up by the provision of a space and furniture that enables people to have a conversation

AVOID:

- large undifferentiated places

CONSIDER:

- varying corridor and hall widths to accommodate small sitting places

8.3 How many different characters are there within the unit (e.g. cosy lounge, TV room, sunroom)?

Residents will come to live in the unit from a variety of lifestyles. They will also feel like doing different things at different times of day. It is important that all social places are not the same, but instead offer the opportunity for a variety of experiences. They should also take different times of day and seasons into account, for example it may be that a room receives morning sun but is cool in the afternoon, offering residents two different experiences. Furnishings and furniture should also have different characteristics to appeal to residents' different likes and dislikes.

ENSURE:

- a variety of social places are provided, each with different aspects and characteristics

AVOID:

- providing a number of rooms with similar aspect and appearance

CONSIDER:

- how rooms can be altered to suit new residents' needs and preferences

8.4 Does the dining room allow for a choice to eat alone?

Food often plays an important part in the lives of residents and their families. Eating alone is a very different experience to eating in a group. People's preferences for who they dine with will vary and be influenced by their life experiences and their culture. Residents' preferences can also change according to the climate and the day, as some days are a cause for celebration and others for quiet reflection. It is important that residents have the opportunity to eat on their own when they choose, as this is one way that they can influence how they live their lives. This possibility needs to be provided both inside and outside.

ENSURE:

- dining room can accommodate discreet small or individual dining
- furniture to suit small group and individual dining

AVOID:

- large open dining rooms with undifferentiated furniture layouts only suited to dining in large groups
- fixed furniture that precludes individual or small group dining

CONSIDER:

- the varied use of dining area for different group sizes
- flexible furniture design to suit different group sizes

8.5 Does the lounge room provide opportunities for people to be in private conversation?

Residents should be able to choose to socialise in different ways. Sometimes people may choose to spend time on their own or in a private conversation. The lounge room needs to allow residents' opportunities to gather in small groups for private conversation so that they can choose what is best for them at a particular time.

ENSURE:

- furniture arrangement in the lounge room can accommodate private conversations

AVOID:

- fixed structures and seating that preclude private conversations

CONSIDER:

- variety of furniture e.g. couches and sofas as well as chairs

8.6 Outside, are there places in the garden or outdoor area where a person can be on their own and/or in private conversation?

Residents should be able to choose to socialise in different ways. Sometimes people may choose to spend time on their own or in a small group. Certain activities are better suited to a more private setting, such as having a conversation. The outdoor environment needs to allow residents opportunities to gather in small groups in public and private so that residents can choose what is best for them at a particular time.

ENSURE:

- outdoor furniture arrangement encourages conversation
- the widths of verandah areas can accommodate small groups and still allow safe circulation past the group
- there are seasonal outside places where people can be on their own or in private conversation (shaded summer places and sunny winter places)

AVOID:

- wind and sun exposed seating and tables outside

CONSIDER:

- how the selection of outside furniture can support people to be on their own or in private conversation

9. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY

9.1 Is there easy access to places which encourage interaction and engagement with the wider community (e.g. children, knitting groups, church groups)?

A person living with dementia can become isolated and less engaged as they become frailer. Engagement with the wider community is vital to reinforce a person's identity, encourage interaction with other people and maintain the skills and interests of the person living with dementia. When community groups meet at the facility it is easier for residents to take part in these activities. This also plays an important role in reducing the stigma that can be associated with residential aged care facilities.

ENSURE:

- places are included in the facility which encourage the wider community to come to the facility for their meetings and activities

AVOID:

- isolating the unit so it is difficult for residents to gain access to other parts of the facility

CONSIDER:

- location of meeting rooms and gathering places so they are easily accessed by the wider community
- providing internal and external places for the community to use

9.2 Is there a room where families can share meals and/or celebrations with their relatives?

Sharing a meal together is a pleasure for many people. Much of life in a residential setting is communal and although this is often familiar and desirable, it is important that residents and their families also have the opportunity to gather in a more private setting to eat and relax if they wish to. The inclusion of such places are likely to encourage family and friends to visit a facility as they feel welcome and are able to interact with their loved one in the way they are used to in the community.

ENSURE:

- one or more areas or rooms which can be used by families to dine with a resident
- area is attractive and comfortable

AVOID:

- distractions near the area such as main circulation pathways
- signage with lots of rules and instructions

CONSIDER:

- flexible furnishings, flexible screening to accommodate small or large groups

9.3 Is there an easily accessible place where families and friends can feel comfortable while taking a break from visiting, (e.g. when visiting a very sick person)?

It is important that the facility includes places where families can retreat or withdraw and take a break, for example from visiting a very sick person.

ENSURE:

- an outdoor area or room in the facility which can be used by families as a place of retreat

AVOID:

- distractions near the area such as main circulation pathways
- signage with lots of rules and instructions

CONSIDER:

- flexible furnishings, flexible screening to accommodate small or large groups

10. DESIGN IN RESPONSE TO VISION FOR WAY OF LIFE

10.1 **What is the vision/purpose of the unit for people with dementia? To provide:**

- **a) A homelike environment**
- **b) A hotel like environment with hotel like services**
- **c) A medical care facility**
- **d) A lifestyle environment focusing on recreation, exercise or another aspect of lifestyle**
- **e) A centre of excellence for people with dementia**
- **f) Other . . .**

Residents are not all the same. They come to residential aged care with a variety of life experiences and preferences. They enjoy doing different things and will look to continue these as far as they are able in residential aged care.

It may not be possible for a residential facility to meet the needs of the full range of potential residents. There is a danger of being a 'jack of all trades and master of none'. It may be better for a facility to focus on a particular group of potential residents and their abilities and lifestyles, rather than partially meeting the needs of many.

The development of a clear vision for a way of life in the residential facility is vital. The vision will influence the design of the unit, for example a fully functioning kitchen is essential if the vision is one of taking part in ordinary activites of daily life. However, if the focus is instead on social activities, the kitchen may be replaced with a billiards room, a room for playing cards or a place for playing bowls or bocce. The vision will influence the priorities of a unit and how residents will spend their time within the unit and in the wider community. It will give the staff direction and help potential residents and their families decide whether the facility is likely to meet their needs.

ENSURE:

- there is a clearly articulated vision for how residents are to live, what they can do etc

AVOID:

- assuming all potential residents enjoy the same lifestyle and have the same needs

CONSIDER:

- ways in which the environment can enable the vision to be realised

10.2 How well does the built environment enable this to happen?

(Ask the manager or their representative for their view)

There are many ways of life. It is important that the environment supports the vision for the way of life that is being offered to the residents.

ENSURE:

- the vision is clearly articulated during the design of a building
- the amenities required to support the way of life are provided within the environment, e.g. a fully functioning kitchen is essential if the vision for a way of life involves full engagement with the ordinary activities of daily living. However, if the focus is social activities, the kitchen may be replaced with a billiards room or a room for playing cards.

AVOID:

- a bland environment intended to meet everyone's needs.
- trying to put a vision for a way of life into practice that is not supported by the environment.
- designing a building without a vision for way of life.

CONSIDER:

- how the environment can be adapted to meet changing residents' needs and preferences.

RESOURCE 4

Environmental Assessment Tool – Higher Care Handbook

APPENDIX 1

ENVIRONMENTAL ASSESSMENT TOOL - HIGHER CARE (EAT-HC)

ENVIRONMENTAL ASSESSMENT TOOL - HIGHER CARE

Date: Time: Facility

Unit: Observer:

1	UNOBTRUSIVELY REDUCE RISKS	N/A	NO	YES	ADD 1 IF UNOBTRUSIVE	SCORE
1	Can people who live in the unit be prevented from leaving the garden/outside area by getting over or under the perimeter? (N/A = no outside area)	N/A	0	1	1	
2	Can people who live in the unit be prevented from leaving the garden/outside area through the gate? (N/A = No outside area)	N/A	0	1	1	
3	Can the front door leading out of the unit be secured?	N/A	0	1	1	
4	Outside, is there step free access to all areas? (N/A = No outside area)	N/A	0	1		
5	Outside, are all floor surface materials safe from being slippery when wet? (N/A = No outside area)	N/A	0	1		
6	Outside, is the path surface even? (N/A = No outside area)	N/A	0	1		
7	Outside, are the paths clear of obstacles (e.g. trees, thorny plants) along and over the path? (N/A = No outside area)	N/A	0	1		
8	Outside, are the paths wide enough to allow two wheelchairs to pass? (Minimum width is 1.8 metres). (N/A = No outside area)	N/A	0	1		
9	Outside, are all ramps of a gradient suitable for wheelchair use? (Gradient 1 in 14 or less). (N/A = No outside area)	N/A	0	1		
10	Is there a way to keep residents out of the kitchen if required? (N/A = no resident accessible kitchen)	N/A	0	1	1	
11	Can appliances be locked away in the kitchen the residents use? (N/A = no resident accessible kitchen)	N/A	0	1	1	
12	Is there a switch to turn off electricity to power points in the kitchen the residents use? (N/A = no resident accessible kitchen)	N/A	0	1	1	
13	Inside, are all floor surfaces safe from being slippery when wet?		0	1		
14	Inside, is contrast between floor surfaces avoided (e.g. sharp distinction between bedroom floor and corridor)?		0	1		
15	Inside, are all ramps of a gradient suitable for wheelchair use? (Gradient 1 in 14 or less) (No ramps = 1)		0	1		
16	Is it easy to transfer a non-ambulant person from their bed to the ensuite/WC (using appropriate equipment)?		0	1		

2 PROVIDE A HUMAN SCALE

	Number of people	1-10	11-16	17-29	30+	SCORE
1	How many people live in the unit?	Score 3	Score 2	Score 1	Score 0	

	Scale of building	NO	YES
2	Does the scale (height and width) of the common areas allow a person to feel comfortable (and not uneasy because they are too big or too small)?	0	1

3 ALLOW PEOPLE TO SEE AND BE SEEN

						SCORE
1	What proportion of residents can see the inside of a lounge room as soon as they leave their bedroom?	**0-25%** Score 0	**26-50%** Score 1	**51% - 75%** Score 2	**76% - 100%** Score 3	
2	What proportion of residents can see their bedroom entry as soon as they leave a lounge room? (Bedroom entry includes bedroom door, architrave or other feature specific to a particular bedroom)	**0-25%** Score 0	**26-50%** Score 1	**51% - 75%** Score 2	**76% - 100%** Score 3	
3	What proportion of residents can see the inside of a dining room as soon as they leave their bedroom?	**0-25%** Score 0	**26-50%** Score 1	**51% - 75%** Score 2	**76% - 100%** Score 3	
4	Can the exit to a garden or outside area be seen from the lounge or dining room that is used by most residents? (N/A = no lounge, dining room or outside area)		N/A	NO Score 0	YES Score 1	
5	Can the dining room be seen into from the lounge room? (Answer with reference to lounge and dining room used by most residents) (N/A = no lounge or dining room)		N/A	NO Score 0	YES Score 1	
6	Can a toilet be seen from the lounge room that is used by most residents? (N/A = no lounge room)		N/A	NO Score 0	YES Score 1	
7	Can a toilet be seen from the dining room that is used by most residents? (N/A = no dining room)		N/A	NO Score 0	YES Score 1	
8	Can the lounge room that is used by most residents be seen into from where staff spend most of their time? (N/A = no lounge room)		N/A	NO Score 0	YES Score 1	
9	Can the dining room that is used by most residents be seen into from where staff spend most of their time? (N/A = no dining room)		N/A	NO Score 0	YES Score 1	
10	Can a garden or outside area for the residents be seen from where staff spend most of their time? (N/A = no outside area)		N/A	NO Score 0	YES Score 1	

Total score

4	MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION	NO	YES	SCORE
1	Are doors to cleaners' cupboards, storerooms and other areas where residents may find danger easily seen?	1	0	
2	Is the wardrobe (or cupboard) that the resident uses full of a confusing number of clothes and/or irrelevant objects?	1	0	
3	Is there a public address, staff paging or call system with bells, loudspeakers or flashing lights in use?	1	0	
4	Does the noise from closing doors disturb residents, (e.g. flapping kitchen doors, noisy automatic doors)?	1	0	
5	Is there a lot of visual clutter in the unit (i.e. notices, objects, furniture that are either irrelevant to residents or make it hard for them to interpret their environment)?	1	0	
6	Inside, can glare be avoided by using curtains and blinds?	0	1	

5	MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION						SCORE
1	Does each room have a distinctive character and feel (i.e. is it easy to identify a room as a dining room or a lounge room)?		NO Score 0		YES Score 1		
2	Is the dining room clearly recognisable from outside the room? (Answer with reference to dining room used by most residents) (N/A = no dining room)	N/A	NO Score 0		YES Score 1		
3	What percentage of residents have a clearly defined path from their room to the dining room (e.g. by using colour objects and signage, or can see the dining room from their room)?		**0-25%** Score 0	**26-50%** Score 1	**51-75%** Score 2	**76-100%** Score 3	
4	Is the lounge room clearly recognisable from outside the room? (Answer with reference to lounge room used by most residents) (N/A = no lounge room)	N/A	NO Score 0		YES Score 1		
5	Are different corridors clearly recognisable so residents can identify where they are? (N/A = no corridors)	N/A	NO Score 0		YES Score 1		
6	Are personalised signs, symbols or displays prominently displayed to identify bedrooms?		NO Score 0		YES Score 1		
7	Are shared ensuites/bathrooms/toilets clearly marked with a sign (text and symbol) or colour coded door? (N/A = no shared ensuite, bathroom or toilet)	N/A	NO Score 0		YES Score 1		
8	Is, or can, the bed be placed so that it is possible to see the toilet pan from the bed when lying down?		NO Score 0		YES Score 1		

5	MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION						SCORE
9	Do the toilet seats contrast with the background?		**0-25%** Score 0	**26-74%** Score 1	**75-100%** Score 2		
10	What percentage of residents have a window that provides an attractive view to the outside from their bed?		**0-25%** Score 0	**26-50%** Score 1	**51-75%** Score 2	**76-100%** Score 3	
11	Inside, are contrasting materials used so that edges of surfaces and objects can be easily seen (e.g. coloured borders, different floor, wall and ceiling colour)?		NO Score 0		YES Score 1		
12	Inside, are olfactory cues (such as perfumed flowers or kitchen smells) used to provide a variety of experiences for a person with dementia and help them know where they are?		NO Score 0		YES Score 1		
13	Inside, are tactile cues used to provide a variety of experiences for a person with dementia and help them know where they are (e.g. different floor finishes, fittings such as door handles)?		NO Score 0		YES Score 1		
14	Inside, are auditory cues used to provide a variety of experiences for a person with dementia and help them know where they are (e.g. music, sound of a water feature)?		NO Score 0		YES Score 1		
15	Outside, are contrasting materials used so that edges of surfaces and objects can be easily seen (e.g. coloured borders on paths, different colours and materials for seats and ground surfaces)? (N/A = no outside area)	N/A	NO Score 0		YES Score 1		
16	Outside, are a variety of materials and finishes used to create an interesting and varied environment for a person with dementia and help them know where they are (e.g. brick, timber stone, grass)? (N/A = no outside area)	N/A	NO Score 0		YES Score 1		
17	Outside, are olfactory cues (such as perfumed plants) used to provide a variety of experiences for a person with dementia and help them know where they are? (N/A = no outside area)	N/A	NO Score 0		YES Score 1		
18	Outside, are auditory cues used to provide a variety of experiences for a person with dementia and help them know where they are (e.g. wind chimes)? (N/A = no outside area)	N/A	NO Score 0		YES Score 1		
19	Inside, is there an attractive view to outside from the lounge and/or dining room for a person seated or lying down?		NO Score 0		YES Score 1		

6	SUPPORT MOVEMENT AND ENGAGEMENT	N/A	NO	YES	SCORE
1	Is there a clearly defined accessible path that avoids dead ends and locked exits and guides the resident from inside to outside and back to their starting point? (N/A = no outside area)	N/A	0	1	
2	Outside, is there a path that guides residents past areas that might invite participation in an appropriate activity? (N/A = no outside area)	N/A	0	1	
3	Outside, is there a choice of activities for residents to participate in (such as sorting tools, seeing birds, checking the clothesline)? (N/A = no outside area)	N/A	0	1	
4	Outside, are there chairs or benches at frequent intervals so people can sit and enjoy the fresh air? (N/A = no outside area)	N/A	0	1	
5	Outside, are there both shady and sunny areas along the path? (N/A = no outside area)	N/A	0	1	
6	Outside, does the path allow residents to be taken past a range of activities that they can passively participate in (such as looking at plants, watching birds)? (N/A = no outside area)	N/A	0	1	
7	Are there verandahs or shaded seating areas in close proximity to the building?		0	1	
8	Inside, is there a path that guides residents past areas that might invite participation in an appropriate activity (such as folding clothes, listening to music)?		0	1	
9	Inside, does the path take residents past chairs that provide opportunities for rest and/or conversation?		0	1	

7	CREATE A FAMILIAR PLACE	N/A	NONE	A FEW	MANY	SCORE
1	Are there any pieces of furniture in the lounge room that are of a design that are not familiar to the majority of residents? (Answer with reference to lounge room used by most residents) (N/A = no lounge room)	N/A	2	1	0	
2	Are there any pieces of furniture in bedrooms that are of a design that are not familiar to the majority of residents?		2	1	0	
3	Have most of the residents decorated their bedrooms (e.g. with photos, pictures, objects)?		0	1	2	
4	Do residents have their own furniture in their own bedrooms?		0	1	2	

8	PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE UNIT					SCORE
1	Within the unit, are there places where a small group of people can gather?	NO Score 0	1 Score 1	2 or more Score 2		
2	Within the unit, are there places where a person can be on their own/or in private conversation (e.g. nooks, sitting areas)?	NO Score 0	1 Score 1	2 Score 2	3 or more Score 3	
3	How many different characters are there within the unit (e.g. cosy lounge, TV room, sunroom)?	1 Score 0	2 or 3 Score 1	4 or more Score 2		
4	Does the dining room allow for a choice to eat alone?	NO Score 0		YES Score 1		
5	Does the lounge room provide opportunities for people to be in private conversation?	NO Score 0		YES Score 1		
6	Outside, are there places in the garden or outdoor area where a person can be on their own and/or in private conversation?	NO Score 0		YES Score 1		

9	PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY			SCORE
1	Is there easy access to places which encourage interaction and engagement with the wider community (e.g. children, knitting groups, church groups)?	NO Score 0	YES Score 1	
2	Is there a room where families can share meals and/or celebrations with their relatives?	NO Score 0	YES Score 1	
3	Is there an easily accessible place where families and friends can feel comfortable while taking a break from visiting (e.g. when visiting a very sick person)?	NO Score 0	YES Score 1	

10	DESIGN IN RESPONSE TO VISION FOR WAY OF LIFE		SCORE
1	What is the vision/purpose of the unit for people with dementia? To provide: a) A homelike environment b) A hotel like environment with hotel like services c) A medical care facility d) A lifestyle environment focusing on recreation, exercise or another aspect of lifestyle e) A centre of excellence for people with dementia f) Other . . .	Circle one option a b c d e f	
2	How well does the built environment enable this to happen? (Ask the manager or their representative for their view) 1 = not at all well 5 = extremely well	Circle one option 1 2 3 4 5	

EAT-HC ADDITIONAL ITEMS

Here are some additional questions you may wish to consider.

These are questions that did not meet measurement requirements for inclusion in the EAT-HC, but may nonetheless be useful for consultation purposes.

1	UNOBTRUSIVELY REDUCE RISKS	N/A	NO	YES	ADD 1 IF UNOBTRUSIVE	SCORE
a	Can people who don't live in the unit be prevented from getting in through the gate to the garden/outside area? (N/A = no outside area)	N/A	0	1	1	
b	Can all side doors leading out of the unit be secured? (This does not refer to side doors leading to a secure garden/outdoor area.)		0	1	1	
c	Can bedroom windows (and/or doors) be restricted in the extent to which they open so that people cannot climb in or out?	N/A	0	1	1	
d	Is there a lockable knife drawer in the kitchen the residents use (N/A = no resident accessible kitchen)	N/A	0	1	1	
e	Is the cook top in the kitchen the residents use a gas cooktop? (N/A = no resident accessible kitchen or no cooktop)	N/A	0	1		
f	Are rooms large enough to allow for the use of mobility aids (e.g. wheelchairs, frames)?		0	1		
	On the whole, how well do you think this facility responds to the principle of 'Unobtrusively reduce risk'? 1 = not at all well 5 = extremely well		Circle one option 1 2 3 4 5			

2	PROVIDE A HUMAN SCALE	N/A	NO	YES	SCORE
a	Does the detailing of the unit inside (e.g. use of different finishes and materials) focus on the human scale?		0	1	
b	Does the detailing of the unit outside (e.g. window finishes, variety of materials) focus on the human scale? (Is a person not dwarfed or intimidated by the facility when outside?) (N/A = No outside area)		0	1	
	On the whole, how well do you think this facility responds to the principle of 'Provide a human scale'? 1 = not at all well 5 = extremely well		Circle one option 1 2 3 4 5		

3	ALLOW PEOPLE TO SEE AND BE SEEN					SCORE
a	What proportion of residents can see their bedroom entry as soon as they leave a dining room? (Bedroom entry includes bedroom door, architrave or other feature specific to a particular bedroom)	**0-25%** Score 0	**26-50%** Score 1	**51-75%** Score 2	**76-100%** Score 3	
	On the whole, how well do you think this facility responds to the principle of 'Allow people to see and be seen'? 1 = not at all well 5 = extremely well			Circle one option 1 2 3 4 5		

4	MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION	N/A	NO	YES	SCORE
a	Is the noise from any kitchen disturbing for residents?		1	0	
b	Are deliveries of food, linen etc taken through resident areas such as lounge or dining rooms?		1	0	
c	Is there any constant source of noise that could be confusing or disturbing for residents (e.g. loud TV/radio left on regardless of people watching/listening)?		1	0	
d	Is the front door to the unit easily visible to residents?		1	0	
e	Is the service entry (where food linen etc is delivered) easily visible to residents?		1	0	
f	Are there mirrors that could be confusing or disturbing for residents?		1	0	
g	Are there unpleasant smells or odours?		1	0	
	On the whole, how well do you think this facility responds to the principle of 'Manage levels of stimulation - Reduce unhelpful stimulation'? 1 = not at all well 5 = extremely well		Circle one option 1 2 3 4 5		

5	MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION	N/A	NO	YES	SCORE
a	Are different parts of a long corridor clearly recognisable so residents can identify where they are? (N/A = no long corridor)	N/A	0	1	
b	In the daytime, when standing in the middle of the lounge room, can you (the observer) read this question using only daylight? (Answer with reference to lounge room used by most residents) (N/A = no lounge room)	N/A	0	1	
c	In the daytime, when standing in the middle fo the dining room, can you (the observer) read this question using only daylight? (Answer with reference to dining room used by most residents) (N/A = no dining room)	N/A	0	1	
d	In the daytime, when standing in the middle of a (typical) corridor, can you (the observer) read this question using only daylight? (N/A = no corridor)	N/A	0	1	
e	In the daytime, when standing in the middle of the resident accessible kitchen, can you (the observer) read this question using only daylight? (N/A = no resident accessible kitchen)	N/A	0	1	
f	In the daytime, when standing in the middle of the lounge room, can you (the observer) read this question using artificial light? (Answer with reference to lounge room used by most residents) (N/A = no lounge room)	N/A	0	1	
g	In the daytime, when standing in the middle of the dining room, can you (the observer) read this question using artificial light? (Answer with reference to dining room used by most residents) (N/A = no dining room)	N/A	0	1	
h	In the daytime, when standing in the middle of a (typical) corridor, can you (the observer) read this question using artificial light? (N/A = no corridor)	N/A	0	1	
i	In the daytime, when standing in the middle of the resident accessible kitchen, can you (the observer) read this question using artificial light? (N/A = no resident accessible kitchen)	N/A	0	1	
j	Inside, are a variety of materials and finishes used to create an interesting and varied environment for a person with dementia and help them know where they are? (e.g. timber flooring, vinyl, carpet, exposed roof beams, wall paneling)		0	1	
k	Outside, are tactile cues used to provide a variety of experiences for a person with dementia and help them know where they are (e.g. timber deck and concrete paths)? (N/A = no outside area)	N/A	0	1	
	On the whole, how well do you think this facility responds to the principle of 'Manage levels of stimulation - Optimise helpful stimulation'? 1 = not at all well 5 = extremely well		Circle one option 1 2 3 4 5		

6	SUPPORT MOVEMENT AND ENGAGEMENT	NO	YES	SCORE
a	Inside, is there a choice of activities for residents to participate in?	0	1	
b	Inside, does the route allow residents to be taken past a range of activities that they can passively participate in (such as enjoying a view, listening to music)?	0	1	
	On the whole, how well do you think this facility responds to the principle of 'Support movement and engagement'? 1 = not at all well 5 = extremely well	Circle one option 1 2 3 4 5		

7	CREATE A FAMILIAR PLACE	N/A	NONE	A FEW	MANY	SCORE
a	Are there colours in the furnishings or the decoration of the lounge room that are not familiar to the majority of residents? (Answer with reference to lounge room used by most residents) (N/A = no lounge room)	N/A	2	1	0	
b	Are there fittings and fixtures (e.g. taps, light switches) in the unit that are of a design that are not familiar to the majority of residents?		2	1	0	
	On the whole, how well do you think this facility responds to the principle of 'Create a familiar place'? 1 = not at all well 5 = extremely well	Circle one option 1 2 3 4 5				

8	PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE UNIT	N/A	NO	YES		SCORE
a	Near or within the unit, are there easily accessible places, other than the main lounge, where a group of more than 8 people can gather?		NO Score 0	1 Score 1	2 or more Score 2	
b	Outside, are there places in the garden or outdoor area where a small group of people can gather?		NO Score 0	YES Score 1		
	On the whole, how well do you think this facility responds to the principle of 'Provide a variety of places to be alone or with others in the unit'? 1 = not at all well 5 = extremely well			Circle one option 1 2 3 4 5		

9	PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY	N/A	NO	YES		SCORE
a	Is there easy access to places which encourage interaction and engagement with residents who live elsewhere on the site? (N/A = no other residents living on site)	N/A	0	1		
b	Does the building blend into the streetscape?		0	1		
c	Is there a place for residents to go to if they do not wish to take part in an activity involving visitors from the community?		0	1		
	On the whole, how well do you think this facility responds to the principle of 'Provide a variety of places to be alone or with others in the community'? 1 = not at all well 5 = extremely well			Circle one option 1 2 3 4 5		

RESOURCE 4

Environmental Assessment Tool – Higher Care Handbook

APPENDIX 2

EAT-HC PLANNING TEMPLATE

EAT-HC PLANNING TEMPLATE

KEY DESIGN PRINCIPLES						
		Unobtrusively reduce risks	Provide a human scale	Allow people to see and be seen	Manage levels of stimulation - reduce unhelpful stimulation	Manage levels of stimulation - optimise helpful stimulation
ACTIONS	**ISSUES**					
	How can we **re-use** what is there?					
	What can we do in the **short** term?					
	What can we do in the **medium** term?					
	What can we do in the **long** term?					

KEY DESIGN PRINCIPLES

		Support movement & engagement	Create a familiar place	Provide a variety of places to be alone or with others - in the unit	Provide a variety of places to be alone or with others - in the community	Design in response to vision for way of life
ACTIONS	**ISSUES**					
	How can we **re-use** what is there?					
	What can we do in the **short** term?					
	What can we do in the **medium** term?					
	What can we do in the **long** term?					

DEMENTIA FRIENDLY COMMUNITY - ENVIRONMENTAL ASSESSMENT TOOL (DFC-EAT)

HANDBOOK

RICHARD FLEMING
KIRSTY A BENNETT

RESOURCE 5

Environmental Design Resources

February 2017

Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

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Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

DEMENTIA FRIENDLY COMMUNITY - ENVIRONMENTAL ASSESSMENT TOOL HANDBOOK

RICHARD FLEMING
KIRSTY A BENNETT

RESOURCE 5

Environmental Design Resources

February 2017

DEMENTIA TRAINING AUSTRALIA

ENVIRONMENTAL DESIGN RESOURCES

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INTRODUCTION

This handbook is Resource 5 in a set of six Environmental Design Resources. The purpose of this handbook is to assist users of the Dementia Friendly Community - Environmental Assessment Tool (DFC-EAT) to systematically review and create better environments for people living with dementia.

There are three parts in the handbook.

Part 1 'Key Design Principles' contains a description of key design principles.

Part 2 'The Dementia Friendly Community - Environmental Assessment Tool (DFC-EAT)' introduces the DFC-EAT and provides directions for its use.

Part 3 'Using the Spreadsheet' contains a guide to scoring the DFC-EAT and showing the results graphically.

RESOURCE 5

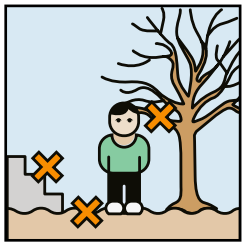
Dementia Friendly Community - Environmental Assessment Tool Handbook

PART 1

KEY DESIGN PRINCIPLES

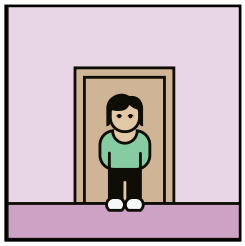
PART 1
KEY DESIGN PRINCIPLES

1. UNOBTRUSIVELY REDUCE RISKS



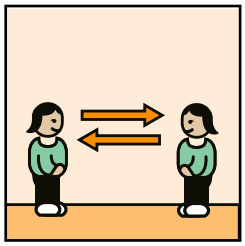
People with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks, such as steps or small changes of level, must be minimised and clearly marked. All safety measures must be unobtrusive as obvious safety features or barriers can lead to frustration, agitation and anger or apathy and depression.

2. PROVIDE A HUMAN SCALE



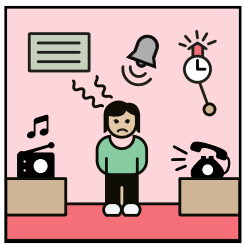
The scale of a building can affect the behaviour and feelings of a person with dementia. The experience of scale is influenced by three key factors; the number of people that the person encounters, the overall size of the building and the size of the individual components (such as doors, rooms, corridors and foyers). A person should not be intimidated by the size of the surroundings or confronted with a multitude of interactions and choices. Rather, the scale should encourage a sense of wellbeing and enhance the competence of a person.

3. ALLOW PEOPLE TO SEE AND BE SEEN



The provision of an easily understood environment will help to minimise confusion. It is particularly important for people with dementia to be able to recognise where they are, where they have come from and where they can go. When a person can see key places (such as the approach to the entry, the entry and the destination) they are more able to make choices and see where they might go. Buildings that provide these opportunities are said to have good visual access. Good visual access opens up opportunities for engagement and gives the person with dementia the confidence to explore their environment.

4. MANAGE LEVELS OF STIMULATION - REDUCE UNHELPFUL STIMULATION

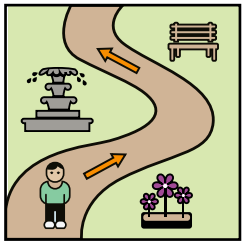


Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person living with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not specifically helpful to the person with dementia, such as unnecessary or competing noises and the sight of signs, posters, advertising, merchandise and clutter. The full range of senses must be considered. Too much visual stimulation is as stressful as too much auditory stimulation.

5. MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION

Enabling the person with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty. Consideration needs to be given to providing redundant cueing i.e. providing a number of cues to the same thing, recognising that what is meaningful to one person will not necessarily be meaningful to another. Using text and image in signs is a simple way to do this. Encouraging a person to recognise a business or shopfront by highlighting the entry, using distinctive finishes and indicating the services/items that are available is a more complex one. Cues need to be carefully designed so that they do not add to clutter and become over stimulating.

6. SUPPORT MOVEMENT AND ENGAGEMENT

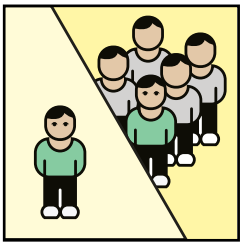


Purposeful movement can increase engagement and maintain a person's health and wellbeing. It is encouraged by providing a well defined pathway, free of obstacles and complex decision points, that guides people past points of interest (such as a building entry or place to sit) and offers opportunities to engage in activities or social interaction.

7. CREATE A FAMILIAR PLACE

A person with dementia is more able to use and enjoy spaces and objects that are familiar to them from their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours. Toilets, hand basins and taps for example, need to be clearly recognizable, so that people living with dementia are able to use them easily.

8. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS



People with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of places in a public building, so that there is an opportunity to withdraw from larger places and be one's own or in a smaller place with a few others. These places should be provided in the internal and external environment.

These principles are an extension of work first published in 1987 [1] and continued in 2003[2].

References

1. Fleming, R. and J. Bowles, Units for the confused and disturbed elderly: Development, Design, Programming and Evaluation. Australian Journal on Ageing, 1987. 6(4): p. 25-28.
2. Fleming, R., I. Forbes, and K. Bennett, Adapting the ward for people with dementia, 2003. Sydney: NSW Department of Health.

RESOURCE 5

Dementia Friendly Community - Environmental Assessment Tool Handbook

PART 2

THE DEMENTIA FRIENDLY COMMUNITY - ENVIRONMENTAL ASSESSMENT TOOL (DFC-EAT)

PART 2

THE DEMENTIA FRIENDLY COMMUNITY - ENVIRONMENTAL ASSESSMENT TOOL (DFC-EAT)

INTRODUCTION TO THE DFC-EAT

The Dementia Friendly Community - Environmental Assessment Tool (DFC-EAT) was developed to provide a systematic framework for reviewing public and commercial buildings and identifying areas for improvement. It is organised around key design principles and the typical parts of the journey a person takes when visiting a building. These principles are evidence based (refer to Resource 1 of these Environmental Design Resources for more information).

A copy of the DFC-EAT is provided at the back of this handbook (Appendix 1).

ACKNOWLEDGEMENTS

This assessment tool was developed under the auspices of Alzheimers Australia by a team of people from the University of Wollongong, Kiama Council, individuals living with dementia and their carers. The testing and refinement of the tool was supported by a grant from the Dementia Collaborative Research Centre – Assessment and Better Care (DCRC-ABC) based in the University of New South Wales.

BACKGROUND

Across the world there is a growing recognition of the need to make our communities more supportive of people with dementia. If we are to succeed in doing this we need to be able to identify how public and commercial buildings help (or hinder) people with dementia to carry out the normal tasks of life; shopping, paying bills, visiting the doctor, etc. The DFC-EAT has been developed to help with identifying the problems that people with dementia may face in using buildings such as shops, banks, libraries and medical practices. By using the DFC-EAT, settings may be improved and we can learn how to design and maintain more supportive public and commercial buildings in the future.

THE FOUNDATIONS OF THIS TOOL

There has been considerable research into the design of residential aged care facilities for people with dementia but limited research into the design of public and commercial buildings used by people with dementia. This research has been reviewed and the results used by a team that included people living with dementia, their carers, a town planner, mapper, architect, graphics designer, occupational therapist, physiotherapist, psychologist and community development officers to develop this tool. The questions have been organised around eight of the principles of design used in the Environmental Assessment Tool (EAT) (Fleming, Forbes and Bennett 2003). A detailed description of the development of the tool is available (Fleming, Bennett and Preece in press).

USING THE DFC-EAT

The assessment covers the journey to and from the destination where the person with dementia will complete their task (such as make a purchase, choose a book, pay a bill, etc.). It begins with the ***approach to the entry***, then the ***entry space***, continues along the ***route to the destination***, examines the ***destination*** itself, and then covers the ***route from the destination*** to the exit.

The assessment may be carried out by one person but as the purpose is usually to stimulate discussion about the strengths and weaknesses of the building it is better carried out by two or more assessors who are involved in developing a plan to improve the useability of the building. Different perspectives will add value to the assessment. Whenever possible key stakeholders, e.g. users of the building who have dementia, managers who have the authority to bring about change or 'champions' who wish to stimulate a discussion about improvement, should be involved. Ideally all assessors should complete the tool at the same time to reduce the impact of changes in weather/other conditions.

The assessment is carried out by the assessors simulating a visit to the building to carry out a particular task. It involves walking up to the building, through it to the place where the task will be completed and then walking to the exit. It can be very useful to take photographs to illustrate the good and the bad points of the building. These will help to explain your findings to others.

GETTING STARTED

To complete this tool successfully you will need to:

1. Begin by defining the purpose of the visit to the building, for example, going to choose a large print book in a library. This will identify the destination of the journey.
2. Agree the specific route to be taken to and from the destination, and whether column 2 '***Entry space***' is to be completed at all. You may wish to record the route as a sketch or with photos for future reference.

   If the building provides a variety of destinations, as in a library, it may be necessary to repeat parts of the assessment for a number of different destinations to gain a full picture of the strengths and weaknesses of the building. If you decide to choose a large print book, for example, then the destination is likely to be different from going to seek some information. On the other hand, you may wish to only assess one part of the journey through the building: perhaps you only want to be sure that the person with dementia is enabled to get from the entry to a particular destination. In that case you would only use the '***Route to the Destination***' column and the ***Destination*** column once.
3. Start the journey outside the building, at about 20 metres from the entrance.
4. Complete each of the five columns in the DFC-EAT in order of the journey from ***approach to the entry***, through the ***entry space***, ***route to the destination***, complete the task at the ***destination*** and then return via ***route from the destination*** to the exit.

SCORING THE DFC-EAT

As an assessor you are asked to record the extent to which you agree with a set of statements under each Principle. These statements describe different aspects of the building that you are assessing. The table below summarises the available scoring in the DFC-EAT.

Disagree	0	0% to 33%
Partially Agree	1	34% to 65%
Agree	2	66% to 100%

Indicate your agreement with statements in the assessment tool by writing 0, 1 or 2 in each box, where 0 = Disagree; 1 = Partially Agree; and 2 = Agree. It may be helpful to think of these scores as representing a range of agreement (rather than a simple yes or no) with 'Agree' indicating above 66% , 'Partially Agree' representing a band of agreement from 34% to 65% and 'Disagree' not necessarily indicating total disagreement but representing a band of agreement below 34%.

The DFC-EAT may also be completed by a number of people and the scores determined by the consensus view. This encourages discussion, familiarises more people with the principles of good design and facilitates ownership of the results of the assessment.

RESULTS OF THE DFC-EAT

Scores can be summarised on the tool under the key aspects of the journey: ***approach to the entry***, the ***entry space***, the ***route to the destination***, the ***destination*** and the ***route from the destination***.

Alternatively, the results of the DFC-EAT can be entered into an Excel spreadsheet. (For more information about scoring refer to Part 3 of this handbook).

RESOURCE 5

Dementia Friendly Community - Environmental Assessment Tool Handbook

PART 3

USING THE SPREADSHEET

PART 3
USING THE SPREADSHEET

ENTERING THE DATA

The results of the DFC-EAT can be entered on an Excel spreadsheet which is available at http://www.dementiatrainingaustralia.com.au. This allows the data to be shown graphically.

As the score is entered, the cell in the spreadsheet will change colour. Items that have scored 0 (Disagree) are flagged in red, and those that scored 1 (Partially Agree) in amber. Those that scored 2 (Agree) are shown in green.

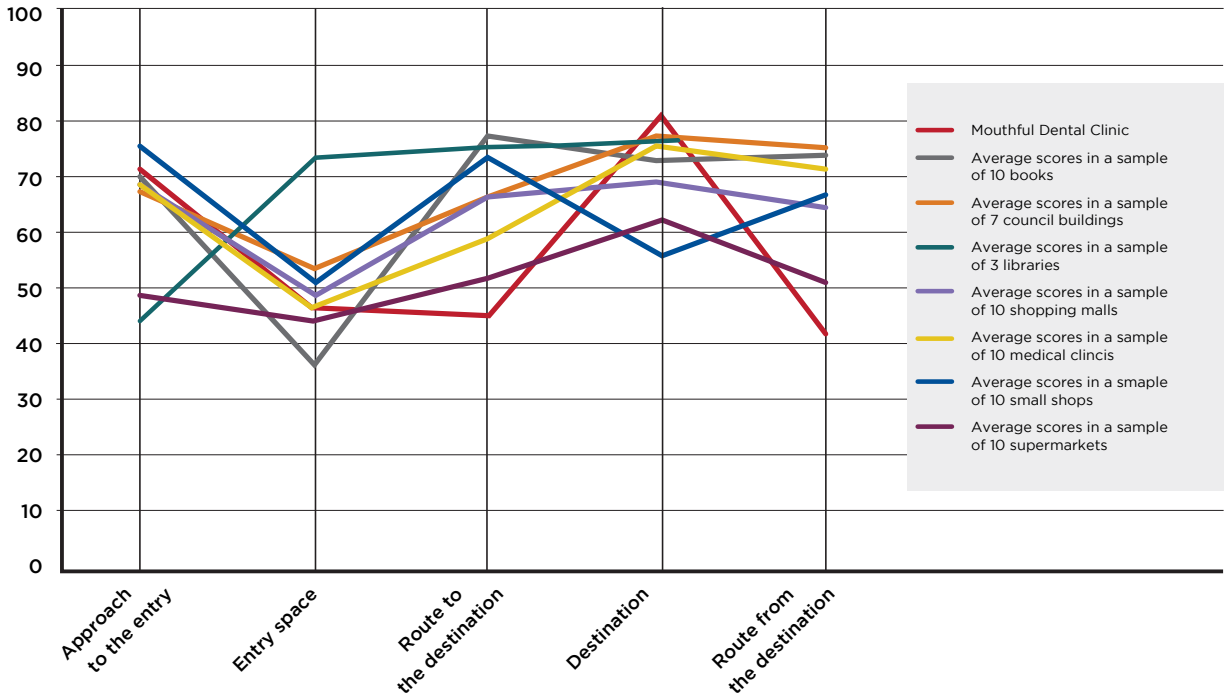
DISCUSSION OF RESULTS

The spreadsheet will assist in identifying the strengths and weaknesses of the building being assessed. A graphical comparison of the results will show how the building that has been assessed compares with a sample of other buildings of the same type and highlight the main areas of concern.

The sample comprises 10 sets of six types of buildings, 60 buildings in total. The locations of the sets of buildings were selected to cover the range of metropolitan areas to small regional towns. Each set comprised a bank, shopping mall, medical facility, council building, small shop and a supermarket.

In the following example, it is clear that the Mouthful Dental Clinic presents some problems for people with dementia once they enter the building and make their way to their destination (the reception desk). These problems seem to repeat themselves as the person leaves the building (route from the destination). The Clinic can also be compared to the average scores of 10 medical clinics, to indicate possible areas for room for improvement.

	APPROACH TO THE ENTRY	ENTRY SPACE	ROUTE TO THE DESTINATION	DESTINATION	ROUTE FROM THE DESTINATION
Average scores in a sample of 10 banks	70%	37%	78%	73%	74%
Average scores in a sample of 7 council buildings	68%	54%	67%	77%	76%
Average scores in a sample of 3 libraries	45%	72%	76%	76%	77%
Average scores in a sample of 10 shopping malls	68%	49%	67%	70%	65%
Average scores in a sample of 10 medical clinics	68%	47%	60%	76%	72%
Average scores in a sample of 10 small shops	73%	51%	74%	56%	67%
Average scores in a sample of 10 supermarkets	49%	45%	53%	63%	51%



PLANNING CHANGES

After you have completed the assessment, you can use the information to inform a discussion with key stakeholders about how the built environment can be improved to better meet the needs of people with dementia.

It is recommended that the discussion begins with a consideration of the graph which provides an overall picture of the strengths and weaknesses of the building. This will help the stakeholders to see the building through the lens of the design principles and to discuss how the building performs in relation to other, similar buildings.

NB Currently the graph provides a limited amount of comparative data. This will expand as the use of the DFC-EAT increases within the community. Updates will be available from the same source as the spreadsheet.

A more detailed discussion of future improvements can be stimulated by reviewing each red flag item (Disagree=0) on the spreadsheet and discussing it in response to four key questions:

- **Current: 'How can we re-use what is there?** Can we improve this situation by using our existing resources differently?' There might be some chairs available, for example, that can be used to furnish a small, quiet area where a person having difficulty in dealing with levels of stimulation can sit for a while.
- **Short term: 'What can we do in the short term?'**, which may mean 'What can we do with a small amount of money?' or 'What can we do as part of our planned maintenance works?'
- **Medium term: 'What can we do in the medium term?'** i.e. 'What can we do at the end of the financial year when there are some funds left over? Can we plan allocate some money in next year's budget to achieve this change? Can we apply for a grant or contact the local service organisation?'
- **Long term: 'What can we do in the 'long term?** or 'Does this need to be put into the capital works budget? Does this need to be the subject of ongoing strategic planning and fundraising?'

Once all the items highlighted in red (Disagree=0) have been discussed, the amber items (Partially Agree=1) should be considered.

The results of a structured discussion like this can be recorded in a Planning Template as illustrated below.

DFC-EAT Planning template (full scale version in Appendix 2)

KEY DESIGN PRINCIPLES									
		Unobtrusively reduce risks	Provide a human scale	Allow people to see and be seen	Manage levels of stimulation - reduce unhelpful stimulation	Manage levels of stimulation - optimise helpful stimulation	Support movement and engagement	Create a familiar place	Provide a variety of places to be alone or with others
ACTIONS	**ISSUES**								
	How can we re-use what is there?								
	What can we do in the short term?								
	What can we do in the medium term?								
	What can we do in the long term?								

RESOURCE 5

Dementia Friendly Community - Environmental Assessment Tool Handbook

APPENDIX 1

DEMENTIA FRIENDLY COMMUNITY - ENVIRONMENTAL ASSESSMENT TOOL

Location:

Date: Time:

Destination and purpose of visit:

Weather:

Unusual circumstances, e.g. building works going on:

Assessors:

Describe route to and from the destination: define specific travel route (attach sketch/photos for record purposes)

DESCRIPTION OF COLUMNS

1 Approach to the entry:	The approach commences a maximum of 20m away from the entry. It includes the car park (if it is situated in front of/ to the side of the building), the streetscape, the footpath and the outside of the entrance door as viewed from the approach.
2 Entry space:	This space starts from inside the building at the entry door threshold. It may include an airlock space and/or a foyer. In some instances there may not be a specific entry space, and the route to the destination (No.3) may commence from the entry door threshold. This column would not be completed when this occurs.
3 Route to the destination:	The route commences at the end of the entry space (or at the entry door threshold if there is no entry space) and extends to the destination. The route may (or may not) be a specifically defined aisle/corridor/path.
4 Destination:	This is the place that is the purpose of the visit. It may be a specific room e.g. waiting room, or a specific area e.g. a counter. In this case the space immediately in front of and to the side of the counter should be considered as part of the destination.
5 Route from the destination:	This is the route taken from the destination (No.4) to reach the exit. It includes the inside view of the exit door and the entry space (where there is one). The route used in No 3 should be retraced in the opposite direction back to the exit, unless there is a more convenient or obligatory exit route.

0 = DISAGREE 1 = PARTIALLY AGREE 2 = AGREE		APPROACH TO THE ENTRY	ENTRY SPACE	ROUTE TO THE DESTINATION	DESTINATION	ROUTE FROM THE DESTINATION
UNOBTRUSIVELY REDUCE RISKS	All areas are free from dark shadows or bright glare.					
	All areas are well lit.					
	All areas can be accessed without need to negotiate steps/ stairs.					
	All changes in surface levels are safe. Consider clear marking of level changes, illumination, presence of handrails and non-slip surfaces. (Score 2 if no level changes)					
	Gradients of all ramped areas are safe for people using a wheelchair or walking aid. (Score 2 if no ramps)					
	The way to the next stage of the journey is clearly visible and safely accessible. Consider ease of access to path, trip hazards at the edge of the path, slipperiness, evenness, width sufficient for 2 people to pass, absence of obstacles on the path.					
	All manually operated entry doors /gates are easily operated e.g. have lever handles/push plates. (Score 2 where gates/ doors are automatic or not present)					
PROVIDE A HUMAN SCALE	The size and scale of the space allows a person with dementia to feel comfortable and at ease e.g. not too large or too confined.					
	The number of people present in the space allows the person living with dementia to feel comfortable and at ease.					
ALLOW PEOPLE TO SEE AND BE SEEN	The entry/exit can be easily identified.					
	The way to a toilet can be easily seen.					
	The next destination can be easily seen and identified e.g. enquiry desk, aisle, corridor, office, way back to exit.					
	The final destination allows the person with dementia to see all of the areas that they may wish to use.					
MANAGE LEVELS OF STIMULATION - REDUCE UNHELPUL STIMULATION	The space is free from distracting visual clutter i.e. notices, advertisements, objects, street furniture that are irrelevant.					
	Signage provides simple, essential information at decision points.					
	Entry to areas where a person living with a dementia may be exposed to danger are not easily seen or accessed, e.g. they are the same colour as the wall.					
	Background noise is of a low level.					
	Public address systems are used minimally and only when necessary (Score 2 if not present).					
	There are no alarming or disturbing noises, e.g. flapping doors, noisy automatic doors.					
	There are no confusing odours, e.g. a bakery competing with a florist.					
	Floor finishes do not have patterns with a high level of contrast .					

0 = DISAGREE 1 = PARTIALLY AGREE 2 = AGREE		APPROACH TO THE ENTRY	ENTRY SPACE	ROUTE TO THE DESTINATION	DESTINATION	ROUTE FROM THE DESTINATION
MANAGE LEVELS OF STIMULATION - OPTIMISE HELPFUL STIMULATION	Cues, such as recognisable images or symbols, are positioned at decision points such as junctions and turnings along the journey to the next destination.					
	Signs assist the person with dementia to complete the journey and task.					
	Objects and/or furniture clearly show people that they are on the correct part of the journey.					
	The variety of materials and finishes present create an interesting journey to and from the destination and help the person with dementia identify the stages of the journey (e.g. brick, timber, concrete, stone, grass)					
	Olfactory cues are present that provide a variety of experiences and help identify the stages of the journey (e.g. smell of perfumed plants, bakery, cafe).					
	Auditory cues are present that provide a variety of experiences and help identify the stages of the journey.					
SUPPORT MOVEMENT AND ENGAGEMENT	There are both shady and sunny areas along the journey.					
	The journey is pleasant.					
	Seating or nooks enable a person living with a dementia to sit and rest.					
	Spaces provide opportunities to participate in or observe activities of interest.					
CREATE A FAMILIAR PLACE	The space is welcoming.					
	The function of the space is obvious, e.g. a foyer, a thoroughfare leading to a destination.					
	Architectural design features, including landscaping and furniture, are familiar and easily understood by a person with dementia.					
	Colours and decor are familiar.					
PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS	Seating is provided to allow the person with dementia to sit quietly by themselves or with a small number of others.					
	The space promotes easy and comfortable interaction with people of different ages and interests.					
	Total Score					

RESOURCE 5

Dementia Friendly Community - Environmental Assessment Tool Handbook

APPENDIX 2

PLANNING TEMPLATE

APPENDIX 2

DFC-EAT PLANNING TEMPLATE

KEY DESIGN PRINCIPLES					
		Unobtrusively reduce risks	**Provide a human scale**	**Allow people to see and be seen**	**Manage levels of stimulation - reduce unhelpful stimulation**
ACTIONS	**ISSUES**				
	How can we **re-use** what is there?				
	What can we do in the **short** term?				
	What can we do in the **medium** term?				
	What can we do in the **long** term?				

KEY DESIGN PRINCIPLES					
		Manage levels of stimulation - optimise helpful stimulation	**Support movement & engagement**	**Create a familiar place**	**Provide opportunities to be alone or with others**
ACTIONS	**ISSUES**				
	How can we **re-use** what is there?				
	What can we do in the **short** term?				
	What can we do in the **medium** term?				
	What can we do in the **long** term?				

INDIGENOUS AGED CARE DESIGN GUIDE

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February 2017

Dementia Training Australia

HEALTHABITAT

This Guide was developed under the leadership of Paul Pholeros (Director, Paul Pholeros Architects and Health Habitat) working with the team of Kirsty Bennett, Adrian Welke and Maureen Arch. It has been completed with support from Dementia Training Australia.

Illustrations by Paul Pholeros and Adrian Welke.

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INDIGENOUS AGED CARE DESIGN GUIDE

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February 2017

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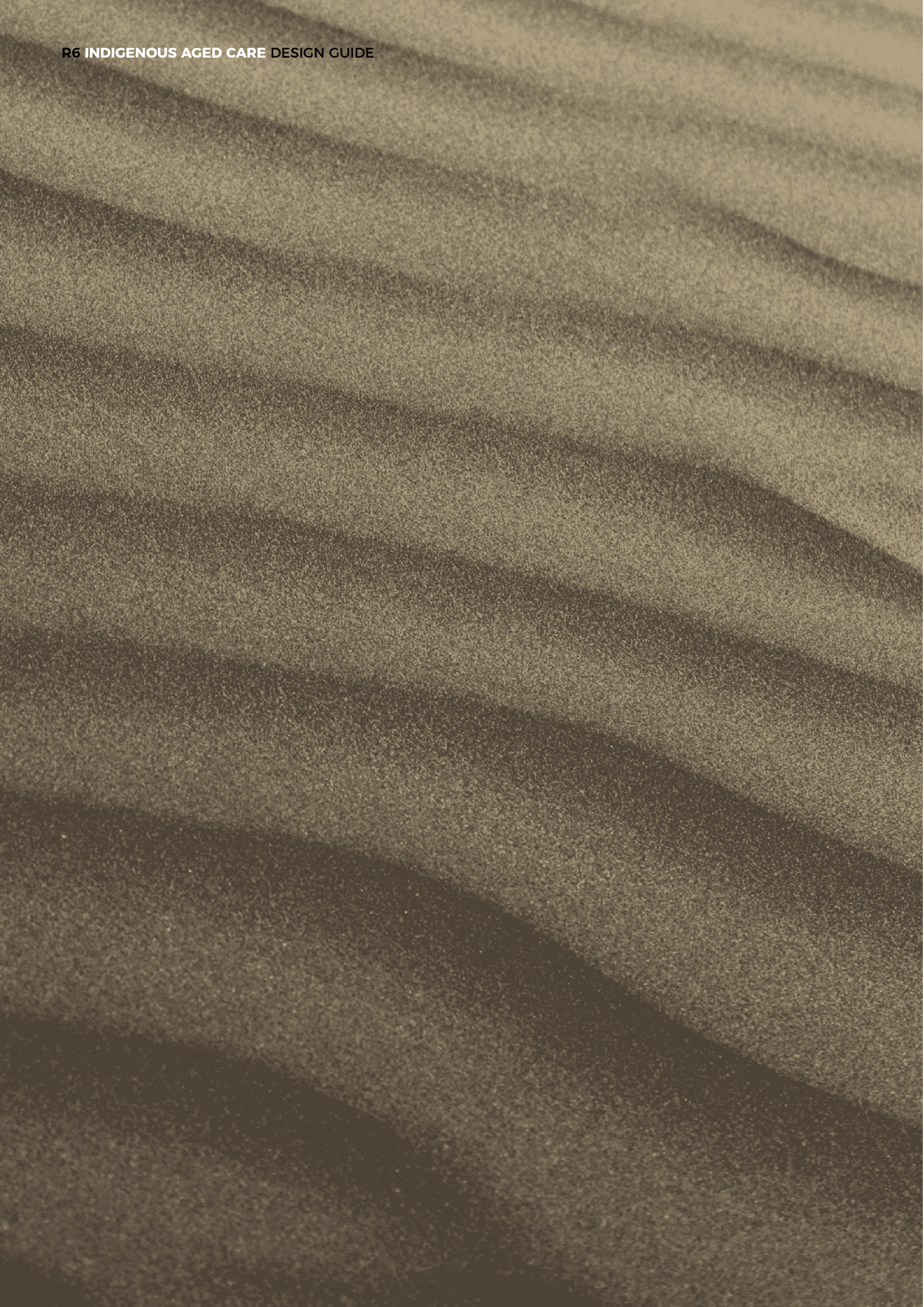
HEALTHABITAT



DEMENTIA TRAINING AUSTRALIA

ENVIRONMENTAL DESIGN RESOURCES

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Glossary of Terms

Indigenous

Is used to refer to Australian Aboriginal and Torres Strait Islander peoples

Facility

Is used to describe all the buildings and outside areas that make up the setting where care is provided

Unit

A building or buildings where residents live. This will contain lounge and or dining area, bedrooms and bathrooms. The unit may contain a resident kitchen and or outside cooking area. A facility may contain many units.

Resident

Is a person who occupies a facility

Older person

This term is used when referring to the design principles relevant to the lives of all older people who may or may not be residents of an aged care facility

Resident kitchen

Is a domestic scale kitchen that can be used by residents, families and visitors and is not intended to be used for the production of meals for the facility.

Critical items

(In en-suites,bathrooms, toilets and kitchens) is used to indicate that all parts of a service have to be working to ensure function essential for the safety and health of the residents.

Scale

In proportion to the surroundings

Outside area

A place where residents can gather. A verandah is not considered to be an outside area when it is the main circulation path or corridor.

Outside shelter

A traditional structure, gazebo or other built structure

Shady place

Not a built structure. Any place where shade is available eg under a tree, a place under the eaves of a building or the shadow cast by a building.

i) INTRODUCTION AND BACKGROUND

The Indigenous Aged Care Design Guide (also referred to as the Guide) is a resource to assist in the design, construction, ongoing assessment and maintenance of aged care facilities for Aboriginal and Torres Strait Islander peoples. This Guide provides practical information on the design, selection, installation, construction, renovation and maintenance of all aspects related to aged care facilities. It is a resource for everybody involved in providing aged care services to Indigenous people, including community councils, Indigenous workers, architects, project managers, trades people and government officials. This Guide is Resource 6 in a set of six Environmental Design Resources.

The Guide is organised around 10 key design principles. These are:

1. Unobrusively reducing risk
2. Focusing on the small scale
3. Seeing and being seen
4. Hiding unimportant things
5. Emphasising important things
6. Moving about and engaging
7. Creating a recognisable and meaningful place
8. Choosing to be on your own or with others
9. Being part of the community
10. Doing what you want to do

The design principles will need to be applied during the building's initial design and during its ongoing life. One of the most important reasons for increasing our understanding of these design principles is that the environment is not a static entity. From the day a building or outdoor landscape is 'complete' it takes on a life of its own, as people move furniture, shut doors, close curtains, plant trees and turn off lights. All of these actions influence the environment and how it is used: if a door is closed and lights are turned off it is unlikely that residents and visitors will feel encouraged to use the space. If the curtains are closed a resident will not be able to enjoy the view that the window looks out onto. It is important that we gain a better understanding of the impact on our actions on the environment and understand how older Indigenous people can get the most out of the environment.

The Indigenous Aged Care Design Guide contains the Indigenous Environmental Assessment Tool (IEAT). The IEAT is organised around the design principles and contains a number of questions that relate to each principle. The IEAT also refers to Building Services Survey sheets which will be particularly useful in the ongoing assessment of the facility.

The Indigenous Aged Care Design Guide is also linked in format to the key principles of the National Indigenous Housing Guide (NIHG). It is recommended that the NIHG is seen as a companion reference to the Indigenous Aged Care Design Guide particularly in the area of building function. The National Indigenous Housing Guide is available from the Heatlh Habitat website:

The NIHG contains details and extensive references that are particularly relevant to the design and maintenance of health hardware[1] in rural and remote conditions around Australia.

Despite aged care facility buildings and residential housing having different functions, many problems of specification and maintenance of these buildings will be common. For example taps, hot water systems, toilets, showers, kitchens and drains need to function to be able to support the safety and healthy living practices which are equally applicable in the aged care facility or house.

The Indigenous Aged Care Design Guide and IEAT will provide a vital resource for continuous improvement in the provision of high quality aged care to Indigenous people.

Who will use the Guide?

The main users of the Guide are:

- **Design and planning:** An aged care service intending to design and build a new facility may use the Guide to assist in briefing the designers. The Indigenous aged care committee involved in the planning and design process may use the principles set out in this Guide to activate discussion and raise issues previously not considered. As the design work proceeds, the Guide can be used to monitor progress.
- **Ongoing assessment:** The management of an existing facility may use the Indigenous Environmental Assessment Tool found within the Guide to regularly assess the facility against the 10 key principles. Whilst some parts of the building structure may not be easily renovated to improve the IEAT scores, parts of the facility may be altered or maintained to ensure the key principles are able to be achieved.
- **Building Maintenance:** The Indigenous Environmental Assessment Tool also contains references to specific building function tests that enable the regular checking of essential services throughout the facility. Managers of the facility can use these tests to activate maintenance on parts of the building to ensure ongoing safety and function.

1 Health hardware – originally used by Dr Fred hollows to describe the physical equipment necessary for healthy, hygienic living. The equipment must have design and installation characteristics that allow it to function and to maintain or improve health status. In a water system for example, health hardware includes both the bore and the basin plug, as well as the shower rose, taps and drain.

Planning a residential aged care facility

This Guide provides some overarching principles that should be considered when designing a facility. While considering these principles, there will be a number of other factors that also need to be taken into account in any design. These include the:

- operation of the facility,
- availability of essential services,
- climate and environmental factors (eg prevailing winds, sun, noise, water quality),
- position of sacred or ceremonial areas,
- views,
- access to staff, medical care and general supplies
- future expansion of the facility.

Creating an enabling environment – accessibility

It is essential that older Indigenous people are able to use their remaining abilities to the full, despite the often signficant range of illnesses and frailties that an Indigenous person may experience.

Support should be provided in an unobtrusive manner while allowing people opportunities for independence. Older people need to be able to move freely inside and outside without encountering barriers such as steps or trip hazards. Supports such as handrails need to be provided, but this should be done in a way that does not emphasise them unnecessarily. Tap and door handles need to be easy to use and spaces large enough to accommodate the use of mobility aids. Door closers, if used, should be adjusted to make it easy to open doors.

Why this is a design guide and not an operational manual

The purpose of this Guide is to assist design, construction, operation and maintainenance of high quality residential aged care facilities. While design takes into account the operation of a facility, this is a Guide to provide information on the design of facilities and not the operation of them. This Guide contains key design principles. It is for the client and architect to explore how these can best be interpreted and applied for each particular client group in that specific cultural and physical setting.

How the operation of the facility will influence design

There are many ways to operate a residential aged care facility. The operation of the facility must be considered at all times during the design process: it is no good constructing a building and then deciding how to run it. At the same time any facility must be designed to allow for a degree of operational flexibility, as circumstances will change during the life of the facility. The canvassing of operational models is beyond the scope of this design Guide, but typically will be influenced by factors such as:

- the particular philosophy of the organisation,
- the skill level of the staff,
- the availability of staff,
- the involvement of volunteers and families in the facility,
- the level of resident frailty,
- available funding.

Role of staff

Staff play a critical role in any residential aged care facility. While it is the residents' home, it is also a workplace and staff need to be able to carry out their tasks in an environment that is safe and healthy for them. This Guide describes a number of key design principles that should be considered when designing a residential aged care facility. Occupational health and safety (OH&S) needs for staff should also be considered within this framework of principles. Legislative requirements vary between States and Territories. A number of publications are available which already provide information on compliance requirements in areas such as Occupational Health and Safety (OH&S), infection control,use of chemicals, certification and building standards. References to these standards and manuals are provided in Appendix 3.

A detailed description of these considerations are not the subject of this Guide.

Staff needs vs resident needs

When designing any building it will not always be possible to meet everyone's needs. Many of the facility designs that will result from the application of the principles outlined in this Guide will result in a residential aged care facility which is more appropriate for staff as well as residents. For example, where residents can see staff, staff can see residents. When residents are happy, because they are able to live their lives as they wish, the job of staff to care for them is easier. A design which enables staff to spend time with residents and engage in more interaction will lead to both staff and residents feeling more satisfied and rewarded. Poor facility design and planning will require greater staff supervision.

There are also some areas that will impact on staff and residents

quite differently. Travel distance (ie how far a person has to go from one place to another) is of great importance in the efficient operation of a facility. Travel distance is important to both residents and staff. The distance a resident has to travel in their day-to-day life, however, will probably be quite different from that of a staff person who will be assisting a number of residents in different parts of a facility. Among staff there will also be variations in travel distance, as some staff work across a facility and others work in a particular part of a facility. With issues such as these it will be important to examine the operational model and to consider the relative benefits of a design for both staff and residents and how both needs may best be accommodated.

Staff areas

In addition to the areas outlined in this Guide (such as lounge, dining, kitchen, bedrooms, bathroom, en-suite and outdoor areas) there are a number of 'back of house' areas which are likely to be required in a residential aged care facility. These are described in Appendix 2.

Compliance

This Guide does not focus on compliance, however in Principle 1, **Unobtrusively reducing risk** there is a practical emphasis on the detailed design, testing and checking of all the safety and health related items of the facility.

Any aged care facility must meet statutory requirements. There are many other publications that outline these requirements and compliance with these is a basic requirement of any design of an aged care facility. It is, however, possible to design a facility which complies with regulations and standards, but does not meet design principles. The result may well be an environment that is structurally safe and functional, but is not a therapeutic environment. This means that in the care and well being of residents, staff and families, one key element, the environment, is being ignored and opportunities for maximising quality of life and support are lost.

ii) HOW TO USE THE GUIDE

The following explains the links between and use of:

- The 10 Key Design Principles
- The Indigenous Environmental Assessment Tool
- Building Services Survey Sheets
- Appendices

The 10 Key Design Principles

Background to the Principles

The Indigenous Aged Care Design Guide has been organised around some key principles of designing for older people.

In an influential statement on designing environments for people with dementia in 2001, Professor Mary Marshall of the Dementia Services Development Centre in the University of Stirling, UK recommended that facilities should be designed in a way that compensates for disability, maximises independence, reinforces personal identify, enhances self esteem and confidence, demonstrates care for staff and welcomes relatives and the local community.[2] To achieve this, she suggested that facilities should:

- be small in size,
- control stimuli,
- enhance visual access,
- include unobtrusive safety features,
- have rooms for different functions with furniture and fittings familiar to the age and generation of the residents,
- have single rooms big enough for a reasonable amount of personal belongings,
- be domestic and homelike,
- have scope for ordinary activities,
- provide a safe outside space,
- provide good signage and multiple cues where possible,
- use objects rather than colour for orientation.[3]

A recent review of 57 methodologically sound studies by Fleming, Crookes et al (2008) found that there is substantial support for these principles.[4] The empirical evidence supports the application of principles which focus on providing unobtrusive safety measures, variety in the ambience, size and function of spaces, single rooms which residents can personalise, visual access so that residents can see the things that are most important to them from where they

2 Fleming R and Purandare N. International Psychogeriatrics (2010), 22:7, p. 1085.

3 Ibid.

4 Fleming R, Crookes P and Sum S. A Review of the Empirical Literature on the Design of Physical Environments for People with Dementia, p 2.

spend most of their time, minimising unhelpful stimulation and maximising helpful stimuli.[5]

Fleming and Purandare note that is it is desirable that environments are small, have a homelike appearance, provide opportunities for engagement with ordinary activities of daily living, and have accessible outside spaces.[6] While the empirical evidence for these latter measures is limited, there is much anecdotal and experiential evidence to suggest that these elements are highly desirable. The fact that evidence for these design principles is limited at present reflects the complexities of the interrelationships between the physical environment and the care that takes place within it. The resulting difficulties in formulating a sound methodology to investigate these principles are only now being addressed by researchers. It is suggested that given the anecdotal and experiential evidence that exists for these measures, these principles too should be adopted while research continues and is regularly reviewed in updates of this Guide.

While focusing on people with dementia, the application of these principles has been found to result in improved design outcomes for all older people. A building designed according to these principles will be a beneficial environment for people with dementia and provide a positive environment for all older people, staff and visitors. The suggestions made throughout this Guide will therefore be of assistance to all older people, including people with dementia.

Description of the Principles in the Indigenous Aged Care Design Guide

1. Unobtrusively reducing risk

It is important that the environment reduces risk so that residents can continue to live their lives the way they wish to. If an environment is free from hazards to residents' safety and health, residents will be able to use their abilities to the full and pursue activities that are of interest and meaningful to them. Creating a safe and healthy environment will require a focus on managing people entering and leaving the facility, minimising potential hazards within the facility (such as fire or hot water), ensuring all building services are operational and ensuring that fixtures and fittings are functional. All safety features must be unobstrusive as obvious safety features, such as fences or locked doors can lead to frustration, agitation and anger or apathy and depression. The apparently simple goal of keeping building services operational is more difficult in rural and remote areas of Australia with harsh environmental factors and isolation from maintenance services.

2. Focusing on the small scale

The size of a unit influences how a person feels and behaves. A unit contains the areas that are important in the residents' daily life, such as bedrooms, sitting areas, outdoor areas, the lounge room, dining room, and residents' kitchen. In addition to considering how many people live in a unit, both scale and detailing are important factors in

5 Fleming R and Purandare N, p 1094.

6 Ibid.

designing a unit of an appropriate size. The size of a unit will impact on how many people a resident needs to interact with on a day to day basis, how many decisions they need to make, and also how familiar the setting is for a resident.

The scale of a unit is determined not only by its overall size, but by the scale of its many components. An environment of an appropriate scale helps a person to have a sense of place and well being. A building can be designed, detailed and furnished to create a familiar and small scale environment, focusing on elements which are of a human scale and finishes which are used in residential settings.

3. Seeing and being seen

It is essential that residents are able to negotiate their environment easily. Visual access is key element of wayfinding. Clear choice and decision making are essential within a setting as they can contribute to a sense of place and well being. Everyone needs to find their way and looks for cues from the environment to help them do this. We all look for an indication of where we can go and what we might find when we get there. It is particularly important for residents to be able to recognise where they are, where they have come from, and what they will find if they head in a certain direction.

An environment needs to offer residents opportunities for exploration and engagement, while being easy for them to understand and interpret. Views are important and can help a person recognise their location. Landmarks and cues (eg views of country, rocky outcrops and other natural features) can be significant, as well as built features such as a building or a shelter. It is an advantage if staff are able to see residents for most of the time as this reduces anxiety in both residents and staff.

4. Hiding unimportant things

A resident can have difficulty coping with a large amount of stimulation. The environment should be designed to reduce the impact of visual and auditory stimulation that is unnecessary for the well being of the residents. Doors for the delivery of linen and the removal of garbage, for example, are not directly relevant to the life of a resident and should be hidden. This approach both reduces stimulation and avoids tempting resident into situations that would cause them difficulties. It also allows the older person to focus on places and functions that are likely to be meaningfull for them.

5. Emphasising important things

Cues such as images, smells and sounds can provide prompts for residents to help them recognise where they are and what they should do. It is essential to highlight those places and functions that are likely to be meaningful for residents. (Conversely it is unhelpful to emphasise stimuli that are unnecessary for the well being of the resident).

Highlighting useful stimuli encourages people to focus on things that they can still do and the places that are likely to offer them something of interest. Stimuli that are important can include outside places such as a campfire or traditional shelter, or a view to country. Inside it could be a particular room (such as a lounge

room), the smell from a kitchen or campfire, a dish rack with dishes, a bedroom door, or the toilet.

6. Moving about and engaging

Residents move about for different reasons and in different ways. Sometimes residents potter or wander about waiting for something to take their interest. At other times residents are hoping to find something in particular, or are planning to go to a certain destination. Some residents with dementia simply feel the need to be on the move.

Opportunities for movement should be planned without encouraging wandering as a goal in itself. It should be easy for residents to move about both inside and outside in an environment in which hazards have been minimised and desitnations emphasized.

If residents are able to move about freely it will increase their quality of life and sense of well being as they go to places they enjoy at a time of their own choosing. It can also give residents the opportunity to spend time alone or with others.

7. Creating a recognisable and meaningful place

A familiar environment is one that is recognisable and meaningful for residents. The outside appearance, building scale, unit layout, room size and the selection of materials are all important in this regard, as are furniture, furnishings and decoration.

The types of rooms included in a unit (such as a kitchen or dining room) are also important when creating a familiar setting. Familiarity is also a key consideration in the design of the outside environment, where verandahs, traditional shelters (such as wiltjas) and trees can be important in creating a recognisable and meaningful environment.

A familiar environment will help an older person feel that they are still in control of a situation and are able to function effectively, rather than feeling isolated and out of place. As a result, people will be more able to use their remaining abilities, whatever they may be, to the full.

8. Choosing to be on your own or with others

Residents need to be able to choose to be on their own or spend time with others and their living environment needs to provide a range of opportunities for social interaction. For some people it will be vital to retain and express their individuality, for others it will be important to be part of the community. Spaces are needed where residents can sit quietly alone, with one or two friends, or in larger groups. This needs to be possible both inside and outside.

9. Being part of the community

Interaction and maintaining relationships with people in the local community is important both for residents and the wider community. The location of the site for the facility will impact on this, as will the availability of transport. It will be important to make visitors feel welcome and to offer opportunities for them to engage meaningfully with residents, ideally continuing their pastimes and hobbies. This

will help an older person to continue friendships and links with their community and maintain an interest in the wider world.

10. Doing what you want to do

The environment should be as homelike as possible, recognising that residents are there to live, and so should be enabled to live meaningfully. An environment that focuses on way of life allows residents to make decisions and exercise choice and independence, both in the way they spend time and what they do. The environment should allow residents to continue to do the things that they have done throughout their lives.

These activities will vary enormously as it will be influenced by residents' expectations and life experiences, but could include things as diverse as making artefacts, or doing the washing. They will not necessarily relate to a particular task but to a way of life.

All the spaces found in a familiar house should be provided, such as a lounge room, dining room, kitchen and outside area, so that residents can continue to do what they wish to. In this way residents will have the chance to live lives that are fulfilling and to use their remaining abilities.

Items that contribute to the key Principles

Each key principle contains **Items** that contribute to achieving the principle. The 10 principles are interrelated and many questions outlined under one principle apply to another too.

For example: ***Principle 1, Unobtrusively reducing risk*** is made up of many **Items**, some of which are listed below:

1.1 Resident Coming and Going

1.2 Non-Resident Coming and Going

1.3 Fence Height

1.4 Opening the Front Door

1.5 Opening Bedroom Windows

1.6 Safe Access to Fires Inside

1.7 Safe Access to Resident Kitchen

1.8 Safe Access to Appliances in Resident Kitchen

1.9 Safe Access to Knives in Resident Kitchen

Each **Item** has been set out with the following structure:

- First there is the **Item name** and **Item** reference number.
- Then there is a **brief statement** of what is trying to be achieved and any design considerations are described. In most items, simple drawings contain key ideas.
- **Ensure, Avoid and Consider** categories, used for most but not all items, follow which give suggestions and examples of design essentials, problem areas to avoid and items that may be considered depending on the particulars of a project, place or group of people.

7 Ibid.

8 Ibid.

The Guide **Item numbers** are directly linked to the **Indigenous Environmental Assessment Tool (IEAT)** for ease of reference.

The Indigenous Environmental Assessment Tool

The Indigenous Aged Care Design Guide includes an environmental audit tool which has been designed for use in Indigenous residential aged care settings. IEAT assessment sheets are set out in matching order to the key principles and items of the Guide.

Development of the IEAT

The Indigenous Environmental Assessment Tool (IEAT) is based on the Environmental Assessment Tool (EAT) by Fleming, Forbes and Bennett. The EAT was selected as the most appropriate starting point after considering the EAT, SEAT, and the TESS-NH.

The TESS-NH was developed in the USA before much of the literature on environmental design had been published. It reflects rather an institutional approach to residential care of people with dementia.[7] Unlike the TESS-NH, both the EAT and SEAT are designed around a general philosophy of care based on the value of small, homelike facilities that provide opportunities for engagement in everyday life. This philosophy has been widely accepted in Australia.[8] The EAT was selected as the most appropriate basis for an environmental assessment tool for Indigenous aged care settings as it is organised around design principles, rather than around room types (as with the SEAT). In an Indigenous setting many of the room types covered by the SEAT may be irrelevant. The organisation of the EAT around principles also encourages people to apply these broadly across the facility in both indoor and outdoor settings, and highlights the interconnectedness of the principles and the application of the one principle in different parts of the environment.

The EAT is designed to be administered by a non design professional (unlike the SEAT which requires the person completing to have qualifications and /or expertise recognised by the DSDC Stirling). The ease of use of the assessment tool is particularly relevant in remote settings where the availability of professionals is limited and the cost of visits is high.

Using the IEAT

The IEAT is organised around 10 key design principles.

The IEAT asks a number of questions to determine how key principles have been applied in a residential aged care setting. Questions typically require a ‘yes’ or ‘no’ answer and a total score is compiled at the end of each question.

If in doubt when answering any question, as to the intent or aim of the question, refer to the Guide **Principle** and corresponding **Item number**.

The IEAT can be completed by a member of staff, or by a person visiting the facility. It does not need to be completed by an architect. The most important thing is to ensure that the questions are

answered accurately. This can best be done by spending time in the facility to observe what is happening at different moments and get a feel for the place. This will also create opportunities for interaction with residents so that they can also enjoy the visit, rather than being the subject of scrutiny. If those completing the IEAT are unsure of an answer, they should ask a staff member who works in that part of the facility. Staff are best placed to know how the building is used.

Having compiled the results of the IEAT at the bottom of each page, before you leave the facility it is wise to ask the manager (or the person you are liaising with) to confirm the results. It may be that on the day of the visit something was observed that is unusual and not representative. In this case, results should be amended. On the other hand, it may be that there is a difference of opinion, for example as to whether the noise from the kitchen is too great. In this case judgment of the auditor will need to be used as to what the correct response is.

Completing the IEAT sheets

Each item has a variety of scoring possibilities: **Not Applicable (N/A), NO and YES are the most common responses**. Circle the correct reponse.

N/A or "not applicable" items may be permitted in some situations. Then **N/A** will be given a potential score of **1** (see example Item 3.8 below). Where the item is considered to be essential in **all** situations, **N/A** will not be an option (3.7 below), the table box will be shaded out and the score will either be **NO** (not working, does not comply, inadequate) or **YES** (working, complies with the intent of the Item, adequate).

3	SEEING AND BEING SEEN	N/A	NO	YES
3.9	Can the dining room be seen into from the lounge room? If there is more than one lounge or dining room answer with reference to those used by most residents (If dining and lounge is one room, answer = Yes) (If no lounge or dining room, answer = No)		0	1
3.10	Can the resident kitchen be seen into from the lounge room? If there is more than one lounge room answer with reference to the one used by most residents. (N/A=no resident kitchen available) (If no lounge room, answer = No)	1	0	1

Some Items will require the transfer of results from the **Building Services Survey** sheets. (See part C of How to Use the Guide for details of the Building Services Survey) If the Buidling Services sheets are not completed, please leave these cells blank.

1	UNOBTRUSIVELY REDUCING RISK	N/A	NO	YES
1.21	Are all critical items in the resident toilets fully functioning? Transfer score from ***BUILDING SERVICES SURVEY***		0	1
1.22	Are all critical items in the resident kitchens fully functioning? (NA=no residents' kitchen available) Transfer score from ***BUILDING SERVICES SURVEY***	1	0	1

Some questions will require the noting of **range** options. In the example below, the number (0,1,2,3) that best describes the number of residents would be circled.

2	FOCUSING ON THE SMALL SCALE	30+	16-30	11-16	10 or less
2.1	Number of Residents. How many people live in the unit?	0	1	2	3

Scoring each sheet of the IEAT

a) First score each item

Example: There is an outside room in a facility near the local community, removed from the main dining room but it is very, very small and faces due west and is very hot in the early afternoon.

9	BEING PART OF THE COMMUNITY	N/A	NO	YES
9.1	Is there an outside area or room somewhat removed from the main dining room where families can share meals with their relatives?		0	1
9.2	Is this outside room/area familiar in nature, to reassure family members and friends and encourage them to visit and to participate in the care of the resident? (NA if no room)	1	0	1
9.3	Is the facility in a location which allows community links to be easily maintained?		0	1
	Sub total scores	**1**		**2**

b) Then total all items and record at the bottom of each IEAT sheet

TOTAL MAX SCORE	TOTAL N/A ITEMS	TOTAL MAX POSSIBLE	TOTAL MAX SCORE
3	0	3	**2**

Finally the scores from each IEAT sheet are transferred to the main summary sheet.

What do the IEAT scores mean?

It is important to remember that the purpose of the IEAT is not to achieve a particular score. There is no perfect design. Even the best facilities can do things better. The purpose of the IEAT is to provide a systematic and repeatable framework for reviewing the environment and identifying areas of improvement. The results can identify areas for further conversation and investigation.

The scores are relative values only but over time will reflect the improvement of the facility.

Some items such as the physical layout, will be unable to be easily changed and the scores will remain constant. In areas such as function of building services, the IEAT assessment scores will indicate the effectiveness of the building's hardware and maintenance services.

Next Steps

Having completed the IEAT, it is important to analyse the results. This will help identify how well a facility responds to key design principles and where there are opportunities for improvement.

Having looked at the IEAT scores consider how the principles can best be applied to each room in the facility and how practical it will be to make the required changes. It is recommended that this is done for all the principles (regardless of their score) as the principles are interrelated and often an improvement in one area will have benefits in other areas too. At this time, it is wise to seek some assistance from a person who has experience designing facilities for older people and Indigenous people. Typically this will be an architect.

There are many ways in which the principles can be responded to. How these design principles are best interpreted will depend on the particular context of the facility. Geographic location, climate, site, culture, socio economic background, lifestyle of the residents and availability of staff are just some of the things that will influence the responses to the principles.

It is vital that proposed changes are discussed and agreed within the facility. There is no absolutely right answer and people will need to be supportive of the proposed changes if they are to be implemented.

Some changes, such as changing the layout of the building, will be possible but very expensive. Others, such as changing furnishings, will be less expensive but difficult to undertake for other reasons.

Some will be relatively easy to implement. A key focus in identifying possible environmental responses needs to be on the likelihood of achieving any recommendation.

Another thing that is important to recognise is that making changes can take time. It is easy to move a piece of furniture. It is more time consuming to purchase a new piece of furniture. To do this well the design of the piece of furniture will need to be considered (to ensure that it is ergonomically and aesthetically appropriate). A fabric will also need to be selected, and so the colour, pattern, type of fabric and treatment of the fabric will all need to considered. All of these decisions need to be taken in the context of a budget.

Don't lose heart! The advantage of systematically considering environmental changes is that it is possible to identify a schedule of priority works and then work your way through them as opportunities arise, or as part of a regular maintenance program.

When to use the IEAT?

Every 3 months	Use the Building Services Survey Sheets to check the following hardware functions of the facility 1.18. Waste Water Disposal 1.19. Functioning of Critical Items in En-suites 1.20. Functioning of Critical Items in Bathrooms 1.21. Functioning of Critical items in Resident Toilets 1.22. Functioning of Critical items in Resident Kitchens 1.23. Electrical Safety: Electrical Compliance 1.24. Electrical Safety: Switchboard Functioning 1.25. Gas Safety 1.30. Hot Water: Temperature of Tap Water 1.39 Lights functioning 1.40 Power points functioning
Every 6 months preferably before summer and winter	1.1 Resident Coming and Going 1.2. Non-Resident Coming and Going 1.3. Fence Height 1.4. Opening the Front Door 1.5. Opening Bedroom Windows 1.6. Safe Access to Fires Inside 1.7. Safe Access to Resident Kitchen 1.8. Safe Access to Appliances in Resident Kitchen 1.9. Safe Access to Knives in Resident Kitchen 1.10. Gas Cook Top 1.11. Controlling Electrical Power to Resident Kitchen 1.13. Safe Access to an Outside Cooking Campfire 1.14. Outside Floor Finishes 1.15. Inside Floor Finishes – Other than Wet Areas (Kitchens, Bathrooms, Toilets and En-suites) 1.16. Inside Floor Finishes – Wet Areas (Kitchens, Bathrooms, Toilets and En-suites) 1.17. Fire Protection Documentation 1.26. Functioning of Required Items in En-suites 1.27. Functioning of Required Items in Bathrooms 1.28. Functioning of Required Items in Resident Toilets/Basins 1.29. Functioning of Required items in Resident Kitchens 1.31. Resident area lighting 1.32. Outside wall condition 1.33. Inside wall condition 1.34. Ceiling condition 1.35. Floor condition 1.36. Window condition 1.37. Door condition 1.38. Insect screening condition 1.41. Ceiling fans functioning
Every year	Complete the full IEAT

Building Services Survey Sheets

The Building Services Survey sheets are used to check the essential safety and health components of the facility. These are all carried out in Principle 1 Unobtrusively reducing risk.

The Sheets set out the detailed testing and checking procedures for many parts of the facility. It should be noted that the IEAT Item numbers appear on each item of the Building Services Survey sheets. The table below shows the sheet content and the required testing tools for each sheet. More description and specification of the tools will be found on the Health Habitat website.

Sheet content	**IEAT Item numbers**	**Tools** (see Appendix 6 for the detailed specification of the tools below)
Floor safety	1.14, 1.15, 1.16	The Slip-o-meter is a device for testing slip resistance of the surface of any floor
Fire protection documentation and waste water	1.17, 1.18	No tools required
En-suite (shower, basin, toilet) – function	1.19	Hot water thermometer, basin plug, toilet paper, watch, plastic tube
Bathroom (room must contain a bath) – function	1.20	Hot water thermometer, basin and bath plug, toilet paper, watch, plastic tube
Toilet and basin – function	1.21	Hot water thermometer, basin plug, toilet paper, watch
Resident kitchen - function	1.22	Hot water thermometer, sink plug, fridge thermometer, matches
Is the building electrically compliant? Is the switchboard functioning?, Is the gas service compliant?	1.23, 1.24, 1.25	No tools required
En-suite (shower, basin, toilet) – ease of use	1.26	A golf ball, measuring tape, replacement light bulb or tube, basin plug
Bathroom (room must contain a bath) – ease of use	1.27	A golf ball, measuring tape, replacement light bulb or tube, bath/basin plug
Toilet and basin – ease of use	1.28	No tools required
Resident kitchen – ease of use	1.29	No tools required, spare sink plug useful
Hot and warm water safety	1.30	Hot water thermometer
Lighting levels (Are all areas used by residents well lit?)	1.31	Light meter
Walls (inside and outside), floors and ceilings	1.32, 1.33, 1.34, 1.35	No tools required
Windows, doors and screens	1.36, 1.37, 1.38	No tools required
Lights, power points and ceiling fans	1.39, 1.40, 1.41	Spare bulb or fluorescent tube for testing and replacement if required, power point tester, red electrical tape for marking poor power points, lights or fans.

When completing the **Building Services Survey** sheets, for example 'ensuite function':

- Initials and date should be entered onto every sheet
- The ES (en-suite) ID number should be entered and this same code should be noted on a Facility plan to avoid confusing the en-suites
- The description of the test (far right column) should be read carefully
- Water temperature should be recorded in the far left box
- The appropriate score should be circled

These scores determine what is transferred to the IEAT summary score sheet.

Appendices

This Guide has 3 appendices that provide more detailed information on specific areas discussed in the main body of the Guide and tools to be used.

Appendix 1

Indigenous Environment Assessment Tool (sheets to be copied)

Appendix 2

Staff and support areas

Appendix 3

Electrical safety

THE 10 PRINCIPLES IN DETAIL

CHAPTER 1

UNOBTRUSIVELY REDUCING RISK

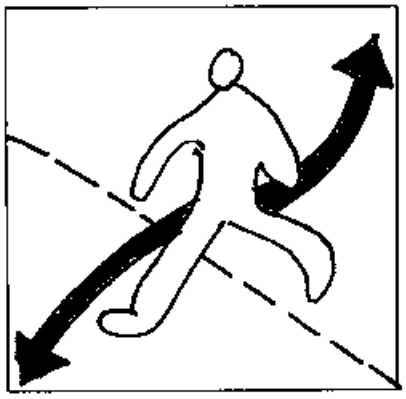
1. UNOBTRUSIVELY REDUCING RISK

It is important that the environment reduces risk so that residents can continue to live their lives the way they wish to. If an environment is free from hazards to residents' safety and health, residents will be able to use their abilities to the full and pursue activities that are of interest and meaningful to them. Creating a safe and healthy environment will require a focus on managing people entering and leaving the facility, minimising potential hazards within the facility (such as fire or hot water), ensuring all building services are operational and ensuring that fixtures and fittings are functional. All safety features must be unobstrusive as obvious safety features, such as fences or locked doors can lead to frustration, agitation and anger or apathy and depression. The apparently simple goal of keeping building services operational is more difficult in rural and remote areas of Australia with harsh environmental factors and isolation from maintenance services.

REFERENCES

1. The National Indigenous Housing Guide 3rd Edition
2. AS 4586 for Floor Slip Resistance Standards
3. AS 1851-2005 Maintenance of Fire Protection Systems and Equipment
4. AS/NZS 3500 for heated water temperature control and AS 3666 and Public and Environmental Health (Legionella) Regulations 2008

1.1 RESIDENT COMING AND GOING



It may be important that the environment is secure to prevent residents leaving the unit if they shouldn't. Having a fence and gate that are sturdy and difficult to climb (or go under) is vital in this regard.

The gate needs to be able to be locked while allowing for exit in an emergency (if this is part of an emergency evacuation route). Mechanical keypads or keypads which are linked to a staff call system can be installed on gates. If keypads are linked to a staff call system, they will release automatically in the event of a fire.

Double handles/latches and handles which open in an anti clockwise direction may also be effective to prevent easy opening by residents from within the grounds. It is also important that residents cannot reach over a gate and open it from the outside while inside the grounds.

ENSURE:

- fence is continuous and well maintained
- fence is 1.8m high where the perimeter is needed to be secure
- fence design does not allow for climbing (in or out)
- gates are secured but allow for controlled coming and going

AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds
- planting near the fence which can be used for climbing
- latch on outside of the gate

CONSIDER:

- designing the fence so that it blends into the landscape
- using vegetation to hide the fence so it is not foreboding or institutional
- creating a front yard which can be easily accessed from the street to allow entry to the front door and a side/back garden which is secure
- double handles/latches, handles which open in an anti clockwise direction, keypads to secure exit

1.2 NON-RESIDENT COMING AND GOING

It may be important that the unit is secure to prevent people coming in and bothering and humbugging residents by asking for money, or robbery. Having a fence and gate that are sturdy, difficult to climb (or go under) is vital in this regard. It is also important that that the gate cannot be easily opened from outside if this part of the grounds is to be secure.

ENSURE:

- fence is continuous and well maintained
- fence is 1.8m high where the perimeter is needed to be secure
- fence design does not allow for climbing (in or out)
- gates are secured but allow for controlled coming and going

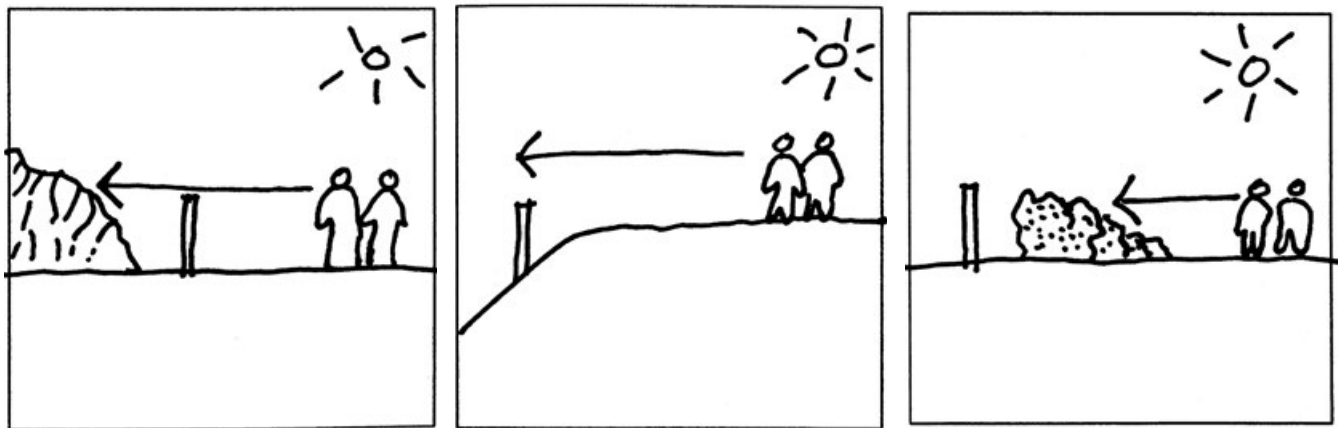
AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds
- planting near the fence which can be used for climbing

CONSIDER:

- creating a front yard which can be easily accessed from the street to allow entry to the front door and a side/back garden which is secure
- protecting the perimeter of the fence

1.3 FENCE HEIGHT



The fence needs to be high enough to make it difficult for residents and non-residents to climb when it is important that the unit is secure. The fence should be 1.8m high. It should also be continuous and well maintained, and the fence design must not allow for climbing (in or out).

ENSURE:

- fence is 1.8m high where the perimeter is needed to be secure
- fence is continuous and well maintained
- fence design does not allow for climbing (in or out)

AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds
- planting near the fence which can be used for climbing

CONSIDER:

- designing the fence so that it blends into the landscape or is hidden by vegetation so that the height is not dominating
- protecting the fence from vehicle damage
- if the fence design needs to protect against the entry of feral animals such as dogs, camels or donkeys

1.4 OPENING THE FRONT DOOR

It is important that the front door/gate of the facility is secure to prevent residents leaving the unit if they shouldn't and to prevent people coming in and bothering residents. The front door/gate should be able to be secured but allow for controlled coming and going. The location of the front door within the facility and the type of security mechanism selected will be important to allow for ease of use by staff.

ENSURE:

- front door is clearly recognisable from outside
- front door can be secured

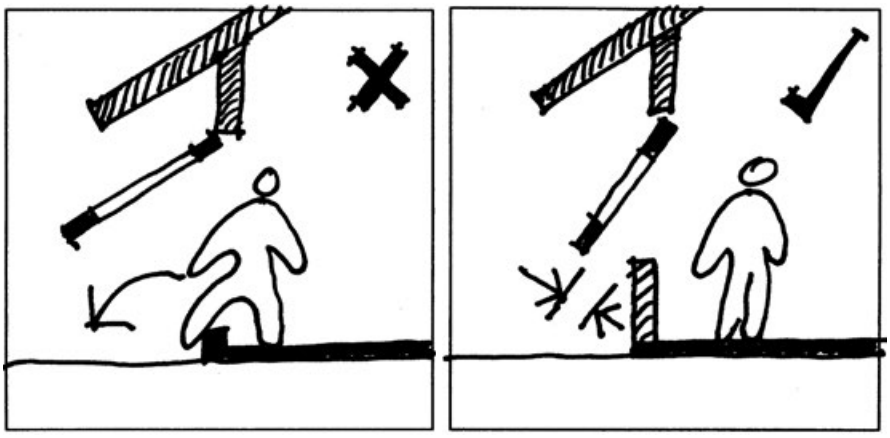
AVOID:

- front door/gate that is unable to be secured

CONSIDER:

- screening the front door from inside the unit to prevent residents being continually confronted by a locked door
- making individual units secure to suit residents' needs such as dementia

1.5 OPENING BEDROOM WINDOWS



The extent to which bedroom windows can be opened is another component of creating a secure environment. Limiting the opening of bedroom windows can prevent residents leaving the unit/facility if they shouldn't, and people coming in through the window and bothering residents. Climbing out of windows is dangerous and using windows to go between units is not desirable. Awning, double hung and sliding windows can all be modified to ensure that they cannot be opened wide enough to allow a person to pass through.

ENSURE:

- window design prevents coming and going
- extent of window opening is controlled

AVOID:

- windows that can be opened and allow for climbing in or out

CONSIDER:

- which window type is most appropriate to use
- using decorative screens and louvres to control people leaving by a window

1.6 SAFE ACCESS TO FIRES INSIDE

The ability to restrict access to certain areas helps to create a safe environment for residents. An open fire may present a danger to some residents and also to some visitors, including children. It is important, however, that this does not result in all residents being denied the pleasure and importance of being near a well protected fire inside the facility. The measures used (such as a screen, circulation and clear areas around the fire) need to be well designed so that they cannot be easily removed or compromised and so that the levels of protection being put in place are not given undue emphasis.

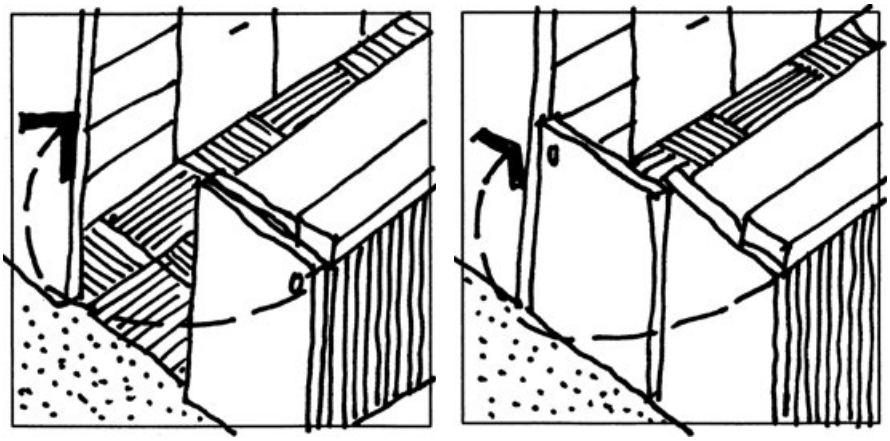
ENSURE:

- fires are always supervised
- the location of any open fire has a line of site to enable supervision by staff
- residents cannot be harmed by contact with an open fire
- the operation of screens are checked regularly
- clear areas around the fire are maintained
- trip hazards are eliminated

AVOID:

- screens which are flimsy, removable, poorly made, do not limit access, get hot
- obstacles that can cause tripping

1.7 SAFE ACCESS TO RESIDENT KITCHEN



The ability to restrict access to certain areas helps to create a safe environment for residents. Some residents, and visitors, may present a danger to themselves or to others in a kitchen, and so access to the resident kitchen needs to be able to be controlled. It is important, however, that this does not result in all residents being denied access to the kitchen. The design and layout of the kitchen will be instrumental in allowing controls to be well designed and effective. The measures used (such as a half door or bench with an up-stand) need to be discreet and integrated into the design, so that they cannot be easily removed and so that the limits which are being put in place are not being emphasised. Demands on staff time will be reduced if residents can potter in a kitchen.

ENSURE:

- planning and detailed design to control access to resident kitchen unobtrusively

AVOID:

- obvious measures to restrict access to the resident kitchen
- open plan kitchen

CONSIDER:

- half height door with key pad, swipe card or magnetic lock
- bench with an up-stand

1.8 SAFE ACCESS TO APPLIANCES IN RESIDENT KITCHEN

The ability to control access to certain appliances such as a toaster, kettle, or mix master helps to create a safe environment for residents. Some residents, and visitors, may present a danger to themselves or to others when using appliances and so access to these needs to be restricted, for example by placing them in a lockable cupboard. It is important, however, that this does not result in all residents being denied access to appliances. Demands on staff time will be reduced if residents can potter in a kitchen.

ENSURE:

- the access to certain appliances is controlled
- a lockable cupboard is provided

AVOID:

- unrestricted access to appliances which could be dangerous, such as a toaster, kettle, or mix master

CONSIDER:

- bench top appliance cupboard
- including one cupboard that contains appliances, a lockable knife drawer and switch to control power
- isolating the power as an alternative method of protecting residents from injury from appliances (refer 1.11)

1.9 SAFE ACCESS TO KNIVES IN RESIDENT KITCHEN

The ability to restrict access to certain areas helps to create a safe environment for residents. Some residents, and visitors, may present a danger to themselves or to others when using knives. Knives should be placed in a lockable drawer. It is important, however, that this does not result in all residents being denied access to knives as these can be an essential tool when preparing food. Demands on staff time will be reduced if residents can potter in a kitchen.

ENSURE:

- knives are placed in a lockable drawer

AVOID:

- unrestricted access to knives

CONSIDER:

- including one cupboard which contains appliances, a lockable knife drawer and switch to control power

1.10 GAS COOK TOP

A gas cook top is preferred for resident use as there is no residual heat once a gas flame has been extinguished, thereby minimising the risk of injury to residents. A gas flame can easily be seen and so a person is able to know that the cook top is in use.

ENSURE:

- auto ignition on cook top
- automatic shut off on cook top

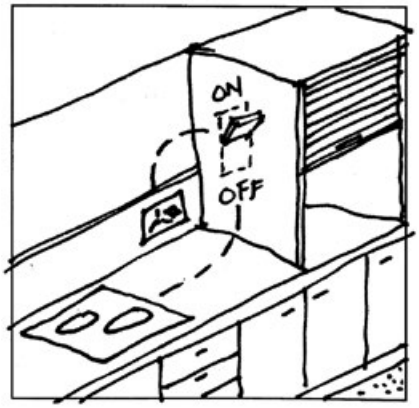
AVOID:

- electric hot plates

CONSIDER:

- in areas where gas is unavailable, an induction cook top. While less widely used, these minimise the risk of injury to residents.

1.11 CONTROLLING ELECTRICAL POWER TO RESIDENT KITCHEN



It is important that electrical power to the resident kitchen is controlled so that residents who are not able to use appliances and power points safely are not prevented from entering the kitchen to undertake other tasks, such as washing dishes and wiping benches. The ability to isolate the power will also mean that those residents who are able to use electrical appliances safely can continue to do so. This control needs to be discreet, so that it cannot be easily overridden and so that the limits which are being put in place are not being emphasised.

ENSURE:

- power to both stove and power points can be isolated

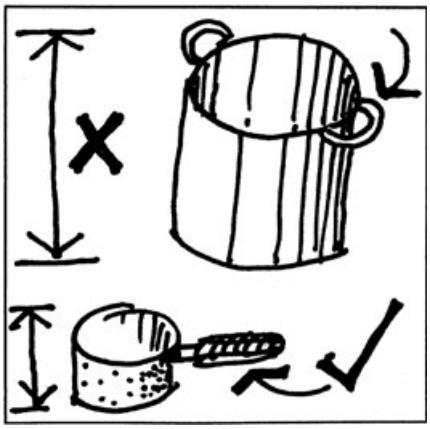
AVOID:

- isolating fridge and lights

CONSIDER:

- including one cupboard which contains appliances, a lockable knife drawer and switch to control power

1.12 USING POTS AND PANS



If residents are to participate in cooking the pots and pans will need to be able to be lifted easily. This will have an impact on the size of the pot or pan and the material which it is made from.

ENSURE:

- pots and pans are light
- handles are firmly fixed and heat resistant

AVOID:

- large, heavy pots and pans
- metal handles

CONSIDER:

- providing some appropriate pots and pans for resident use

1.13 SAFE ACCESS TO AN OUTSIDE COOKING CAMPIRE

The ability to restrict access to certain areas helps to create a safe environment for residents. A campfire may present a danger to some residents and also to some visitors, including children. It is important, however, that this does not result in all residents being denied access to a cooking campfire.

ENSURE:

- campfires are always supervised by staff
- no mattresses or bedding are near the campfire
- there is good visual access to the campfire areas from key staff locations

AVOID:

- uncontrolled access to fire
- level changes or steps within 2m of the campfire
- guards and barriers which may increase the risk in using the campfire

CONSIDER:

- location of campfire (for supervision, wind protection, dust protection)

1.14 OUTSIDE FLOOR FINISHES

A fall can result in a significant injury for an older person and so it is important to create an environment which minimises the risk of slipping and tripping. Outside floor finishes need to be slip resistant, even when they are wet. An appropriate cleaning regime is essential to ensure that the slip resistance of the outside finish is maintained. Slip resistant outside floor finishes are also required to enable staff to assist residents safely.

ENSURE:

- floor finishes are even and slip resistant
- changes in floor surface are clearly marked with colour or texture
- clear differentiation between horizontal and vertical surfaces

AVOID:

- unnecessary changes in floor finishes
- run off from air conditioners or rain water which wet outside floors
- strong contrast betweeen changes in floor surfaces as these can be perceived as a step or hole

CONSIDER:

- for hard surfaces, use concrete rather than pavers which can become uneven and cause tripping
- selection of materials to retain domestic finish

1.15 INSIDE FLOOR FINISHES - OTHER THAN WET AREAS

A fall can result in a significant injury for an older person and so it is important to create an environment which minimises the risk of slipping. All internal floor finishes need to be slip resistant, as any surface can become wet. An appropriate cleaning regime is essential to ensure that the slip resistance of the floor finish is maintained. Slip resistant inside floor finishes are also required to enable staff to assist residents safely.

ENSURE:

- all internal floor finishes are slip resistant
- changes in floor surface are clearly marked with colour or texture
- appropriate cleaning regime is in place to maintain surface integrity
- clear differentiation between horizontal and vertical surfaces

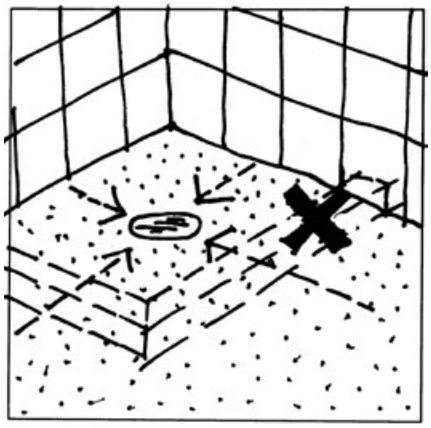
AVOID:

- changes in level
- strong contrast betweeen changes in floor surfaces as these can be perceived as a step or hole

CONSIDER:

- coving wall to floor junctions for waterproofing and ease of cleaning

1.16 INSIDE FLOOR FINISHES - WET AREAS



A fall can result in a significant injury for an older person and so it is important to create an environment which minimises the risk of slipping. The whole of the floor to wet areas needs to be non-slip, even when it is wet. An appropriate cleaning regime is essential to ensure that the slip resistance of the floor finish is maintained. Slip resistant inside floor finishes are also required to enable staff to assist residents safely.

ENSURE:

- all internal floor finishes are non-slip
- grading of floors to prevent ponding
- changes in floor surface are clearly marked with colour or texture
- clear differentiation between horizontal and vertical surfaces
- no mats are used

AVOID:

- steps, for example to shower
- hobs and set downs
- strong contrast betweeen changes in floor surfaces as these can be perceived as a step or hole

CONSIDER:

- textured non-slip sheet vinyl
- coving wall to floor junctions for waterproofing and ease of cleaning

1.17 FIRE PROTECTION DOCUMENTATION

The health and safety of residents and staff members is critical in the event of a fire and is controlled by the provisions of the Construction Code of Australia (CCA).

The following parts of the CCA are particularly relevant:

Section C **Fire Resistance**

Section D **Access and Egress**

Section E **Fire fighting equipment**

The principal objectives of all these sections are to;

- safeguard the occupants in the event of a fire,
- safeguard occupants while evacuating,
- safeguard emergency services personnel,
- avoid the spread of fire, and
- provide facilities for emergency services and occupants to undertake fire fighting operations.

The classification of the building and structure has significant bearing on the compliance requirements under each of these sections. The building's use, size and physical format all factors in determining this classification.

Compliance with the provisions of the CCA is mandatory for all existing and new facilities. Regular maintenance of systems installed is also mandatory.

The CCA requires that maintenance be carried out and recorded in accordance with Australian Standard AS 1851-2005 Maintenance of Fire Protection Systems and Equipment. These requirements are supplemented by local fire authority requirements.

Fire Protection Systems and Equipment are required to be ready to operate at all times, or a substantial threat to occupants and property may exist. However they may only be required to operate infrequently over the life of a building and therefore their reliability in a building is critical.

Regular maintenance of fire protection systems and equipment for continuing operational efficiency is an important part of every building owner's responsibility.

ENSURE:

- the building is provided with fire protection systems and all associated equipment is installed and maintained in accordance with the CCA taking into account the building classification
- detailed procedures for testing and preventive maintenance aimed at minimising missed tests and ensuring that all tasks are completed thoroughly in accordance with AS 1851 2005

- requirements for rigorous recording and reporting regimes to ensure that proper maintenance documentation is available in accordance with AS 1851 2005
- requirement for annual survey, together with a Statement of Compliance that the safety measures are capable of performing to their design standards in accordance with AS 1851 2005

AVOID:

- non compliant systems

CONSIDER:

- if the care offered by the facility changes, whether the definition of the classification of the building or a part of the building will also change and therefore impact on the design of fire protection systems

1.18 WASTE WATER DISPOSAL

Waste water in the living environment can make people sick. If people come into direct contact with waste water, or if their water supply is contaminated with waste water, there is a greater risk of transmitting bacteria and virus that cause disease. These risks are also increased if animals, vermin or insects that have been in direct contact with waste water can pass bacteria on to people.

Removing waste water safely from all parts of the aged care facility and surrounding living areas, and managing it safely at a community level, is important for the resident's health.

This item discusses essential items of waste water health hardware in the house and surrounding living area.

The facility's waste water disposal system will include the following components:

- toilets
- drains from baths, showers, basins, sinks, laundry tubs and floors in these areas
- a floor drain and a grate to prevent objects going down the drains and blocking the pipes
- a water trap or seal on each drain, which is a water-filled bend in the pipe under the drain to prevent bad smells spreading from the drain into the room
- drainage pipes that connect and fall to a main house drain located in the yard, which flows into a system for treating and disposing of the waste water
- inspection openings in the drainage pipes and house drain, for maintenance and removing blockages
- vent pipes that discharge above the roof to remove bad smelling and volatile gases from the drain pipes

- an overflow relief gully for waste water to discharge into the yard and prevent overflow into the house if there is a blockage in the drain pipes.

These components need to be regularly maintained.

ENSURE:

- during construction, all drains are fully tested before handover
- during construction, the mains system that the facility is linked is able to treat the waste water
- during construction, all in ground pipe work and waste system disposal works are checked and approved before the work is back filled and covered.
- after construction, all drains are regularly checked and maintained

AVOID:

- For compliance issues refer to the NIHG Section C3 - Waste Water and B3 - Removing Waste Water Safely

CONSIDER:

- having laminated diagrams or drawings of all underground drains and pipes displayed or stored in the facility office where they can easily be found if blockages occur

NIHG reference B3 Removing waste water safely

1.19 FUNCTIONING OF CRITICAL ITEMS IN EN-SUITES

Functioning washing areas are essential for the health and safety of the residents. En-suites are defined here as containing, in the one room;

- shower area
- basin
- toilet

ENSURE:

In the shower area

- adequate hot and cold water pressure
- hot water temperature is greater than 44°C and less than 50°C
- the taps are working well
- the shower rose is functioning
- the shower drainage is OK

In the basin area

- adequate hot and cold water pressure
- hot water temperature is greater than 44∞C and less than 50°C
- the taps are working well
- the basin spout is functioning
- the basin drainage is OK
- the basin is secure

the toilet

- is able to flush waste away
- refills within 3 minutes
- has a working cistern and pan

AVOID:

- water saving shower roses where water quality is poor
- taps that are hard to turn on and off and are not clearly marked - hot and cold
- taps not suited to poor water quality
- hot water systems that function poorly in poor water quality
- basin taps that do not have a spout to combine hot and cold water
- cisterns that may be damaged during transport to remote areas
- floor pans with small surface area to the floor or poor connecting systems as they will be unstable

1.20 FUCTIONING OF CRITICAL ITEMS IN BATHROOMS

Functioning washing areas are essential for the health and safety of the residents. Bathrooms are defined here as containing in the one room;

- a bath
- optional shower area
- optional basin
- optional toilet

ENSURE:

In the bath

- adequate hot and cold water pressure
- hot water temperature is greater than 44°C and less than 50°C
- the taps are working well
- the bath spout is functioning
- the bath drainage is OK
- the bath is secure

AVOID:

- taps that are hard to turn on and off and are not clearly marked - hot and cold
- taps not suited to poor water quality
- avoid automatic sensor taps as they may confuse the resident
- hot water systems that function poorly in poor water quality
- bath taps that do not have a spout to combine hot and cold water

1.21 FUNCTIONING OF CRITICAL ITEMS IN RESIDENT TOILETS

Toilets should function and remove waste from the en-suite, bathroom or toilet areas. Hand washing has significant impact in reducing germs related to toilet use and should be available near all toilets.

ENSURE:

the toilet

- is able to flush waste away
- refills within 3 minutes
- has a working cistern and pan

the basin has

- adequate hot and cold water pressure
- hot water temperature greater than 44°C and less than 50°C
- taps that are working well
- a basin spout that is functioning
- basin drainage that is OK
- a secure basin

AVOID:

- cisterns that may be easily damaged during transport for remote settings
- floor pans with small surface area to the floor or poor connecting systems as they will be unstable
- avoid automatic sensor taps for basins as they may confuse the resident
- basin taps that do not have a spout to combine hot and cold water

1.22 FUNCTIONING OF CRITICAL ITEMS IN RESIDENT KITCHENS

Other principles deal with the various important benefits and details of resident kitchens. If kitchens are provided they need to be safe and functional.

ENSURE:

- the bench material and splash back area behind the sink are well designed, robust and waterproofed
- there is a kitchen sink with working water supply, taps, spout and drainage
- a working cooktop with control knobs at the front, not side or rear
- a small fridge and freezer unit
- good lighting to the kitchen, particularly the working surfaces

1.23 ELECTRICAL SAFETY: ELECTRICAL COMPLIANCE

Compliance of entire electrical installation at date of construction is mandatory. Compliance certificates are issued.

ENSURE:

- compliance certificates are given for all electrical work
- regular checking of the compliance of all parts of the electrical system where:
  - any modifications to the facility have occurred
  - the facility is located in an area with highly corrosive environmental factors such as extreme salt water spray or dust
  - any fire or flood vents have occurred
  - any major pest or vermin outbreak has occurred in the region

1.24 ELECTRICAL SAFETY: SWITCHBOARD FUNCTIONING

Switchboards contain circuit breakers and safety switches.

Circuit breakers

Circuit breakers should be fitted to all power and light circuits. Circuit breakers are designed to protect the electrical system and building. Careful consideration at the planning stage should be given to the following circuits being separated:

- drug fridges
- bedroom areas (power and light circuits)
- main kitchen (with separated circuits for equipment)
- emergency lighting
- communications facilities in the office

Safety switches

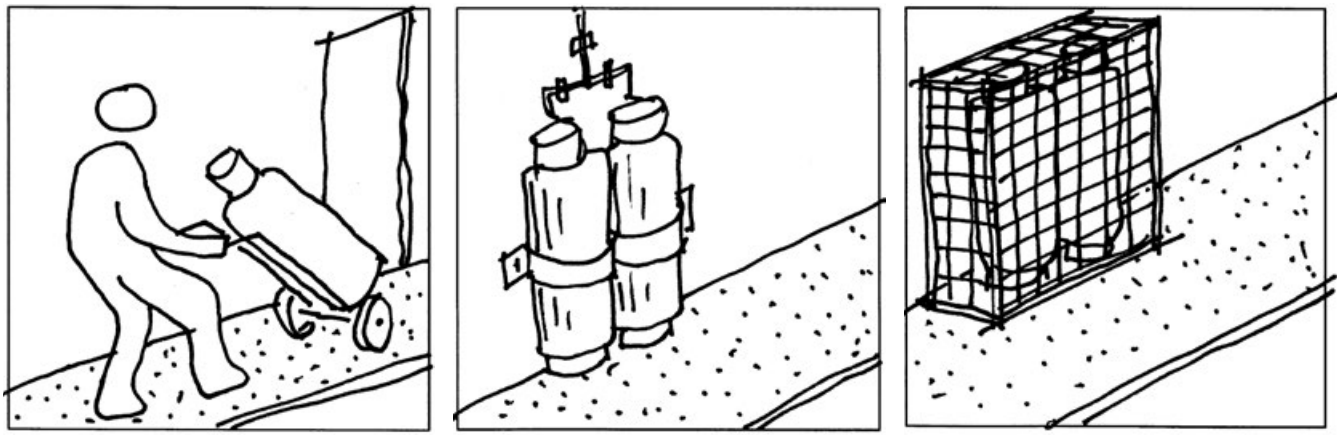
Safety switches are also known as Residual Current Devices (RCDs) or Earth Leakage Control Devices (ELCDs) and are designed to protect the safety of people using the building.

ENSURE:

- electrical compliance certificates are available for inspection
- switchboard is checked regularly
- safety switches are tested and maintained
- inspection results for RCD's are recorded and kept available for audit as required by AS 3760

For more detailed information on the issue of electrical safety see Appendix 3

1.25 GAS SAFETY



If the gas installation is faulty in any way, gas leaks may occur and could cause explosions, severe breathing difficulties or suffocation. Gas leaks will also mean extra costs because of wasted gas. When choosing to use gas for cooking or heating it is important to find out whether gas is available (piped mains, bottled or bulk gas deliveries) and whether there are staff with the skills required to change gas bottles. This is particularly a problem in locations where gas is very expensive, or when it is difficult to change gas bottles. In some states/territories only a licensed gas fitter can change gas bottles.

ENSURE:

With gas bottles

- gas bottles are safely located away from windows, doors and corners of the building
- bottles are accessible for filling or replacing
- a platform or base, and a method for securing the bottles, is provided for the bottles
- gas regulators and feed lines into the house are secured to the wall and protected from accidental knocks

GENERALLY

- approved connecting lines and connectors are specified
- gas appliances are located in well ventilated areas
- appliances must be fitted with gas fuses
- gas is installed to comply with state or territory regulations and AS 5601:2004 Gas installations

NIHG reference A2 Gas safety

1.26 FUNCTIONING OF REQUIRED ITEMS IN EN-SUITES

En-suites are defined here as a room containing a shower, toilet and basin for the use of residents.

Wet areas, including en-suites, need to be designed to suit the needs of the residents and local climatic conditions such as:

- locating the wet area so that it does not open off public spaces and can be used privately at all times
- locating the wet area to catch and store the morning sun for warmth in winter
- providing adequate ventilation so that the wet area is not too hot and humid in summer
- ensuring all wet areas are accessible to older people and people with disabilities

ENSURE:

For shower and basin

- pipework is selected to withstand local water conditions
- water pressure is adequate throughout the facility
- hot water temperature is controlled between 44 and 50C
- tapware is selected to withstand local water conditions
- shower rose and basin spout (outlet) are selected to withstand local water conditions
- drainage is well designed with adequate pipe sizes, inspection points and is tested during construction
- the basin is securely mounted

For the toilet

- the toilet cistern has a dual flush and is selected to withstand local water conditions and transportation to the site
- the “footprint” of the pan for floor mounted toilets is as large as possible and wall mounted pans have satisfactory wall structure to ensure stability

NIHG reference B1 Washing people

1.27 FUNCTIONING OF REQUIRED ITEMS IN BATHROOMS

Bathrooms are defined here as a room that must contain a bath. A shower, toilet and basin in the same room is optional (see 1.26 for the requirements for the shower, toilet and basin).

ENSURE:

For the bath

- pipe work is selected to withstand local water conditions
- water pressure is adequate throughout the facility
- hot water temperature is controlled between 44˚C and 50˚C
- tap ware is selected to withstand local water conditions
- drainage is well designed with adequate pipe sizes, inspection points and is tested during construction
- the bath is securely mounted

CONSIDER:

- using a swivel spout and locating taps to prevent injury
- fitting a grab rail around the bath to safely step in and out of the bath

NIHG reference B1 Washing people

1.28 FUNCTIONING OF REQUIRED ITEMS IN RESIDENT TOILETS/BASINS

Toilets are defined here as a room that contains a toilet and basin for hand washing.

See 1.26 for toilet and basin design considerations.

NIHG reference B3 Removing waste water safely.

1.29 FUNCTIONING OF REQUIRED ITEMS IN RESIDENT KITCHENS

Other principles in this Guide deal with the various important benefits and details of resident kitchens. If kitchens are provided they need to be safe and functional and provide these additional facilities to residents.

ENSURE:

- the sink has taps that can be easily turned on and off by the resident and a secure plug
- if a fridge is provided, the door seals are in good condition and the temperature is adjusted to prevent the build up of ice in the unit

CONSIDER:

- an oven
- other safe appliances to help cooking and preparing snacks
- good ventilation of the area
- an extractor fan

1.30 HOT WATER: TEMPERATURE OF TAP WATER

Hot water temperature will be tested in the en-suite, bathroom and kitchen areas. Other critical items required for the safe function of these areas will also appear in the items 1.19, 1.20, 1.22, 1.26, 1.27, 1.29.

ENSURE:

- the system maintains water temperature within a range of 40.5˚C - 43.5˚C
- warm water systems are serviced annually
- the warm water system must be maintained in good working order
- the temperature of water at outlets in the organisation is tested at least monthly
- water samples are tested for bacteria once a quarter over a full 12 months
- records are kept on all required aspects of the warm water system
- records of the warm water system are inspected to confirm routine testing, service and maintenance including any reported malfunctions and action taken
- inspection of the local authorities registration certificate for the warm water system

AVOID:

- any variations to the warm water system without recording and notification of local authorities
- temperatures that exceed required maximums by 2˚C if so immediately isolate that system until it is repaired

NIHG reference B1 - Washing people
NIHG reference B 9.2 Burns from hot water

1.31 - 1.41 BUILDING ENVIRONMENT TESTING

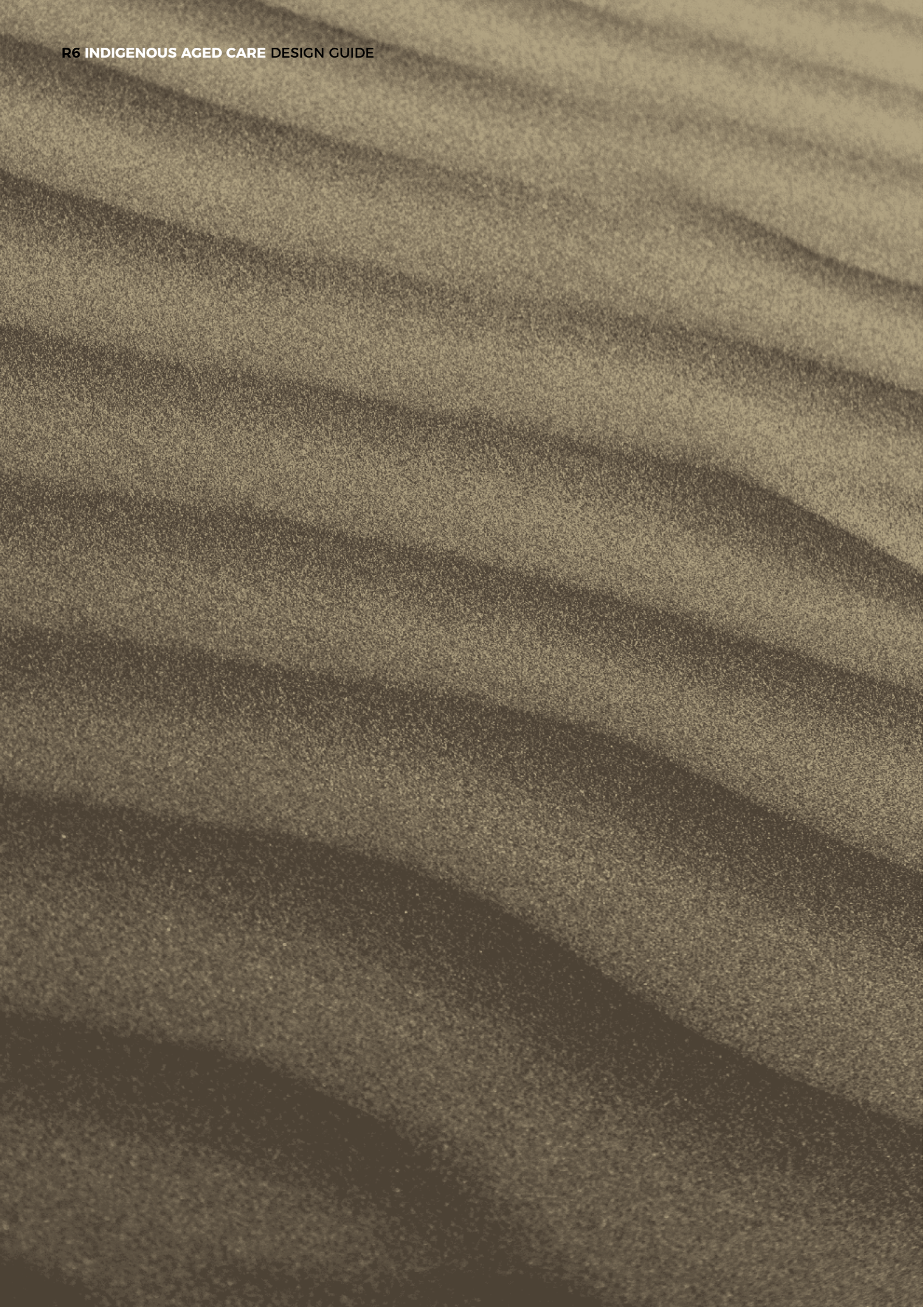
The remaining items (1.31 -1.41) test and describe the safety and adequacy of the building environment. See the Building Services Survey sheets for details and testing procedure. These can be found on the Health Habitat website.

ITEM No.	ITEM	NIHG REFERENCE
1.31	Resident Area Lighting	A1.4
1.32	Outside Wall Condition	A4
1.33	Inside Wall Condition	A4
1.34	Ceiling Condition	A4
1.35	Floor Condition	A4
1.36	Window Condition	B82,3
1.37	Door Condition	B5
1.38	Insect Screening Condition	B6
1.39	Lights Functioning	A1.4
1.40	Power Points Functioning	A1.4
1.41	Ceiling Fans Functioning	B8.4

THE 10 PRINCIPLES IN DETAIL

CHAPTER 2

FOCUSING ON THE SMALL SCALE

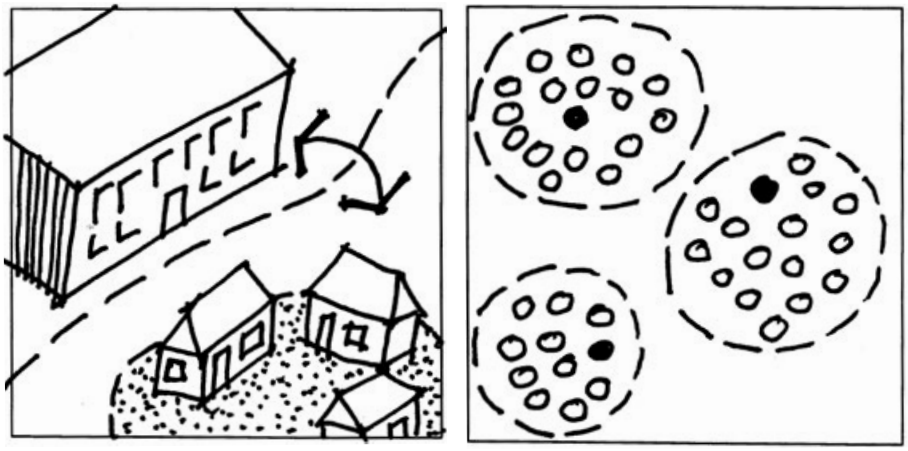


2. FOCUSING ON THE SMALL SCALE

The size of a unit influences how a person feels and behaves. A unit contains the areas that are important in the residents' daily life, such as bedrooms, sitting areas, outdoor areas, the lounge room, dining room, and residents' kitchen. In addition to considering how many people live in a unit, both scale and detailing are important factors in designing a unit of an appropriate size. The size of a unit will impact on how many people a resident needs to interact with on a day to day basis, how many decisions they need to make, and also how familiar the setting is for a resident.

The scale of a unit is determined not only by its overall size, but by the scale of its many components. An environment of an appropriate scale helps a person to have a sense of place and well being. A building can be designed, detailed and furnished to create a familiar and small scale environment, focusing on elements which are of a human scale and finishes which are used in residential settings.

2.1 NUMBER OF RESIDENTS



It has been shown that small scale settings are beneficial for older people and especially for older people with dementia. Group size, or the number of people in a unit, is the most important factor in achieving a small scale setting. In a small unit, a person needs to relate to fewer people, and is able to do things in a group which is more familiar to them.

A small scale environment can be successfully created when a large facility is made up of many units, each of which contains the areas that are important in the residents' daily life, such as the lounge room, dining room, residents' kitchen, bedroom, sitting areas and outdoor areas.

The number of residents in a unit affects the size of the unit, as for example the number of bedrooms and the amount of circulation space that is required increase with more people. By default, a smaller group size means a smaller unit.

ENSURE:

- creating a unit for around 15 people or less
- staffing models are prepared at the design stage to confirm the best mix of unit size and operation

AVOID:

- larger unit sizes greater than 15 people

CONSIDER:

- creating units for 10 people for less
- breaking up larger units into smaller units

2.2 OUTSIDE APPEARANCE, SCALE AND DETAILING

The external scale and detailing of each unit in the facility is important in creating a small scale setting and in creating a positive impression in the community. This appearance of the unit is the first impression that people will have of the place as they come, go, and pass by, and one which will stay with them. A larger facility can still give the appearance and feel of being small if it is broken up into distinct parts (units). The design of the roof, the pattern of the windows, the layout of the garden, and the careful selection of colours and materials can all have an impact on the impression the building gives to the wider community. It is important that materials are as domestic as possible, rather than commercial, as this is a residential setting. The meaning of residential scale will vary according to people's living experiences, and so it is important to use a typical house as a reference point.

ENSURE:

- the external appearance of the facility (and unit) is detailed to create a small scale setting
- domestic scale entrances rather than hotel style lobby entries
- domestic roof styles
- reduced heights and scale to the street

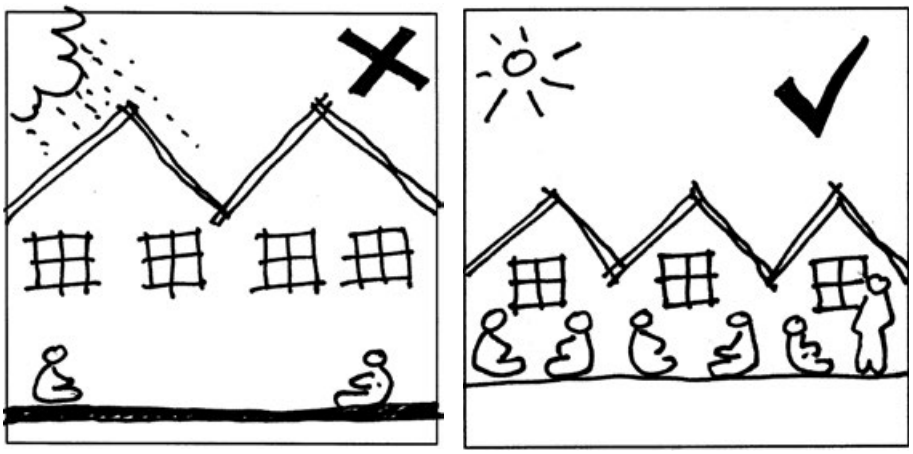
AVOID:

- repetition of colour, materials, details
- institutional finishes

CONSIDER:

- implementing changes to existing larger units that will help reduce the scale of the living environment (domestic details and furnishings)
- creating a series of small buildings

2.3 INSIDE APPEARANCE, SCALE AND DETAILING



The internal scale and detailing of a unit is important in creating a small scale setting for residents to enjoy. When a large unit is broken up into different rooms, and in turn each of these rooms is designed to cater for small groups (rather than large ones), the overall impression can be altered and the focus be residential. As with the external appearance of the building, the meaning of residential scale will vary according to people's living experiences, and so it is important to use a typical house as a reference point. The choice of furniture will be important, as will the selection of artwork, window furnishings, door furniture, taps, and flooring.

ENSURE:

- the unit is designed and detailed to create a small scale setting
- a cluster of domestic scale living and dining areas is created rather than one large space

AVOID:

- large institutional size rooms (living room, dining room)
- repetition of colour, materials, details
- institutional finishes

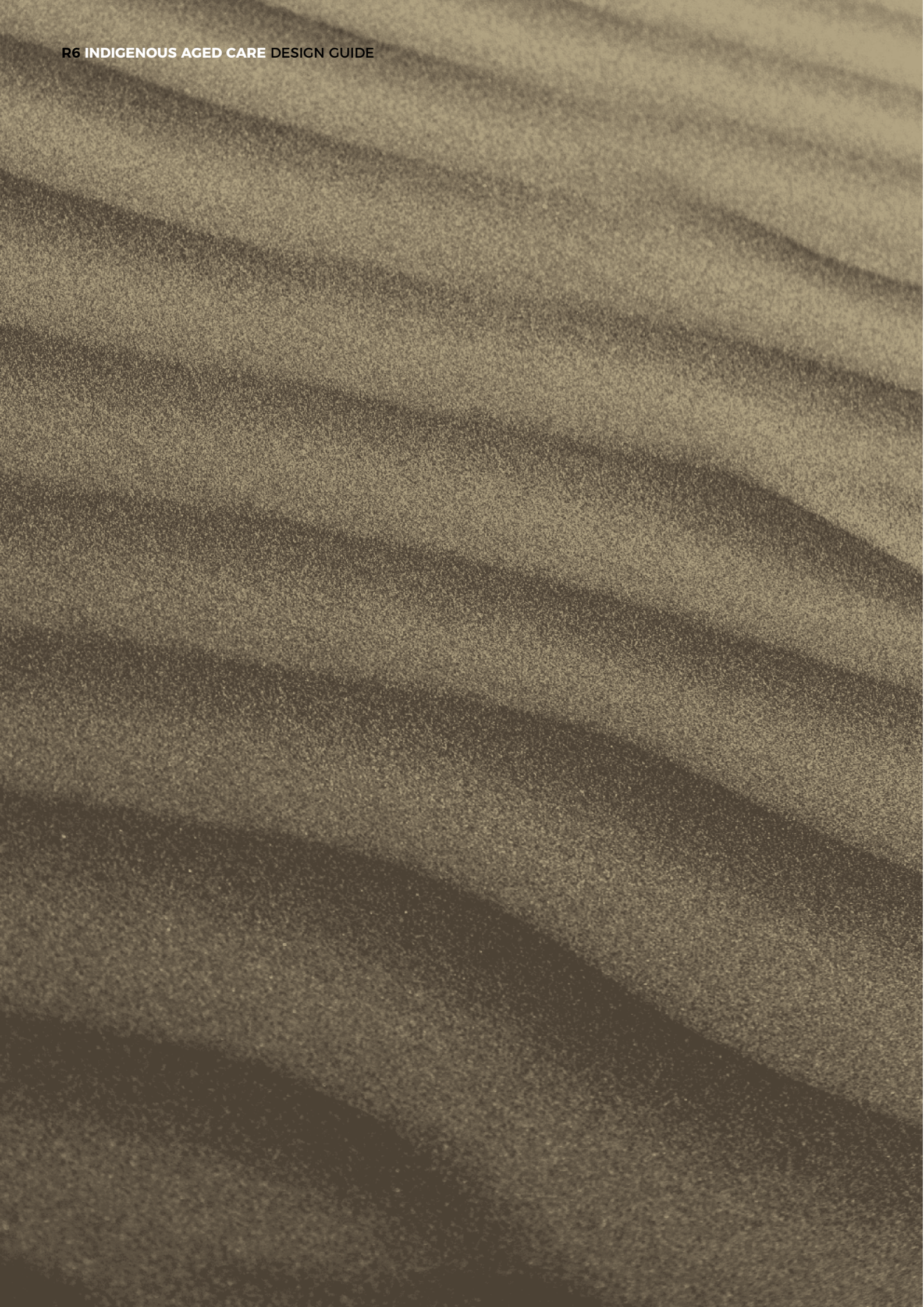
CONSIDER:

- domestic scale dining tables
- furniture selection so that not all furniture looks the same
- domestic decoration (pictures, etc)

THE 10 PRINCIPLES IN DETAIL

CHAPTER 3

SEEING AND BEING SEEN



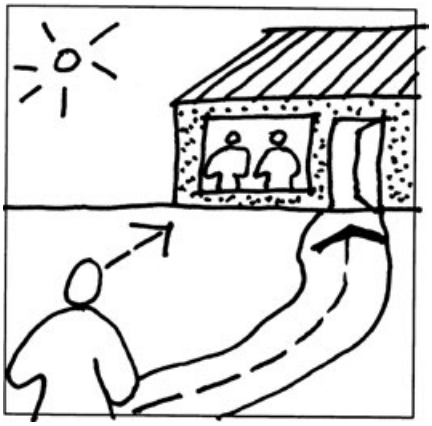
3. SEEING AND BEING SEEN

It is essential that residents are able to negotiate their environment easily. Visual access is key element of wayfinding. Clear choice and decision making are essential within a setting as they can contribute to a sense of place and well being. Everyone needs to find their way and looks for cues from the environment to help them do this. We all look for an indication of where we can go and what we might find when we get there. It is particularly important for residents to be able to recognise where they are, where they have come from, and what they will find if they head in a certain direction.

An environment needs to offer residents opportunities for exploration and engagement, while being easy for them to understand and interpret. Views are important and can help a person recognise their location. Landmarks and cues (eg views of country, rocky outcrops and other natural features) can be significant, as well as built features such as a building or a shelter. It is an advantage if staff are able to see residents for most of the time as this reduces anxiety in both residents and staff.

3.1 SEEING THE WAY TO THE LOUNGE ROOM

The lounge room is a place where residents are likely to want to spend time relaxing and socialising with others or on their own. It needs to be easy to find and recognise. If residents can see the way to the lounge room when they leave their bedroom this will help them know where they are heading and give them a hint of what they will find when they get there.



ENSURE:

- the lounge room is located in a prominent position in the unit
- the lounge room is identifiable when leaving the bedroom for example by the scale, form, colour

AVOID:

- repetition of building form, scale and colour which doesn't distinguish the lounge room

CONSIDER:

- clear lines of sight between bedrooms and lounge room

3.2 SEEING INSIDE THE LOUNGE ROOM

The lounge room is a place where residents are likely to want to spend time relaxing and socialising with others or on their own. It needs to be easy to find and recognise. If residents can see the inside of the lounge room from circulation routes this will help them know where they are heading and what they will find when they get there. Seeing inside the room (rather than just the outside of the room) will give them added information and inspiration as they can see particular features, furniture and decoration, such as an inside fire place, painting, or an easy chair.

ENSURE:

- the lounge room is located in a prominent position in the unit
- entry doors to the lounge room are glazed to allow people to look inside
- windows have low sill height to encourage view in and out from/onto paths and circulation routes

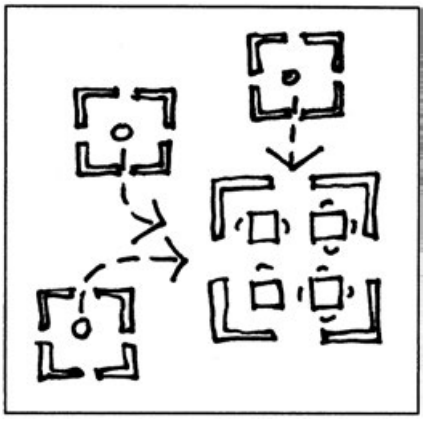
AVOID:

- obstructing the view in or out of the lounge room, for example by closing curtains, using solid doors

CONSIDER:

- sidelights to doors to allow people to see inside the lounge room

3.3 SEEING THE WAY TO THE DINING ROOM



The dining room is a place where residents are likely to want to spend time relaxing and socialising with others or on their own. It needs to be easy to find and recognise. If residents can see the way to the dining room when they leave their bedroom this will help them know where they are heading and give them a hint of what they will find when they get there.

ENSURE:

- the dining room is located in a prominent position in the unit
- the dining room is identifiable when leaving the bedroom (eg by scale, form or colour)

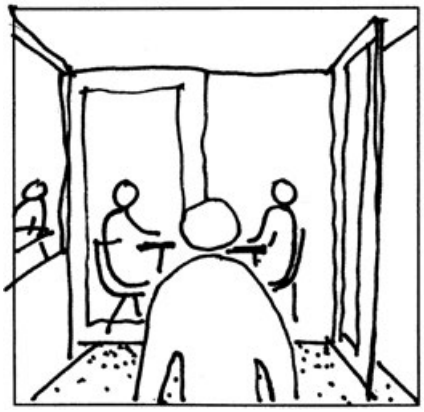
AVOID:

- repetition of building form, scale and colour which doesn't distinguish the dining room

CONSIDER:

- clear lines of sight between bedrooms and dining room

3.4 SEEING INSIDE THE DINING ROOM



The dining room is a place where residents are likely to want to spend time relaxing and socialising with others or on their own. It needs to be easy to find and recognise. If residents can see the inside of the dining room from circulation routes this will help them know where they are heading and what they will find when they get there. Seeing inside the room (rather than just the outside of the room) will give them added information and inspiration as they can see particular features, furniture and decoration, such as a table and chairs.

ENSURE:

- the dining room is located in a prominent position in the unit
- entry doors to the dining room are glazed to allow people to look inside
- windows have low sill height to encourage view in and out from/to paths and circulation routes

AVOID:

- obstructing the view in or out of the dining room, for example by closing curtains, using solid doors

CONSIDER:

- sidelights to doors to allow people to see inside the dining room

3.5 SEEING THE WAY TO THE BEDROOM

Bedrooms may be places where residents are want to spend time relaxing with others or on their own. It is important that they are easy to find and recognise. It may not be possible for residents to see their bedroom directly from the lounge or dining room. If they can see how to reach it when they leave the lounge or dining room, this will help residents see which way to head and give them a hint of what they will find when they get there.

ENSURE:

- bedrooms are located in close proximity to the lounge room and dining room
- the way to bedrooms is identifiable when leaving the lounge and dining room (eg by using decoration, finishes and/or colour)

AVOID:

- long corridors which require residents to make many turns to reach their bedrooms

CONSIDER:

- providing clear lines of sight between bedrooms and the lounge room and dining room
- the use of redundant cueing, ie providing more than one cue to the same thing, for example through the use of colour, finishes, images, artwork, recognising that different things can be meaningful to different residents and at different times.

3.6 SEEING THE BEDROOM DOOR

Bedrooms may be places where residents are want to spend time relaxing with others or on their own. A resident's bedroom needs to be easy to find and recognise. Bedroom doors offer residents an important way to recognise their door, and consideration should be given to the finish and decoration of bedroom doors, information on the door and the use of features near the door. This will help residents know where their bedroom is.

ENSURE:

- bedroom doors can be clearly distinguished from one another
- bedoom doors are positioned so they can be easily seen

AVOID:

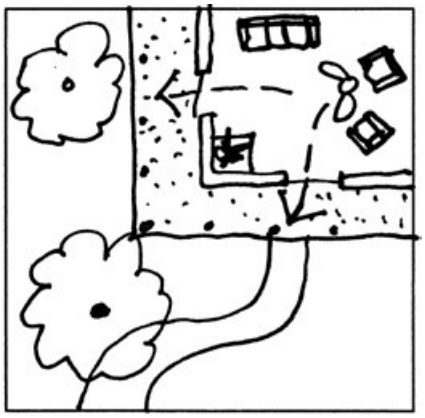
- repetition of finishes and features as then the doors can all appear to be the same

CONSIDER:

- how clear lines of sight can be provided to bedroom doors
- the use of redundant cueing, ie providing more than one cue to the same thing, for example through the use of colour, texture, finish, names, numbers, images, artwork, recognising that different things can be meaningful to different residents and at different times.

3.7 SEEING THE EXIT TO OUTSIDE FROM THE LOUNGE ROOM

The lounge room is likely to be an important place in the life of the unit. Outside areas may well be as significant as inside spaces and so it is vital that residents are able to see the way to go outside from the lounge room.



ENSURE:

- that the door to outside is clearly recognisable as a door
- clear lines of sight to outside areas where activities may be occurring
- easy access to outside area

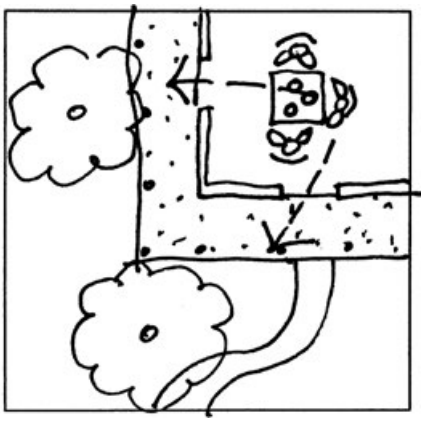
AVOID:

- obstructing the view of the door to outside
- obstructing the view out of the lounge room

CONSIDER:

- using sidelights to doors
- window design so windows don't look like doors

3.8 SEEING THE EXIT TO OUTSIDE FROM THE DINING ROOM



The dining room is likely to be an important place in the life of the unit. Outside areas may well be as significant as inside spaces and so it is vital that residents are able to see the way to go outside from the dining room.

ENSURE:

- that the door to outside is clearly recognisable as a door
- clear lines of sight to outside areas where activities may be occurring
- easy access to outside area

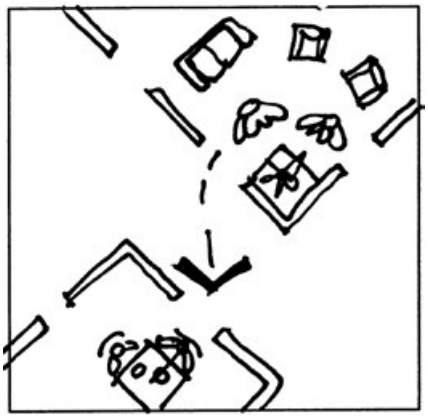
AVOID:

- obstructing the view of the door to outside
- obstructing the view out of the dining room

CONSIDER:

- using sidelights to doors
- window design so windows don't look like doors

3.9 SEEING THE DINING ROOM FROM THE LOUNGE ROOM



Ideally key inside areas such as lounge room and dining room should be visually connected. This will mean that a resident can easily see key places that will be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- the dining and lounge room are located near each other
- there is a clear visual connection between lounge and dining rooms
- a clear path between lounge and dining rooms

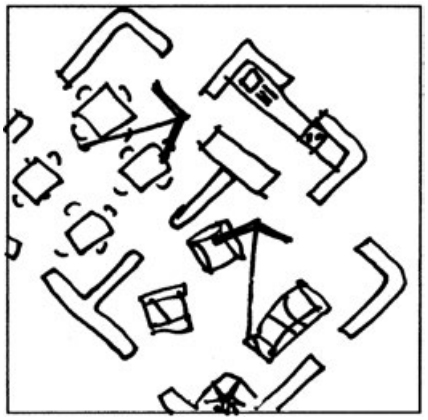
AVOID:

- obstructing the view from the dining to the lounge room

CONSIDER:

- making the connecting path between the dining and lounge room stronger by having it well defined and separate from other circulation to and from these main areas and the rest of the facility

3.10 SEEING THE RESIDENT KITCHEN FROM THE LOUNGE ROOM



Ideally key areas inside such as lounge room and resident kitchen should be visually connected. This will mean that a resident can easily see other places that will be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- resident kitchen can be seen from the lounge room
- clear path between resident kitchen and lounge room

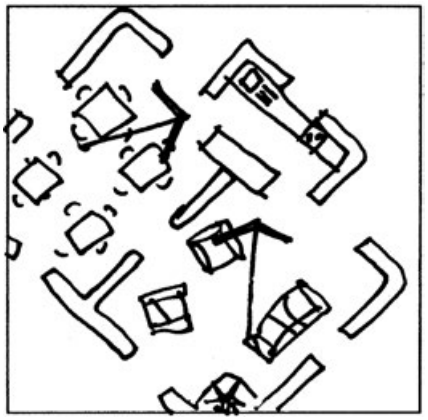
AVOID:

- obstructing the view of the resident kitchen from the lounge room
- obstructing the path between resident kitchen and lounge room

CONSIDER:

- keeping the bench-top hob height low to enable easy viewing into the kitchen by residents and staff
- planning the kitchen layout and connection to the lounge room to allow an overview and conversations whilst ensuring potentially dangerous parts of the kitchen are well protected

3.11 SEEING THE RESIDENT KITCHEN FROM THE DINING ROOM



Ideally key areas inside such as dining room and resident kitchen should be visually connected. This will mean that a resident can easily see other places that will be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- resident kitchen can be seen from the dining room
- clear path between resident kitchen and dining room

AVOID:

- obstructing the view of the resident kitchen from the dining room
- obstructing the path between resident kitchen and dining room

CONSIDER:

- keeping the bench-top hob height low to enable easy viewing into the kitchen by residents and staff
- planning the kitchen layout and connection to the dining room to allow an overview and conversations whilst ensuring potentially dangerous parts of the kitchen are well protected

3.12 SEEING THE OUTSIDE COOKING/CAMPFIRE FROM THE LOUNGE ROOM

Ideally key areas inside (such as lounge room) and outside (such as a cooking area) should be visually connected. This will mean that a resident can easily see other places that will be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- outside cooking area/campfire can be seen from the lounge room
- clear path between outside cooking area/campfire and lounge room
- staff have a good overview of outside areas

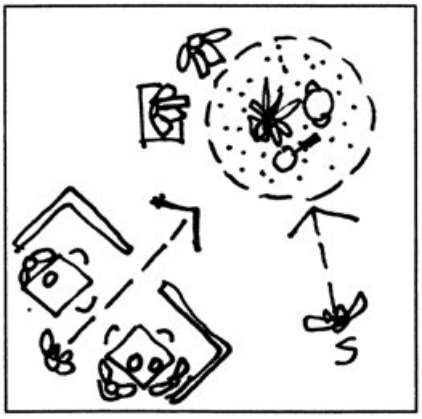
AVOID:

- obstructing the view of the outside cooking area/campfire from the lounge room
- obstructing the path between outside cooking area/campfire and lounge room

CONSIDER:

- locating and designing outside areas so they can be easily viewed and accessed by a range of staff at all times
- designing all staff access routes and service corridors to provide back up observational glimpses of all outdoor areas likely to be used by residents

3.13 SEEING THE OUTSIDE COOKING AREA/CAMPFIRE FROM THE DINING ROOM



Ideally key areas inside (such as the dining room) and outside (such as cooking area) should be visually connected. This will mean that a resident can easily see other places that will be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- outside cooking area/campfire can be seen from the dining room
- clear path between outside cooking area/campfire and dining room

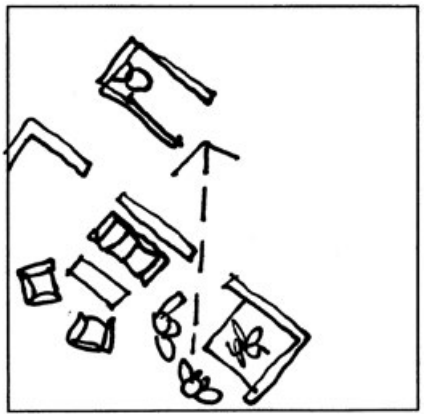
AVOID:

- obstructing the view of the outside cooking area/campfire from the dining room
- obstructing the path between outside cooking area/campfire and dining room

CONSIDER:

- locating and designing outside areas so that they can be easily viewed and accessed by a range of staff at all times
- designing all staff access routes and service corridors to provide back up observational glimpses of all outdoor areas likely to be used by residents

3.14 SEEING A TOILET FROM THE LOUNGE ROOM



A toilet is a room which needs to be used often and therefore needs to be easy to get to. If it is not only is close proximity to the lounge room but can be seen from the lounge room, it can act as an important prompt for residents.

ENSURE:

- toilet is visible but still private
- clear path between toilet and lounge room

AVOID:

- locating the toilet so that it dominates the lounge room view
- locating the toilet pan so that if the door is left open residents' privacy is compromised
- obstructing the view between lounge room and the toilet
- obstructing the path between lounge room and the toilet

CONSIDER:

- the location of screens and the placement of fixtures in the room to screen the toilet
- use of appropriately adjusted door closer so that the toilet door closes but residents can easily open the door

3.15 SEEING A TOILET FROM THE DINING ROOM

A toilet is a room which needs to be used often and therefore needs to be easy to get to. If it is not only is close proximity to the dining room but can be seen from the dining room, it can act as an important prompt for residents.

ENSURE:

- toilet is visible but still private
- clear path between toilet and dining room

AVOID:

- locating the toilet so that it dominates the dining room view
- locating the toilet pan so that if the door is left open resident privacy is compromised
- obstructing the view between dining room and the toilet
- obstructing the path between dining room and the toilet

CONSIDER:

- the location of screens and the placement of fixtures in the room to screen the toilet
- use of appropriately adjusted door closer so that the toilet door closes but residents can easily open the door

3.16 SEEING A TOILET FROM OUTSIDE SHELTERS

A toilet is a room which needs to be used often and therefore needs to be easy to get to. People may use outside areas as much as inside spaces and so it is vital that they are able to see the way to go to the toilet from outside shelters and areas where residents frequently gather. If it is not only in close proximity to outside shelters and areas but can be seen from them, it can act as an important prompt for residents.

ENSURE:

- toilet is visible but still private
- clear path between toilet and outside shelters

AVOID:

- locating the toilet so that it dominates the view from outside shelters
- locating the toilet pan so that if the door is left open resident privacy is compromised
- obstructing the view between outside shelters and the toilet
- obstructing the path between outside shelters and the toilet

CONSIDER:

- the location of screens and planting to screen the toilet
- the placement of the toilet pan
- use of appropriately adjusted door closers so that the toilet door closes but residents can easily open the door

3.17 SEEING STAFF FROM THE LOUNGE ROOM

Residents are likely to be reassured if they know staff are around and so good visual access between the point(s) where staff spend most of their time and the lounge room is important. As residents are likely to spend a lot of time in the lounge it will also be an advantage if staff can easily see residents and assist them if required.

ENSURE:

- good visual access to circulation routes around the lounge room

AVOID:

- a central staff base (which can be intimidating)

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

3.18 SEEING STAFF FROM THE DINING ROOM

Residents are likely to be reassured if they can see where staff are and so good visual access between the point(s) where staff spend most of their time and the dining room is important. As residents are likely to spend a lot of time in the dining room it will also be an advantage if staff can easily see residents and assist them if required.

ENSURE:

- good visual access to circulation routes around the dining room

AVOID:

- a central staff base (which can be intimidating)

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

3.19 SEEING STAFF FROM OUTSIDE

Residents are likely to be reassured if they can see where staff are and so good visual access between the point(s) where staff spend most of their time and outside areas is important. As residents are likely to spend a lot of time outside it will also be an advantage if staff can easily see residents and assist them if required.

ENSURE:

- good visual access to circulation routes, lounge room and dining room from outside

AVOID:

- a central staff base (which can be intimidating)

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)
- lighting of the staff base

3.20 SEEING OUTSIDE AREAS FROM THE LOUNGE ROOM

For many residents, outside areas may well be as significant as inside spaces. Ideally key areas inside such as the lounge room and outside (such as a cooking area, shelter, shady place and view to country) should be visually connected. This will mean that a resident can easily see other places that will be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- good visual access to outside areas from the lounge room
- clear path between outside areas and the lounge room

AVOID:

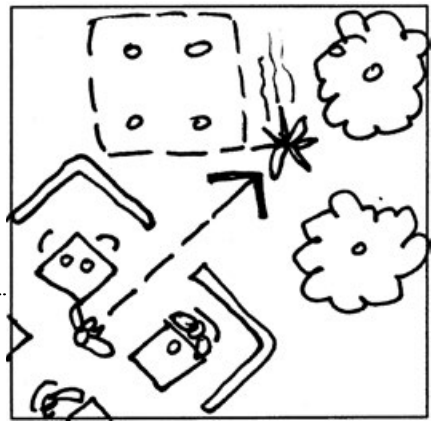
- obstructing the view to outside areas from the lounge room
- obstructing the path to outside areas from the lounge room
- glare from the viewing window by careful siting of the lounge room and outside areas
- any obvious glare sources by carefully considering window locations, using lighter colours on inside walls around windows, and allowing for the ability to screen glare sources if necessary at certain times of the day (see 5.13 for a dicussion of glare)

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

3.21 SEEING OUTSIDE AREAS FROM THE DINING ROOM

For many residents outside areas may well be as significant as inside spaces. Ideally key areas inside such as the dining room and outside (such as cooking area, shelter, shady place and view to country) should be visually connected. This will mean that a resident can easily see other places that will be of interest to them, and can also see how they can go from one of these places to another.



ENSURE:

- good visual access to outside areas from the dining room
- clear path between outside areas and the dining room

AVOID:

- obstructing the view to outside areas from the dining room
- obstructing the path to outside areas from the dining room
- glare from the viewing window by careful siting of the dining room and outside areas

- any obvious glare sources by carefully considering window locations, using lighter colours on inside walls around windows, and allowing for the ability to screen glare sources if necessary at certain times of the day (see 5.13 for a dicussion of glare)

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

3.22 SEEING A SHADY PLACE FROM THE LOUNGE ROOM

Outside areas may well be as significant as inside spaces. Ideally key areas inside, such as the lounge room, and outside, such as a shady place, should be visually connected. This will mean that a resident can easily see another place that may be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- good visual access to a shady place from the lounge room
- clear path between a shady place and the lounge room

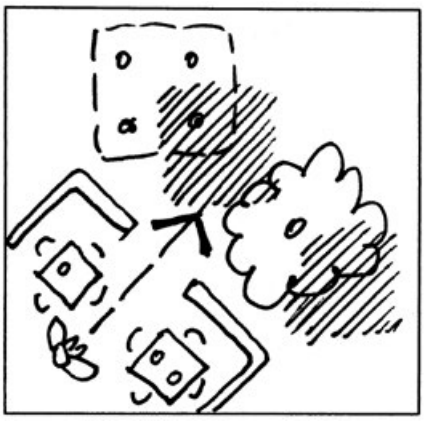
AVOID:

- obstructing the view to a shady place from the lounge room
- obstructing the path to a shady place from the lounge room
- glare from the viewing window by careful siting of the lounge room and shady place

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

3.23 SEEING A SHADY PLACE FROM THE DINING ROOM



Outside areas may well be as significant as inside spaces. Ideally key areas inside, such as the dining room, and outside, such as a shady place, should be visually connected. This will mean that a resident can easily see another place that may be of interest to them, and can also see how they can go from one of these places to another.

ENSURE:

- good visual access to a shady place from the dining room
- clear path between a shady place and the dining room

AVOID:

- obstructing the view to a shady place from the dining room
- obstructing the path to a shady place from the dining room
- glare from the viewing window by careful siting of the dining room and shady place

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

3.24 SEEING COUNTRY FROM THE LOUNGE ROOM

A distant view to country can be very important. Ideally key areas inside, such as the lounge room, should allow the opportunity for this view rather than requiring people to go outside to see country.

ENSURE:

- good visual access to country from the lounge room

AVOID:

- obstructing the view of country from the lounge room
- glare from the viewing window by careful siting of the lounge room

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

3.25 SEEING COUNTRY FROM THE DINING ROOM

For many people a view to country and the surrounding landscape can be very important. Ideally key areas inside, such as the lounge room, should allow the opportunity for this view rather than requiring people to go outside.

ENSURE:

- good visual access to country from dining room

AVOID:

- obstructing the view of country from the dining room
- glare from the viewing window by careful siting of the dining room

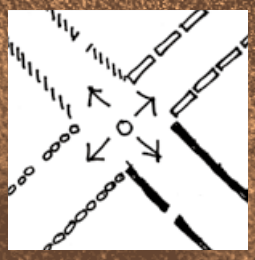
CONSIDER:

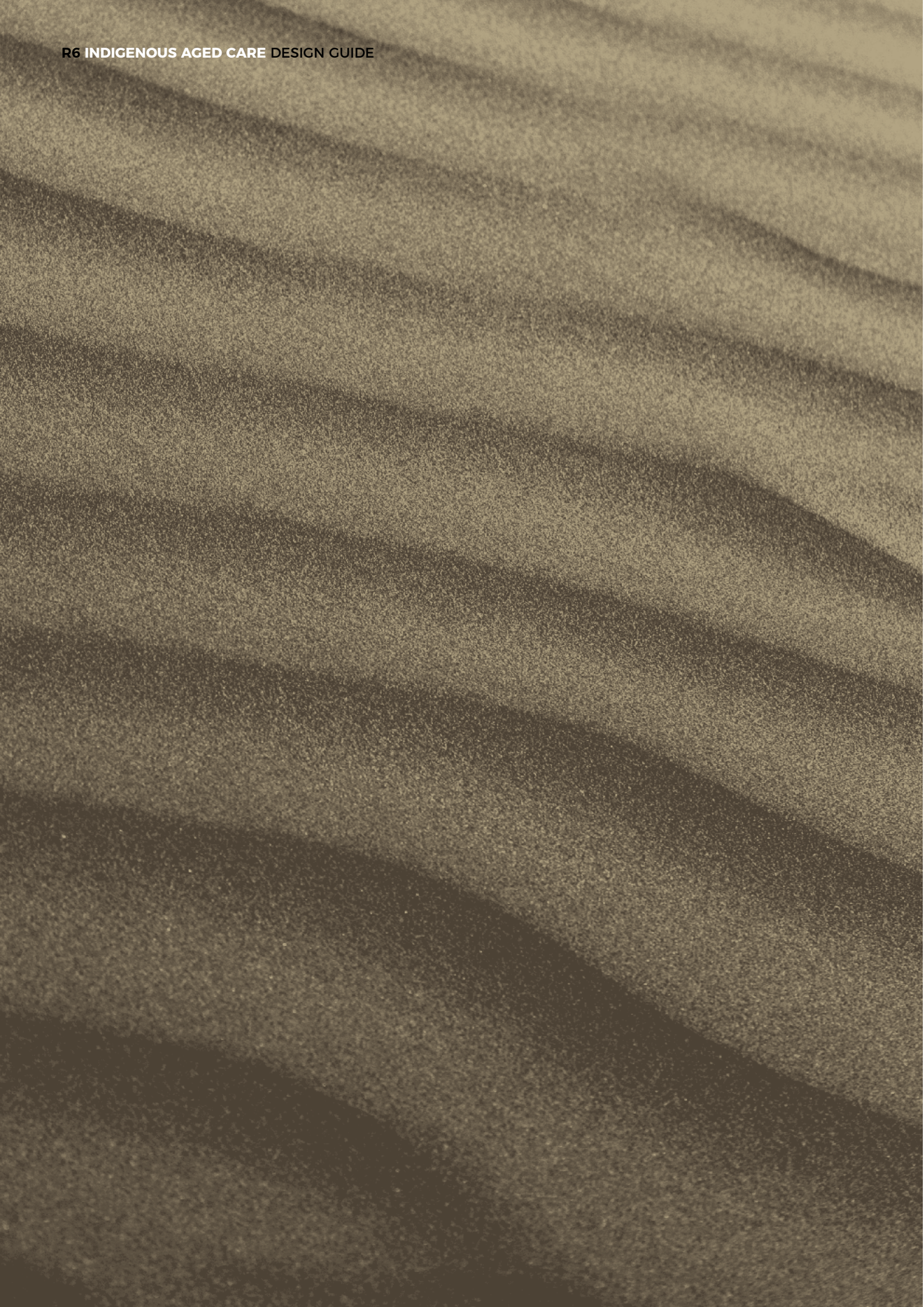
- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)

THE 10 PRINCIPLES IN DETAIL

CHAPTER 4

HIDING UNIMPORTANT THINGS





4. HIDING UNIMPORTANT THINGS

A resident can have difficulty coping with a large amount of stimulation. The environment should be designed to reduce the impact of visual and auditory stimulation that is unnecessary for the well being of the residents. Doors for the delivery of linen and the removal of garbage, for example, are not directly relevant to the life of a resident and should be hidden. This approach both reduces stimulation and avoids tempting resident into situations that would cause them difficulties. It also allows the older person to focus on places and functions that are likely to be meaningful for them.

4.1 DOORBELLS

The sound of a doorbell can be especially disturbing for residents if they are unable to answer the front door or leave the facility. In these instances it can highlight that the front door is a barrier, as residents do not have the freedom to come and go (as residents had in their own homes). This is especially the case for people with dementia, but can be a problem for other residents too. The sound of the doorbell could also be intrusive and disturb residents. This could result from its tone or the location of the bell in the facility.

ENSURE:

- doorbell to be used by visitors only (not deliveries)

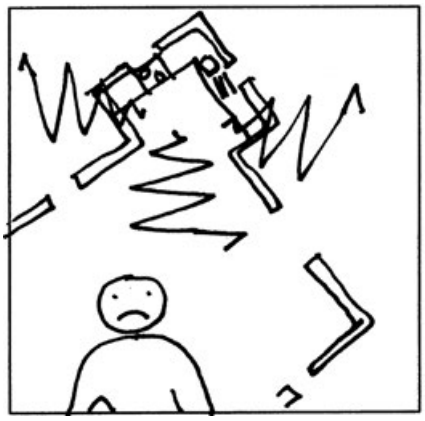
AVOID:

- deliveries coming through the front door
- loud, piercing tones

CONSIDER:

- separating service and visitor entries so that door bell is relevant to residents
- need for doorbell

4.2 NOISE FROM NON-RESIDENT KITCHEN



By definition, residents are not able to enter non-residents' kitchens. Noise can be generated by music, the banging of pots and pans or loud conversation. As this occurs behind closed doors, it can be very frustrating for residents as they are unable to participate and, at the same time, the noise could interfere with other things they are doing, reducing the older person's ability to function to the best of their abilities.

ENSURE:

- non residents' kitchen is separated from all resident areas

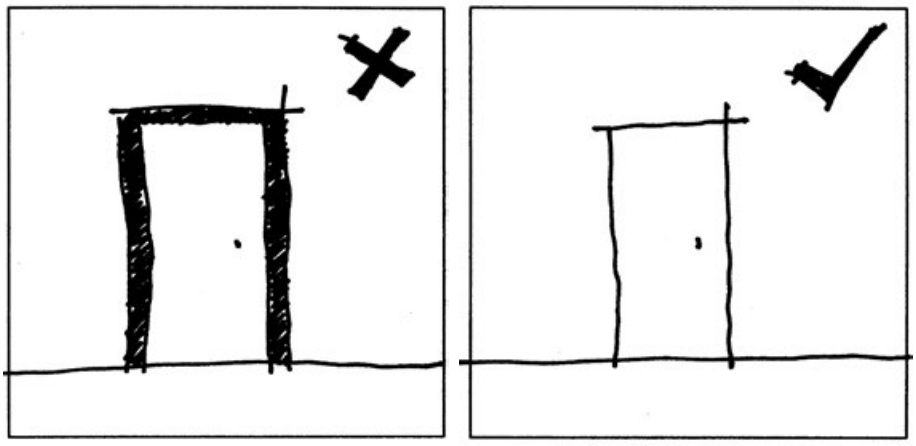
AVOID:

- direct sound paths from kitchen to resident areas

CONSIDER:

- planning/location of kitchen
- placement of doors and windows
- services access
- acoustic isolation measures

4.3 DOORS TO CLEANERS' ROOMS, STORE ROOMS



Residents have no need to open doors to cleaners' cupboards. More importantly, these cupboards will contain equipment that could be harmful. It is important that residents' attention is drawn only to those doors which they can open and may lead to somewhere of interest, rather than to those which may be locked, are irrelevant or present a potential danger to the resident or visitors.

ENSURE:

- doors to cleaners' cupboards are unobtrusive
- doors to cleaners' cupboards and doors to residents' areas are not the same

AVOID:

- doors to cleaners' cupboards in residents' areas

CONSIDER:

- planning/location of cleaners cupboards
- locating cleaners cupboards in staff zones

4.4 ACCESS TO WARDROBES

It is important that residents have the opportunity to put their clothes or possessions away. Sometimes, however, too many choices aren't helpful and can leave a person feeling frustrated and confused. Limiting the number of things that can be easily accessed in a wardrobe is a good way of minimising this.

ENSURE:

- residents have access to a wardrobe
- simple layout of wardrobes

AVOID:

- large wardrobes with many wardrobe doors
- overfilling a wardrobe with contents
- locking all wardrobe doors

CONSIDER:

- hiding some wardrobe doors
- reducing the number of wardrobes

4.5 DELIVERIES OF FOOD AND OTHER GOODS

A residential aged care facility requires many deliveries. These are back of house functions and need to remain that way. For the older person, the most important thing is receiving their meal at the table. The meal may already demand much concentration and energy from the resident. The introduction of unnecessary noise and the visual distraction of trolleys interrupt residents' lives and compromise their ability to focus on the important things such as eating their meal. For staff, this separation will make their job easier as the likelihood of inappropriate involvement by residents in these areas is minimised.

ENSURE:

- there are separate entrances and circulation routes for deliveries from resident areas

AVOID:

- deliveries through resident areas

CONSIDER:

- having door bells, that will be used by delivery people, that are only heard in staff office areas
- zoning activities within the building to ensure service areas (such as laundry washing and drying, food preparation and bulk supplies and cleaning stores) do not conflict with resident areas

4.6 PUBLIC ADDRESS AND STAFF PAGING SYSTEMS

The noise from public address and staff paging systems can be disturbing. Bells, lights and public announcements can interrupt residents' daily life and cause distraction and confusion. They often give information which is not directed to the residents, and so provide an unnecessary interruption.

A staff call system plays an important role in a facility as it assists residents to contact staff and enables staff to respond to residents' needs. It must be reliable. There are many types of staff call systems which are available. All have advantages and disadvantages and it is important to do research to determine which is the most appropriate system in a particular location. There are also a number of additional items which are available and can be linked to a staff call system (such as a floor mat or bed sensor). These can significantly enhance the ability of the staff to do their work and play an important role in meeting resident's needs.

ENSURE:

- staff paging systems are unobtrusive
- the staff call system is operational and can be maintained

AVOID:

- loud, bells, flashing lights and public announcements

CONSIDER:

- whether a public address system is required

4.7 ACTIVITY AT FRONT DOOR

Activity at the front door can be disturbing for residents if they are not able to come and go as they wish. It is important that such activity is screened so that residents are not constantly faced with unnecessary distractions and lost opportunities. Residents can become concerned if loved ones (be they friends, family or staff) are leaving and the noise of a group of people gathering at a door can create noise which is distracting.

ENSURE:

- planning allows for a discreet entry not easily observed by the main public areas of the facility

AVOID:

- direct entry into lounge or dining rooms

CONSIDER:

- ways in which front door can be screened

4.8 ACTIVITY AT SERVICE ENTRY

As with activity at the front door, activity at the service entry is unhelpful for residents. These functions relate to the back of house services of a unit which should be carried out unobtrusively. The service entry should be screened and hidden so that it is not a focus for residents and instead their attention is drawn to other more fulfilling areas of the unit. For staff, this separation will make their job easier as the likelihood of inappropriate involvement by residents in this area is minimised.

ENSURE:

- separate unobtrusive service entry

AVOID:

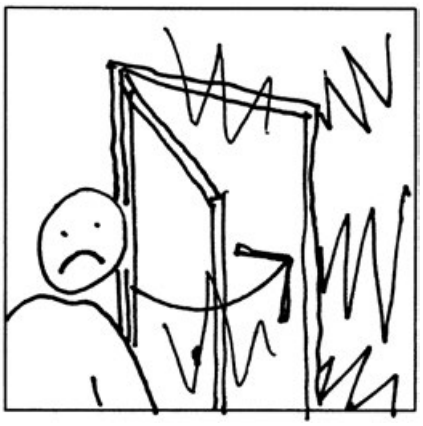
- deliveries through the front door
- noise from service entry interrupting residents

CONSIDER:

- if there is no separate service entry, using side gates and doors for deliveries
- timing of deliveries to minimise intrusions

4.9 NOISE FROM DOORS CLOSING

The sound of doors closing in a unit can be very distracting for a resident. It is important that doors can be closed quietly and door closers are adjusted to close doors quietly.



ENSURE:

- doors close quietly

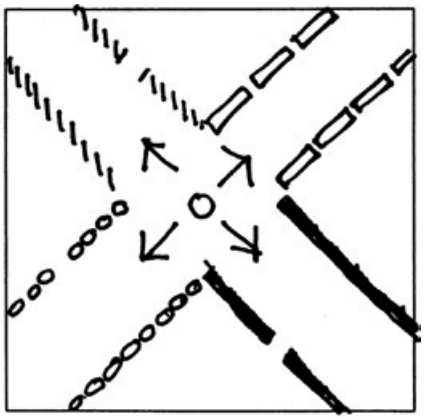
AVOID:

- door closers that are poorly adjusted

CONSIDER:

- installing cushioning seals around doors

4.10 CORRIDORS



Corridors can become confusing if they are repetitive and this can lead to frustration. The presence of mirrors in a corridor can be particularly disturbing as they can give a false sense of space and disorientate people as they inadvertently follow reflections. This can not only occur with mirrors in corridors but with those that are placed in bedrooms and can be seen from corridors.

ENSURE:

- corridors are not repetitive

AVOID:

- mirrors in corridors

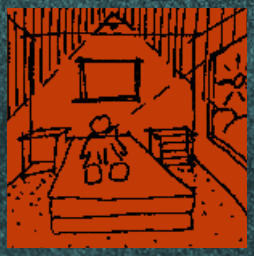
CONSIDER:

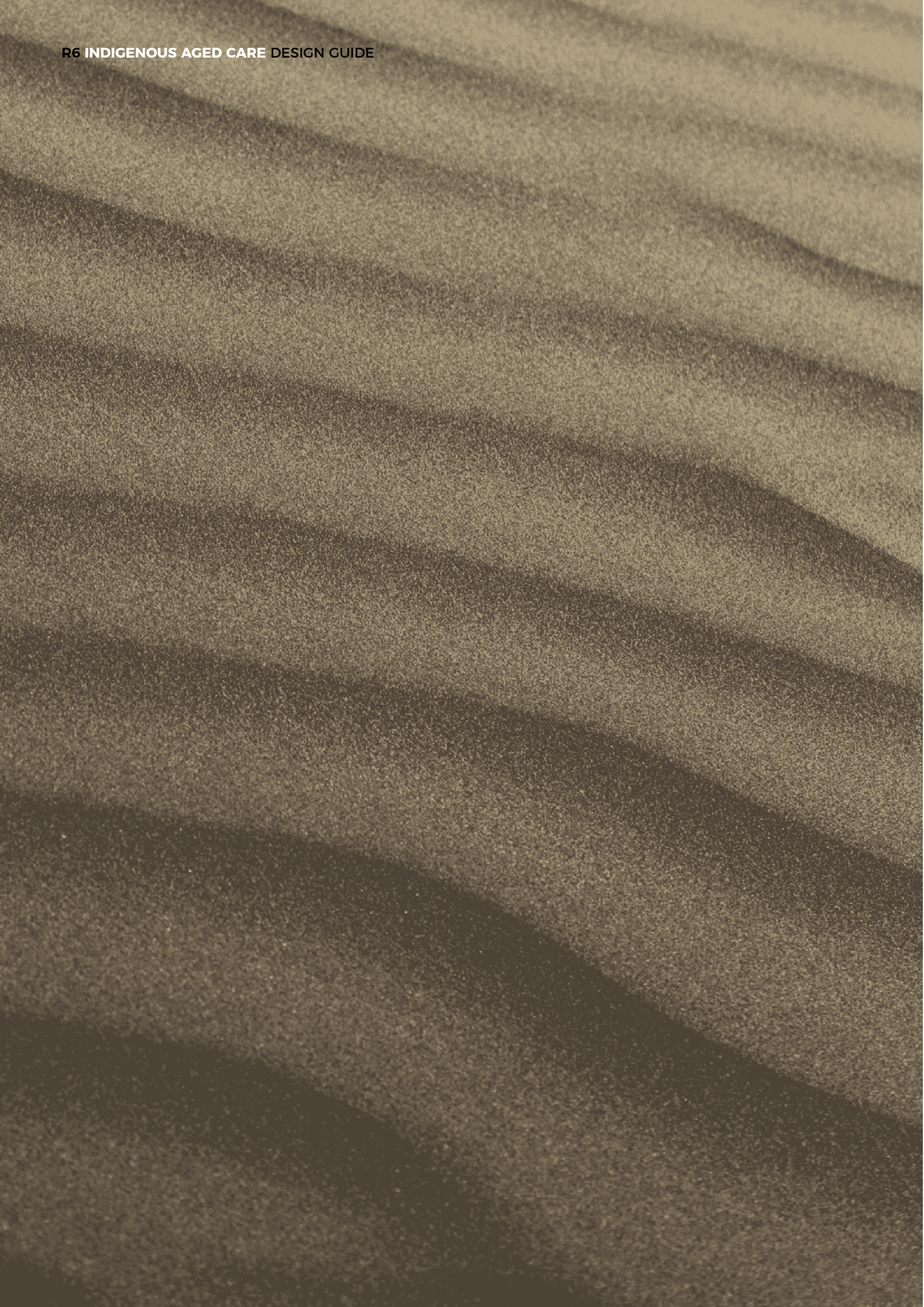
- identifying seperate parts of a corridor (see 5.3 for a description of these issues)

THE 10 PRINCIPLES IN DETAIL

CHAPTER 5

EMPHASISING IMPORTANT THINGS





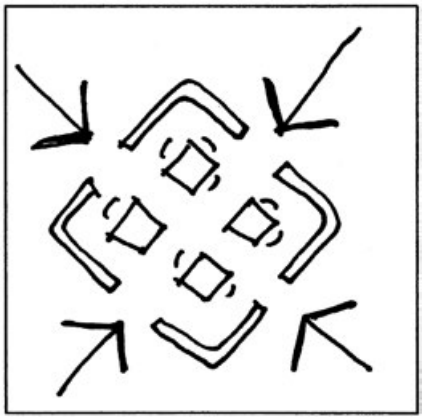
5. EMPHASISING IMPORTANT THINGS

Cues such as images, smells and sounds can provide prompts for residents to help them recognise where they are and what they should do. It is essential to highlight those places and functions that are likely to be meaningful for residents. (Conversely it is unhelpful to emphasise stimuli that are unnecessary for the well being of the resident).

Highlighting useful stimuli encourages people to focus on things that they can still do and the places that are likely to offer them something of interest. Stimuli that are important can include outside places such as a campfire or traditional shelter, or a view to country. Inside it could be a particular room (such as a lounge room), the smell from a kitchen or campfire, a dish rack with dishes, a bedroom door, or the toilet.

5.1 RECOGNISING THE DINING ROOM

In most residential settings for older people the dining room is a key social place. Therefore it is important that it can be easily recognisable through visual connection and /or through signs or symbols so that residents find it easy to locate the dining room. An indication from outside the room as to what is inside can help highlight the room for residents.



ENSURE:

- the dining room is recognisable
- the use of multiples cues such as visual, auditory and olfactory

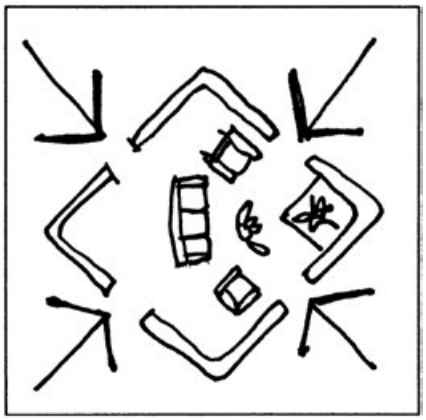
AVOID:

- barring entry to the dining room

CONSIDER:

- the transparency of the dining room (for example perforated screens, glass, small inside windows and low walls may increase the transparency between rooms whereas curtains, solid walls and furniture may decrease the transparency)
- introducing signs or symbols near the dining room approach such as a painting of food on the wall, menu board or hall table
- promoting food smells, the sight of tables being laid

5.2 RECOGNISING THE LOUNGE ROOM



In most residential settings for older people the lounge room is a key social place. Therefore it is important that it can be easily recognisable through visual connection and /or through signs or symbols so that residents find it easy to locate the lounge room. An indication from outside the room as to what is inside can help highlight the room for residents.

ENSURE:

- the lounge room is recognisable
- the use of multiples cues such as visual, auditory and olfactory

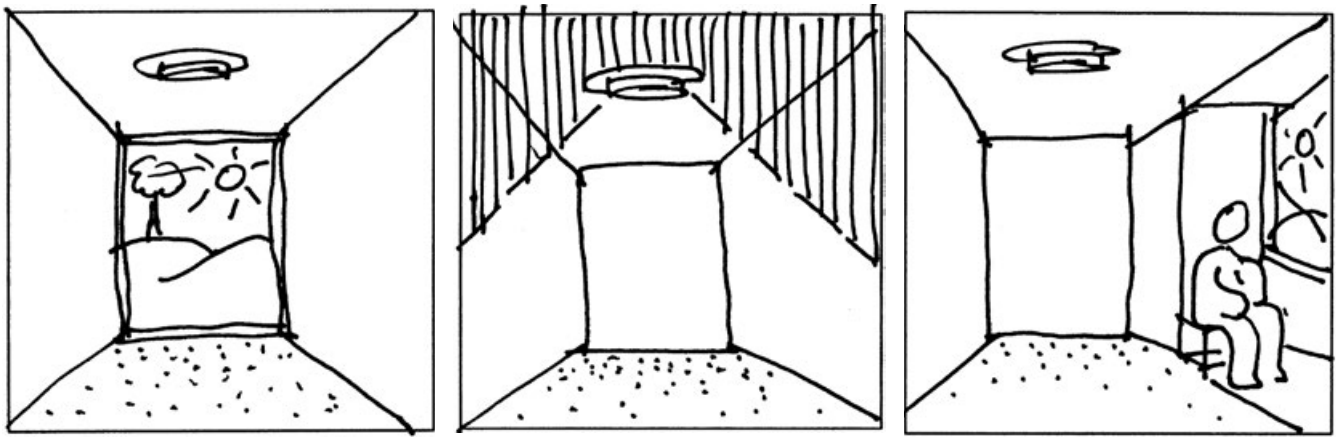
AVOID:

- barring entry to the lounge room

CONSIDER:

- transparency (see 5.1 for a description of these issues)
- introducing signs or symbols near the lounge approach such as arts and crafts by residents, newspapers and magazines, photos of recent outings
- promoting music, song and chatter

5.3 IDENTIFYING PARTS OF A CORRIDOR



There can be many corridors within a unit and each corridor can be quite long if it leads to a number of rooms. It is therefore important that the corridors do not all appear the same, and that each corridor is broken up into different parts, to highlight, for example, a sitting alcove, a view, or a door leading to outside. This can be done in many ways, for example, by using lighting (both natural and artificial), colour, a change in ceiling height or treatment, varied placement of windows, framing of a view or by varying the width of the corridor.

ENSURE:

- corridors have identifiable parts
- a range of features are included in a corridor

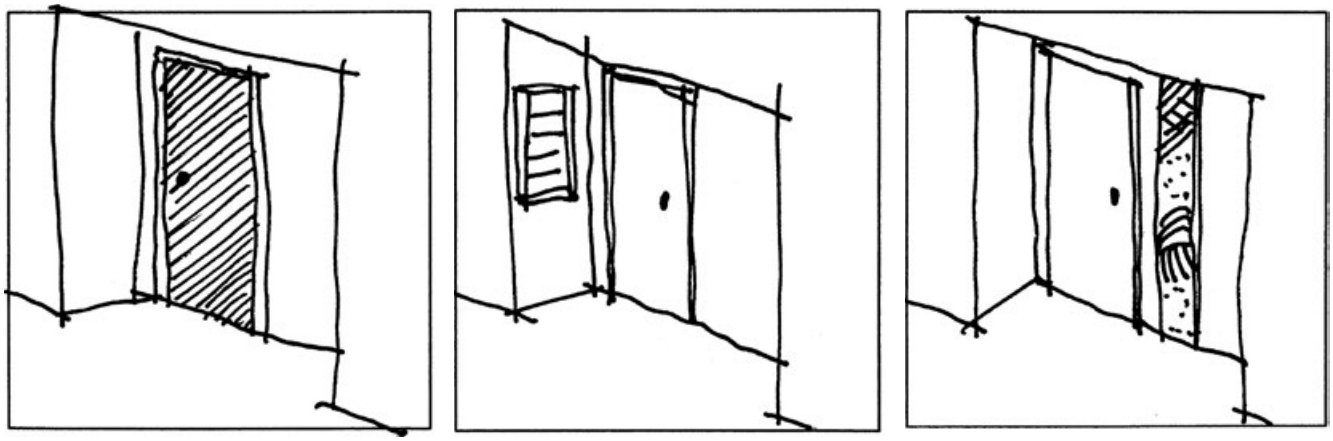
AVOID:

- repetitive corridors

CONSIDER:

- introducing features such as lighting (both natural and artificial), colour, a change in ceiling height or treatment, sitting alcove, skylight, views, paintings, framing of a view, varying the width of the corridor, varying the placement of windows

5.4 RECOGNISING BEDROOMS



It is important to be able to identify the room before the door is opened so that residents do not find it difficult to find their room. The finish on bedroom doors can be varied (in texture or colour) as can the approach to a bedroom (for example with some doors being recessed). Name plates, photos, art work and shadow boxes which allow a person to display some of their favourite things outside their door can all be used to identify bedrooms as belonging to a particular person.

Personal spaces (such as a bedroom) also need to be readily identifiable, although the extent to which and the way in which a resident may want to personalise this space can differ greatly. Once a bedroom door is opened it is often easy to recognise a room as belonging to a particular resident. Furniture, paintings, belongings, clothing all can be used to identify a person's bedroom.

ENSURE:

- residents can identify their room from outside the door
- residents can personalise their rooms

AVOID:

- repetition (for example of approach to the bedroom, door finish, colour, layout)

CONSIDER:

- colour, name plates, photos, art work and shadow boxes

5.5 RECOGNISING SHARED EN-SUITES/BATHROOMS/TOILETS

Shared en-suites, bathrooms and toilets need to be clearly recognisable. These rooms will be used frequently, and if they can be easily found when they are needed it will reduce the stress and anxiety in older people. The finish to doors to shared en-suites, bathrooms and toilets should be different from bedroom doors. Any signage should be meaningful and appropriate in size, language, contrast and colour. Symbols as well as/instead of words should also be considered.

ENSURE:

- ensuite/bathroom/toilet doors are recognisable

AVOID:

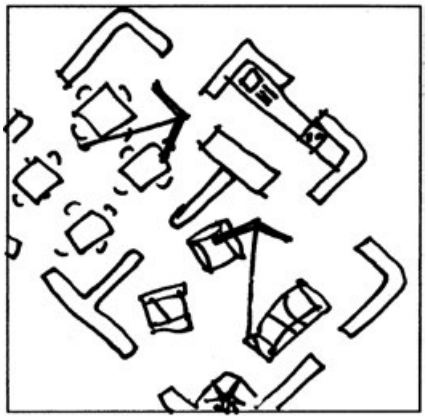
- ensuite/bathroom/toilet doors being the same colour and finish as bedroom doors

CONSIDER:

- colour, contrast, plates, sign, symbol, lighting

5.6 RECOGNISING THE RESIDENT KITCHEN FROM THE DINING ROOM OR LOUNGE ROOM

A resident kitchen can play an important part of the life of the facility. Therefore it is important that it can be easily seen and recognised from the lounge and dining room so that residents find it easy to move freely between these spaces. If there is no visual connection between these rooms an indication from outside the room as to what is inside can also help identify the room for residents.



ENSURE:

- resident kitchen is recognisable
- the use of multiples cues (include visual, auditory and olfactory)

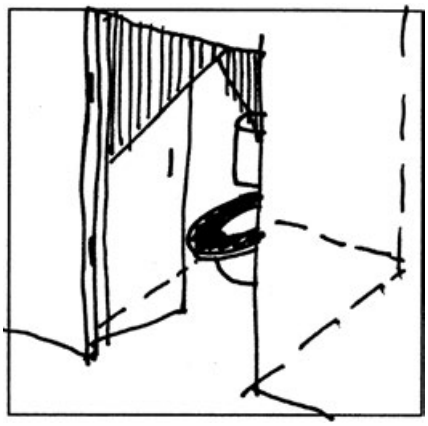
AVOID:

- isolating the resident kitchen

CONSIDER:

- placing resident kitchen near lounge and dining
- introducing themed artwork near the kitchen approach
- promoting food smells

5.7 SEEING THE TOILET PAN



If residents are able to see the toilet pan as soon as the shared en-suite, bathroom or toilet door is opened it will assist them to recognise the room and to use it. Placing the toilet pan in a prominent position in a room will reduce the chance of confusion as residents mistake the room for another purpose and so continue to look for a toilet. In particular at night, the visibility of a toilet pan will help an older person to maintain independence. This can reduce inappropriate use of other parts of a room and minimise discomfort and embarrassment for the older person, their family and staff.

ENSURE:

- toilet pan is visible from doorway of shared en-suite, bathroom or toilet
- contrast between the toilet pan, floor and walls
- contrasting toilet seat

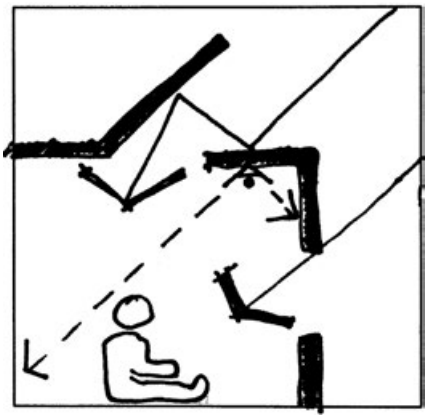
AVOID:

- inappropriate obscuring of toilet pan

CONSIDER:

- lighting over the toilet
- a low level of night lighting to the toilet and en-suite area
- skylight over toilet
- positioning of pan in the room

5.8 LIGHTING THE LOUNGE ROOM



Lighting plays a key role in making a place visible and also pleasant to be in. There should be sufficient natural lighting in the lounge room so that artificial lighting is not required during the daytime. This will increase the usability of the room and ensure that residents are able to see the room and what is in it at all times, rather than being reliant on someone turning on the light for them. Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within the room and to outside.

ENSURE:

- sufficient natural lighting for daytime use
- artificial lighting for night time use and as a supplement to daytime

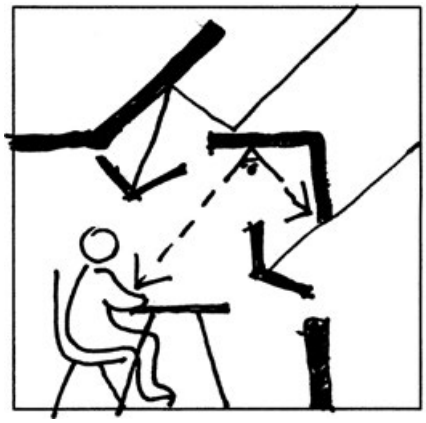
AVOID:

- glare (see 5.9, 5.13)

CONSIDER:

- varied lighting using dimmers, task lighting for reading and craft (see item 10.23 for lighting control)

5.9 LIGHTING THE DINING ROOM



Lighting plays a key role in making a place visible and also pleasant to be in. There should be sufficient natural lighting in the dining room so that artificial lighting is not required during the daytime. This will increase the usability of the room and ensure that residents are able to see the room and what is in it at all times, rather than being reliant on someone turning on the light for them. Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within the room and to outside.

ENSURE:

- sufficient natural lighting for daytime use
- artificial lighting for night time use and as a supplement to daytime

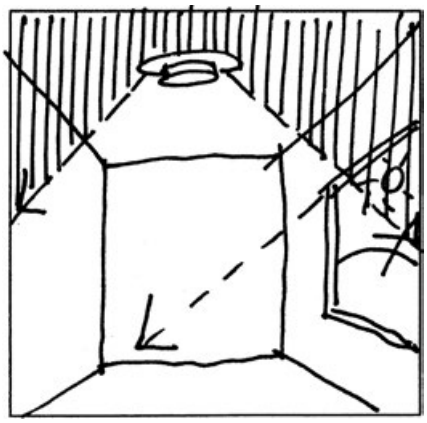
AVOID:

- any obvious glare sources by carefully considering window locations, using lighter colours on inside walls around windows, and allowing for the ability to screen glare sources if necessary at certain times of the day (refer 5.13 for a discusson of glare)

CONSIDER:

- varied lighting using dimmers, task lighting over dining tables (see 10.23 for a discussion of lighting control)

5.10 LIGHTING THE CORRIDORS



Lighting plays a key role in making a place visible and also pleasant to be in. There should be sufficient natural lighting in the corridors so that artificial lighting is not required during the daytime. This will increase usability and ensure that residents are able to safely find their way, rather than being reliant on someone turning on the light for them. Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within the room and to outside.

ENSURE:

- important doors in corridor are highlighted
- sufficient natural lighting for daytime use
- artificial lighting for night time use and as a supplement to daytime

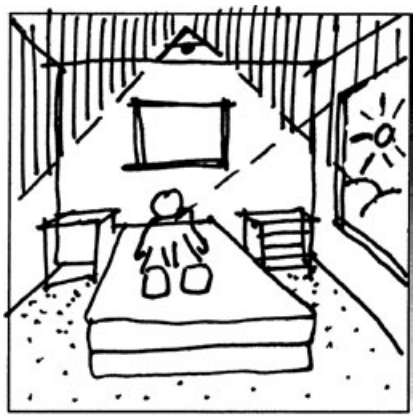
AVOID:

- any obvious glare sources by carefully considering window locations, using lighter colours on inside walls around windows, and allowing for the ability to screen glare sources if necessary at certain times of the day (refer 5.13 for a discussion of glare)

CONSIDER:

- constant low level lighting for night time

5.11 LIGHTING THE BEDROOMS



Lighting plays a key role in making a place visible and also pleasant to be in. Natural and artificial lighting needs to be provided so that spaces can be used during the day and at night. There should be sufficient natural lighting in the bedrooms, however, so that artificial lighting is not required during the daytime. This will increase the usability of the room and ensure that residents are able to see the room and what is in it at all times, rather than being reliant on someone turning on the light for them. Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within the room and to outside.

ENSURE:

- sufficient natural lighting for daytime use
- general artificial lighting for night time and as a supplement to
- location of power points to allow for lamps for task lighting

AVOID:

- any obvious glare sources by carefully considering window locations, using lighter colours on inside walls around windows, and allowing for the ability to screen glare sources if necessary at certain times of the day (refer 5.13 for a discussion of glare)
- poorly positioned power points for supplementary lighting which result in cords crossing the room leading to trips and falls

CONSIDER:

- some constant low level lighting for night time
- task lighting for reading and / or craft work (see 10.23 for a discussion of lighting control)

5.12 LIGHTING THE RESIDENT KITCHEN

Lighting plays a key role in making a place visible and also pleasant to be in. There should be sufficient natural lighting in the resident kitchen, however, so that artificial lighting is not required during the daytime. This will increase the usability of the room and ensure that residents are able to see the room and what is in it at all times, rather than being reliant on someone turning on the light for them. Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within the room and to outside.

ENSURE:

- sufficient lighting for safe use
- artificial lighting for night time use and as a supplement to daytime

AVOID:

- down lighting that is positioned so that it reflects off kitchen sinks
- poorly positioned lighting so that people are working at benches in their own shadows
- any obvious glare sources by carefully considering window locations, using lighter colours on inside walls around windows, and allowing for the ability to screen glare sources if necessary at certain times of the day (refer 5.13 for a discussion of glare)

CONSIDER:

- under cupboard lights to light bench surfaces with less chance of shadowing on benches
- reducing any glare sources by the use of lighter colours on inside walls around windows, and providing screens to reduce the glare when necessary at certain times of the day

5.13 AVOIDING GLARE

Natural and artificial lighting should be designed to avoid glare to ensure that residents can see easily within a room and to outside. In particular this will have an impact on the type of lamp and light fitting that are selected, the selection of surfaces and finishes and the use of glass (which can reflect the light.)

ENSURE:

- ability to control glare from windows
- light fittings and shades that protect from glare

AVOID:

- highly reflective surfaces and finishes

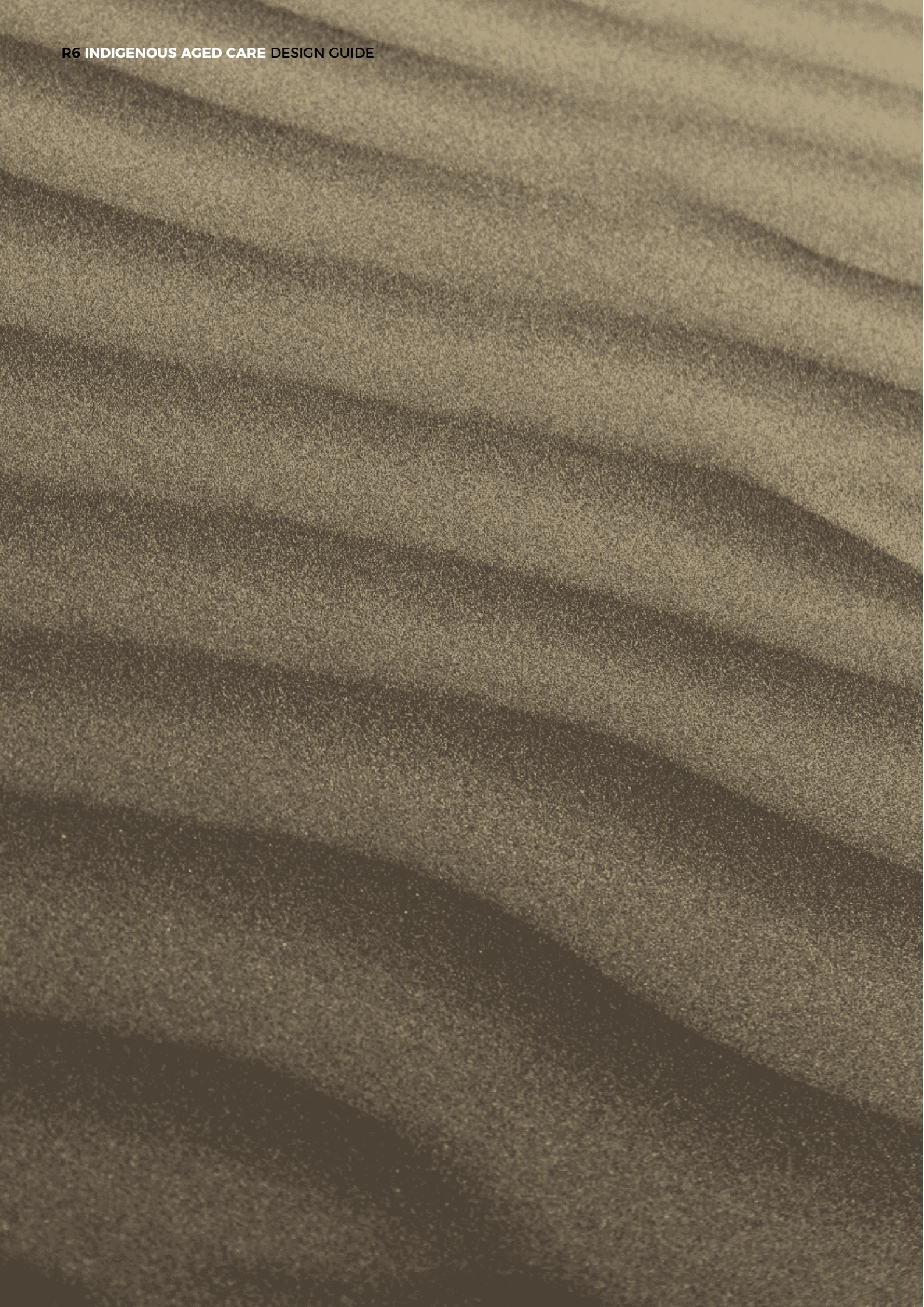
CONSIDER:

- light paint colours around windows to reduce contrast around windows
- orientation of windows
- adjustable internal window shading treatment such as curtains or blinds
- outside awnings

THE 10 PRINCIPLES IN DETAIL

CHAPTER 6

MOVING ABOUT AND ENGAGING



6. MOVING ABOUT & ENGAGING

Residents move about for different reasons and in different ways. Sometimes residents potter or wander about waiting for something to take their interest. At other times residents are hoping to find something in particular, or are planning to go to a certain destination. Some residents with dementia simply feel the need to be on the move.

Opportunities for movement should be planned without encouraging wandering as a goal in itself. It should be easy for residents to move about both inside and outside in an environment in which hazards have been minimised and desitnations emphasized.

If residents are able to move about freely it will increase their quality of life and sense of well being as they go to places they enjoy at a time of their own choosing. It can also give residents the opportunity to spend time alone or with others.

6.1 CONTINUOUS MOVEMENT OUTSIDE

It is important that residents are able to move freely and continuously when outside and reach destinations that are meaningful. They should not end up at a dead end where they can go no further and cannot easily see how to go back. Paths need to be laid out so that residents can see their way back to their starting point easily, so that a pleasant walk outside doesn't become a nightmare as they feel lost and confused about where they are and where to go. This will also give residents more confidence to explore the outside environment, providing a greater level of comfort and reducing stress

Another aspect of encouraging residents to move about freely is to ensure that not only the path layout but the paths themselves are well designed. Attention needs to be given to the selection of path surfaces, edges, width, camber, drainage, and obstacles.

ENSURE:

- paths are continuous
- paths do not contain hazards such as potholes, slippery or uneven surfaces or overhanging branches
- that path edges are clearly marked with contrasting coloured materials or textures

AVOID:

- dead ends, paths that lead to nowhere

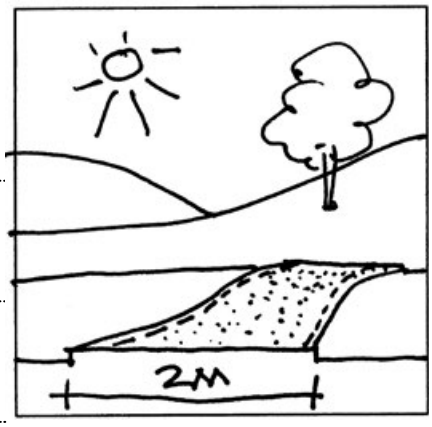
CONSIDER:

- widening paths occasionally to provide sitting areas and places off the flow but without dead ends

- using lighter or contrasting colours to mark the edges of paths
- using concrete or a concrete base to pavers to prevent settling and to ensure a smooth continuous surface (refer also to Principle 1).

6.2 PATH WIDTH

Many residents in residential aged care facilities use walking aids such as wheelchairs or rollers. It is important that two people can walk together or pass each other along the path.



ENSURE:

- path is two metres wide

AVOID:

- narrow pathways, sharp turns

CONSIDER:

- widening the path occasionally to allow stopping without blocking the path flow

6.3 PATH SURFACE

An even path surface will reduce the likelihood of residents tripping as they walk outside. Paths should be free from undulations, holes and ragged edges.

ENSURE:

- path surfaces are even and well maintained
- continuous materials, such as concrete, are used for path surfaces

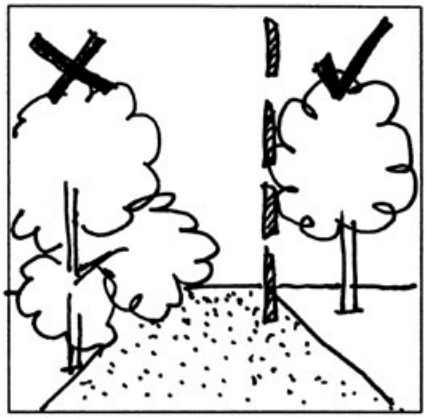
AVOID:

- slippery surfaces
- sand bedded paving bricks which may move over time
- uneven and undefined path edges
- glare from path night lighting

CONSIDER:

- raising the path so that the surface is well drained and remains dry
- selecting a surface that is most familiar to residents and their families
- connecting pathways are well lit at night
- protecting paths from driving rain and wind

6.4 OBSTACLES



Obstacles along a path present a great hazard to residents. Trees, plants and bushes can project onto paths (reducing their width) and creating tripping hazards. Twigs and leaves falling from trees can also be dangerous for residents. Branches which hang over the path can also be a hazard if they hang near head height

ENSURE:

- plants close to paths are well maintained
- overhanging branches are regularly pruned

AVOID:

- thorny plants near paths
- plants which grow too large near paths

CONSIDER:

- replacing inappropriate plants near pathways

6.5 STEP FREE ACCESS OUTSIDE

As many residents use mobility aids, step free access is important so that residents can easily move about outside. Step free access outside means that there are no steps between different surfaces and no changes of level between inside and outside or between outside areas (such as a shelter and a path). Steps with risers of varying heights and small steps or ridges that change level are unacceptable.

ENSURE:

- no steps or uneven surfaces outside

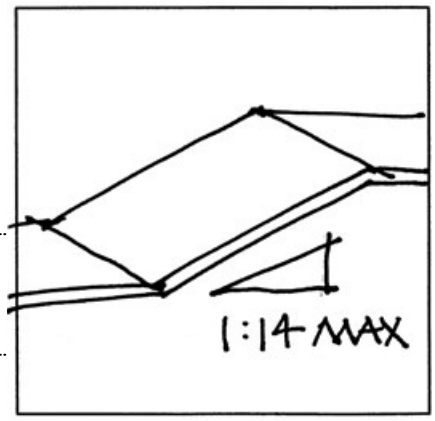
AVOID:

- any changes in levels (for example ridges, hobs, small steps)

CONSIDER:

- altering any existing steps to ramp of suitable gradient

6.6 SUITABLE GRADIENTS



It is not only important that ramps are used to respond to changes in level, but that these ramps are of a suitable gradient. If a ramp is too steep, it will be difficult for both residents and carers (who may be pushing residents) to use them.

ENSURE:

- ramps comply with AS 1428.1 – 2009

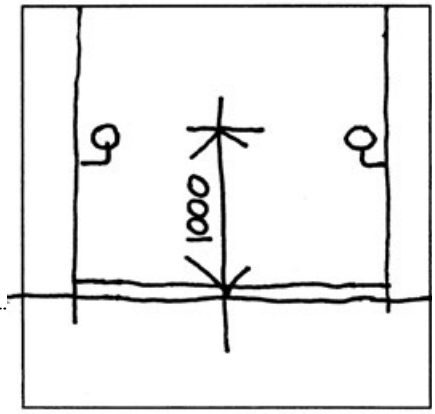
AVOID

- trees or vegetation likely to drop leaves over or near ramps making them slippery and unsafe
- uneven slopes on ramps

CONSIDER

- making areas at the top and bottom of longer ramps not just to allow safe circulation but also to provide a good place for people to stop and have a rest

6.7 RAMP – HANDRAILS



Handrails provide support as a person uses the ramp. (Walking along a ramp is more difficult than walking along a path.) As a person may only have use of one hand or arm it is important that handrails are on both sides of a ramp. They need to be of an appropriate profile and diameter and be fixed at the correct height to enable them to be used effectively.

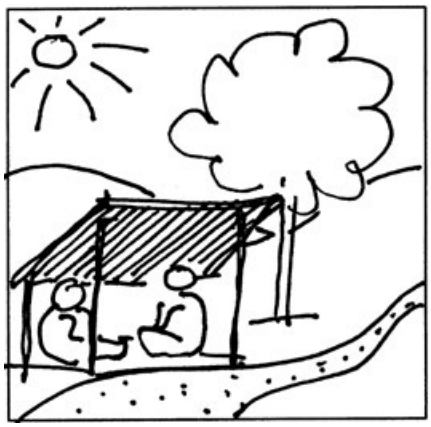
ENSURE:

- a handrail at appropriate height on both sides of a ramp and in accord with AS1428.1-2009

AVOID:

- obstructing handrails with fixtures or furnishings

6.8 PLACES OF INTEREST OUTSIDE



The goal of designing the path layout is not to keep residents moving, but rather to give them a rewarding experience. Residents may not have a clear idea of what they would like to do or what they are looking for. They may also have forgotten where the place they are looking for is located. If places of interest are easy to see it can give them an idea of what they might like to do.

This journey should offer residents opportunities to engage with others or to sit quietly, for example to take in a view. In this way residents are offered an experience that it is interesting and engaging.

ENSURE:

- there is good view into the lounge room, dining room and of outside places to sit such as shaded verandah areas or outdoor shelters

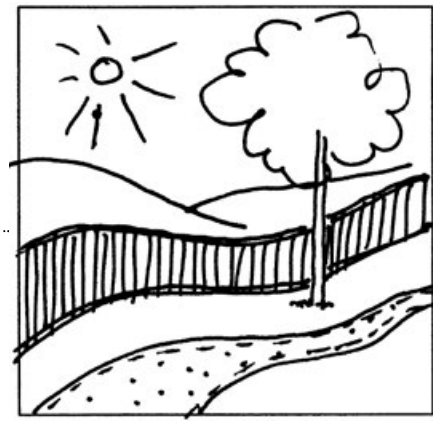
AVOID:

- paths with no view to other areas

CONSIDER:

- changing landscaping to create a varied outside environment
- at some point along important paths ensuring there is a close view (residents and activities), medium view (possible destinations within the unit) and long view (view to country or the world outside the unit)

6.9 SECURE PERIMETER



A secure perimeter will allow residents to be outside without the risk of leaving the facility (intentionally or unintentionally). It will also deter inappropriate people from outside entering the facility grounds and approaching residents.

ENSURE:

- any fence is no less than 1.8m high
- any fence is continuous and well maintained
- any fence design does not allow for climbing (in or out)

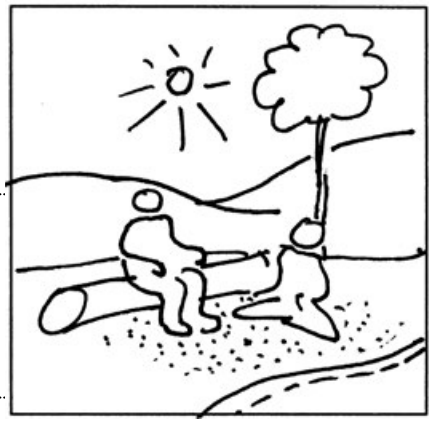
AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds for climbing
- planting near the fence which can be used for climbing

CONSIDER:

- designing the fence so that it is integrated with the landscape topography or is hidden by vegetation so that the height is not visually imposing
- protecting the fence from vehicle damage by mounding or rocks

6.10 PLACES TO REST



A resident can become tired while walking and may need a place to rest to prevent falls and injury. There are many ways people may like to do this.

ENSURE:

- seating is provided at regular intervals
- there are a variety of ways people can rest (eg on sand, a log, a bench)

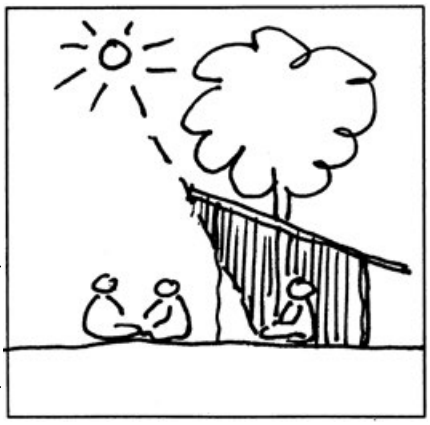
AVOID:

- seating with sharp edges and rough surfaces

CONSIDER:

- a variety of different seats (heights, materials and locations)
- allowing for wheelchair stopping points near seating

6.11 USING OUTSIDE AREAS: SUN AND SHADE



There will be times when sunshine is sought after and others when shade is required. Residents can become hot and dehydrate if they are outside in summer or cold if they are outside in winter. Opportunities to be in the shade or in the sun are therefore important if residents are to enjoy being outside.

ENSURE:

- places along the path offer residents shade and sun

AVOID:

- making outside sitting areas in places that are windy in summer and/or winter

CONSIDER:

- the height of shade structures and where the shade will fall in summer hours
- when sun will be available in winter and where it will fall around the edges of the buildings and outside areas

6.12 ACCESS TO TOILET

Residents may wish to spend a large amount of time outside. It is therefore important that there is ready access to a toilet while outside.

ENSURE:

- the toilet is at an appropriate height with grab rail supports
- a direct and unobstructed path to the toilet from outside area

AVOID:

- design layouts that reveal the toilet pan when the door is open

CONSIDER:

- carefully siting the toilet to make it convenient to residents and staff whilst not dominating the outside area that it serves

6.13 ACCESS TO DRINKING WATER

As people spend a large amount of time outside they can become thirsty, especially in hot climates. Placing a tap or drinking fountain on the path will make it easy for residents to have a drink.

ENSURE:

- drinking fountains are at the appropriate height
- drinking fountains have large controls that are easy to use

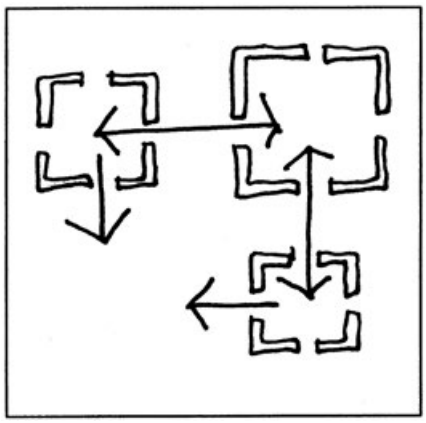
AVOID:

- fountain systems that will fail in moderate to high mineral salt water

CONSIDER:

- water quality and the need for drinking water treatment
- the use of rainwater in areas with poor quality bore or river water
- appropriate disposal of the waste water run off from the water fountain

6.14 CONTINUOUS MOVEMENT INSIDE



The need for uninterrupted and clear circulation is as important inside as it is outside. It is important the residents are able to move freely and continuously without confusion. Destinations should be obvious. Residents should not end up at a dead end where they can go no further and cannot easily see how to go back. Corridors need to be laid out so that residents can see their way back to their starting point easily, so that a pleasant walk doesn't become frustrating or a cause of anxiety. This will also give residents more confidence to explore more of the inside environment, while providing a level of comfort so that this does not become stressful.

ENSURE:

- corridors are kept to a minimum
- clear sight lines at various points along any corridors

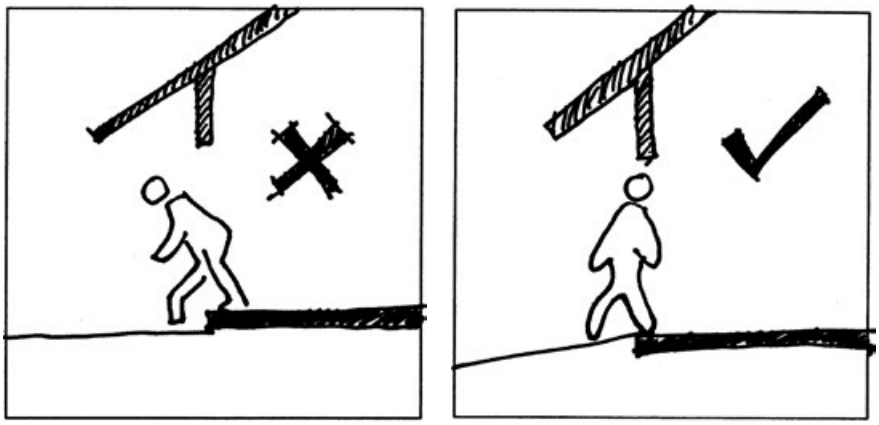
AVOID:

- long corridors
- dead ends
- corridors that lead to nowhere

CONSIDER:

- providing clear sight lines at various points along corridors
- the use of landmarks and other wayfinding devices to help residents recognise their location

6.15 STEP FREE ACCESS TO THE UNIT



Entry to the unit needs to be step free, without a change of level, so that it is as easy as possible for residents to enter and leave the unit.

ENSURE:

- there are no steps or uneven surfaces at entry to the unit

AVOID:

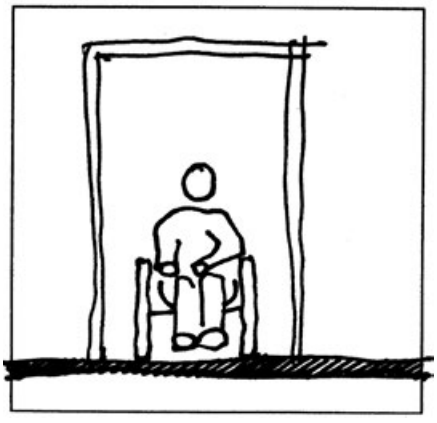
- any changes in levels (for example ridges)

CONSIDER:

- altering any existing steps to ramp of suitable gradient

6.16 STEP FREE ACCESS INSIDE THE UNIT

There should be no change of level in a facility so that it is as easy as possible for residents to move about the unit.



ENSURE:

- there are no steps or uneven surfaces inside the unit

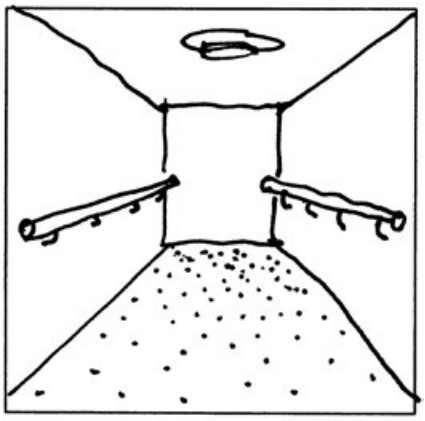
AVOID:

- any changes in levels (for example door thresholds or shower hobs)

CONSIDER:

- altering any existing steps to ramp of suitable gradient, removing hobs

6.17 CORRIDOR HANDRAILS



Handrails provide support for a person who is unsteady on their feet. While ideally there should be handrails at both sides of a corridor, as a corridor is a level surface the provision of a handrail on one side will assist access. Handrails need to be of an appropriate profile and diameter and be fixed at the correct height to enable them to be used effectively. It is vital that the handrail is not obstructed by the placement of furniture, air conditioner compressor units and/or trolleys.

ENSURE:

- there is a handrail at appropriate height on at least one side of all corridors

AVOID:

- obstructing handrails with fixtures or furnishings

CONSIDER:

- retrofitting handrails at appropriate height on both sides of corridors

6.18 PLACES OF INTEREST INSIDE

The goal of designing the circulation within a building is not to keep residents moving, but rather to give them a rewarding experience. Residents may not have a clear idea of what they would like to do or what they are looking for. They may also have forgotten where the place they are looking for is. If places of interest are easy to see, or have clear markers along the way, they can reinforce the destination and make the journey more interesting. For example, if when leaving the bedroom, you can immediately glimpse some sun filled area with activity in the distance, rather than simply entering a grey, lifeless corridor, there is a greater chance you will arrive at the sun filled place.

This journey should offer residents opportunities to engage with others or to sit quietly, for example to take in a view. In this way residents are offered an experience that it is interesting and engaging.

ENSURE:

- there is good view to lounge room, dining room, outside verandah areas or outdoor shelter

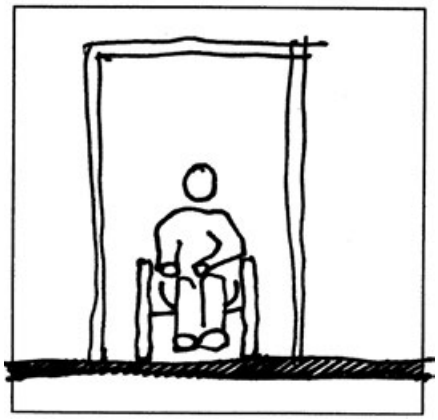
AVOID:

- corridors with no view to other areas

CONSIDER:

- familiar markers along the way to important areas of the unit

6.19 DOORWAYS



Residents using walking aids need to be able to move easily from one part of the unit to another. Having doorways that are wide enough for wheelchairs to pass through is essential to facilitate their movement.

ENSURE:

- all doorways allow for the use of mobility aids and the specific entry and exit pathways on each side of the door will allow for moving beds in and out of rooms
- all doors can be fully opened to allow wheelchair access

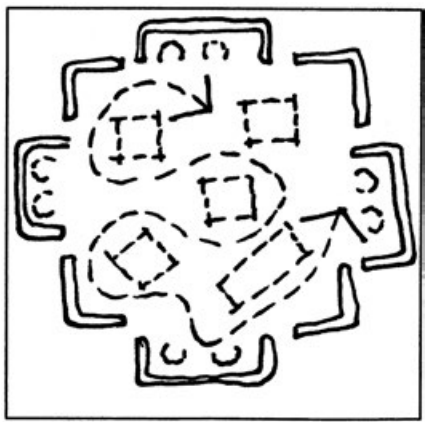
AVOID:

- partially blocking doorways with fixtures or furnishings

CONSIDER:

- moving possible obstacles away from doorways
- an additional quarter width door for the movement of larger furniture or equipment (eg electric beds with side rails attached and possibly a staff member wheeling an oxygen cylinder alongside the bed through the doorway)

6.20 SIZE OF ROOMS



It is important that rooms are designed to allow the appropriate equipment and furniture. This may include special beds, patient lifting equipment, personal storage, mobility aid 'parking' or storage from walking sticks and walkers to motorised scooters.

ENSURE:

- layouts have been done for each room which shows typical furniture arrangements and circulation space
- passageways, corridors and annexes to main public spaces have the opportunity to park or store mobility aids if they cannot be accommodated in the room

AVOID:

- designing rooms which have not been shown to accommodate a range of furniture and mobility aids
- designing or furnishing rooms in a way that cannot be altered to suit residents' needs

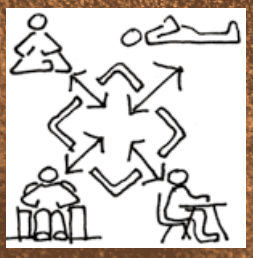
CONSIDER:

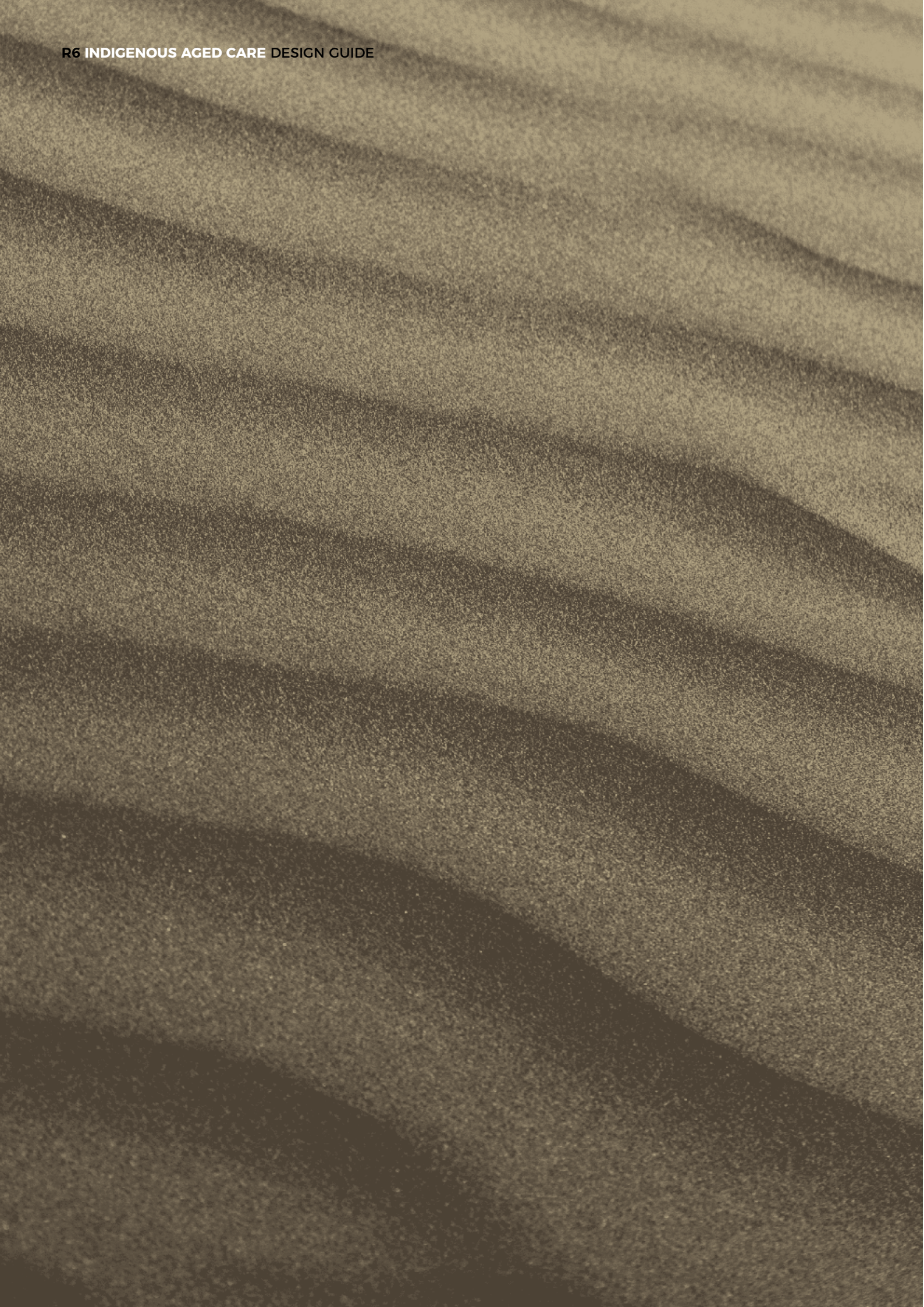
- providing storage for furniture and mobility aids so that they can be safely stored when not in use

THE 10 PRINCIPLES IN DETAIL

CHAPTER 7

CREATING A RECOGNISABLE AND MEANINGFUL PLACE





7. CREATING A RECOGNISABLE AND MEANINGFUL PLACE

A familiar environment is one that is recognisable and meaningful for residents. The outside appearance, building scale, unit layout, room size and the selection of materials are all important in this regard, as are furniture, furnishings and decoration.

The types of rooms included in a unit (such as a kitchen or dining room) are also important when creating a familiar setting. Familiarity is also a key consideration in the design of the outside environment, where verandahs, traditional shelters (such as wiltjas) and trees can be important in creating a recognisable and meaningful environment.

A familiar environment will help an older person feel that they are still in control of a situation and are able to function effectively, rather than feeling isolated and out of place. As a result, people will be more able to use their remaining abilities, whatever they may be, to the full.

7.1 COLOURS

Residents are likely to spend a significant amount of time in the lounge and dining room. It is therefore important that these rooms are familiar to residents, as this can contribute to a sense of well being and calm. Colour plays a key part in creating an atmosphere in a room, as do the furnishings and decorations. If these are familiar to residents the impact of the whole room will be more recognisable.

ENSURE:

- colour selection and layout for the lounge and dining areas are domestic, not commercial or institutional.

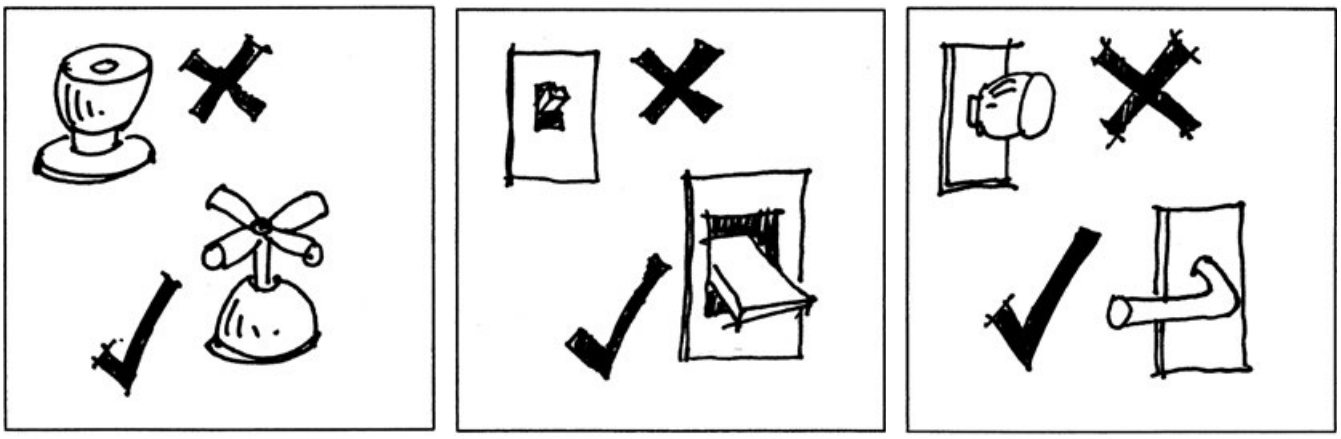
AVOID:

- dark colours throughout the lounge and dining areas

CONSIDER:

- colours which reduce outside glare in the lounge and dining areas
- materials and colours that may have special significance to the residents (sports teams, traditional colour combinations)

7.2 TAPS, LIGHT SWITCHES AND DOOR HANDLES



It is important that taps, light switches and door handles are familiar to residents as these are all things that need to be used by them daily. If residents wish to wash their hands or get a drink of water, they will need to recognise the tap. Similarly, using easily operated light switches and door knobs is vital if residents are to be able to go in and out of rooms safely.

There are many designs available for taps. They need to be of a suitable size (so they can be easily be seen and used by people who may have arthritis) and of a design, typically been used in houses. Many of the mixer type tap designs on the market can be confusing as their shape and operation which use one handle to select water flow and temperature mix will be unfamiliar to residents. Capstan style tap handles with ¼ or ½ turn mechanism are best, both in terms of recognition and for use with arthritic hands. Coloured indicators showing water temperature on the handles should be clear to residents.

Switches need to contrast with the wall they are on so they can easily be seen. The style of the switch needs to be one that is commonly used in houses. Larger rocker type switches, that look similar to traditional switches in colour and material, will greatly assist the resident without losing familiarity.

Similarly the design of door handles need to be one that is commonly used and of a finish that contrasts with the door so it can easily be seen. While knobs will be recognisable, these can be difficult to use when a person has limited hand movement so should be avoided. Lever type handles are preferred. The size of door handles should be domestic, rather than commercial.

ENSURE:

- taps are ¼ or ½ turn type
- capstan style handles are used
- hot and cold indicators on the handles are clear and bold
- mix hot and cold water through a common spout at basins and baths

- lever type door handles are used
- privacy latches (if used) are large and clear marked

AVOID:

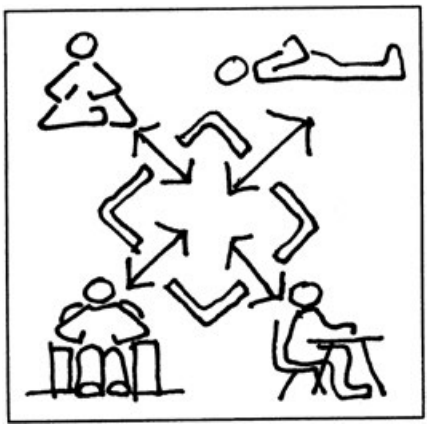
- mixer taps with single handles that control water flow and temperature
- dark light switches
- architrave light switches as they are too small to be seen easily
- cylindrical shaped door handles and round door knobs

CONSIDER:

- larger rocker type light switches
- outside garden taps that use ball valve type mechanisms with 180 degree lever handles to allow easy control of water by people with arthritis and less hand/arm control

7.3 FURNITURE

Residents are likely to spend a large amount of time in the lounge and dining room. It is therefore important that these rooms are familiar to residents, as this can contribute to a sense of well being and calm. The presence of familiar furniture will not only help to create a warm and inviting atmosphere in the room, but will encourage residents to use the spaces and enjoy them.



ENSURE:

- there is a variety of furniture types i.e. several styles of chairs
- a variety of furniture heights
- a variety of furniture coverings and finishes to reduce staff maintenance and cleaning of surfaces and fabrics

AVOID:

- commercial or institutional furniture selection
- repetitive furniture

CONSIDER:

- the domestic lounge and dining room as the model for furniture selection
- how the furniture variety will encourage people to find their favourite chair
- furniture that is appropriate for inside and outside and can be easily moved

7.4 DECORATING BEDROOMS

If residents' bedrooms are to be familiar to them, it will be vital that they are able to decorate them. This decoration can take many forms and will depend on the residents' life experiences, hobbies, likes and dislikes. For some people, a blanket may suffice, for others photos of family and friends will be important. In a shared room, it is essential that residents are able to personalise a part of the room if they wish.

ENSURE:

- access to shelving and bench tops where personal items can be placed / displayed
- hooks and rails on walls to hang photos and other objects

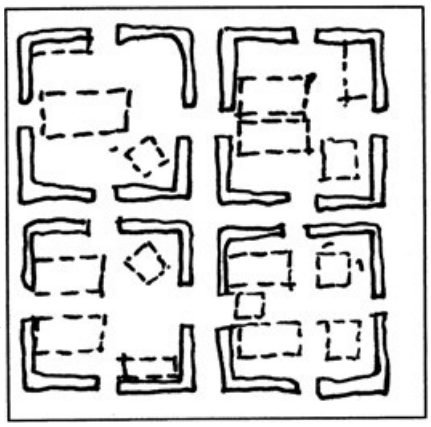
AVOID:

- decorating rooms prior to residents' having an opportunity to personalise the room

CONSIDER:

- areas of pin board or fabric covered materials that will allow an easily changed and maintained surface for pinning photos and pictures onto the walls
- built in cupboards with drawers, shelves and hanging space

7.5 FURNITURE IN BEDROOMS



If residents' bedrooms are to be familiar to them, it will be vital that they are able to choose to furnish them themselves. The furniture people wish to bring will depend on the residents' life experiences, hobbies, likes, and dislikes. For some people, a simple piece of furniture may suffice, for others having a number of pieces of furniture will be important. In a shared room, it is essential that residents are able to personalise a part of the room if they wish.

ENSURE:

- there is a variety of furniture types i.e. several styles of chairs if the bedroom is shared
- a variety of furniture coverings and finishes to reduce staff maintenance and cleaning of surfaces and fabrics

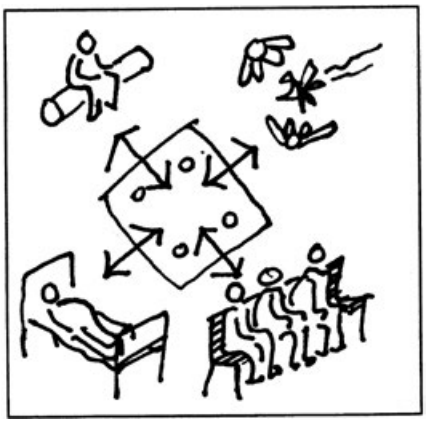
AVOID:

- commercial or institutional furniture selection
- repetitive furniture and décor / colours

CONSIDER:

- the domestic bedroom as the model for furniture selection

7.6 MAKING AND FURNISHING OUTSIDE PLACES



Many residents are likely to spend a significant amount of time outside (rather than only gathering in the lounge and dining room). Outside areas should be designed and "furnished" with the same attention to detail as inside areas. The main "living rooms" of the facility may be outside for a good part of each day.

It is therefore important that outside areas are familiar to residents, as this can contribute to a sense of well being and calm. This will be determined by where the outside areas are located: their orientation, the planting and the furnishing of the area. Shady places in summer and warm sheltered places in winter will be important components of used outside places.

ENSURE:

- there are a range of well located, designed and furnished outdoor places for people to use and enjoy

AVOID:

- windy, dusty or poorly located outside places

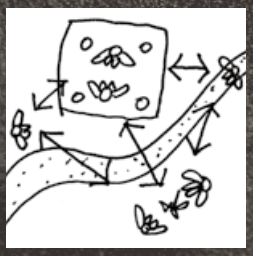
CONSIDER:

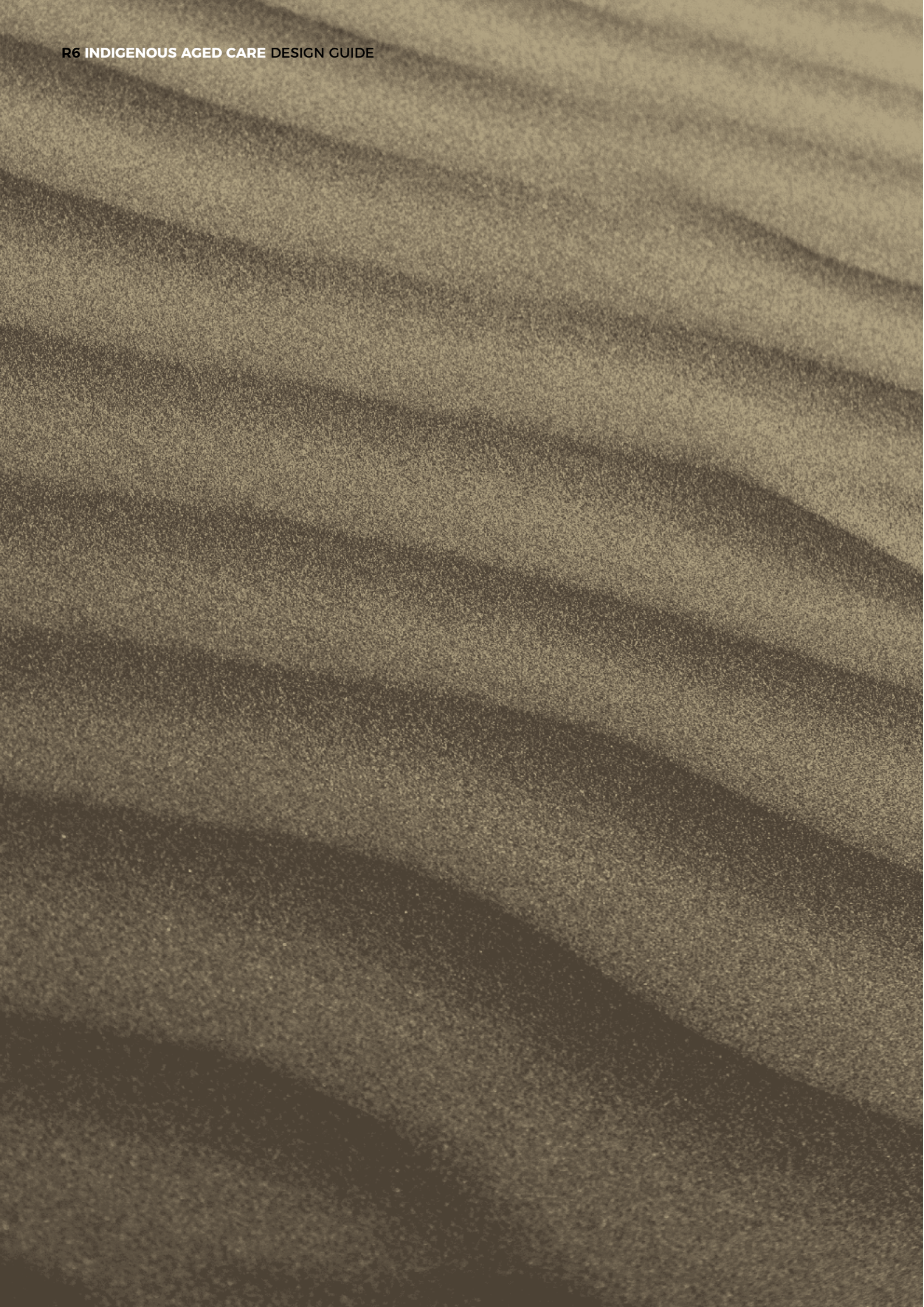
- how verandah areas attached to buildings and outside areas between buildings can receive the same level of "furnishing" and detailed design consideration as inside areas of the buildings

THE 10 PRINCIPLES IN DETAIL

CHAPTER 8

CHOOSING TO BE ON YOUR OWN OR WITH OTHERS



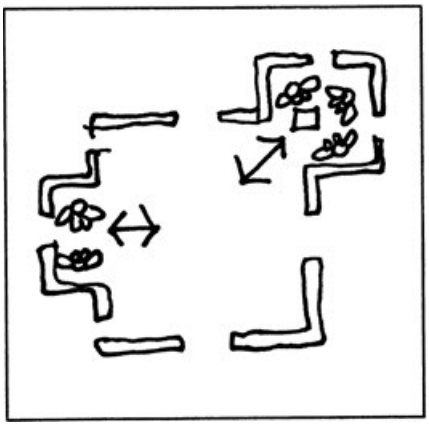


8. CHOOSING TO BE ON YOUR OWN OR WITH OTHERS

Residents need to be able to choose to be on their own or spend time with others and their living environment needs to provide a range of opportunities for social interaction. For some people it will be vital to retain and express their individuality, for others it will be important to be part of the community. Spaces are needed where residents can sit quietly alone, with one or two friends, or in larger groups. This needs to be possible both inside and outside.

8.1 PLACES TO SIT INSIDE

Any unit needs to have a number of places where residents, friends, staff and families can sit, either on their own or with others. Small areas or nooks are an important way to give people many choices for places to be. They can be an area to the side of a corridor, a space at the end of a corridor, a bay window in a larger room, or a little room off a lounge or dining room. The more of these small areas or nooks there are in a unit, the greater the opportunity for residents to enjoy privacy or community.



ENSURE:

- large lounge or dining rooms are edged with nooks and smaller areas for small groups and individuals
- nooks and the smaller edge rooms have a good view of the main room activities

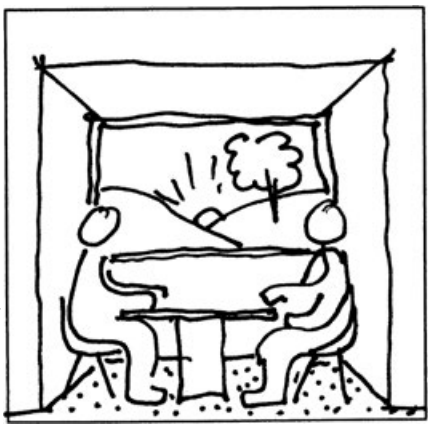
AVOID:

- large undifferentiated spaces

CONSIDER:

- varying corridor and hall widths to accommodate small sitting places

8.2 PLACES TO SIT WITH VIEWS INSIDE



If small areas or nooks have views of pleasant or interesting scenes, not only will they be places where residents, friends, staff and families can sit, they will be places which can offer them a rich experience. They can have an inside focus (where people watching or looking at a painting is a feature) or an outside focus (where the view is interesting and attractive).

ENSURE:

- a good view, both inside and outside from these smaller sitting places

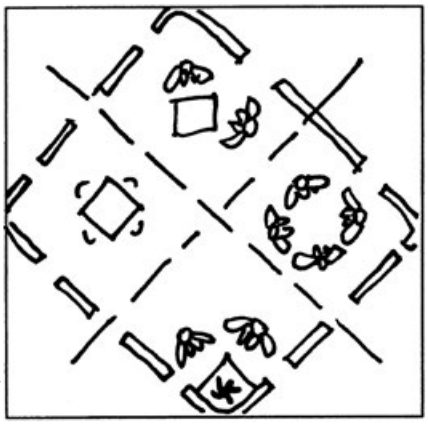
AVOID:

- sitting places that look nowhere

CONSIDER:

- where possible incorporating a close, mid and far view from sitting places

8.3 SMALL GROUP ACTIVITIES INSIDE



People can do different things and feel different emotions when they gather in a small group. For example, in a small group they may have a private conversation, listen to music or play cards. It is important that small groups of people can comfortably gather in the lounge or dining room with out re-arranging the furniture (If the furniture has to be rearranged for people to gather in this way it is less likely to happen and so opportunities for people to experience a more private gathering will be lost).

ENSURE:

- furniture layouts accommodate small groups

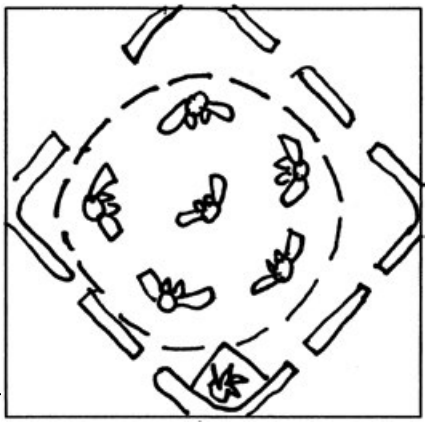
AVOID:

- undifferentiated furniture arrangements that cater only for large groups

CONSIDER:

- the varied use of main dining and lounge areas for different group sizes
- flexible furniture design to suit different group sizes

8.4 LARGE GROUP ACTIVITIES INSIDE



When people gather in a large group they can do different things and feel different emotions. For example, in group of more than five people they may watch a movie or listen to a musical performance. It is important that larger groups of people can comfortably gather in the lounge or dining room without re-arranging the furniture (If the furniture has to be rearranged for people to gather in this way it is less likely to happen and so opportunities for people to experience a more public gathering will be lost).

ENSURE:

- there are spaces adequate to accommodate larger group activities

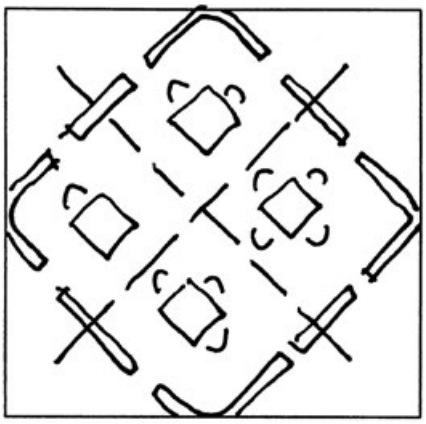
AVOID:

- fixed furniture that precludes larger group activities

CONSIDER:

- the varied use of main dining and lounge areas for different group sizes
- flexible furniture design to suit different group sizes

8.5 EATING INSIDE IN SMALL GROUPS



Food often plays an important part in the lives of residents and their families. Eating with a small number of people is a very different experience to eating in a group of five or more people. People's preferences for who they eat with will vary as they will be influenced by their life experiences and their culture. Residents' preferences can also change according to the climate and the day, as some days are a cause for celebration or quiet reflection.
It is important that residents have the opportunity to eat inside in a small group when they choose, as this is one way that they can influence how they live their lives.

ENSURE:

- dining room can accommodate discreet small or individual dining
- furniture to suit small group and individual dining

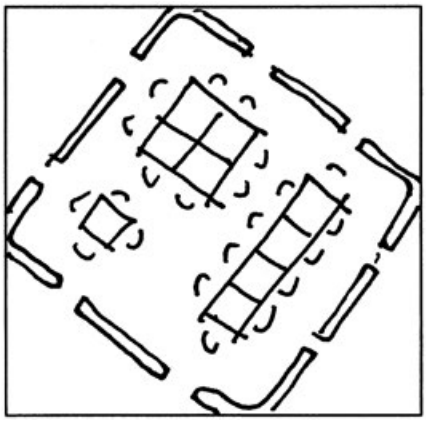
AVOID:

- large open dining rooms with undifferentiated furniture layouts only suited to dining in large groups
- fixed furniture that precludes individual or small group dining

CONSIDER:

- the varied use of main dining area for different group sizes
- flexible furniture design to suit different group sizes

8.6 EATING INSIDE IN LARGER GROUPS



Food often plays an important part in the lives of residents and their families. Eating with a small number of people is a very different experience to eating in a group of five or more people. People's preferences will vary as they will be influenced by their life experiences and their culture. Residents' preferences can also change according to the climate and the day, as some days a person feels like lively conversation rather than quiet reflection. It is important that residents have the opportunity to eat inside in a large group when they choose, as this is one way that they can influence how they live their lives.

ENSURE:

- dining area configuration can accommodate larger group dining
- furniture to suit larger group dining

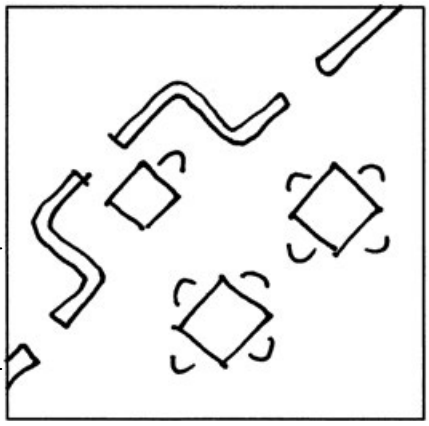
AVOID:

- fixed furniture that precludes large dining groups

CONSIDER:

- flexible furniture design to suit different group sizes

8.7 EATING ALONE



Some people will prefer to eat alone, either all the time or sometimes. It is important that residents have the opportunity to eat alone when they choose, as this is one way in which they can influence how they live their lives. This possibility needs to be provided both inside and outside.

ENSURE:

- opportunity for discreet individual dining

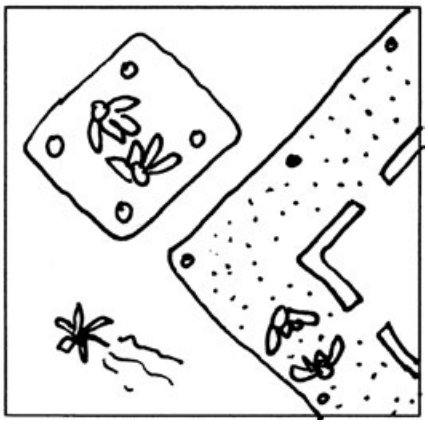
AVOID:

- large open dining rooms with undifferentiated furniture layouts only suited to dining in large groups
- fixed furniture that precludes individual dining

CONSIDER:

- flexible furniture design to suit individual use

8.8 GATHERING IN SMALL GROUPS OUTSIDE



Residents should be able to choose to socialise in different ways. Sometimes people may choose to spend time on their own or in a small group, at others they will wish to be with a large group of people. Certain activities are better suited to small groups, such as having a conversation. The environment needs to allow residents opportunities to gather in small groups so that residents can choose what is best for them at a particular time.

ENSURE:

- the widths of verandah areas can accommodate small groups and still allow safe circulation past the group
- there are seasonal outside places for small groups (shaded summer places and sunny winter places)

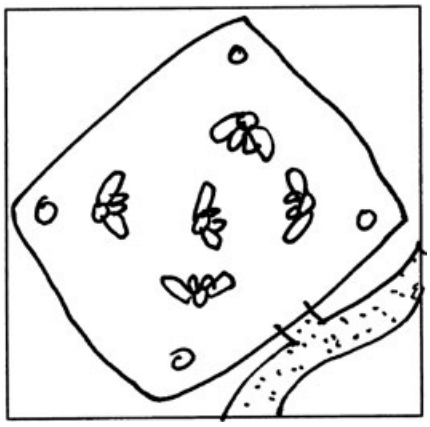
AVOID:

- fixed structures and seating that preclude large groups gathering
- wind and sun exposed seating and tables outside

CONSIDER:

- the outside furnishings that support small group gatherings such as a small fire area, water nearby, views of inside areas and longer views of country or the outside world

8.9 GATHERING IN LARGE GROUPS OUTSIDE



Residents should be able to choose to socialise in different ways. Sometimes people may choose to spend time on their own or in a small group, at others they will wish to be with a large group of other people. Certain activities are better suited to large groups, such as ceremony. The environment needs to allow residents opportunities to gather in large groups so that residents can choose what is best for them at a particular time.

ENSURE:

- there are seasonal places for large groups to gather (shaded summer and sunny winter places)

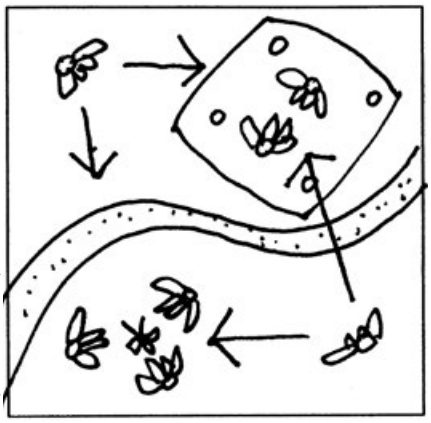
AVOID:

- fixed structures and seating that preclude large groups gathering
- wind and sun exposed seating and tables

CONSIDER:

- temporary structures such as awnings or fabrics that may make a larger outside meeting area possible for short periods of time (celebrations, birthdays, meetings)

8.10 WATCHING DISCREETLY OUTSIDE



There will be times when residents want to take part in the life of the unit by observing the goings on at a distance, rather than being in the centre of things. The outside areas need to provide opportunities for residents to observe the happenings at the unit discreetly.

ENSURE:

- small nooks or sitting areas with views

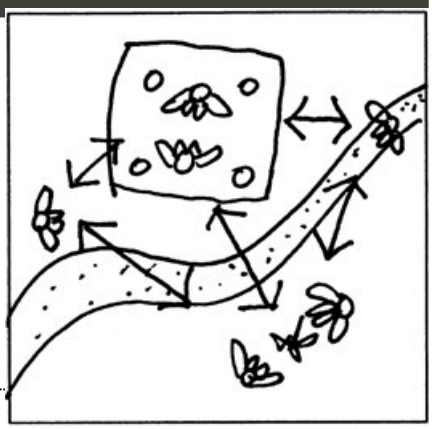
AVOID:

- single large undifferentiated spaces

CONSIDER:

- creating a variety of smaller places to discreetly observe daily life

8.11 SEEING AND BEING SEEN OUTSIDE



There are many ways in which we can relate to each other. One of these is to observe and be observed. It is not always necessary to join a group to take part in its activity. There are times when we do not wish to be a part of a group but also do not wish to be isolated. Sitting apart and observing what is going on can be pleasant as well as instructive, and can be a satisfying way of engaging passively in the life of the community.

ENSURE:

- wiltjas, verandahs and landscape which offer privacy

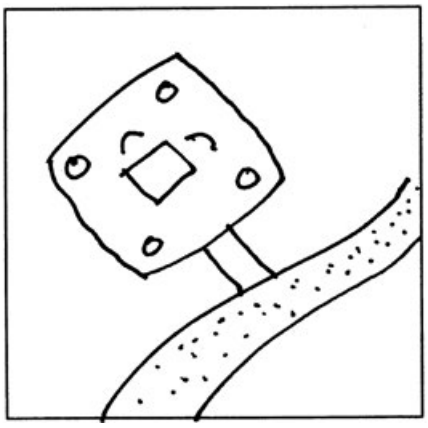
AVOID:

- single large undifferentiated spaces

CONSIDER:

- creating a variety of smaller places to discreetly observe daily life

8.12 EATING OUTSIDE IN SMALL GROUPS



Residents should be able to choose to eat with different numbers of people. Eating with a small number of people is a very different experience to eating in a group of five or more people. People's preferences will vary as they will be influenced by their life experiences, their culture and the climate. It is important that residents have the opportunity to eat outside in a small group when they choose, as this is one way in which they can exercise choice and independence.

ENSURE:

- outdoor areas that can accommodate small group dining

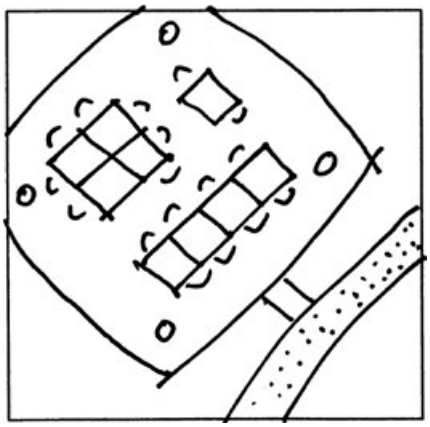
AVOID:

- wind and sun exposed seating and tables outside

CONSIDER:

- flexible outdoor furniture design and shelters that can be adapted to suit different group sizes

8.13 EATING OUTSIDE IN LARGE GROUPS



Residents should be able to choose to eat with different numbers of people. Eating with a large number of people is a very different experience to eating in a group of five or more people. People's preferences will vary as they will be influenced by their life experiences, their culture and the climate. It is important that residents have the opportunity to eat outside in a large group when they choose, as this is one way that in which they can exercise choice and independence.

ENSURE:

- outdoor areas that can accommodate large group dining

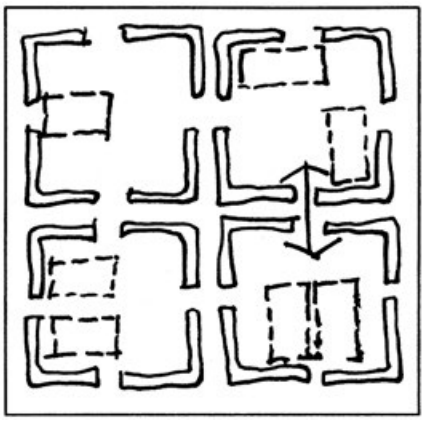
AVOID:

- wind and sun exposed seating and tables outside

CONSIDER:

- flexible outdoor furniture design and shelters that can be adapted to suit different group sizes

8.14 MORE THAN ONE BED IN A BEDROOM



Many people may prefer to share a bedroom rather than be on their own. Being with people will be a higher priority than having space on one's own or a room of a particular size. Bedrooms need to be designed to cater for more than one bed to be placed in the room so that there is flexibility in sleeping arrangements. This will also allow people to more easily use bedrooms respecting relationships, including avoidance relationships, skin groups and care needs. This will allow for married couples or friends to share a room.

ENSURE:

- bedrooms are large enough to accommodate more than one person
- a range of room sizes, furniture layouts and how the rooms will be used are considered during the local consultation process

AVOID:

- all bedrooms being designed so that they are only suitable for a single use

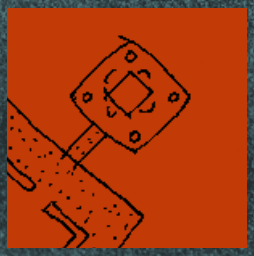
CONSIDER:

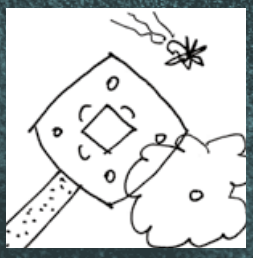
- a variety of different sized bedrooms
- furniture layouts and access to all parts of the room

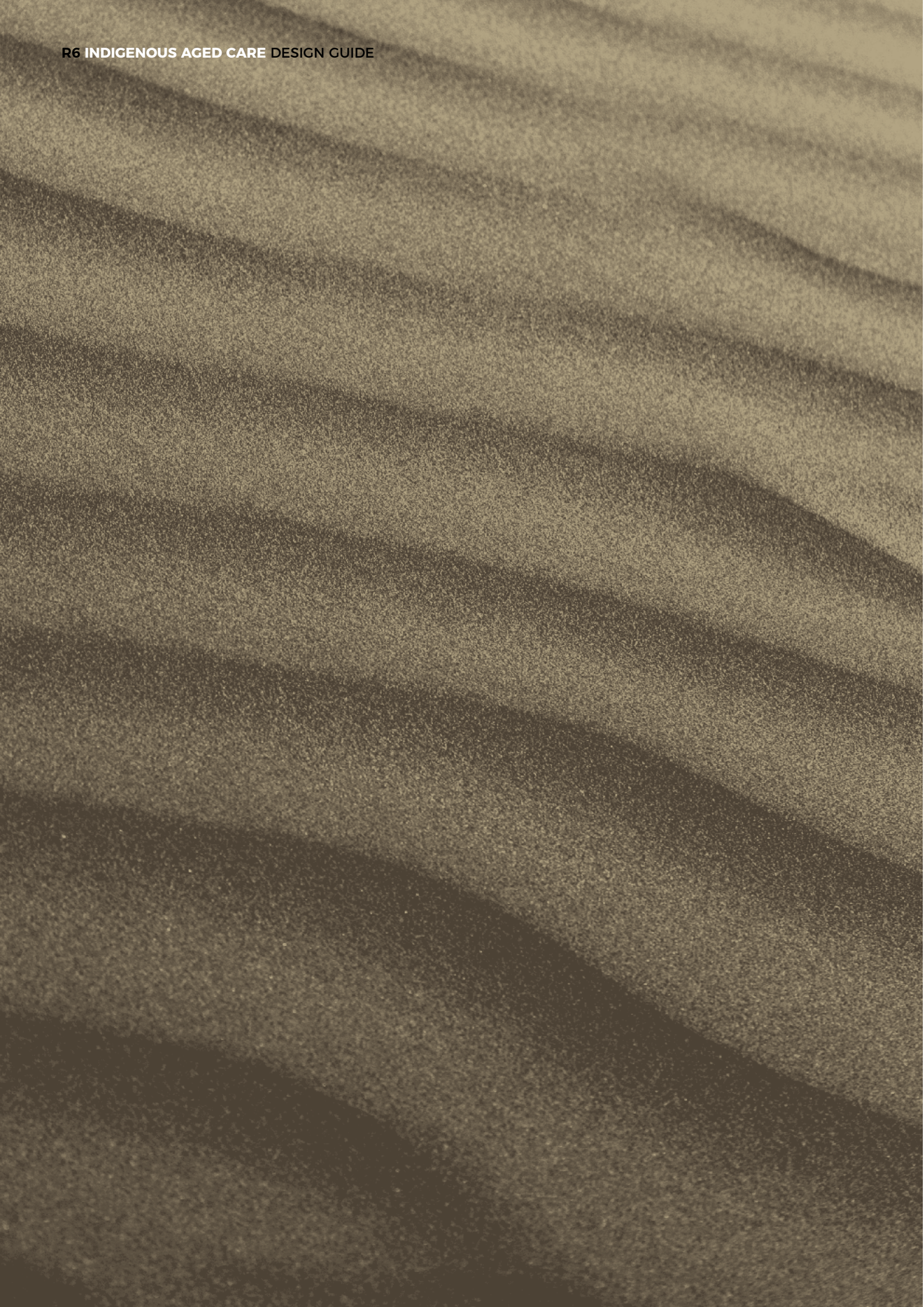
THE 10 PRINCIPLES IN DETAIL

CHAPTER 9

BEING PART OF THE COMMUNITY



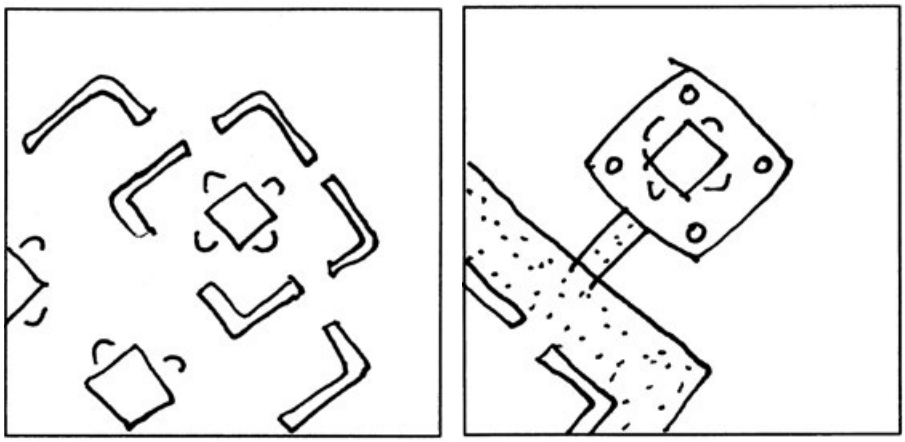




9. BEING PART OF THE COMMUNITY

Interaction and maintaining relationships with people in the local community is important both for residents and the wider community. The location of the site for the facility will impact on this, as will the availability of transport. It will be important to make visitors feel welcome and to offer opportunities for them to engage meaningfully with residents, ideally continuing their pastimes and hobbies. This will help an older person to continue friendships and links with their community and maintain an interest in the wider world.

9.1 DINING WITH FAMILIES



Sharing a meal together is a pleasure for many people. Much of life in a residential setting is communal and although this is often familiar and desirable, it is important that residents and their families also have the opportunity to gather in a more private setting to eat and relax if they wish to. This setting could be a room inside the unit or an area outside. The inclusion of such places are likely to encourage family and friends to visit a facility as they feel welcome and are able to interact with their loved one in the way they are used to.

ENSURE:

- one or more outdoor areas or rooms which can be used by families to dine with a resident

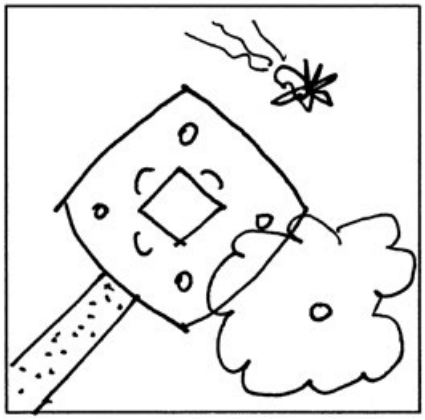
AVOID:

- distractions near the area such as main circulation pathways

CONSIDER:

- flexible furnishings, flexible screening to accommodate small or large groups

9.2 FAMILIAR PRIVATE DINING



While the first step is to provide a more private setting inside or outside where residents can eat and relax if they wish to, the way in which this is designed is important. For these places to be most meaningful, they need to be familiar and include elements that allow them to be easily used. An outside area should have access to a cooking campfire and shade, and should have plants and trees that are recognisable and potentially useful as a source of local traditional food (bush tucker).

ENSURE:

- area is attractive and comfortable

AVOID:

- changing furniture layouts frequently
- distractions nearby

9.3 MAINTAINING COMMUNITY LINKS

Maintaining community links is important if residents are to have the opportunity to maintain their relationships and lifestyle. The location of the site for the facility, the facility's relationship to street frontage, the way the facility addresses the street and surrounding country, the availability of public transport, the facility's proximity to local shops, and its relationship to surrounding communities are among the many aspects of design that will be influenced by the desire to maintain community links.

ENSURE:

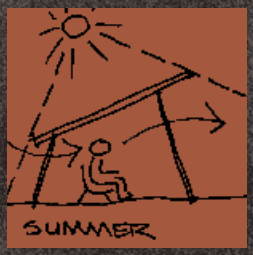
- transport to local shops and amenities is available
- local community groups are welcome at the facility
- residents are encouraged to participate in local community activities

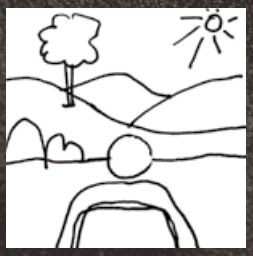
AVOID:

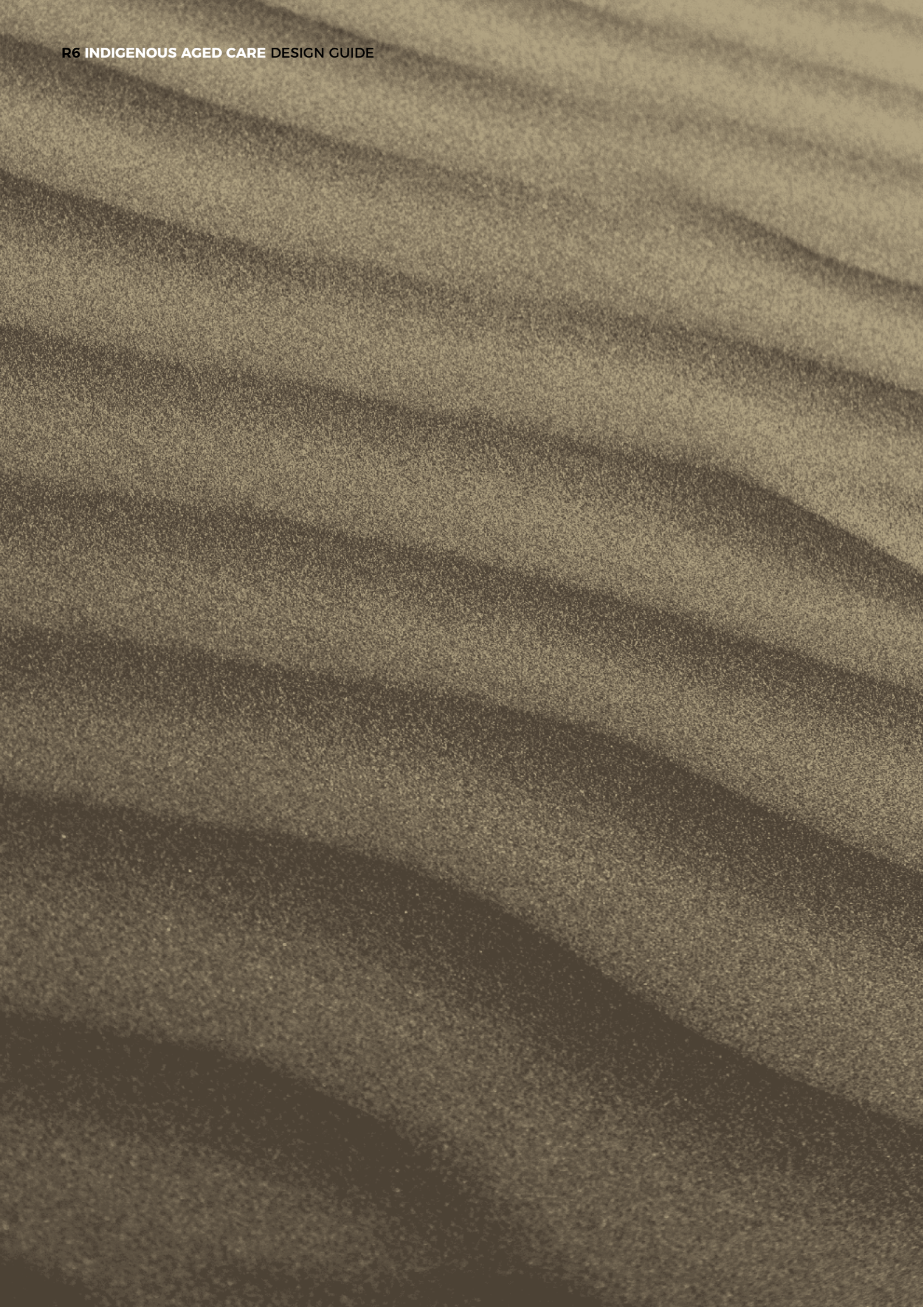
- unrestricted access by local community visitors

THE 10 PRINCIPLES IN DETAIL

CHAPTER 10
DOING WHAT YOU WANT TO DO







10. DOING WHAT YOU WANT TO DO

The environment should be as homelike as possible, recognising that residents are there to live, and so should be enabled to live meaningfully. An environment that focuses on way of life allows residents to make decisions and exercise choice and independence, both in the way they spend time and what they do. The environment should allow residents to continue to do the things that they have done throughout their lives.

These activities will vary enormously as it will be influenced by residents' expectations and life experiences, but could include things as diverse as making artefacts, or doing the washing. They will not necessarily relate to a particular task but to a way of life.

All the spaces found in a familiar house should be provided, such as a lounge room, dining room, kitchen and outside area, so that residents can continue to do what they wish to. In this way residents will have the chance to live lives that are fulfilling and to use their remaining abilities.

10.1 RESIDENT KITCHEN

A small kitchen may be important to allow residents to continue to use their remaining skills and encourage them to pursue tasks of daily living that are familiar to them. Whilst safety concerns need to be addressed (see Principle 1, items 1.7, 1.8, 1.9) these should not limit possible access to a kitchen for all residents.

ENSURE:

- a small kitchen for resident use is provided

AVOID:

- kitchens which do not contain items and fixtures that would be familiar to residents

CONSIDER

- providing galley style kitchens if there is insufficient room to provide a separate kitchen for resident use

10.2 MEAL PREPARATION

It is important that if a facility contains a kitchen for residents, they are able to use it to do meaningful things. Making a meal with friends or family can reinforce the independence of residents. It may help retain skills and ensure favourite foods are not lost or forgotten.

ENSURE:

- residents are able to enter and use a kitchen

AVOID:

- kitchens which are unnecessarily placed off limits for residents

CONSIDER

- ways to remove objects that could be dangerous, and so allow for unrestricted use of the kitchen by residents and visitors (see Principle 1, items 1.7, 1.8, 1.9)

10.3 MAKE SNACKS AND DRINKS

Enjoying snacks and drinks between dining room meals can be a part of daily life for many people. Creating opportunities for residents and their families to be involved in making snacks or drinks can retain an informality associated with home life where meal times are not regimented.

ENSURE:

- residents are able to enter and use a kitchen

AVOID:

- kitchens which are unnecessarily placed off limits for residents

CONSIDER

- ways to remove objects that could be dangerous and so allow for unrestricted use of the kitchen by residents and visitors (see Principle 1, items 1.7, 1.8, 1.9)

10.4 CLEAN AND TIDY BEDROOM

Tidying personal places, organising personal belongings and doing even light cleaning may reinforce a resident's familiarity and sense of belonging in their living place as they are able to influence the day to day activities that take place there. Encouraging residents to be involved in keeping their bedroom clean and tidy may also allow residents to continue to use their remaining skills and to encourage them to pursue tasks of daily living that are familiar to them.

ENSURE:

- residents are given the opportunity to do the tasks they wish to contribute to keeping their bedroom clean and tidy

AVOID:

- adopting a cleaning regime which alienates residents

CONSIDER

- times and ways of cleaning bedrooms to involve residents, this may involve decision making rather than undertaking cleaning tasks.

10.5 PERSONAL LAUNDRY

Having the ability to wash even a few, light personal items may help the resident retain the feeling of independence. Families may also like to take advantage of a laundry. A large tub, slip resistant flooring, water resistant power points and tempered water supply can make the activity safe for the resident.

ENSURE:

- a small laundry for resident use is provided

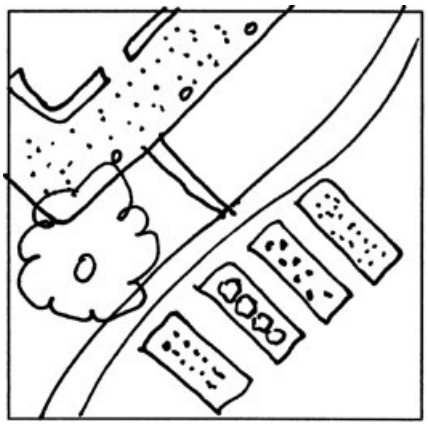
AVOID:

- laundries with "commercial" items and fixtures that would be unfamiliar familiar to residents

CONSIDER

- introducing washing, drying and folding of clothes into the daily lifestyle of residents so that residents can participate as they are able

10.6 GARDENING AND OUTDOOR AREAS



For many residents gardening or creating outdoor areas may have been a large part of their lives. Having a small area where residents can garden and/or be outside will give residents, and their families, opportunities for meaningful activity, and a sense of the familiar.

ENSURE:

- gardens do not impede paths (and avoid trip hazards)
- some raised garden beds are provided to improve residents' participation

AVOID:

- types of plants and gardens that would be unfamiliar to residents

CONSIDER

- linking gardens to living areas so the results of the gardening can easily be appreciated by staff and residents
- providing, close to any garden area, a small garden store room with simple tools and supplies

10.7 ACCESS TO LOUNGE

The lounge room may be an important place for residents and their families and friends as they continue to try and do all the things they want to do in daily life. It can be a place to relax, to enjoy a chat, to gather to share stories, to listen to music.

ENSURE:

- residents are able to access and use the lounge easily

AVOID:

- restricting access to a lounge room

CONSIDER

- designing the lounge room to invite use through scale, layout, finishes and vision into room
- managing use of the lounge room to invite use for example by ensuring that the lights are on in the evening, temperature control, sun shaded by blinds
- the heights and design of all furniture
- a variety of lighting to highlight features in the room

10.8 ACCESS TO DINING ROOM

The dining room may be an important place for residents and their families and friends to enjoy meals together. It can be a place to relax, to enjoy a chat, to gather to share stories, and to eat a meal.

ENSURE:

- residents are able to access and use the dining room easily

AVOID:

- restricting access to a dining room

CONSIDER

- design of the dining room to invite use through scale, layout, finishes for easy cleaning, vision into the room
- managing use of the dining room to invite use for example by ensuring that the lights are on in the evening
- the heights and design of all furniture
- lighting over dining tables

10.9 ARTS AND CRAFTS

Art and craft work for many residents may be an ongoing and important part of their lives. The work may vary greatly in size, materials needed, equipment and space requirements.

Carving work may best be done out doors and may need a supply of timber, tools for crafting and a shaded, wind protected area to work. Wood shavings and chips could be recycled into a fire and the fire may be needed for heating tools used for decoration of the carved object.

Painting may require a table, paints (with a mixing and clean up area) and good light. Spills and splatters will occur often so this activity ideally would not be carried out in main public spaces or bedroom areas.

There should be places around the building to exhibit / display all the art and craft produced. Rather than a room or gallery consider placing art and craft throughout the facility.

ENSURE:

- some area(s) are provided inside the facility for the making of art and craft
- areas are provided for storage of materials and washing up
- areas are provided inside the facility for the display of resident produced art and craft

AVOID:

- surfaces which are hard to clean and therefore likely to limit craft activities

CONSIDER

- using verandahs and well furnished outside areas for craft work

10.10 SORRY BUSINESS

Death ceremonies practiced by Indigenous people vary around Australia. Facilities should be able to accommodate a range of ceremonies associated with death (sometimes called sorry business). An area for larger gatherings, sometimes for many days, may be required without disrupting the other residents. Access, food preparation and general facilities such as showers and toilets may all need to be designed to cope with these events.

ENSURE:

- an area for larger gatherings is provided which can be used without disturbing others
- meal preparation and service areas are designed to cater for large groups of people if required

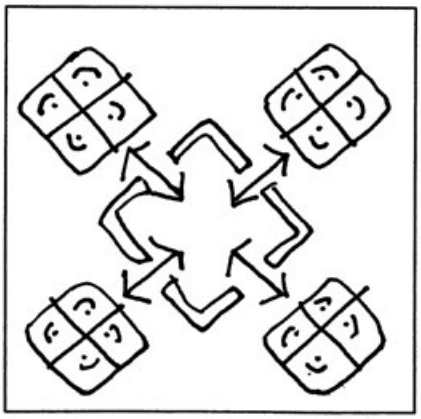
AVOID:

- inappropriate and insensitive use of rooms (especially bedrooms) after a person has died

CONSIDER

- the range of ceremonies that could be required in or near a facility and how the facility may help accommodate these infrequent events
- how residents can be encouraged and supported to participate in sorry business away from the facility

10.11 SEPARATION BY GENDER OR SKIN GROUP



The ability for residents to live together, either by gender or by other important local clan grouping is important to accommodate in the types and size of accommodation provided.

ENSURE:

- flexibility in group size and location. The facility needs to be able to cater for different group sizes in different places at different times. During the planning of the facility, indicate options for various groupings

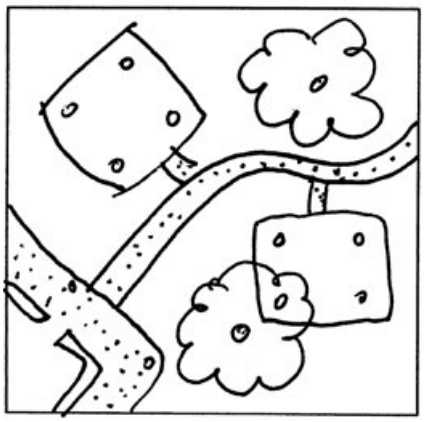
AVOID:

- circulation routes which do not allow for alternative ways of moving about a facility

CONSIDER:

- providing separate men's and women's areas for sleeping, gathering, eating and ablutions
- creating separate entrances to the facility
- planning public areas so that avoidance relationships can be maintained

10.12 OUTSIDE SHELTER



Many residents will have had much of their living experience outside of buildings. Outside shelters will be a familiar setting for many residents and a place where they wish to spend much of their time. Outside shelters are easy to keep clean, are good places for art and craft activities, are economical to build and easy to maintain, remake or modify as needs change.

ENSURE:

- outside shelters are close to main inside common areas
- outside shelters are accessed by well made paths
- are well sited to maximise sun in winter, avoid cold winds and provide shade in summer

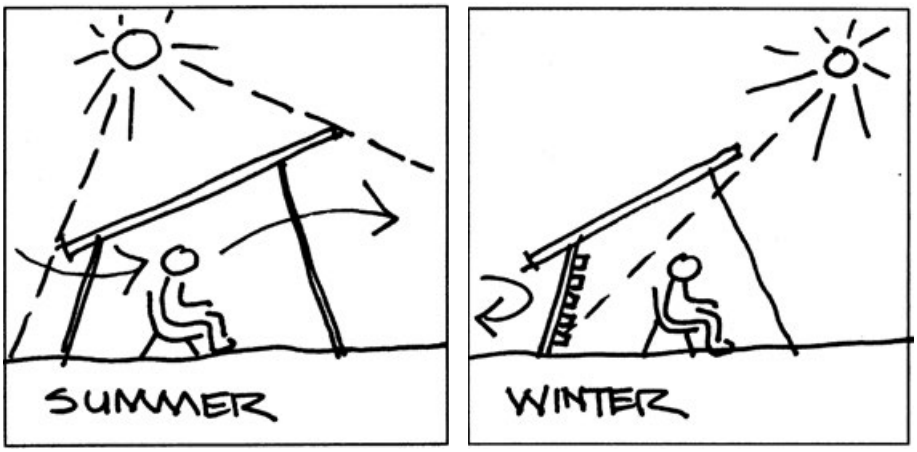
AVOID:

- outside shelters which are difficult to maintain
- outside shelters that pose a high fire risk

CONSIDER:

- how the design of outside shelters can best moderate harsh conditions (sun, winds and cold)
- outside shelters which can be easily altered, added to or relocated to respond to seasons or deaths

10.13 SLEEP/REST IN A WARM/COOL PLACE OUTSIDE



Many residents will have had much of their living experience outside of buildings. Building edges and outside shelter are often sought after as places to rest or sleep. They allow direct sun in winter and often cooling breezes in summer.

ENSURE:

- outside places are separated from noisy activities but have a good view of people moving around the facility
- outside places are sun protected and catch summer breezes
- outside places are cold wind protected in winter

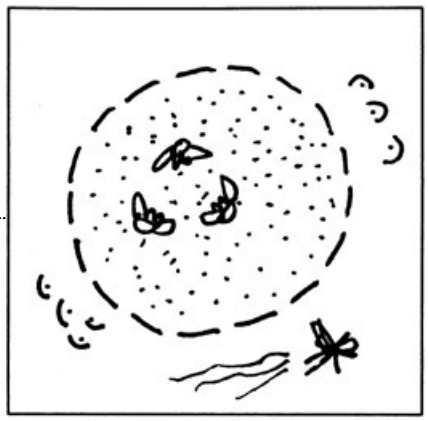
AVOID:

- outside places which are difficult to maintain

CONSIDER

- how the design of outside places can best moderate harsh conditions
- the surface of outside places can allow for mobility aids to be used and beds to be rolled out
- locating outside places near fire areas

10.14 GOOD CLEAN SAND FOR SITTING AND DANCING



Dancing and music may be an important part of people's lives and they will wish to continue these activities. A good place for dancing, for both older people and younger visitors, will encourage this important and familiar activity.

ENSURE:

- there is an area with good clean sand for both sitting and dancing on
- places for sitting and dancing are located out of the path of strong winds

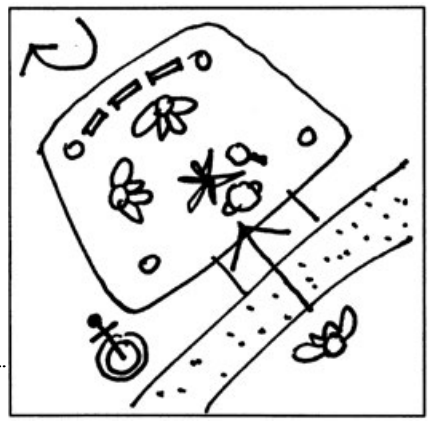
AVOID:

- nearby fire pits or changes in surface that may present a fall hazard

CONSIDER:

- providing places for people to change in private or at least out of the gaze of the audience

10.15 CAMPFIRES TO WARM, MAKE TEA, COOK MEAT OR CREATE ARTIFACTS



In many rural and remote areas fires will be a familiar and integral part of life for many Indigenous people. Careful design and carefully considered safety procedures (see Principle 1) should ensure that the joy and importance of the campfire are not excluded from the facility. The campfire as an activity should be considered an integral part of the furnishing of any outside place. If not considered at the planning stage, independent fires will be made by residents in poor locations that present a greater safety risk.

ENSURE:

- there is direct observation of fire areas by staff
- there is clear ground around the fire with no level changes or material changes that may present trip hazards
- fire areas are out of prevailing winds and are dust protected
- fire areas have shade nearby
- there is a yard tap stand nearby that has double tap points to allow for drinking water from one tap and allows the other to have a permanently attached hose to extinguish any remnant fire if needed

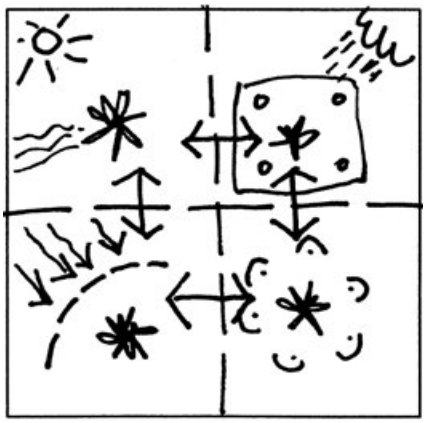
AVOID:

- fire pits or changes in surface that may present a fall hazard

CONSIDER:

- a variety of camp fire places as these will fit the day's weather, the particular activity planned or the group size rather than providing one formal fire pit
- fire protection devices, however if poorly designed and sited these may either not be used by residents and independent fires established that prove to be a greater risk, or increase the risk of burns and accident by their design
- where the firewood will come from and where can it be stored safely

10.16 MOVING A FIRE TO SUIT THE SUN AND WIND



Built "formal" fire areas are rarely used because they are in the wrong place (see the above item). People's use of fire relates strongly to seasons, the day's weather conditions and the activity the fire is being used for. The ability to move a fire (or have staff move a fire) is a better way to conceive the design of a fire area. Fires are often small and can be moved on a sheet or corrugated iron or the fire dismantled and rebuilt in a new location.

ENSURE:

- staff are involved in the making and using of any fire so that it is made in a place where supervision is possible and other key dangers can be avoided
- there is clear ground around the fire with no level changes or material changes
- fire areas are out of prevailing winds and dust protected
- fire areas have shade nearby
- there is a yard tap stand nearby that has a double tap points to allow for drinking water from one tap and a hose to extinguish any remnant fire if needed

AVOID:

- fire pits or changes in surface that may present a fall hazard

CONSIDER:

- locating other activities, such as artifact production, painting or craft making, near the fire to increase an overview of the area by staff and to increase positive and protective staff/ resident interaction
- a variety of camp fire places as these will fit the day's weather, the particular activity planned or the group size rather than providing one formal fire pit

10.17 ENJOYING A VIEW TO COUNTRY

Many residents will have strong association with their traditional land or "country". This may be the most important planning criterion for the facility as a whole and for the design of both inside and outside places within each unit. Consider the various ways residents might gain from use of surrounding country, for example:

- overall orientation within the facility may be helped by having clear views of hills, large rocks, and significant trees when needing to decide where to go next as these landscape features, more than use of colour or buildings or signs, may help act as the primary means of wayfinding
- determining activity locations through the day
- linking to dancing, sorry business and art making places
- determining the arrangement of men, women and various skin group associations within the facility.

ENSURE:

- traditional and or important country or landscape features are considered in the orientation of, and movement within the facility as a primary means of wayfinding when determining activity locations through the day

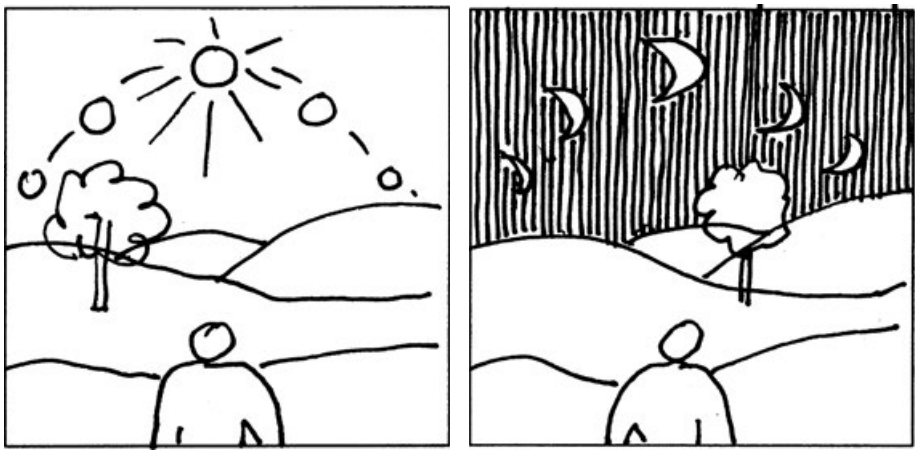
AVOID:

- siting a facility in a way which does not respect country (eg areas which may not be allowed to be used or viewed by some people)

CONSIDER:

- planning with surrounding country to locate dancing, sorry business and places for art and craft
- planning with surrounding country to locate and arrange of men, women and various skin group associations within the facility

10.18 WATCHING THE PATH OF THE SUN, THE MOON AND THE STARS



Many residents may have spent much of their lives outside of buildings and will gain orientation from the observation of the position of the sun, moon and stars. Creation stories and people's worldviews are often intrinsically linked to these elements. Observation of the night sky is important, particularly in rural and remote areas where there is the possibility of a dark sky at night.

ENSURE:

- lighting design does not limit the observing of the night sky

AVOID:

- glare and unnecessarily high levels of outside lighting

CONSIDER:

- limiting the level of night lighting of outside areas and light spill from inside rooms to improve the view of the night sky
- keeping safety lighting directed to the floor surfaces or entries rather than floodlighting the entire area
- giving outside "dark place" options, separated from more used public areas, for people wanting to observe the night sky

10.19 ACCESS TO APPROPRIATE HEATING

Heating is important for the health of the residents. General, low level background heating may be provided by the main building services. For resident bedrooms, heating should be able to be easily and simply adjusted and be safe to use with no directly exposed elements or flames.

ENSURE:

- that the building incorporates passive features to reduce the amount of direct active heating needed
- heating systems can be locally controlled (ie turned off)
- noise and drafts from heating systems are minimised.

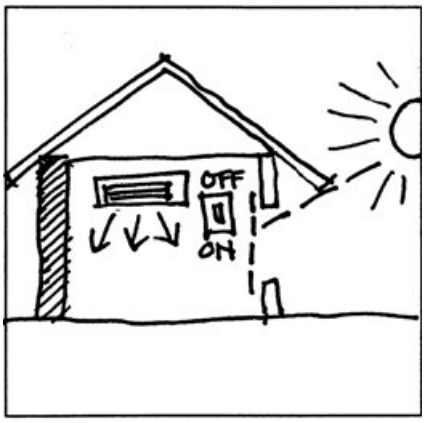
AVOID:

- total dependence on mechanical systems for indoor comfort

CONSIDER:

- systems that have low energy use and are simple to maintain and operate
- providing estimates of running and maintenance costs at the design stage for system options
- systems that can operate within limits of available power and gas supplies

10.20 CONTROL OVER HEATING



Residents' individual control over heating to bedrooms and communal areas will contribute significantly to the comfort of the residents.

ENSURE:

- residents have easy access to temperature and airflow to bedrooms and common areas
- control knobs or switches are easy to see, reach and turn or switch

AVOID:

- central mechanical air conditioning systems that have no individual room control
- multi function remote control devices as the primary control for residents to turn on/off and adjust heating systems

CONSIDER:

- providing thorough documentation showing the control for all heating systems. This should be laminated and wall mounted in the staff office to explain the system

10.21 ACCESS TO APPROPRIATE COOLING

Cooling is important for the health of the residents. General, low level background cooling may be provided by the main building services, but bedroom and local cooling to suit individual preferences should be easily adjusted, effective in the particular environmental conditions and allow for air exchange as well as cooling.

ENSURE:

- that the building incorporates passive features to reduce the amount of active cooling and ventilation intervention
- cooling and ventilation systems can be locally controlled (ie adjusted and turned off)
- noise and drafts from cooling systems are minimised

AVOID:

- total dependence on mechanical systems for indoor comfort

CONSIDER:

- systems that have low energy use and are simple to maintain and operate
- providing estimates of running and maintenance costs at the design stage for system options
- systems that can operate within limits of available power and water supplies

10.22 CONTROL OVER COOLING

Residents' individual control over cooling to bedrooms and communal areas will contribute significantly to the comfort of the residents.

ENSURE:

- residents have easy access to temperature and airflow to bedrooms and common areas
- control knobs or switches are easy to see, reach and turn or switch

AVOID:

- central mechanical air conditioning systems that have no individual room control
- multi function remote control devices as the primary control for residents to turn on/off and adjust cooling systems

CONSIDER:

- providing thorough documentation showing the control for all cooling systems. This should be laminated and wall mounted in the staff office to explain the systems

10.23 CONTROL OVER LIGHTING

Residents' individual control over lighting to bedrooms and communal areas will contribute significantly to the comfort level of the residents. Residents need to have personal and easy access to switching/control of artificial lighting. All windows and glazed areas need to be fitted with adjustable screening to control glare and natural light levels.

ENSURE:

- light switches are located within easy reach of residents
- curtains / screens can adequately screen glazed areas and be easily operated by residents

AVOID:

- complex / centralised switching arrangements for lighting where residents require control
- avoid automatic sensor lights as they may confuse the residents

CONSIDER:

- dimmers to all light switches to accommodate variable lighting levels

10.24 CONTROLLING VENTILATION

Natural ventilation is a significant contributing factor to the quality of the internal environment to both bedrooms and common rooms. Individual resident control over the level of ventilation is important.

ENSURE:

- all window and door openings can be easily operated by residents
- all windows have mechanisms to be able to adjust and secure the window from a closed position to an open one

AVOID:

- large and heavy windows or doors
- windows and doors that have only fully open or closed operation

APPENDICES

APPENDIX 1
INDIGENOUS ENVIRONMENTAL ASSESSMENT TOOL

APPENDIX 2
STAFF AND SUPPORT AREAS

APPENDIX 3
ELECTRICAL SAFETY

APPENDIX 1

INDIGENOUS ENVIRONMENTAL ASSESSMENT TOOL

Using the IEAT

In some cases, the questions may not be applicable. If so, the cell next to the question will be shaded so that it cannot be filled in.

Glossary of Terms

Unit

The building or buildings where residents live

Outside area

A place where residents can gather. A verandah is not considered to be an outside area when it is the main circulation path or corridor.

Outside shelter

A traditional shelter (eg wiltja, gazebo or other built structure)

Shady place

Not a built structure. Any place where shade is available eg under a tree, a place under the eaves of a building or the shadow cast by a building.

1	UNOBTRUSIVELY REDUCING RISK	N/A	NO	YES	ADD IF UNOBTRUSIVE
1.1	Are residents prevented from getting over/under fence or out of the gate without the assistance of a staff member? (No = fence or gate is inadequate/non existent)		0	1	1
1.2	Are people who don't live in the unit prevented from getting over/under the fence or in the gate without the assistance of a staff member? (No = fence or gate is inadequate/non existent)		0	1	1
1.3	Is the fence at least 1.8m high? (N/A = no fence)	1	0	1	1
1.4	Is the front door leading out of the facility secure?		0	1	1
1.5	Are bedroom windows restricted in the extent to which they open so that people cannot climb out or in?		0	1	1
1.6	Is there a way to keep residents away from an open fire inside? (N/A = no fire available)	1	0	1	1
1.7	Is there a way to keep residents out of the residents' kitchen if required? (N/A = no residents' kitchen available)	1	0	1	1
1.8	Can appliances be locked away in the residents' kitchen? (N/A = no residents' kitchen available)	1	0	1	1
1.9	Is there a lockable knife draw in the residents' kitchen? (N/A = no residents' kitchen available)	1	0	1	1
1.10	Is the cook top in the residents' kitchen a gas cook top? (N/A = no residents' kitchen available)	1	0	1	1
1.11	Is there a hidden switch to turn off electricity to power points and the stove in the residents' kitchen? (NA = no residents' kitchen available)	1	0	1	
1.12	If residents are involved in meal preparation are the pots and pans used small enough for them to lift easily? (N/A = no residents' kitchen available or residents not involved in meal preparation)	1	0	1	
1.13	Is there a way to keep residents away from a cooking campfire? (N/A = no cooking campfire available)	1	0	1	
	Sub total scores				

Total max score	23
Less not applicable items (Deduct 2 points for items 1.3, 1.6, 1.7, 1.8, 1.9, 1.10)	
Total Possible	
Total positive scores	
Total additional points	
TOTAL SCORE ACHIEVED (Part 1)	

1	UNOBTRUSIVELY REDUCING RISK	N/A	NO	YES
1.14	Are all outside floor areas safe from being slippery when wet (water or urine)? Transfer score from BUILDING SERVICES SURVEY		0	1
1.15	Are all inside floor areas (other than wet areas) safe from being slippery when wet (water or urine)? Transfer score from BUILDING SERVICES SURVEY		0	1
1.16	Are all inside wet area floors safe from being slippery when wet (water or urine)? Transfer score from BUILDING SERVICES SURVEY		0	1
1.17	Is fire protection documentation current? Inspect records of Annual Survey and Statement of Compliance. Inspect on site Fire Safety Log Book		0	1
1.18	Are unit waste water systems free from blockages?		0	1
1.19	Are all critical items in the en-suites fully functioning? Transfer score from BUILDING SERVICES SURVEY		0	1
1.20	Are all critical items in the bathrooms fully functioning? Transfer score from BUILDING SERVICES SURVEY		0	1
1.21	Are all critical items in the resident toilets fully functioning? Transfer score from BUILDING SERVICES SURVEY		0	1
1.22	Are all critical items in the resident kitchens fully functioning? (N/A = no residents' kitchen available) Transfer score from BUILDING SERVICES SURVEY	1	0	1
1.23	Is the building electrically compliant?		0	1
1.24	Is the switchboard functioning?		0	1
1.25	Is the gas service compliant? (N/A = gas not available)	1	0	1
	Building Services Survey Score	*N/A*	*0-50 %*	*51-100 %*
1.26	Are items for ease of use and maintenance in the en-suites fully functioning? Transfer score from BUILDING SERVICES SURVEY		0	1
1.27	Are items for ease of use and maintenance in the bathrooms fully functioning? Transfer score from BUILDING SERVICES SURVEY		0	1
1.28	Are items for ease of use and maintenance in the resident toilets fully functioning? Transfer score from BUILDING SERVICES SURVEY		0	1
1.29	Are all other required items in the resident kitchens fully functioning? (N/A = no residents' kitchen available) Transfer score from BUILDING SERVICES SURVEY	1	0	1
	Sub total scores			

Total max score	16
Less not applicable items	
Total Possible	
TOTAL SCORE ACHIEVED (Part 2)	

1	UNOBTRUSIVELY REDUCING RISK	0-50%	51-75%	76-99%	100%
1.30	Is the temperature of the water from all taps accessible to residents limited so that it cannot scald? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.31	Are all areas used by residents well lit? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.32	Are the walls outside sound? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.33	Are the walls inside sound? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.34	Are the ceilings sound? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.35	Are the floors sound? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.36	Are the windows sound? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.37	Are the doors sound? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.38	Are the screens sound? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.39	Are the lights functioning? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.40	Are the power points functioning? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
1.41	Are the fans functioning? Transfer score from BUILDING SERVICES SURVEY	1	2	3	4
	Sub total scores				

Total max score	48
TOTAL SCORE ACHIEVED (Part 3)	
SUMMARY OF SCORES	
Score Achieved (Part 1)	
Score Achieved (Part 2)	
Score Achieved (Part 3)	
TOTAL SCORE ACHIEVED (1+2+3)	

2	FOCUSING ON THE SMALL SCALE	30+	30 – 17	16 – 11	10 or Less
2.1	How many people live in the unit?	0	1	2	3
		NO	YES		
2.2	Is the scale and detailing inside the unit similar to that of a typical house?	0	1		
2.3	Is the scale and detailing of the outside of the unit similar to that of a typical house?	0	1		
	Sub total scores				
	Total max score	5			
	TOTAL SCORE ACHIEVED				

3	SEEING AND BEING SEEN		NONE	SOME	ALL
3.1	What proportion of residents can see the way to the lounge room as soon as they leave their bedroom?		0	1	2
3.2	What proportion of residents can see the inside of the lounge room from circulation routes?		0	1	2
3.3	What proportion of residents can see the way to the dining room as soon as they leave their bedroom?		0	1	2
3.4	What proportion of residents can see the inside of the dining room as soon as they leave their bedroom?		0	1	2
3.5	What proportion of residents can see the way to their bedroom from the lounge room?		0	1	2
3.6	What proportion of residents can see their bedroom door from the lounge room?		0	1	2
		N/A	NO	YES	
3.7	Can the exit to outside (garden) be seen from the lounge room? If there is more than one lounge room answer with reference to the one most used by most residents. (If no lounge room, answer = No)		0	1	
3.8	Can the exit to outside (garden) be seen from the dining room? If there is more than one dining room answer with reference to the one most used by most residents. (If no dining room, answer = No)		0	1	
3.9	Can the dining room be seen into from the lounge room? If there is more than one lounge or dining room answer with reference to those used by most residents (If dining and lounge is one room, answer = Yes) (If no lounge or dining room, answer = No)		0	1	
3.10	Can the resident kitchen be seen into from the lounge room? If there is more than one lounge room answer with reference to the one used by most residents. (N/A = no resident kitchen available) (If no lounge room, answer = No)	1	0	1	
3.11	Can the resident kitchen be seen into from the dining room? If there is more than one dining room answer with reference to the one used by most residents. (NA = no resident kitchen available) (If no dining room, answer = No)	1	0	1	
3.12	Can an outside cooking area / campfire be seen from the lounge room? If there is more than one lounge room answer with reference to the one used by most residents. (N/A= no outside cooking area available) (If no lounge room, answer = No)	1	0	1	
3.13	Can an outside cooking area / campfire be seen from the dining room? If there is more than one dining room answer with reference to the one used by most residents. (N/A = no outside cooking area available) (If no dining room, answer = No)	1	0	1	
	Sub total scores				

Total max score	19
Less not applicable items	
Total Possible (Part 1)	
TOTAL SCORE ACHIEVED (Part 1)	

3	SEEING AND BEING SEEN	N/A	NO	YES
3.14	Can a toilet be seen from the lounge room? If there is more than one lounge room answer with reference to the one used by most residents. (If no lounge room, answer = No)		0	1
3.15	Can a toilet be seen from the dining room? If there is more than one dining room answer with reference to the one used by most residents. (If no dining room, answer = No)		0	1
3.16	Can a toilet be seen from outside shelters and areas where residents most frequently gather?		0	1
3.17	Can the lounge room area(s) see and be seen from where staff spend most of their time? If there is more than one lounge room answer with reference to the one used by most residents. (If no lounge room, answer = No)		0	1
3.18	Can the dining room be seen into from the point(s) where staff spend most of their time? If there is more than one dining room answer with reference to the one used by most residents. (If no dining room, answer = No)		0	1
3.19	Can the outside (garden) be seen from the point(s) where staff spend most of their time?		0	1
3.20	Can the outside area (garden) be seen from the lounge room? If there is more than one lounge room answer with reference to the one used by most residents. (If no lounge room, answer = No)		0	1
3.21	Can the outside area (garden) be seen from the dining room? If there is more than one dining room answer with reference to the one most used by most residents. (If no dining room, answer = No)		0	1
3.22	Can an outside area/shady place be seen from the lounge room? If there is more than one lounge room answer with reference to the one used by most residents. (If no lounge room, answer = No)		0	1
3.23	Can an outside area/shady place be seen from the dining room? If there is more than one dining room answer with reference to the one most used by most residents. (If no dining room, answer = No)		0	1
3.24	Is a view to "country" possible from the lounge room? If there is more than one lounge room answer with reference to the one used by most residents. (If no lounge room, answer = No)		0	1
3.25	Is a view to "country" possible from the dining room? If there is more than one dining room answer with reference to the one most used by most residents. (If no dining room, answer = No)		0	1
	Sub total scores			

Total max score	12
Total Possible (Part 2)	
TOTAL SCORE ACHIEVED (Part 2)	

3. SUMMARY OF SCORES – Seeing and being seen

Score Achieved (Part 1)	
Score Achieved (Part 2)	
TOTAL SCORE ACHIEVED (1+2)	

4	HIDING UNIMPORTANT THINGS	N/A	NO	YES
4.1	Is the doorbell disturbing for the residents? (N/A = no doorbell)	1	0	1
4.2	Is the noise from the non-resident kitchen distracting for the residents? (N/A = no non resident kitchen)	1	0	1
4.3	Are doors to cleaners' cupboards, storerooms and other areas where residents may find danger easily seen?		0	1
4.4	Is the cupboard or wardrobe that the resident uses full of a confusing number of clothes and/or irrelevant objects?		0	1
4.5	Are deliveries of food, linen etc. which could disturb residents taken across resident areas such as the lounge or dining room?		0	1
4.6	Is the public address, staff paging or call system disturbing for residents? (eg uses loud speakers, flashing lights, bells, etc) (N/A = no non public address, staff paging or call system)	1	0	1
4.7	Is the activity at the front entry visible to the residents?		0	1
4.8	Is the service entry (where food, linen etc is delivered to) easily visible to the residents?		0	1
4.9	Is the noise from doors closing disturbing for the residents?		0	1
4.10	Do the corridors contain mirrors or other features which could be disturbing for the residents? (N/A=no corridor available)	1	0	1
	Sub total scores			
	Total max score	10		
	Less not applicable items			
	Total Possible			
	TOTAL SCORE ACHIEVED			

5	EMPHASIZING IMPORTANT THINGS	N/A	NO	YES			
5.1	Is the dining room recognisable? (If no dining room, answer = No)		0	1			
5.2	Is the lounge room recognisable? (If no lounge room, answer = No)		0	1			
5.3	Are different parts of the corridor clearly recognisable? (N/A = no corridor available)	1	0	1			
5.4	From outside the rooms, do bedrooms have a sign, symbol or display that identifies them as belonging to a particular individual?		0	1			
5.5	Are the shared en-suites/bathrooms/toilets clearly marked with a sign, symbol or colour coded door?		0	1			
5.6	Is a resident kitchen looked into from the lounge or dining room? If not is it clearly marked with a sign or symbol? (N/A = no resident kitchen available)	1	0	1			
5.7	Is the toilet visible as soon as the en-suite/toilet/bathroom door is opened?		0	1			
5.8	Can you see the stimuli in the lounge room without the turning artificial lights on in the daytime? (If no lounge room, answer = No)		0	1			
5.9	Can you see the stimuli in the dining room without the turning artificial lights on in the daytime? (If no dining room, answer = No)		0	1			
5.10	Can you see the stimuli in the corridors without the turning artificial lights on in the daytime? (N/A = no corridor available)	1	0	1			
5.11	Can you see the stimuli in the bedrooms without the turning artificial lights on in the daytime?		0	1			
5.12	Can you see the stimuli in the resident kitchen without the turning artificial lights on in the daytime? (N/A = no resident kitchen available)	1	0	1			
	Building Services Survey Score			*0-50 %*	*51-75 %*	*76-99 %*	*100 %*
5.13	Avoiding Glare. Is the lighting free of glare, eg from bare bulbs, off shiny surfaces? Transfer score from BUILDING SERVICES SURVEY			1	2	3	4
	Sub total scores						

Total max score	16
Less not applicable items	
Total Possible	
TOTAL SCORE ACHIEVED (Part 2)	

6	MOVING ABOUT AND ENGAGING	N/A	NO	YES
6.1	Outside, is there a clearly defined and easily accessible (i.e. no locked exit) path outside that guides the resident back to their starting point?		0	1
6.2	Outside, are the paths wide enough to allow two wheelchairs to pass?		0	1
6.3	Outside, is the path surface even?		0	1
6.4	Outside, are the paths clear of obstacles (eg trees, thorny plants) along and over the path?		0	1
6.5	Outside, is there step free access to all areas?		0	1
6.6	Inside and outside, are all ramps of a gradient suitable for wheelchair use? (N/A = no ramps available) Transfer score from BUILDING SERVICES SURVEY	1	0	1
6.7	Inside and outside, are there handrails on both sides of all ramps? (N/A = no ramps available) Transfer score from BUILDING SERVICES SURVEY	1	0	1
6.8	Outside, does the external path allow the resident to see into areas that might invite participation in an appropriate activity?		0	1
6.9	Outside, is the path within a secure perimeter?		0	1
6.10	Outside, are there chairs, benches, sand or logs along the path where people can sit and enjoy the fresh air?		0	1
6.11	Outside, are there both sunny and shady areas along the path?		0	1
6.12	Outside, does the path take residents past a toilet?		0	1
6.13	Outside, does the path take residents past a tap or drinking fountain?		0	1
	Sub total scores			

Total max score	13
Less not applicable items	
Total Possible (Part 1)	
TOTAL SCORE ACHIEVED (Part 1)	

6	MOVING ABOUT AND ENGAGING	N/A	NO	YES		
6.14	Inside, is there a clearly defined route within the unit that avoids dead ends and allows the resident an easy return to their starting point?		0	1		
6.15	Is access to the unit step free?		0	1		
6.16	Is access inside the unit step free?		0	1		
6.17	Inside, are there handrails on at least one side of all corridors and can they be used? (N/A = no corridors available)	1	0	1		
6.18	Inside, does the route within the unit allow the resident to see into areas that might invite participation in an appropriate activity?		0	1		
			0-50 %	51-75 %	76-99 %	100 %
6.19	Inside, are all doors wide enough to allow a wheelchair access? Transfer score from BUILDING SERVICES SURVEY		1	2	3	4
6.20	Inside, are rooms large enough and of a suitable layout to allow for the use of equipment such as mobility aids			0	1	
	Sub total scores					

Total max score	10
Less not applicable items	
Total Possible (Part 2)	
TOTAL SCORE ACHIEVED (Part 2)	

6. SUMMARY OF SCORES – Moving about and engaging

Score Achieved (Part 1)	
Score Achieved (Part 2)	
TOTAL SCORE ACHIEVED (1+2)	

7	CREATING A RECOGNISABLE AND MEANINGFUL PLACE	None	Up to 50%	More than 50%
7.1	Are there colours in the furnishings or the decoration of the lounge and dining room that are familiar to the majority of residents?	0	1	2
7.2	Are there taps, light switches, door knobs in the unit that are to be used by residents that are of a design that are familiar to the majority of residents?	0	1	2
7.3	Are there any pieces of furniture in the lounge and dining room that are of a design that is familiar to the majority of residents?	0	1	2
7.4	How many residents have decorated their bedrooms so that is clearly their room or bed space?	0	1	2
7.5	How many residents have their own furniture in their bedrooms?	0	1	2
7.6	Are there outside areas/shady places that are familiar to the majority of residents?	0	1	2
	Sub total scores			

7. CREATING A RECOGNISABLE AND MEANINGFUL PLACE

Total Max Score	12
TOTAL SCORE ACHIEVED	

8	CHOOSING TO BE ON YOUR OWN OR WITH OTHERS	Less than 1 per 30	1 per 30	1 per 15	1 per 8 or betteer
8.1	Inside, how many small areas or nooks are provided for residents to sit in?	0	1	2	3
8.2	How many of these inside areas or nooks have views of pleasant or interesting scenes (outside, the living room, the staff base)?	No Nooks None 0	1 Nook Score 1	2 Nooks Score 2	3 Nooks Score 3
		NO	YES		
8.3	Do the lounge and dining rooms support small group activities (2-4 people) without re-arranging the furniture?	0	1		
8.4	Do the lounge and dining rooms support large group activities (5+ people) without re-arranging the furniture?	0	1		
8.5	Does the dining room provide opportunities for residents to eat in small groups (2-4 people)?	0	1		
8.6	Does the dining room provide opportunities for residents to eat in a large group (5+ people)?	0	1		
8.7	Are there opportunities for people to eat alone (inside or outside)?	0	1		
8.8	Does the outside area provide opportunities for residents to gather in small groups (2-4 people)?	0	1		
8.9	Does the outside area provide opportunities for residents to gather in large groups (5+ people)? (eg for ceremony)	0	1		
8.10	Does the outside area provide opportunities for residents to observe the happenings at the unit discreetly?	0	1		
8.11	Does the outside area provide opportunities for residents to see and be seen?	0	1		
8.12	Does the outside area provide opportunities for residents to eat in small groups (2-4 people)?	0	1		
8.13	Does the outside area provide opportunities for residents to eat in large groups (5+ people)?	0	1		
8.14	Do more than half the bedrooms allow for more than one bed in the room?	0	1		
	Sub total scores				

8. CHOOSING TO BE ON YOUR OWN OR WITH OTHERS

Total Max Score	18
TOTAL SCORE ACHIEVED	

9	BEING PART OF THE COMMUNITY	N/A	NO	YES
9.1	Is there an outside area or room somewhat removed from the main dining room where families can share meals with their relatives?		0	1
9.2	Is this room/area familiar in nature, to reassure family members and friends and encourage them to visit and to participate in the care of the resident? (N/A if no room)	1	0	1
9.3	Is the facility in a location which allows community links to be easily maintained?		0	1
	Sub total scores			

Total max score	3
Less not applicable items	
Total Possible	
TOTAL SCORE ACHIEVED	

10	DOING WHAT YOU WANT TO DO **How many residents does the unit design (inside and outside) allow to:**	N/A	None	Up To 50%	More To 50%
10.1	Have access to a resident kitchen? (N/A = no resident kitchen)	1	0	1	2
10.2	Be involved in main meal preparation?		0	1	2
10.3	Be involved in making snacks or drinks?		0	1	2
10.4	Be involved in keeping bedroom clean and tidy?		0	1	2
10.5	Be involved in personal laundry?		0	1	2
10.6	Be involved in gardening?		0	1	2
10.7	Have constant and easy access to a lounge? (eg lights on, heating/cooling on, not locked)		0	1	2
10.8	Have constant and easy access to a dining room? (eg lights on, heating/cooling on, not locked)		0	1	2
10.9	Have the opportunity to participate in the arts and crafts (eg painting, woodwork)?	1	0	1	2
10.10	Respond to sorry business?		0	1	2
10.11	Be separated according to gender or skin groups?		0	1	2
10.12	Have access to a good outside shelter?		0	1	2
10.13	Sleep/rest in a warm/cool place outside?		0	1	2

10	DOING WHAT YOU WANT TO DO **How many residents does the unit design (inside and outside) allow to:**	N/A	None	Up To 50%	More To 50%		
10.14	Have access outside to good clean sand for sitting and dancing?		0	1	2		
10.15	Have campfire(s) to make tea, a spear, cook meat, create art and artifacts, or get warm? (NA=fire not meaningful to residents)	1	0	1	2		
10.16	Move a fire to suit the sun and wind? (N/A = fire not meaningful to residents)	1	0	1	2		
10.17	Enjoy a view to country?		0	1	2		
10.18	Watch the path of the sun, the moon and the stars?		0	1	2		
	Building Services Survey Score			*0-50 %*	*51-75 %*	*76-99 %*	*100 %*
10.19	Have access to appropriate heating? Transfer score from BUILDING SERVICES SURVEY			1	2	3	4
10.20	Control heating? Transfer score from BUILDING SERVICES SURVEY			1	2	3	4
10.21	Have access to appropriate cooling? Transfer score from BUILDING SERVICES SURVEY			1	2	3	4
10.22	Control cooling? Transfer score from BUILDING SERVICES SURVEY			1	2	3	4
10.23	Control lighting? Transfer score from BUILDING SERVICES SURVEY			1	2	3	4
10.24	Control ventilation? Transfer score from BUILDING SERVICES SURVEY			1	2	3	4
	Sub total scores						

10. DOING WHAT YOU WANT TO DO

Total max score	60
Less not applicable items Deduct 2 points per item	
Total Possible	
TOTAL SCORE ACHIEVED	

SUMMARY OF IEAT SCORES

Transfer individual sheet totals to this sheet

	DATE:				
SECTION	**Total Potential Score**	**Less N/A Items**	**Total Initial Score Achieved**	**Total Improved Score 1**	**Total Improved Score 2**
1. Unobtrusively Reducing Risk (Parts 1, 2 and 3)	87				
2. Focusing on the small scale	5				
3. Seeing and being seen (Part 1 and 2)	31				
4. Hiding unimportant things	10				
5. Emphasizing important things	16				
6. Moving about engaging	23				
7. Creating a recognisable and meaningful place	12				
8. Choosing to be on your own or with others	18				
9. Being part of the community	3				
10. Doing what you want to do	60				

Note: the IEAT scores are relative scores and should be compared within each Principle above over time. Facilities may have structural reason why some base scores are low but improvement can still be made by using the detail contained in each item within the Guide and score for each Principle above will improve, or remain high, over time.

APPENDIX 2

STAFF AND SUPPORT AREAS

ROOM	Typical Purpose	Typical Response	Special considerations	References
Clean Utility	Storage, preparation and dispensing of medication dressings and other treatments	• Hot and cold water • Hand basin • Soap dispenser, paper towel holder • Slip resistant floor (eg sheet vinyl) • GPO's • Heating and cooling • Exhaust • Cupboards • Bench with splash back • Telephone • Artificial lighting • Natural lighting (desirable) • Blinds (if windows in room) • Drug fridges • Medications storage • Schedule 8 drugs secure store	• Separate drug room • Access to drugs/ medications in other collocated facilities eg health clinic/hospital • Capacity of medication storage to be determined by supply/restocking program • Guaranteed UPS (uninterrupted power supply) to drugs fridge • After hours internal environment control, for this area only, in arid and tropical regions • Controlled access/ locking	AHFDG Standard Components Room Data Sheets CLUR - 8 (also 12 and 14 for larger rooms) QRACFDG - Room Data Sheet -5.16

ROOM	Typical Purpose	Typical Response	Special considerations	References
Dirty Utility	Central collection point for soiled linen and bed pans etc, cleaning of soiled items and emptying of bed pans. Testing and disposal of resident's samples?	• Acoustic privacy to prevent noise disturbing others • Fixtures: pan sanitiser (or equivalent), slop-hopper, trough • Hot and cold water • Hand washing basin • Soap dispenser, paper towel holder • Lever/hands free taps • Slip resistant floor (eg sheet vinyl) • Water resistant vertical surfaces eg tiles • Floor waste • GPO's • Heating and cooling • Exhaust • Cupboards • Bench • Room for linen skips • Mop and broom rack • Artificial lighting • Natural lighting (desirable) • Blinds (if windows in room)	• Consider impact of local water quality on all fittings and appliances	AHFDG – Standard Components Room Data Sheets DTUR - S (also 10, 12 & 14 for larger rooms) QRACFDG - Room Data Sheet -5.17

ROOM	Typical Purpose	Typical Response	Special considerations	References
Facility Kitchen (staff access only)	Preparing meals for residents and community members	· Acoustic privacy to prevent noise disturbing others · Fixtures: Commercial cook top, range-hood, oven, dishwasher · Sinks · Hand washing basin · Soap dispenser, paper towel holder · Lever/hands free taps · Hot and cold water · Slip resistant floor (eg sheet vinyl) · Water resistant vertical surfaces eg tiles · Floor waste · GPO's · Telephone · Appliance storage · Cooling · Exhaust · Dry Storage · Cool storage	· Consider dual function of external catering ie 'meals on wheels' · Additional storage capacity to be determined by the restocking supply program · Size of delivery vehicles, access to the facility and onsite handling of supplies · Cool room/freezers in addition to upright fridges and freezers · Special attention to detailing to restrict insect and other vermin attack · Waste management given local facilities and handling capacity · Consider impact of local water quality on all fittings and appliances	AHFDG n/a QRACFDG Kitchen - 5.8 Dry Store - 5.9 Cool Room - 5.10 Freezer Room - 5.12
Facility Laundry (staff access only)	Washing and drying clothing, linen for residents and community members	· Acoustic privacy to prevent noise disturbing others · Fixtures: Commercial level machines and dryers at suitable heights · Separation of clean and dirty areas · Hand-washing basin · Soap dispenser, paper towel holder · Lever/hands free taps · Hot and cold water · Slip resistant floor (eg sheet vinyl) · Water resistant vertical surfaces e.g. tiles · Floor waste · GPO's · Telephone · Cooling · Exhaust · Linen skips · Linen storage	· Separate clean and dirty linen stores · Maintenance of equipment (washing machines & dryers) · Capacity for external community laundry · Consider impact of local water quality on all fittings and appliances	AHFDG n/a QRACFDG Minor Laundry - 5.12 Laundry - 5.13 Dirty Linen Store - 5.18 Linen Store - 5.22

ROOM	Typical Purpose	Typical Response	Special considerations	References
Staff Room	Lunch room, place for breaks	• Acoustic privacy to prevent conversations being overheard • Carpet suggest not carpet, tiled or sheet vinyl floor • GPO's • Table and chairs • Kitchenette with temperature controlled hot water • Cold water • Soap dispenser, paper towel holder • Microwave • Refrigerator • Telephone • Artificial lighting • Natural lighting (desirable) • Blinds (if windows in room)	• Dual function as meeting and training room • Access to private shaded outdoor space	Australasian Health Facility Design Guide – Standard Components Room Data Sheets SRM 15 (also 18,25,30 & 35 for larger rooms) QRACFDG Staff Room - 5.5
Staff Change Room, WC's, Showers	Facilities for use of staff (and not residents, visitors or families)	• Privacy control • Acoustic privacy • Fixtures: WC basin, toilet roll holder, mirror capstan taps, flexible shower • Temperature controlled hot water, cold water • Soap dispenser, paper towel holder • Slip resistant floor (eg sheet vinyl) • Water resistant vertical surfaces eg tiles • Floor waste • GPO's • Heating and cooling • Exhaust • Lockers • Hooks, shelves • Artificial lighting • Natural lighting and venting (desirable) • Blinds (if windows in room)	• Consider impact of local water quality on all fittings and appliances	Australasian Health Facility Design Guide – Standard Components Room Data Sheets Staff Change Room - CHST - 10 (refer also 35 for larger room) Staff WC - WCST Staff Shower - SHST QRACFDG Staff WC - 4.6 Staff Toilet & Shower - 4.7

ROOM	Typical Purpose	Typical Response	Special considerations	References
Staff Laundry	Washing staff's personal items of clothing and linen Would this be separate from the Facility Laundry....or could be a part of dirty utility Y/N?	· Acoustic privacy to prevent noise disturbing others · Fixtures: trough, capstan taps, washing machine, dryer · Temperature controlled hot water, cold water · Soap dispenser, paper towel holder · Slip resistant floor (eg sheet vinyl) · Water resistant vertical surfaces eg tiles · Floor waste · GPO's · Heating and cooling · Exhaust · Hooks, shelves · Artificial lighting · Natural lighting (desirable) · Blinds (if windows in room)	· Consider impact of local water quality on all fittings and appliances	Australasian Health Facility Design Guide – Standard Components Room Data Sheets No data / room layout sheets in either DG for this?
Training Room	Conducting training of staff in person and remotely eg using aged care channel	· Acoustic privacy to prevent noise disturbing others · Carpet as above, tiled or sheet vinyl floor · Kitchenette with temperature controlled hot water · Cold water · Soap dispenser, paper towel holder · Refrigerator · GPO's and data points · Table and chairs · Computers · Telephone · Heating and cooling · Natural ventilation · Artificial lighting · Natural lighting · Blinds	· Dual function as staff and meeting room · Access to shaded outside sitting area	AHFDG As per meeting room QRACFDG As per meeting room

ROOM	Typical Purpose	Typical Response	Special considerations	References
Meeting Room	Room to hold meetings	• Acoustic privacy to prevent conversations being overheard • Carpet as above, tiled or sheet vinyl floor • GPO's and data points • Table and chairs • Telephone • Heating and cooling • Natural ventilation • Artificial lighting • Natural lighting • Blinds	• Dual function as staff and training room • Access to outside meeting area	Australasian Health Facility Design Guide – Standard Components Room Data Sheets Meeting - MEET - 9 (refer also 12,15,20&30 for larger rooms) QRACFDG Meeting Room - 1.3
Staff Base	Writing up and keeping resident records	• Acoustic privacy to prevent conversations being overheard • Carpet as above, tiled or sheet vinyl floor • GPO's and data points • Desks and chairs • Computers • Filing Cabinets • Telephone • Heating and cooling • Artificial lighting • Natural lighting (desirable) • Blinds (if windows in room)	• Accommodating function in staff office • Linking to outside areas and key entries and exits for observation • Day lighting is useful in areas where power fluctuations and outages are common • DECT phone communication system where appropriate • Call bells near each bed and in bathroom, option for enlarging for alarms for wandering residents • Staff duress alarm	Australasian Health Facility Design Guide – Standard Components Room Data Sheets Staff Station - SSTN - 10 (refer also 12,14&20 for larger rooms) QRACFDG n/a AHFDG Part E. Building Services & Environment Design Section 2 - Communication QRACFDG Section 7.7 Telecommunications

ROOM	Typical Purpose	Typical Response	Special considerations	References
Office / Interview Room Interview room could be a separate room?	Office for manager which can also be used as a confidential area for meeting with families and staff	· Acoustic privacy to prevent conversations being overheard · Carpet as above, tiled or sheet vinyl floor · GPO's and data points · Desks and chairs · Computers · Filing Cabinets · Telephone · Heating and cooling · Natural ventilation · Artificial lighting · Natural lighting · Blinds	· Day lighting is useful in areas where power fluctuations and outages are common	Australasian Health Facility Design Guide – Standard Components Room Data Sheets Interview Room - INTF-12 Office - OFF-S9 (refer also S12 for larger room) QRACFDG Office - 1.4
Cleaner's Room	Storage of equipment and some supplies for cleaner, cleaning of equipment	· Acoustic privacy to prevent noise disturbing others · Fixtures: cleaner's sink · Hot and cold water · Soap dispenser, paper towel holder · Hand basin · Lever/hands free taps · Slip resistant floor (eg sheet vinyl) · Water resistant vertical surfaces e.g. tiles · Floor waste · Exhaust · Bench · Room trolleys · Mop and broom rack · Artificial lighting · Natural lighting (desirable) · Blinds (if windows in room)	· Additional storage capacity to be determined by restocking supply program. In rural and remote areas delays between ordering and supply may be significant. · Security of cleaning products	Australasian Health Facility Design Guide – Standard Components Room Data Sheets Cleaner's Room - CLRM-5 (refer also 10 for larger room) QRACFDG Cleaner's Room and Store - 5.15
Storage Rooms	Storage of items eg mobility aids, furniture, residents' possessions	· Tiled or sheet vinyl floor · Shelving · Cupboards · Exhaust · Artificial lighting	· Day lighting is useful in areas where power fluctuations and outages are common	Australasian Health Facility Design Guide – Standard Components Room Data Sheets

ROOM	Typical Purpose	Typical Response	Special considerations	References
Drug Store	Storage, preparation and dispensing of medication. To be considered in context of other support services/facilities eg clinic	• Storage of medications. • Size to be determined by frequency of restocking • Drugs fridge on dedicated GPO circuit (with possible UPS backup on this circuit) • Drug safe - subject to category 8 medications to be stored • Bench to prepare drugs • Hand basin / sink • H&C water	• Capacity of medication storage to be determined by supply/restocking program. In rural and remote areas delays between ordering and supply may be significant.	AHFDG Drug Store - STDR-5 (refer also 10 for larger room) Drug Store (accountable Drugs) - STAD QRACFDG Medical Room 5.23
Stationary / Patient Record Store	For storage of office stationery and archives. What about patient records?	• Fixed shelving for paper and stationery • Space for photocopier/fax • Safe location for IT control equipment • 24 hour a/c for IT equip • UPS for GPO circuit for IT equip		AHFDG Photocopy/stationery Store - STPS-8 (refer also 10 for larger room) QRACFDG Paper Store - 1.7
General / Bulk Store	For storage of bulk items not used on regular basis in Facility. Could be split into 2x stores for in larger facilities. (refer also equipment store).	• Fixed shelving - various depths/ heights • Larger delivery area and access doors • Clear floor space for bulk delivery/storage • GPO suitable for charging equip etc	• Additional storage capacity to be determined by restocking supply program	AHFDG Bulk Store - STBK-20 (refer also 40 for larger room) General Store STGEN -8 (refer also 9 for larger room) QRACFDG General Store - 5.20 Loading Dock - 6.5
Equipment Store	For easily accessible storage of wheelchairs and other patient support items	• Fixed shelving - various depths/ heights • GPO for charging equip etc		AFHDG Equipment Store - STEQ-14 (refer also 20 for larger room) QRACFDG Equipment Store - 5.19
Workshop / maintenance store	For storage of equipment and materials for the management and maintenance of the facility and grounds	• Fixed shelving • Work bench • Equipment store • Machinery Store		AFHDG n/a QRACFDG Workshop - 5.25

ROOM	Typical Purpose	Typical Response	Special considerations	References
Consult / Treatment Room	For individual medical consultation	· Couch · Hand basin · Desk and chairs (2x) · GPO · Natural and artificial lighting		AHFDG Consult Room - CON-12 QRACFDG Consult Room - 5.2
Power supply	Emergency power supply	· Carefully define emergency power loads eg drug fridges, lighting · Calculate emergency loads · Circuits installed to match emergency load centres	· Consider battery bank, charged off mains power first · Consider solar recharge · Consider fuel generator last	QRACFDG Section 7.6.3 To provide emergency power for the facility.
Infection control	Throughout the facility	· Hand washing points · Rubbish collection points · Overall waste flow through the facility · Separating resident paths and waste paths		AHFDG Part D. Infection Prevention & Control

BUILDING CODES AND STANDARDS

All Australian governments aim to provide buildings that ensure safety and health. State and territory governments have their own legislation and regulations to achieve this goal. The Building Code of Australia (BCA) and Australian Standards (AS) give detailed information about these requirements. The following table sets out this regulatory system and shows the position of this Guide in relation to these codes, standards or guidelines.

APPENDIX 3

ELECTRICAL SAFETY

SAFETY SWITCHES

A safety switch works by detecting a current leakage. When the safety switch detects this current leakage, it turns the power off almost immediately. While you may still receive an electric shock, the duration will be very short-lived, reducing the risk of serious injury. Safety switches protect people whereas circuit breakers protect the building and electrical wiring.

Where electricity is supplied through a power point (socket outlet), the risk must be minimised by the use of a safety switch.

The type of electrical installation will determine what type of safety switch protection is required:

- New installations - non-portable RCD protection
- Existing installations - portable or non-portable RCD protection

TESTING AND MAINTENANCE OF SAFETY SWITCHES

A safety switch must be tested and maintained.

In the case of a non-portable safety switch or an safety switch that is operated in a fixed position:

- a push-button test that is sufficient to ensure that the tripping mechanism does not fail must be undertaken at least once every 12 months, and
- an operating time-test in accordance with AS/NZS 3760 In-service safety inspection and testing of electrical equipment must be undertaken at least once every three years.

RECORDS OF SAFETY SWITCH TESTING

Construction wiring and non-portable RCD's

The inspection results for non-portable RCDs as required by AS 3760 must be recorded and kept available for audit.

Information to be recorded includes:

- the name of the person or company who performs the test,
- the test date,
- expiry date; and
- identification of faulty equipment and action taken to repair or the removal of the faulty equipment from site.

For more information about electrical safety of switchboards and safety switches refer to the National Indigenous Housing Guide (NIHG)

- Section A1 Electrical Safety
- Item A1.1 Safety switches

For more information on the many factors that may impact on electrical safety refer to the National Indigenous Housing Guide (NIHG)

See NIHG items:

- A1.2 Electrical Earth Connection
- A1.3 Cabling
- A1.4 Rodents, insects and electrical cabling
- A1.5 Power points wired incorrectly
- A1.6 Power points and light switches in wet areas
- A1.7 Power points: general durability
- A1.8 Lights

ENVIRONMENTAL ASSESSMENT TOOL - ACUTE CARE

HANDBOOK

KIRSTY A BENNETT
ASHLEE OSBORNE
RICHARD FLEMING

RESOURCE 7

Suite of Environmental Design Resources

September 2020

Dementia Training **Australia**
ENVIRONMENTS

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Dementia Training Australia

EAT-ACUTE CARE HANDBOOK

KIRSTY A BENNETT
ASHLEE OSBORNE
RICHARD FLEMING

RESOURCE 7

Environmental Design Resources

September 2020

DEMENTIA TRAINING AUSTRALIA

ENVIRONMENTAL DESIGN RESOURCES

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INTRODUCTION

The Environmental Assessment Tool-Acute Care Handbook is the latest addition to Dementia Training Australia's Environmental Design Resources. It is designed to be used in acute health care settings where patients stay for up to a week. (Where patients stay longer, the EAT or EAT-HC is the more appropriate tool to use.)

The purpose of this handbook is to support those who wish to improve acute care environments for people living with dementia. As with other handbooks in this collection, it introduces the reader to a systematic way of looking at the built environment and provides tools that guide the user to an understanding of what needs to be changed, and how the change might be accomplished.

To create a supportive environment for people living with dementia, the environment and operational philosophy need to complement each other. Despite the best efforts of staff, the physical environment sets a limit on what can be achieved in the support of people living with dementia – particularly people who are mobile. A good environment can reduce confusion and agitation, improve wayfinding and encourage social interaction. On the other hand, a poor environment increases confusion and results in behaviour that causes distress to people living with dementia and others, and will eventually reduce staff to a state of helplessness in which they feel that nothing can be done. The effects of a well designed environment on people living with dementia are summarised in Table 1 below.

Table 1: Effects of a well designed environment on people living with dementia

Improvements in:-	Reductions in:-
• Wayfinding • Eating behaviour • Motor functions • Activities of daily living • Self-help skills • Mobility • Pleasure • Use of toilet • Vitality • Interactions between staff and patients • Independence in dressing • Ease of supervision • Likelihood of patients making friends with one another • Quality of life	• Agitation • Anxiety • Conflict • Confusion • Depression • Dyspraxia • Emotional disturbance • Number of falls • Restlessness • Stress associated with bathing • Amount of physical help required • Time spent by staff locating and monitoring patients • Number of attempts to leave • Doses of antibiotics and psychotropic drugs • Going into others people's spaces

There are five parts in this handbook:

Part 1: 'Key Design Principles' contains a description of key design principles

Part 2: 'An Acute Health Care Literature Review' describes the evidence that informs the principles.

Part 3: The 'Environmental Assessment Tool-Acute Care' introduces the tool and provides directions for its use.

Part 4: 'Using the spreadsheet' contains a guide to scoring the EAT-Acute Care and showing the results graphically. It includes a planning template to assist planning for change.

Part 5: 'Applying the principles' provides information about the questions contained in the EAT-Acute Care and outlines design considerations for each of the questions.

Appendix 1: Environmental Assessment Tool-Acute Care

Appendix 2: EAT-Acute Care Planning Template

RESOURCE 7

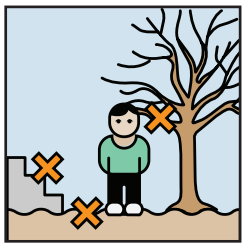
EAT-Acute Care Handbook

PART 1

KEY DESIGN PRINCIPLES

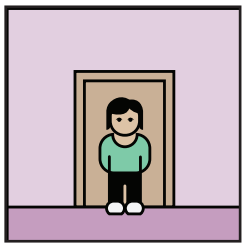
PART 1
KEY DESIGN PRINCIPLES

1. UNOBTRUSIVELY REDUCE RISKS



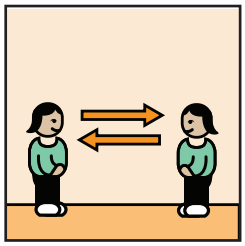
People living with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks such as steps must be removed. All safety features must be unobtrusive as obvious safety features, such as fences or locked doors, can lead to frustration, agitation and anger or apathy and depression.

2. PROVIDE A HUMAN SCALE



The scale of a building can affect the behaviour and feelings of a person living with dementia. The experience of scale is influenced by three key factors; the number of people that the person encounters, the overall size of the building and the size of the individual components (such as doors, rooms and corridors). A person should not be intimidated by the size of the surroundings or confronted with a multitude of interactions and choices. Rather the scale should encourage a sense of wellbeing and enhance the competence of a person.

3. ALLOW PEOPLE TO SEE AND BE SEEN



The provision of an easily understood environment will help to minimise confusion. It is particularly important for people living with dementia to be able to recognise where they are, where they have come from and where they can go. When a person can see key places, such as their bed, a toilet, a place to sit, kitchenette and an outdoor area they are more able to make choices and see where they want to go. Buildings that provide these opportunities are said to have good visual access. Good visual access opens up opportunities for engagement and gives the person living with dementia the confidence to explore their environment. It can also enable staff to see patients. This reduces staff anxiety about the patients' welfare and reassures the patient.

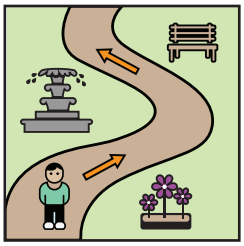
4. REDUCE UNHELPFUL STIMULATION

Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person living with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not specifically helpful to the patient, such as unnecessary or competing noises and the sight of signs, posters, places and clutter that are of no use to the patient. The full range of senses must be considered. Too much visual stimulation is as stressful as too much auditory stimulation.

5. OPTIMISE HELPFUL STIMULATION

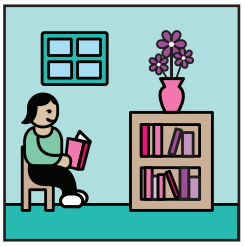
Enabling the person living with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty. Consideration needs to be given to providing redundant cueing i.e. providing a number of cues to the same thing, recognising that what is meaningful to one person will not necessarily be meaningful to another. Using text and image in signs is a simple way to do this. Encouraging a person to recognise their bedroom through the presence of furniture, the colour of the walls, the design of a light fitting and/or the bedspread is a more complex one. Cues need to be carefully designed so that they do not add to clutter and become over stimulating.

6. SUPPORT MOVEMENT AND ENGAGEMENT



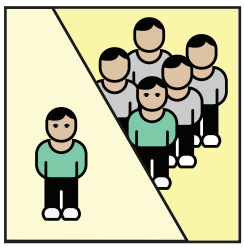
Purposeful movement can increase engagement and maintain a person's health and wellbeing. It is encouraged by providing a well defined pathway, free of obstacles and complex decision points, that guides people past points of interest and opportunities to engage in activities or social interaction. The pathway should be both internal and external, providing an opportunity and reason to go outside when the weather permits.

7. CREATE A FAMILIAR PLACE



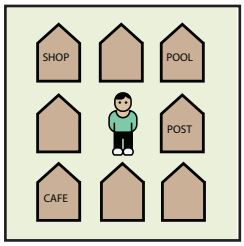
A person living with dementia is more able to use and enjoy places and objects that are familiar to them from their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours. The personal backgrounds of the patients need to be reflected in the environment. The involvement of the person living with dementia in personalising the environment with their familiar objects should be encouraged.

8. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS



People living with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of places in the ward, some for quiet conversation and some for larger groups, as well as places where people can be by themselves. These internal and external places should have a variety of characters, e.g. a place for reading, looking out of the window or talking, to cue the person to engage in relevant activity and stimulate different emotional responses.

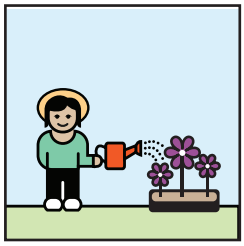
9. LINK TO THE COMMUNITY



Without constant reminders of who they are, a person living with dementia will lose their sense of identity. Frequent interaction with friends and relatives can help to maintain that identity and visitors should be able to drop in easily and enjoy being in places that encourage interaction.

Stigma remains a problem for people living with dementia. Where possible a 'bridge' should be built between the ward and the community by providing a place that is shared by the community and people living with dementia. A coffee shop near the ward, for example, may enable a person living with dementia to go there easily without needing assistance.

10. DESIGN IN RESPONSE TO VISION FOR WAY OF LIFE



While a 'vision for a way of life' may seem out of place in an acute ward because of the focus on treatment and the brevity of the stay, it should be remembered that brief disruptions to the feelings of competence and worth can have a great effect on a person living with dementia. Some hospitals have a very clearly defined vision for a way of life – those that are operated by religious orders, for example. The built environment of these hospitals clearly supports the vision in the way the architecture reflects the values and traditions of the religious order and the spaces provide opportunities for the continuation of valued experiences, e.g. contact with nature, a view of the sky, places for reflection and quiet conversation.

The core of any vision for a way of life is the maintenance of a sense of agency, the feeling that 'I can choose'. So, in its simplest form, the application of the principle of responding to a vision for a way of life involves providing the person living with dementia opportunities to live the life they want to live in the circumstances they are in. In most acute wards these choices are limited but some basic choices should always be available, e.g. to have high or low levels of illumination and the choice of being in a quiet place. If there are no choices available, or if the choices are provided in a way that is not understandable by the person living with dementia, the environment is incapable of supporting any vision for a way of life.

These principles are an extension of work first published in 1987 [1] and continued in 2003[2].

References

1. Fleming, R. and J. Bowles, Units for the confused and disturbed elderly: Development, Design, Programming and Evaluation. Australian Journal on Ageing, 1987. 6(4): p. 25-28.
2. Fleming, R., I. Forbes, and K. Bennett, Adapting the ward for people with dementia, 2003. Sydney: NSW Department of Health.

RESOURCE 7

EAT-Acute Care Handbook

PART 2

AN ACUTE HEALTH CARE LITERATURE REVIEW

PART 2
AN ACUTE HEALTH CARE LITERATURE REVIEW

INTRODUCTION

There has been a substantial amount of research on the effects of aspects of the built environment on people living with dementia. It has usually been aimed at identifying how the environment can be designed or modified to reduce the difficulties experienced by a person living with dementia who is in residential aged care or in hospital.

In 2014 The Agency for Clinical Innovation (ACI) Aged Care Health Network commissioned Professor Richard Fleming and Architect Kirsty Bennett of the NSW/ACT Dementia Training Study Centre (now Dementia Training Australia), University of Wollongong to prepare the Key Principles for Improving Health Care Environments for People with Dementia [4]. It built on the publication "Adapting the Ward' by Richard Fleming, Ian Forbes and Kirsty Bennett that was published in 2003 by the NSW Dept of Health[5].

In 2020 a review of literature published between June 2013 and June 2019 was undertaken to

a) identify any new research related to the 10 evidence based principles and

b) identify any new or emerging areas of research on the impact and design of acute health care environments for people living with dementia.

This literature review focused on the 10 evidence based principles that define an appropriate physical environment for the care of people living with dementia in an acute health care setting (refer Part 1). For many people and their families, hospital is a challenging setting due to the busy, unfamiliar and stressful nature of the environment. Living with a disability, cognitive impairment or the physical, sensory or cognitive impacts of old age can make this experience even more challenging. There is an increasing awareness, supported by research, that the hospital environment has an important role to play in improving the experience of people living with a disability including dementia, those that provide support (family and friends) and those that care for them (medical, nursing, allied health and support staff).

DEMENTIA IN ACUTE HEALTH CARE

Dementia is a major cause of ill health and death in Australia, affecting up to 436,000 Australians in 2018 and causing more than 13,700 deaths in 2017. Dementia is currently the second leading cause of death in Australia and the leading cause of death among Australian females[1].

3 Fleming, R., I. Forbes and K. Bennett (2003). Adapting the ward for people with dementia. Sydney, NSW Department of Health.

According to the Australian Institute of Health and Welfare[1] there were almost 95,000 hospitalisations of people with a diagnosis of dementia during 2016-2017. Of these hospitalisations, 92% involved at least one overnight stay, with an average length of stay of 13 days. This is compared to an average stay of 2.7 days during the same period (2016-17) for people who did not have a diagnosis of dementia[2].

Of those who came to hospital with an existing diagnosis of dementia, dementia was recorded as the principal diagnosis for about 1 in 5 (22%) of these people, and for the other 78% dementia was recorded as an additional diagnosis. Where dementia was an additional diagnosis, the most common principal diagnosis was related to injury (21%), and more than 1 in 3 (36%) of these were for a leg fracture[2].

Hospital admissions were mostly for acute care (72%)—followed by geriatric evaluation and management (8%), maintenance care (7%) and rehabilitation care (6%)—and commonly began with a new admission from the community (70%)[2].

In 2016–17, almost all (97%) hospitalisations with a diagnosis of dementia were assigned to the highest or second highest categories for clinical complexity*. Further, the majority (71%) of dementia hospitalisations were of the highest clinical complexity, compared with 16% of hospitalisations of people without a diagnosis of dementia[3].

**Clinical complexity, is based on the Australian refined diagnosis related group (AR-DRG) assigned to each hospitalisation. AR-DRGs classify units of hospital output. The classification groups inpatient stays into clinically meaningful categories of similar levels of complexity (outputs) that consume similar amounts of resources (inputs).*[3]

A REVIEW OF THE LITERATURE

A review of the literature shows that there is sufficient support for the key principles of design (Refer Part 1) to be used to structure the way we understand the impact the built environment can have on people living with dementia. This is not to say that the principles provide a black or white answer, a right or wrong view. These are best seen as a starting point for a conversation, and there are a number of factors to take into account when applying them. The evidence is discussed below according to the key design principles. This will assist the reader to understand the content and structure of the EAT-Acute Care.

PRINCIPLE 1. Unobtrusively reduce risks

People living with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks such as steps must be removed. All safety features must be unobtrusive as obvious safety features, such as fences or locked doors, can lead to frustration, agitation and anger or apathy and depression.

2.1 Evidence base

A person living with dementia will often experience confusion as their cognitive ability declines. This is likely to be heightened in an unfamiliar setting such as a hospital, and when the person is under stress. Incorporating safety measures into an environment is desirable to minimise the possibility of harm resulting from this situation.

Safety measures often include the provision of a secure perimeter[6] There is some evidence that there is an overemphasis on safety in British[7] and Australian healthcare facilities providing care to people living with dementia [8], and it is important to note that patients may respond negatively to a safety or security measure if it obviously impedes their freedom[9-11]. Freedom of movement (or lack of it) has been identified as an important theme in the experience of patients with dementia in hospital. Inhibiting freedom of movement can create tension and may result in constant negotiation being needed between patients and staff.[12] Providing any safety measures as unobtrusively as possible is the best way to avoid these negative outcomes [13, 14]. In the case of a perimeter fence, for example, planting can be used to hide a fence that is intended to prevent someone from leaving the area when it might not be safe for them to do so. In this instance, rather than seeing a fence, a person will see a garden, an opportunity rather than a barrier.

In research where people living with dementia have been asked about their experiences in acute care settings, the provision of a place of safety was identified as a key theme. However, safety meant not only physical safety but also feeling emotionally and psychologically safe.[15, 16]

The safety and wellbeing of all patients needs to be considered, and sometimes a purpose designed inpatient unit for people living with dementia is desirable (for them and for other patients).[17] These units ideally include more space (at least 30 square meters per patient),[18] a garden, a quiet area, a place to be away from other patients, and a place for activities. There should also be a specific model of care.[17, 19, 20]

The prevention of falls is another key safety concern although Australian data is not readily available to support this. The provision of specialised care has been shown to reduce falls.[21] A significant reduction in injuries associated with falls has been achieved in some settings by providing furniture that puts the person living with dementia closer to the ground through the use of bean bag chairs, futons and mattresses placed on the floor.[22] This approach ensures that if a fall does take place, it does not occur from a great height. There is, however, significant concern that this is still a form of restraint, as is the use of bed rails. It is also interesting to note that evidence from a study involving 2000 patients suggests that the physical restraint of cognitively impaired patients does not reduce the risk of falls.[23] A review of the literature

on people with dementia falling in hospitals concluded that multi-faceted approaches are required to reduce falls, and that there is insufficient evidence to support dependence on any single approach (such as the use of restraints or modifications to the environment).[24] This view is supported in a thorough review of the use of restrictive devices to minimise the risk of falling in people with dementia.[25]

PRINCIPLE 2. Provide a human scale

The scale of a building can affect the behaviour and feelings of a person living with dementia. The experience of scale is influenced by three key factors; the number of people that the person encounters, the overall size of the building and the size of the individual components (such as doors, rooms and corridors). A person should not be intimidated by the size of the surroundings or confronted with a multitude of interactions and choices. Rather the scale should encourage a sense of wellbeing and enhance the competence of a person.

2.2 Evidence base

The development of special care units for people living with dementia has been influenced by the view that larger facilities increase agitation and are confusing for residents[26, 27] and high quality care is easier to provide in small groups.[14, 28] However, a small scale unit is almost always accompanied by a particular approach to the delivery of care, such as providing a homelike environment that focusses on activities of daily living.[29]

The variation in models of care may explain the variation in the findings on this topic. Zeisel, for example, found less social withdrawal in larger units [13], while a large study found no link between small size and low levels of neuropsychiatric symptoms.[30] The relative importance of the model of care as a modifier of behaviour (rather than size of unit) has also been noted in long term hospital care settings.[31] In aged care, the evidence tends to suggest that the best outcomes occur when the resident lives in a small unit but has access to a larger social network.

The theme of access to other areas for social interaction to reduce patient density has been picked up in the acute care literature with suggestions for providing direct access to usable outdoor space as well as providing access to open communal areas.[32]

A domestic scale and feel have been recommended in the acute care setting in order to make the inpatient experience more familiar and less confusing.[32-34] Compact units have been found to provide greater comfort, a more homelike atmosphere, better opportunities for monitoring patients.[35] improved orientation and prevention of alienation.[36]

Long corridors in acute care settings have been identified as potentially overwhelming, and recommendations have been made that circulation routes should be subdivided to create a more human scale, with clearly identifiable staff bases to aid orientation.[36]

PRINCIPLE 3. Allow people to see and be seen

The provision of an easily understood environment will help to minimise confusion. It is particularly important for people living with dementia to be able to recognise where they are, where they have come from and where they can go. When a person can see key places, such as their bed, a toilet, a place to sit, kitchenette and an outdoor area they are more able to make choices and see where they want to go. Buildings that provide these opportunities are said to have good visual access. Good visual access opens up opportunities for engagement and gives the person living with dementia the confidence to explore their environment. It can also enable staff to see patients. This reduces staff anxiety about the patients' welfare and reassures the patient.

2.3 Evidence base

Confusion may be reduced for a person living with dementia when she or he can see everywhere that she or he wants to go to from wherever they are. While acute care buildings are often large (making this difficult to achieve), if they are seen as being made up of many different components this principle which focusses on providing good visual access can be applied to each part of the building.

This principle defined the plans of the purpose designed CADE units built by the NSW Department of Health in the late 1980's. These units were shown to improve self-help, socialization and behaviour.[37, 38] It is also associated with improved orientation.[39, 40] Disorientation has been found to be less pronounced in L, H and square shaped units where the key locations such as dining and activity rooms were located together[40] and where the straight line layout of the circulation system (ie without any change of direction of the corridors) provided good visual access.[27]

Good visual access also provides benefits for the staff. If staff can see the patients from the places where they spend most of their time, this reduces staff anxiety. At the same time if patients can see staff this will help them feel supported. It is not surprising that staff working in facilities with good visual access spend less time locating and monitoring their patients.[35] The decentralisation of nurses' stations to small bays, which allow staff to readily monitor their patients and patients to see staff, has been found to reduce the use of the nurse call system.[42] An identified challenge for patients living with dementia within a busy, noisy hospital ward is to balance the need for ease of observation (good visual access) with the patient's need for a quieter location with less stimulation. The former is often best achieved near the busy, noisy staff base, and the latter by placing the patient in a side room or a quiet out-of-the-way area which is likely to have poorer visual access.[43]

PRINCIPLE 4. Reduce unhelpful stimulation

Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person living with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not specifically helpful to the patient, such as unnecessary or competing noises and the sight of signs, posters, places and clutter that are of no use to the patient. The full range of senses must be considered. Too much visual stimulation is as stressful as too much auditory stimulation.

2.4 Evidence base

A person living with dementia experiences difficulty in coping with a large amount of stimulation.[44] It is important therefore, that the environment is designed to reduce the impact of unhelpful stimulation.[45] Hospital environments are not optimised for people living with dementia, as they are often noisy, busy and impersonal, as well as confusing and disorientating.[43, 46, 47]

There is strong evidence that people living with dementia are less verbally aggressive where sensory input is more understandable, and where such input is more controlled.[13] Many patients living with dementia are extremely sensitive to their auditory environment, and in particular, to noise levels which at times may be high within a hospital ward[48, 49] and may make it difficult for them to communicate their needs.[43] There needs to be a high degree of acoustic control in inpatient common spaces[50-53] as reducing noise in these areas may reduce agitation. Additionally, other potentially overstimulating environmental factors should be considered such as appropriate lighting and temperature.[54]

Busy entry doors pose particular problems for staff and patients as they are a constant source of over stimulation and offer patients an invitation to leave. This can be avoided by positioning doors so that they are not the main focus and destination in the unit.[35] and ensuring that door closing mechanisms are designed to minimise noise. Murals are sometimes used to hide doors but need to be used thoughtfully as they are not an optimal solution to a door that is causing distress.[55]

Hospital wards are busy environments with large amounts of equipment, people and furniture. Reducing clutter on wards can reduce sensory overstimulation for patients with dementia which may reduce apprehension, anxiety and psychological distress.[15]

Another issue within a hospital environment is the impact of complex technology such as the building itself, diagnostic, treatment, information and communication technology. Consideration should be given to how a patient living with dementia may be expected to interact with these technologies and how they may contribute to unhelpful stimulation during a hospital stay.[56]

The goal is to provide the patient living with dementia with an optimum level of stimulation. This requires achieving a balance between reducing unhelpful stimulation and enhancing stimuli that aid orientation and engagement as described under the next principle.

PRINCIPLE 5. Optimise helpful stimulation

Enabling the person living with dementia to see, hear and smell things that give them cues about where they are and what they can do, can help to minimise their confusion and uncertainty. Consideration needs to be given to providing redundant cueing i.e. providing a number of cues to the same thing, recognising that what is meaningful to one person will not necessarily be meaningful to another. Using text and image in signs is a simple way to do this. Encouraging a person to recognise their bedroom through the presence of furniture, the colour of the walls, the design of a light fitting and/or the bedspread is a more complex one. Cues need to be carefully designed so that they do not add to clutter and become over stimulating.

2.5 Evidence base

As a person living with dementia experiences difficulty in coping with a large amount of stimulation.[44] it is important that the things in the environment that are most important to them are emphasized. As noted above, the goal is to provide the patient living with dementia with an optimum level of stimulation. This requires achieving a balance between reducing unhelpful stimulation and enhancing stimuli that aid orientation and engagement.

The available evidence suggests that signage alone has limited effectiveness in promoting wayfinding and spatial orientation for patients living with dementia.[57] These patients require multiple forms of environmental support to achieve mobility and independent wayfinding including direct visual access (such as a clear view to the toilet door), appropriate use of contrast to highlight key features and other visual cues, in addition to good signage. When signage and other navigational aids are used to assist in wayfinding they should be integral to the design of environments for people living with dementia.[53, 58, 59] and have been associated with a reduction in negative responses from the patient.[60] The placement and content of signs is important; signs placed low and combining pictorial elements and simple nomenclature are most effective.[57, 61] Signs for patients and visitors should be clear and wall mounted signage should be highlighted by a contrasting wall background, while those that are only relevant to staff should not stand out.[62]

Personalised signs and cues may be used to good effect.[63] Within a multi bed room, the use of signs and cues (such as a bedspread or photos at the patient's bedside) is important to help a person identify their place in the room.

There is some evidence that the use of colour to distinguish the doors to residents' rooms in residential aged care has a beneficial effect[52] and the display of personal memorabilia outside the room may be of some benefit in wayfinding.[63, 64] Hospital data is limited.

Contrasting the object to be seen with its background is one of the most powerful ways of enhancing helpful stimulation. However, contrast can have negative effects when it takes the form of sharp edges between floorcoverings, or geometric patterns which can be seen as steps by people living with dementia.[65] This should be avoided.

Contrast is useful to help patients living with dementia eat well. Appropriate lighting and temperature and greater colour contrast between the

tablecloth, place mats and dishes may result in improved nutritional intake and less agitation.[66, 67]

High levels of illumination are often recommended.[68, 69] People with dementia in institutional settings are often exposed to inadequate levels of bright light.[70] Increasing illumination to normal levels has been shown to regulate circadian rhythms and improved sleep patterns for people living with dementia,[69, 71, 72] however some studies have shown that high levels of illumination are associated with increased agitation.[54, 71,74]

Consideration should be given to the position of artificial light at the bed to ensure that glare is avoided.[56] Adjustable task lighting for the patient, and adequate light for staff when attending to patient clinical care needs should be considered. Staff task lighting at night should minimise disturbance to patients.[36]

There is some evidence suggesting that sunlight in patient rooms can reduce depression, which may be relevant as depression is often found in people living with dementia.[69, 75]

PRINCIPLE 6. Support movement and engagement

Purposeful movement can increase engagement and maintain a person's health and wellbeing. It is encouraged by providing a well defined pathway, free of obstacles and complex decision points, that guides people past points of interest and opportunities to engage in activities or social interaction. The pathway should be both internal and external, providing an opportunity and reason to go outside when the weather permits.

2.6 Evidence base

Poorly designed environments can contribute to the agitated mobilisation that is sometimes seen in patients living with dementia.[76]

Controlling movement by obvious security measures can be counterproductive, as seen when patients hover around prominently locked exit doors waiting for an opportunity to leave.

The provision of a walking path has been shown to be associated with lower levels of agitation.[13] It should be noted, however, that the provision of a walking path alone does not reduce neuropsychiatric symptoms[30]; it is necessary for someone to interact with the patients while they are outside for benefits to occur.[77] An innovative study of the external environment in the community provides some clear guidance on the characteristics that make the outside world friendly to people living with dementia. It should be familiar, legible, distinctive, accessible, comfortable and safe.[78] Access to an outside area is also associated with reduced sadness and increased pleasure.[36, 79] In addition, research suggests that even a view to a garden can improve a person's responses[80] and can have a positive impact on mood.[88,82]

If patients living with dementia are offered attractive alternatives to aimless movement they are likely to take them, so it is important that a path takes them past areas of comfort and interest.[36, 83] Access to appropriate places to walk can provide exercise, and may contribute to better sleep at night if the person living with dementia is tired in a beneficial way from meaningful

activity during the day.[84] Helping a patient living with dementia to stay active can help her or him to stay motivated, increase self esteem and reduce boredom and anxiety. Meaningful, enjoyable activities can assist in staying active,[85] with some limited research showing maintenance or even improvement in mobility and a reduction in falls when patients living with dementia are kept engaged.[86] Patients living with dementia commented in one study[15] that while traffic in the corridors was heavy and fast paced and staff were under time pressure to get their tasks done, the patients, by contrast, sat for hours and had nothing to do. The researchers comment that "the issue of profound boredom was a consistent theme expressed by all participants".[15]

PRINCIPLE 7. Create a familiar place

A person living with dementia is more able to use and enjoy places and objects that are familiar to them from their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours. The personal backgrounds of the patients need to be reflected in the environment. The involvement of the person living with dementia in personalising the environment with their familiar objects should be encouraged.

2.7 Evidence base

People living with dementia recall the distant past more easily than the recent past. This may explain the beneficial effects associated with them being in an environment that is familiar to them.

The opportunity for residents of aged care facilities to increase the familiarity of their surroundings by bringing in their own belongings has been associated with the maintenance of activities of daily living and reductions in aggression, anxiety and depression.[87]

In an acute environment, the use of personalisation cues (such as furnishings, portrait photos and shadow boxes) may not be as feasible due to shorter length of stay, frequent turnover of patients and more demanding infection control regulations.[88, 89] However, the use of personalised cues in acute care settings should be attempted wherever possible. Consideration should be given to differentiating bed spaces and rooms, and providing some limited capacity for personal objects such as dressing gowns and small items.[88, 89] Supporting patients to personalise their spaces has been shown to aid recognition and reduce anxiety.[90] When differentiating bed spaces/rooms, research suggests that basic design principles be considered: large format graphics, positioned at an appropriate height for good visual access, appropriate location, good lighting and use appropriate contrast.[88, 90] It has been noted that during research interventions these environmental cues were only effective when introduced and explained by ward staff to the patients, and the reinforcing of these cues was embedded in the daily work of staff. The wayfinding impact of these measures, however, remained limited.[88]

The unfamiliar hospital environment may contribute to disorientation, and may cause distress and agitation (ie negative patient responses).[89, 91, 92] This may also adversely impact on the completion of activities of daily

living.[93] Making the healthcare environment as familiar as possible has been recognised as contributing to the avoidance of agitation and disorientation,[94, 95] and to improving staff morale on institutional psychiatric inpatient units.[96] Limiting the number of times a patient moves from ward to ward should be given priority as this avoids a patient living with dementia having to relearn their environment over and over. Literature also suggests that nutritional status may be improved and altered by a number of environmental factors, including creating a more familiar dining atmosphere.[54, 92]

While it is possible for people living with dementia to learn to use new technologies, this is not easy and requires a great deal of support from skilled staff.[97] It is much easier, more practical and, possibly, more pleasant for the person living with dementia to be provided with fittings (such as taps and switches) that they can use because their use is recorded in their long term memory, rather than teach a new response when a person is already in a new setting.

People living with dementia who come from other cultures are at particular risk of finding themselves in an unfamiliar environment. A detailed knowledge of a person's personal history, heritage, customs and beliefs is required to provide an environment that will help someone make the most of their abilities and support person centred care.[85, 98]

PRINCIPLE 8. Provide a variety of places to be alone or with others

People living with dementia need to be able to choose to be on their own or spend time with others. This requires the provision of a variety of places in the ward, some for quiet conversation and some for larger groups, as well as places where people can be by themselves. These internal and external places should have a variety of characters, e.g. a place for reading, looking out of the window or talking, to cue the person to engage in relevant activity and stimulate different emotional responses.

2.8 Evidence base

People living with dementia benefit from being able to seek company of others or be on their own.

The provision of rooms for different functions has been shown to be a hallmark of dementia specific units in a survey involving 436 Minnesota nursing homes.[58] The strongest evidence for its importance comes from Zeisel's well controlled study[13] which indicated that residents with the opportunity to enjoy privacy were less anxious and aggressive, and those who had access to a variety of common spaces with varying ambiance were less socially withdrawn and depressed. The time residents of aged care homes spend in active behaviour has been shown to be associated with the provision of a variety of spaces,[99] and patients in special care units have been described as enjoying the opportunity to be alone and in social spaces.[35]In an acute care setting, the provision of social spaces away from the bed provides opportunities for privacy and for socialisation.[36] These spaces should be easy to access, welcoming and integral to the ward.[36]

Single rooms are important for most people living with dementia as they provide them with an opportunity to withdraw when they feel threatened

or uncomfortable.[100, 101] Single rooms have been associated with a reduction in the need for intervention, including medications, and improvements in sleeping.[56, 102] The opportunity for patients to spend time elsewhere contributes to privacy and choice.[103] However, single rooms result in a reduction in social interaction and reduced staff observation capacity and so the provision of these for people living with dementia should be carefully considered, with some research supporting the idea of low occupancy, single sex, shared rooms.[36] Greater patient safety and social interactions were identified as benefits of shared rooms.[56, 104] Based on current research the issue remains a topic for debate for patients living with dementia.

Specific recommendations for providing a variety of spaces within an inpatient unit have been identified[105] and they include 'dedicating space for social interaction, clearly indicating a room's intended use, making areas visually distinct so that the intended use of different parts can be delineated from their appearance, using colours to enhance activities and spaces, using various materials to provide different tactile and visual experiences, using lighting to help define space, and finally, making the spaces that have special meaning to patients stand out.'[105]

PRINCIPLE 9. Link to the community

Without constant reminders of who they are, a person living with dementia will lose their sense of identity. Frequent interaction with friends and relatives can help to maintain that identity and visitors should be able to drop in easily and enjoy being in places that encourage interaction.

Stigma remains a problem for people living with dementia. Where possible a 'bridge' should be built between the ward and the community by providing a place that is shared by the community and people with dementia. A coffee shop near the ward, for example, may enable a person living with dementia to go there easily without needing assistance.

2.9 Evidence base

A person living with dementia will benefit from remaining connected to their family, friends and neighbourhood. Avoiding isolation which can lead to a person's withdrawal is important.

Having a hospital situated within the community can support not only ease of access for the patient living with dementia, but also for those accompanying them to hospital, family, friends and the wider community. Age and dementia friendly communities can help support equality and equity of access and maintenance of these community relationships for patients with dementia.[56]

Family members as 'competent collaborative partners in care' or 'expert advocates' can make an important contribution to care within the acute health care environment.[85, 106] Providing an environment that can support an appropriate family member to stay overnight with the patient living with dementia may help them feel safe and secure and provide dignified care.[85, 107] Providing a comfortable space for families to visit can increase social support for the patient.[82]

The provision of links to the community in a healthcare context involves encouraging visitors. This has been picked up by some architects as described by Poulter[108] "The idea is to include in the design a welcoming, caring environment for the patient, the visitor, and the neighbourhood,". This is achieved by creating spaces that are sensitive to the patient and family experience, welcome visitors, minimise patient confusion and anxiety, offer positive diversion to patients and families, provide features that are visually and audibly soothing (eg water features) and encourage wonder and playfulness.[56]

PRINCIPLE 10. Design in response to vision for way of life

While a 'vision for a way of life' may seem out of place in an acute ward because of the focus on treatment and the brevity of the stay, it should be remembered that brief disruptions to the feelings of competence and worth can have a great effect on a person living with dementia. Some hospitals have a very clearly defined vision for a way of life – those that are operated by religious orders, for example. The built environment of these hospitals clearly supports the vision in the way the architecture reflects the values and traditions of the religious order and the spaces provide opportunities for the continuation of valued experiences, e.g. contact with nature, a view of the sky, places for reflection and quiet conversation.

The core of any vision for a way of life is the maintenance of a sense of agency, the feeling that 'I can choose'. So, in its simplest form, the application of the principle of responding to a vision for a way of life involves providing the person living with dementia opportunities to live the life they want to live in the circumstances they are in. In most acute wards these choices are limited but some basic choices should always be available, e.g. to have high or low levels of illumination and the choice of being in a quiet place. If there are no choices available, or if the choices are provided in a way that is not understandable by the person living with dementia, the environment is incapable of supporting any vision for a way of life.

2.10 Evidence base

The environment plays a vital role in enabling the care that takes place within it. Having a clearly articulated model of care is essential if an environment is to be supportive of people living with dementia.

Over the last twenty five years there has been extensive interest in providing 'homelike' environments for people living with dementia.[109] This is the approach that was reflected in the first edition of Adapting the Ward.

Whether the values and goals of care are focused on the ordinary activities of daily life or not, the need to have a clearly formulated philosophy of care to guide the design of healthcare facilities has been recognised.

Poulter writes:

"Health care providers are beginning to recognise the important role physical space plays in defining quality care experiences - not only for patients, but

also for visitors, families, physicians, and staffers. One of the most notable trends is many hospitals' efforts to incorporate the concept of holistic care in facility design. Whether it's the familiar Planetree model philosophies such as "Patients First" or the "Healing Environment," or some other attitudinal framework, the goal is to meet patients' biological, psychological, and social needs and help them attain higher levels of wellness. And these efforts are paying off-in increased patient, family, and physician satisfaction."[108]

The advantages of going beyond a simple medical model aimed at the efficient delivery of medical services is becoming apparent[53] and in Australia can be seen in the design of the Royal Children's Hospital in Melbourne, for example. The application of this approach to the development of appropriate models of care for people living with dementia, and their embodiment in the built healthcare environment, remains largely unexplored. However, a systematic review of over 600 papers on the impact of art, design and the environment in mental healthcare[110] concluded that

"...exposure to the arts may reduce anxiety and depression in specific groups of patients. Further, there is evidence that the arts can positively affect clinical and behavioural outcomes." [92]

This underlines the opportunity for the creative use of the environment in the pursuit of a variety of goals.

There has also been recognition of the importance of a supportive 'culture of care' within health care organisations to support staff to provide good care for a patient living with dementia and to legitimise practices so that they are valued by staff.[111] Staff education may be required to ensure staff understand their interaction with the environment and the impact on the person living with dementia (for example, the benefits of access to outdoor spaces)[84, 92]

The domestic, or homelike, environment may continue to be of interest in a healthcare setting because of the expectation that patients will be discharged to continue to live their lives as independently as possible. In a domestic or homelike environment the goal of care is to maintain the person's activities of daily living abilities for as long as possible. This requires that patients have access to all of the normal household facilities and encouragement to use their abilities.[112] It has been shown that the introduction of a small number of homelike features into an institutional environment resulted in a reduction in pacing, agitation and exit seeking[113] and improved social interaction and eating behaviour.[114]

PART 2
REFERENCES

1. Australian Institute of Health and Welfare, Australia's health 2018. , in *Australia's health series no. 16. AUS 221*. 2018, AIHW: Canberra.
2. Alzheimer's Australia, *Dementia Care in the acute hospital setting: issues and strategies a report For Alzheimer's Australia*, in *paper 40*. 2014, Alzheimer's Australia.
3. Australian Institute of Health and Welfare, *Dementia care in hospitals: costs and strategies*. , in *Cat. no. AGE 72*. 2013, AIHW: Canberra.
4. Fleming, R. and K. Bennett, *Key Principles for Improving Healthcare Environments for People with Dementia*. 2014, Agency for Clinical Innovation: Chatswood, NSW.
5. Fleming, R., I. Forbes, and K. Bennett, *Adapting the ward for people with dementia*. 2003, NSW Department of Health: Sydney.
6. R, R., et al., *Care Needs of People with Dementia and Challenging Behaviour Living in Residential Facilities - Residential Dementia Care: Environments, Care Practices, Staffing and Philosophy*, , in *Working Paper No 3*. 1997, Australian Government Publishing Service: Canberra.
7. Parker, C., et al., *Quality of Life and Buidling Design in Residential and nursing homes for older people*. Ageing & Society, 2004. **24**: p. 941-962.
8. Moyle, W., et al., *Acute care management of older people with dementia: A qualitative perspective*. Journal of clinical nursing., 2011. **20**: p. 420-428.
9. Low, L.F., B. Draper, and H. Brodaty, *The relationship between self-destructive behaviour and nursing home environment*. Aging and Mental Health, 2004. **8**: p. 29-33.
10. Torrington, J., *What has architecture got to do with dementia care? Explorations of the relationship between Quality of Life and building design in two EQUAL projects*. Quality in Ageing 2006. **7**: p. 34.
11. Health.., D.o., *Healthcare Building Note 08-02: Dementia-friendly health and social care environments*. 2015: London.
12. Van Steenwinkela, I., B. Dierckx de Casterléb, and A. Heylighena, *How architectural design affords experiences of freedom in residential care for older people*. Journal of Aging Studies, 2017. **41**: p. 84-92.
13. Zeisel, J., et al., *Environmental correlates to behaviour health outcomes in ALzheimer's speical care units*. The Gerontologist, 2003. **45**: p. 697.
14. Annerstedt, L., *Development and consequences of group living in Sweden: a new mode of care for the demented elderly*. Social Science & Medicine, 1993. **37**(12): p. 1529-1538.
15. Hung, L., et al., *"Little things matter!" Exploring the perspectives of patients with dementia about the hospital environment*. International Journal of Older People Nursing, 2017. **12**(3).
16. Van Steenwinkel, I., C. Van Audenhove, and A. Heylighen, *Offering architects insights into experiences of living with dementia: A case study on orientation in space, time, and identity*. Dementia, 2019. **18**(2): p. 742-756.
17. Remen, S., *How can you keep your psychiatric patients safe?* Michigan Hospitals, 1992. **28**: p. 21-7.
18. O'Brien, L. and R. Cole, *Close-observation areas in acute psychiatric units: a literature review*. Internation Journal of Mental Health Nursing, 2003. **12**: p. 165-176.
19. Thomas, B., et al., *PRN Medication use in a psychiatric high-dependency unit following the introduction of a nurse-led activity programme*. Interntaional Journal of Mental Health Nursing, 2006. **15**(4): p. 266-271.
20. Zeischang, T., et al., I*mproving care for patients with dementia hospitalized for acute somatic illness in a specialized care unit: a feasability study*. International psychogeriatrics, 2010. **22**: p. 139-146.
21. Gonski, P. and I. Moon, *Outcomes of a behavioural unit in an acute aged care service*. Archive of Gerontology and Geriatrics., 2012. **55**: p. 60-65.
22. Scandura, D., *Freedom and safety. A Colorado center cares for Alzheimer's patients*. . Health progress, 1995. **76**(3): p. 44-46.
23. Kwok, T., et al., *Effect of physical restraint reduction on older patients' hospital length of stay*. Journal of the American Medical Directors Association, 2012. **13**(7): p. 645-650.
24. Oliver, D., et al., *Strategies to prevent falls and fractures in hospitals and care homes and effect of cognitive impairment: systematic review and meta-analyses*. . BMJ, 2007. **334**(7584): p. 82-5.
25. Capezuti, E., *Minimizing the use of restrictive devices in dementia patients at risk for falling*. The Nursing Clinics of North America., 2004. **39**(3): p. 625-647.
26. Sloane, P.D., et al., *Environmental correlates of resident agitation in Alzheimer's disease special care units*. . Journal of the American Geriatrics Society, 1998. **46**: p. 862-869.
27. Hägglund, D., *A systematic literature review of incontinence care for persons with dementia: the research evidence*. . Journal of clinical nursing., 2010. **19**: p. 303-312.
28. Reimer, M.A., et al., *Special care facility compared with traditional environments for dementia care: a longitudinal study of quality of life*. Journal of the American Geriatrics Society, 2004. **52**: p. 1085-1092.
29. Verbeek, H., et al., *Small-scale, homelike facilities in dementia care: a process evaluation into the experiences of family caregivers and nursing staff*. . International journal of nursing studies., 2012. **49**(1): p. 21-29.
30. Zuidema, S.U., et al., *Environmental correlates of neuropsychiatric symptoms in nursing home patients with dementia*. International Journal of Geriatric Psychiatry., 2010. **25**(1): p. 14-22.
31. Bowie, P. and G. Mountain, *The relationship between patient behaviour and environmental quality for the*

dementing. . International Journal of Geriatric Psychiatry., 1997. **12**(7): p. 718-723.

32. Remen, S., *Signs, symbols, and the psychiatric environment.* . The Psychiatric Hospital, 1991. **22**(3): p. 113-118.
33. New Zealand Ministry of Health, *Criteria for the design and refurbishment of psychiatric acute and intensive care facilities: a statement from the Ministry of Health.* 2002, Government of New Zealand.
34. Fottler, M.D., et al., *Creating a healing environment: The importance of the service setting in the new consumer-oriented healthcare system.* . Journal of Healthcare Management, 2000. **45**(2): p. 91-106.
35. Morgan, D.G. and N.J. Stewart, *The physical environment of special care units: Needs of residents with dementia from the perspective of staff and family caregivers.* Qualitative health research, 1999. **9**(1): p. 105-118.
36. Catt, M. and R. Giridharan, *The Reality of Well-Being-Focused Design in Dementia Care: A Case Study of Acute Dementia Wards in the United Kingdom.* HERD: Health Environments Research & Design Journal, 2018. **11**(4): p. 130-149.
37. Fleming, R. and J. Bowless, *Units for the confused and disturbed elderly: Development, design, programming and evaluation.* . Australian Journal on Ageing, 1987. **6**(4): p. 25-28.
38. Atkinson, A., *Managing people with dementia: CADE units.* . Nursing standard (Royal College of Nursing (Great Britain), 1995. **9**(25): p. 29-32.
39. Passini, R., et al., *Wayfinding and dementia: Some research findings and a new look at design.*, . Journal of Architectural and Planning Research., 1998: p. 133-151.
40. Marquardt, G., *Wayfinding for people with dementia: a review of the role of architectural design.* . HERD: Health Environments Research & Design Journal., 2011. **4**(2): p. 75-90.
41. Elmstahl, S., L. Annerstedt, and O. Ahlund, *How should a group living unit for demented elderly be designed to decrease psychiatric symptoms?* Alzheimer disease and associated disorders, 1997. **11**: p. 47-52.
42. Burns, A., Dementia. *Help patients see more clearly.* . The Health service journal., 2011. **121**(6282): p. 26-27.
43. Hunter, K.F., et al., *Balancing safety and harm for older adults with dementia in rural emergency departments: healthcare professionals' perspectives.* Rural & Remote Health, 2017. 17.
44. Harrington, T., *Perception and psychological psychology in design for older people.* 1998, 14th Nordic Geodetic Commission.: Trondheim.
45. Cleary, T.A., et al., *A reduced stimulation unit: Effects on patients with Alzheimer's disease and related disorders.* . The Gerontologist, 1988. **28**(4): p. 511-514.
46. Diaz-Gil, A., et al., *Care needs of people with dementia in the peri-operative environment: A systematic review.* Dementia, 2018.
47. Thompson, R., *Transforming dementia care in acute hospitals.* Nursing Standard, 2015. 30(3): p. 43-48.
48. Anderson, D.C., *Bricks and Morals—Hospital Buildings, Do No Harm.* Journal of General Internal Medicine, 2019. **34**(2): p. 312-316.
49. Delaney, L.J., M.J. Currie, and H.C. Huang, *"They can rest at home": an observational study of patients' quality of sleep in an Australian hospital.* BMC Health Serv Res, 2018. **18**(524).
50. Bergsland, K., *Space in Mind. Journal for Healthcare Design and Development.*, 2002. **33**: p. 18-24.
51. Harris, S., et al., *A place to heal: environmental sources of satisfaction amongst hospital patients.* Journal of Applied social psychology, 2002. **32**: p. 1276-1278.
52. Lawton, M.P., M. Fulcomer, and M.H. Kleban, *Architecture for the mentally impaired elderly.* Environment and Behavior, 1984. **16**(6): p. 730-757.
53. Edvardsson, D. and R. Nay, *Acute care and older people: challenges and ways forward.* . The Australian Journal of Advanced Nursing, 2009. **27**(2): p. 63.
54. Douglas, J.W. and J.C. Lawrence, *Environmental Considerations for Improving Nutritional Status in Older Adults with Dementia: A Narrative Review.* Journal of the Academy of Nutrition and Dietetics, 2015. **115**(11): p. 1815-1831.
55. Marshall, M., *Talking Murals.* 2019, Sydney: HAmmondCare Media.
56. Grey, T., et al., *Dementia Friendly Hospitals from A universal Design Approach: Design Guidelines.* 2018.
57. Kleibusch, K., *Wayfinding & Dementia: How Design Can Improve Navigation Among Older Adults in Assisted-Living Facilities.* . SPNHA Review, 2018. **14**: p. 5.
58. Grant, L.A., R.A. Kane, and A.J. Stark, *Beyond labels: nursing home care for Alzheimer's disease in and out of special care units.* . Journal of the American Geriatrics Society, 1995. **43**(5): p. 569-576.
59. Passini, R., et al., *Wayfinding in a nursing home for advanced dementia of the Alzheimer's type.* . Environment and Behavior, 2000. **32**(5): p. 684-710.
60. Bianchetti, A., et al., *An Italian model of dementia special care unit: results of a pilot study.* . Alzheimer disease and associated disorders, 1997. **11**(1): p. 53-56.
61. Namazi, K.H. and B.D. Johnson, *Physical environmental cues to reduce the problems of incontinence in Alzheimer's disease units.* American Journal of Alzheimer's Care and Related Disorders & Research, 1991. **6**: p. 22-28.
62. Dinshaw, C., *Surveying nursing practice on wards for older people with mental health needs.* . Nursing older people, 2006. **18**.
63. Namazi, K.H., T.T. Rosner, and L. Rechlin, *Long-term memory cueing to reduce visuo-spacial disorientation in Alzheimer's disease patients in a special care unit.* American Journal of Alzheimer's Disease and other dementias, 1991. **6**: p. 10-15.
64. Nolan, B.A., R.M. Mathews, and M. Harrison, *Using external memory aids to increase room finding by older adults with dementia.* . American Journal of Alzheimer's Disease & Other Dementias, 2001. **16**: p. 251-254.
65. Whall, A.L. and C. Conklin, *Why a psychogeriatric unit?* Journal of psychosocial nursing and mental health services, 1985. **23**: p. 23-27.
66. Koss, E., & Gilmore, G. C. , *Environmental interventions and functional ability of AD patients.*, in Research and practice in Alzheimer's disease. , B. Vellas, F. Fitten, and G.B. Frisoni, Editors. 1998, Springer: Paris. p. 185-191.
67. Douglas, J.W. and J.C. Lawrence, *Environmental considerations for improving nutritional status in older adults with dementia: a narrative review.* . Journal of the Academy of Nutrition and

Dietetics, 2015. **115**: p. 1815-1831.

68. Brawley, E.C., *Designing for Alzheimer's disease: Strategies for creating better care environments* Vol. 1. 1997: John Wiley & Sons.
69. McNair, D., R. Pollock, and C. Cunningham, *Enlighten: Lighting for Older People and People with Dementia.* 2019: Hammond Health Care.
70. Campbell, S.S., et al., *Exposure to light in healthy elderly subjects and Alzheimer's patients.* Physiology & behavior, 1988. **42**: p. 141-144.
71. Mishima, K., et al., *Morning bright light therapy for sleep and behavior disorders in elderly patients with dementia.* Acta Psychiatrica Scandinavica, 1994. **89**: p. 1-7.
72. Satlin, A., et al., *Bright light treatment of behavioral and sleep disturbances.* . American Journal of Psychiatry, 1992. **149**: p. 1028.
73. Whear, R., et al., *Effectiveness of Mealtime Interventions on Behavior Symptoms of People With Dementia Living in Care Homes: A Systematic Review.* JAMDA, 2014. **15**: p. 185-193.
74. Lovell, B., S. Ancoli-Israel, and R. Gevirtz, *Effect of bright light treatment on agitated behavior in institutionalized elderly subjects.* . Psychiatry research, 1995. **29**(1): p. 7-12.
75. Beauchemin, K. and P. Hays, *Sunny hospital rooms expedite recovery from severe and refractory depressions.* . Journal of affective disorders, 1996. **40**: p. 49-51.
76. Neistein, S. and A.P. Siegal, *Agitation, wandering, pacing, restlessness, and repetitive mannerisms.* . International psychogeriatrics, 1997. **8**: p. 399-402.
77. Wood, W., S. Harris, Snider, M., and S.A. Patchel, *Activity situations on an Alzheimer's disease special care unit and resident environmental interaction, time use, and affect.* . American Journal of Alzheimer's Disease & Other Dementias, 2005. **20**: p. 105-118.
78. Mitchell, L. and E. Burton, *Neighbourhoods for life: Designing dementia-friendly outdoor environments.* . Quality in Ageing and Older Adults., 2006. **7**: p. 26-33.
79. Cox, H., I. Burns, and S. Savage, *Multisensory environments for leisure: promoting well-being in nursing home residents with dementia.* Journal of gerontological nursing, 2004. **30**: p. 37-45.
80. Goto, S., et al., *The Power of Traditional Design Techniques: The Effects of Viewing a Japanese Garden on Individuals With Cognitive Impairment.* HERD: Health Environments Research & Design Journal, 2017. **10**(4): p. 74-86.
81. Ferri, M., et al., *Evidence-based design in an intensive care unit: End-user perceptions.* BMC anesthesiology, 2015. **15**(1): p. 57.
82. DuBose, J., et al., *Exploring the Concept of Healing Spaces.* HERD: Health Environments Research & Design Journal, 2018. **11**(1): p. 43-56.
83. Cohen-Mansfield, J. and P. Werner, *Outdoor wandering parks for persons with dementia: a survey of characteristics and use.* . Alzheimer disease and associated disorders, 1999. **13**: p. 109-117.
84. Mazzei, F., R. Gillan, and D. Cloutier, *Exploring the Influence of Environment on the Spatial Behavior of Older Adults in a Purpose-Built Acute Care Dementia Unit.* American Journal of Alzheimer's Disease & Other Dementias, 2014. **29**(4): p. 311-319.
85. Fitzpatrick, L., *Practical strategies to help develop dementia-friendly hospital wards.* Nursing Older People, 2018. **30**(2): p. 30-34.
86. Bray, J., et al., *Improving activity and engagement for patients with dementia.* Nursing Older People, 2015. **27**(8).
87. Annerstedt, L., *Group-living care: An alternatice for the demented elderly. Dementia and Geriatric Cognitive Disorders*, 1997. **8**(2): p. 136-142.
88. Motzek, T., K. Bueter, and G. Marquardt, *Environmental Cues in Double - Occupancy Rooms to Support Patients With Dementia.* HERD: Health Environments Research & Design Journal, 2016. **9**(3): p. 106-115.
89. Motzek, T., K. Bueter, and G. Marquardt, *Investigation of Eligible Picture Categories for Use as Environmental Cues in Dementia- Sensitive Environments.* HERD: Health Environments Research & Design Journal, 2017. **10**(4): p. 64-73.
90. Marquardt, G., K. Bueter, and T. Motzek, *Impact of the design of of the built environment on people with dementia: An evidence based review.* Health Environments Research & Design Journal, 2014. **8**: p. 127-157.
91. Porock, D., et al., *Disruption, control and coping: responses of and to the person with dementia in hospital.* Ageing & Society, 2015. **35**(1): p. 37-63.
92. Waller, S. and A. Masterson, *Designing dementia-friendly hospital environments.* Future Hospital Journal 2015. **2**(1): p. 63-68.
93. Krupic, F., et al., *Experience of anaesthesia nurses of peri-operative communication in hip fracture patients with dementia.* Scandinavian Journal of Caring Sciences, 2016. **30**: p. 99-107.
94. Marshall, M., *Perspectives on rehabilitation and dementia.* 2005, London: Jessica Kingsley.
95. Cunningham, C., *Understanding challenging behaviour in patients with dementia.* . Nursing standard (Royal College of Nursing (Great Britain), 2006. **20**: p. 42-45.
96. Devlin, A.S., *Psychiatric ward renovation: Staff perception and patient behavior.* Environment and Behavior, 1992. **24**: p. 66-84.
97. Lekeu, F., et al., *Training early Alzheimer patients to use a mobile phone.* . Acta Neurologica Belgica, 2002. **102**: p. 114-121.
98. Day, K. and U. Cohen, *The role of culture in designing environments for people with dementia: A study of Russian Jewish immigrants.* . Environment and Behavior, 2000. **32**: p. 361-399.
99. Barnes, S., *Space, choice and control, and quality of life in care settings for older people.* Environment and Behavior, 2006. **38**: p. 589-604.
100. Osmond, H., *Function as the basis of psychiatric ward design.* Psychiatric Services, 1957. **8**: p. 23-27.
101. Shrivastava, R., S. Kumar, and R.R. Jacobson, *Psychiatric units in district general hospitals: Design issues.* . International Medical Journal - Tokyo, 1999. **6**: p. 119-124.
102. Morgan, D.G. and N.J. Stewart, *Multiple occupancy versus private rooms on dementia care units.* Environment and Behavior, 1998. **30**: p. 487-503.
103. Ittelson, W.H., H.M. Proshansky, and L.G. Rivlin, *Bedroom size and social interaction of the psychiatric ward.* Environment and Behavior, 1972. **2**: p. 255-270.
104. Grey, T., et al., *Towards a building typology and terminology for Irish hospitals.* Irish Journal of Medical Science 2017. **186**(1): p. 1-16.
105. Kumar, S. and B. Ng,

Crowding and violence on psychiatric wards: Explanatory models. . The Canadian Journal of Psychiatry, 2001. **46**: p. 433-437.

106. de Vries, K., J. Drury-Ruddlesden, and C. Gaul, *'And so I took up residence': The experiences of family members of people with dementia during admission to an acute hospital unit.* Dementia, 2019. **18**(1): p. 36-54.
107. Parke, B., et al., *A scoping literature review of dementia-friendly hospital design.* The Gerontologist, 2016. **57**(4): p. 62-74.
108. Poulter, L., *Satisfaction by Design.* Marketing Health Services, 1998. **18**: p. 4-8.
109. Verbeek, H., et al., *Small, homelike care environments for older people with dementia: a literature review.* . International Psychogeriatrics, 2009. **2**(252-264).
110. Daykin, N., et al., *The impact of art, design and environment in mental healthcare: a systematic review of the literature.* . Journal of the Royal Society for the Promotion of Health, 2008. **128**: p. 85-94.
111. Handley, M., F. Bunn, and C. Goodman, *Dementia-Friendly Interventions to Improve the Care of People Living with Dementia Admitted to Hospitals: a realist review.* BMJ Open, 2017.
112. Scott, A., et al., *Perceptions and implications of violence from care home residents with dementia: a review and commentary.* . International journal of older people nursing, 2011. **6**: p. 110-122.
113. Cohen-Mansfield, J. and P. Werner, *The effects of an enhanced environment on nursing home residents who pace.* The Gerontologist, 1998. **38**: p. 199-208.
114. Melin, L. and K.G. Götestam, *The effects of rearranging ward routines on communication and eating behaviors of psychogeriatric patients.* Journal of applied behavior analysis, 1981. **14**: p. 47-51.

RESOURCE 7

EAT-Acute Care Handbook

PART 3

ENVIRONMENTAL ASSESSMENT TOOL - ACUTE CARE

PART 3

ENVIRONMENTAL ASSESSMENT TOOL -ACUTE CARE

INTRODUCTION TO THE EAT-ACUTE CARE

The Environmental Assessment Tool-Acute Care (EAT-Acute Care) provides a systematic framework for reviewing an acute environment for people living with dementia and identifying areas for improvement. It is organised around key design principles and contains questions that respond to each principle. These principles are evidence based (refer to Part 2 of this handbook for more information).

A copy of the Environmental Assessment Tool-Acute Care can be found in Appendix 1 at the back of this handbook.

BACKGROUND TO THE EAT-ACUTE CARE

The EAT-Acute Care is intended to complement the original Environmental Assessment Tool (EAT) and the EAT-Higher Care (refer Resources 3 and 4 respectively).

The EAT was first published by NSW Health in a book 'Adapting the Ward' (R Fleming, I. Forbes and K. Bennett 2003). It was intended to assist in the modification of wards in rural New South Wales hospitals where people living with dementia tended to be admitted for prolonged periods.

The EAT-Higher Care was published in February 2017 and is intended for use in facilities where people with dementia are living. It is designed to be used where people are mobile or non ambulant.

USING THE EAT-ACUTE CARE

The EAT-Acute Care is designed to be used in acute health care settings where patients stay for up to a week.

Some key steps have been identified as valuable when using the EAT-Acute Care:

1. Be familiar with the key design principles

   It is important that the person completing the EAT-Acute Care is familiar with the key design principles underpinning the assessment tool (refer to Part 1 of this handbook). While the tool is designed to be used by a non-design professional and can be completed by a member of staff or a person visiting the ward, attending a presentation by a person who is experienced in using the principles is a good way of gaining an understanding of them.

2. Be familiar with the EAT-Acute Care

   Prior to starting the assessment, users should familiarise themselves with the EAT-Acute Care by reading it thoroughly. If a group of people is completing the EAT-Acute Care there are two ways to approach this:

   a. The group completes the assessment together and the answers are determined by consensus.

b. A number of people complete the assessment independently and they meet afterwards to discuss their results and agree on the best answers.

When more than one person completes the tool it encourages discussion, familiarises more people with the design principles and facilitates ownership of the results of the assessment, all of which are beneficial.

3. Undertaking the assessment

Before using the EAT-Acute Care, it is important to clearly define the area that is to be assessed i.e. the extent of the ward and what features are included in it. Is the courtyard garden, for example, part of the ward being assessed, another ward or both? In a large health care facility, it may be helpful to assess wards separately as this will allow for more accurate responses to questions. Ask someone who knows the ward well about the boundaries of the ward so that the area that is to be assessed is accurately defined.

It is important to ensure that the questions are answered as accurately as possible. Spending time in the ward and observing daily life will help generate a feel for the place. This will also create opportunities for interaction with patients so that they can enjoy the visit, rather than feeling the subject of scrutiny. While patient input is not required during use of the tool, observing the way patients interact with the environment can provide additional information during the assessment process.

The EAT-Acute Care questions typically require a 'yes' or 'no' answer.

Some questions are best answered by sitting in a central position and others by moving around. If the correct answer is not obvious, ask a staff member who works in that part of the ward. It may be that there is a difference of opinion between the staff and the person completing the EAT-Acute Care, for example regarding the amount of visual clutter in the ward. In this case the person completing the EAT-Acute Care will need to determine the correct response. If in doubt as to the intent or aim of the question, refer to Part 5 of this handbook where information about each question is provided.

It may be that on the day of the visit something is observed that is unusual and not representative of a typical day. Speaking to the nurse unit manager (or the liaison person) before leaving the ward can be a good way to double check the significance of such observations.

RESULTS OF THE EAT-ACUTE CARE

The results of the EAT-Acute Care can be entered on an Excel spreadsheet that allows the data to be shown graphically, and enables the creation of a Room for Improvement (RFI) report as discussed in Part 4 of this handbook. Contact the DTA-Environments team to discuss this process further.

It is important to remember that the purpose of the EAT-Acute Care is to provide a framework for reviewing the environment and identifying areas for improvement.

RESOURCE 7

EAT-Acute Care Handbook

PART 4

USING THE SPREADSHEET

PART 4

USING THE SPREADSHEET

WHAT DO THE EAT-ACUTE CARE SCORES MEAN?

It is important to remember that the purpose of the EAT-Acute Care is not to achieve a particular score. There is no perfect design. Even the best wards can do things better. The purpose of the EAT-Acute Care is to provide a systematic framework for reviewing the environment and identifying areas for improvement.

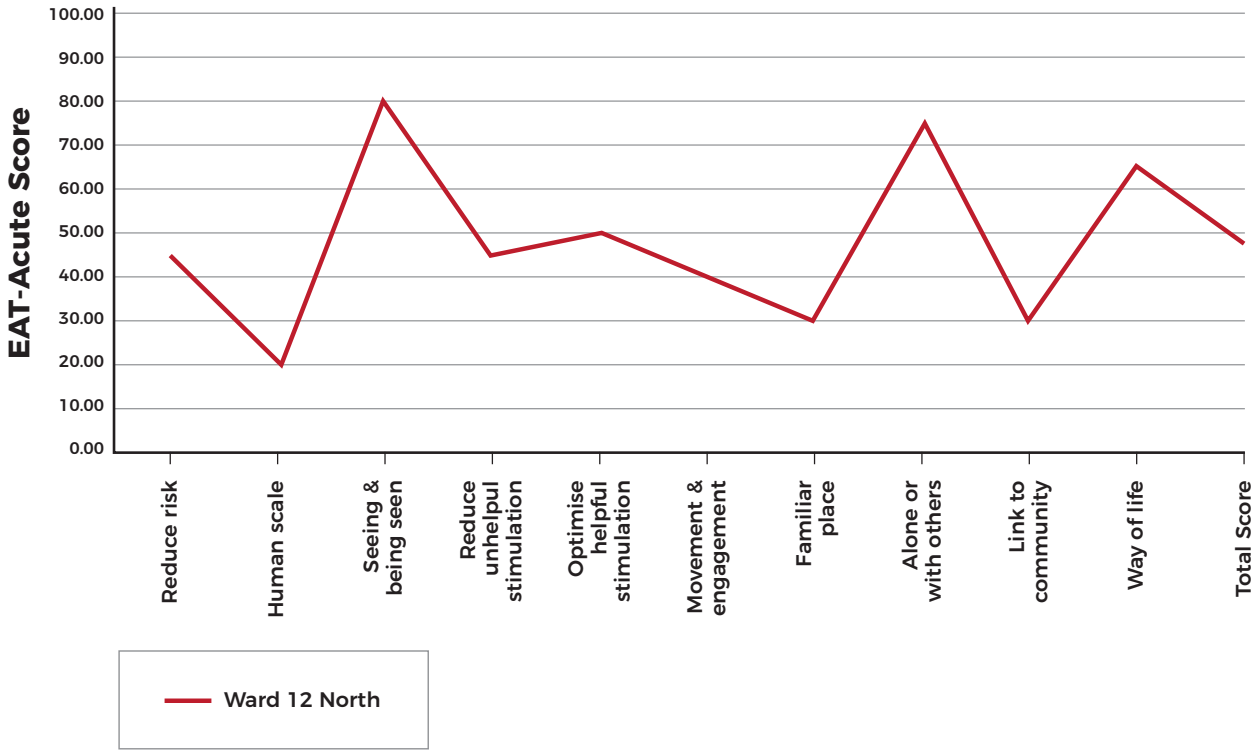
It is important to recognise that principles are not a set of rules that are to be applied in the same way every time. There are many ways in which the EAT-Acute Care questions can be responded to. How the design principles are best interpreted will depend on the particular context of the acute care setting. Geographic location, climate, site, culture, socio economic background and lifestyle of the patients are just some of the things that will influence the responses to the principles. They will be applied differently in different settings and in response to a range of needs.

DISCUSSION OF RESULTS

a. Showing the results graphically

Figure 1 shows how the response to the principles can be shown graphically. This is a quick way of showing potential areas of most and least concern. In this example, the most obvious area of concern is the principle of 'Provide a human scale'. 'Create a familiar place' and 'Link to the community' also do not score well. On the other hand, the ward responds well to the principles 'Seeing and being seen' and 'Provide a variety of places to be alone or with others.

Figure 1: EAT-Acute Care results shown graphically



b. Using a 'Room for Improvement' (RFI) report

The spreadsheet provides the means of generating a 'Room for Improvement' (RFI) report for the EAT Acute-Care. This is a table which ranks the EAT-Acute Care items according to the amount of room for improvement that is available, i.e. the possible maximum score minus the actual score.

The RFI table can be used to structure the discussion. Start at the top and discuss the items one by one until the point where there is little room for improvement (because the item is scored at the maximum). This will ensure that all of the main points are discussed.

The Not Applicable items (N/A) have been placed at the top of the list to encourage consideration of the possibility that they may be relevant. In the example in Table 1, a number of items regarding the outside area and place to sit have been scored N/A. Putting these at the top of the RFI report provides an opportunity to discuss whether the provision of an outside area and place to sit is important in the ward.

Table 1: Abbreviated EAT 'Room for Improvement' report

EAT-ACUTE CARE ITEM	Actual score	Maximum possible score	RFI score	Principle
Look at the items below that have been scored as Not Applicable (N/A). Would the ward be improved if they were considered to be applicable?				
Toilet door is seen from the most used place to sit	N/A	1	N/A	Allow people to see and be seen
Door to ward is seen from an outside area	N/A	1	N/A	Allow people to see and be seen
Place to sit is seen from where staff spend time	N/A	1	N/A	Allow people to see and be seen
Exit to outside area is seen from corridor	N/A	1	N/A	Allow people to see and be seen
Door back into ward is seen from outside area	N/A	1	N/A	Allow people to see and be seen
Discuss the following items in turn. These are ordered according to where there is the most room for improvement.				
Place to sit is seen as soon as patient leaves room	1	3	2	Allow people to see and be seen
Patients can see toilet pan, door or commode from bed	1	3	2	Allow people to see and be seen
Patients have familiar items near their bed	0	2	2	Create a familiar place
Side doors can be secured	0	2	2	Unobtrusively reduce risks
Places where person can be on their own	0	2	2	Variety of places to be alone or with others

EAT-ACUTE CARE ITEM	Actual score	Maximum possible score	RFI score	Principle
The items below (RFI = 0) do not need as much discussion (but may still have room for improvement).				
Length of corridor allows person to feel comfortable	1	1	0	Provide a human scale
Corridor is free of trip hazards and obstructions	1	1	0	Unobtrusively reduce risks
Place to sit is used to store items	1	1	0	Create a familiar place

c. Using a 'Planning Template'

A Planning Template can be used to guide the discussion and to record proposed actions to improve the environment for people living with dementia. (Refer Table 2)

The discussion should begin by asking the question 'Can we improve this situation by using our existing resources differently?' 'How can we re-use what is there?' There might be some chairs available, for example, that can be relocaed to furnish a small area for conversation.

If this isn't the case then the next question is 'What can we do in the short term?', which may mean 'What can we do with the money in the petty cash?' or 'What can we do as part of our planned maintenance works?'

If this isn't sufficient to improve the situation the next question is 'What can we do in the medium term?', eg 'What can we do if we receive a donation/ bequest? Can we allocate some money in next year's budget to achieve this change? Can we apply for a grant or contact the local service organisation?'

The final question is 'What can we do in the long term?' or 'Does this item need to be put into the capital works budget? Does it need to be the subject of ongoing strategic planning and fundraising?'

When action items have been agreed, add the response to the appropriate cell of the table according to the relevant principle(s) and the time frame that is proposed. In the example shown in Table 2, the use of the EAT-Acute Care identified that there was not a familiar place for private conversation. Discussion focussed on how this could be addressed, and it was agreed that the first step was to rearrange the existing furniture to encourage small group and privacy. While not a long term response, staff felt this was something that could be done quickly and easily, re-using what is already there. Some cushions or throws would help to make the existing furniture less institutional and as these were likely to be sourced relatively easily, this was a short term action item. Replacing furniture will take some time and so this was seen as a medium and long term solution. Finally, some building works to alter the scale of the room and create private areas was seen as ideal, but a long term goal.

It is important to recognise that making changes can take time. Some changes, such as altering the layout of the building, will be possible but very expensive. Others, such as moving a piece of furniture will be relatively easy to implement. Don't lose heart! The advantage of systematically considering

environmental changes is that it is possible to identify a schedule of priorities and then work through them as opportunities arise and as part of a regular maintenance program.

Table 2: EAT-Acute Care Planning Template (full scale version in Appendix 2)

KEY DESIGN PRINCIPLES											
		Unobtrusively reduce risks	Provide a human scale	Allow people to see and be seen	Reduce unhelpful stimulation	Optimise helpful stimulation	Support movement & engagement	Create a familiar place	Provide a variety of places to be alone or with others	Link to the community	Design in response to vision for way of life
ACTIONS	**ISSUE**							furniture in place to sit is not familiar to majority of patients	Nowhere to have private conversation away from bed		
	How can we re-use what is there?								Rearrange existing furniture to allow for small (private) interactions within larger space		
	What can we do in the short term?							Provide cushions/ throws to change appearance			
	What can we do in the medium term?							Replace some furniture			
	What can we do in the long term?							Replace remaining furniture	Lower ceiling and insert bay window to delineate part of room		

RESOURCE 7

EAT-Acute Care Handbook

PART 5

APPLYING THE PRINCIPLES

PART 5
APPLYING THE PRINCIPLES

This section is organised around the key design principles contained in the EAT-Acute Care and the questions that relate to each principle (refer to Part 1 and Appendix 1 of this handbook).

Each question in the assessment tool is discussed. Under each question there is a brief statement of what is important and why, and some key design considerations. For most (but not all) items three categories follow: Ensure, Avoid and Consider. These give suggestions and examples of design responses, problem areas to avoid, and items that may be considered depending on the particulars of a project and the people who will be patients there.

Some questions are found under more than one principle and some information is duplicated. This section has been designed so that each question stands alone, allowing the reader to use it as a reference document rather than being required to read it from beginning to end.

1. Unobtrusively reduce risks

Inside

1.1 Can the entry to the ward be secured?

It may be necessary to be able to prevent some patients leaving the ward to maintain their safety. Being able to secure the front entry to the ward when required can help provide this security. The location of the ward entry within the ward, and the type of security mechanism selected will be important to allow for ease of use by staff, visitors and other patients.

It is important that measures to create a secure ward entrance are as unobtrusive as possible to avoid frustration, agitation and anger.

ENSURE:

- entrance to ward is clearly recognisable from outside
- entrance door can be secured if required

AVOID:

- entrance to ward that is unwelcoming and uninviting upon approach
- treating the entry as a destination within the ward

CONSIDER:

- where ward entrance is located within the ward (to limit its prominence)
- the type of security mechanism selected. This needs to allow for ease of use by staff, visitors and other patients while still limiting access for some people when required.
- making the entry to the ward unobtrusive from inside the ward to prevent patients living with dementia being continually confronted by a door that may be secured
- designing so individual wards can be made secure at different times to suit different groups of patients' needs

1.2 Can all side doors leading out of the ward be secured?

It may be important that all side doors leading out of the ward can be secured to prevent some patients leaving the ward (e.g. when this may compromise their safety). Side doors should be able to be secured but allow for controlled coming and going. The type of security mechanism selected will be important to allow for ease of use by staff, visitors and other patients. Any measures should be unobtrusive to avoid patients being confronted by locked doors.

NB Side doors that do not lead out of the ward (but, for example, lead to a secure garden) are not the subject of this question.

ENSURE:

- side doors can be secured if required

AVOID:

- patients being confronted by locked doors

CONSIDER:

- making side doors inside the ward unobtrusive to prevent patients being continually confronted by a door which may be locked

1.3 Can people be prevented from climbing in or out of windows when they are open?

The extent to which ward windows can be opened is another component of reducing risk. Limiting the opening of windows can prevent patients leaving the ward if they shouldn't and people coming in through the window and creating security issues.

Climbing out of windows is dangerous. Awning, double hung and sliding windows can all be unobtrusively modified to ensure that they cannot be opened wide enough to allow a person to pass through.

ENSURE:

- extent of window opening is controlled

AVOID:

- windows that can be opened and allow for climbing in or out

CONSIDER

- having some opening windows to allow access to fresh air and natural ventilation

1.4 Is lighting at the patient's bed adjustable (e.g. choice of light source, adjustable direction or dimmable)?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient natural and artificial lighting to ensure that patients are able to see rooms and what is in them at all times. Glare must be avoided.

ENSURE:

- sufficient natural (and artificial) lighting for daytime and night-time use

AVOID:

- glare
- lighting that shines directly into patient's eyes

CONSIDER:

- lighting that includes night lighting and/or dimmers
- task lighting for staff activities and patient reading
- placement and identification of switches for patient light sources
- the design of window furnishings (as this can reduce glare)

1.5 Is there dimmable or night lighting in the patient's ensuite/toilet?

Lighting also plays a key role in assisting patients to navigate their way around the ward at night. There should be sufficient lighting at night to ensure that patients are able to locate and navigate their way to the ensuites/toilet. Night lighting should not be so bright as to interfere with sleep. Night lighting should also assist staff to attend to basic patient care without unduly disturbing the patient.

ENSURE:

- sufficient, even lighting for night-time use

AVOID:

- glare
- up-lighting or overbright night-lighting
- uneven lighting that does not provide a continuous light path to the ensuites/toilet

CONSIDER:

- location and visibility of ensuite/toilet light switch when patient reaches ensuites/toilet at night (i.e. use of contrast, logical location, in-switch indicator light)
- consistent use of recognisable plates for light switches
- switch to enable night-lighting to be used as required, dependent on patient needs

1.6 Does the lighting in a typical patient's ensuite provide bright, even lighting when using the toilet, shower and/or basin?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient natural and/or artificial lighting to ensure that patients are able to see when using the toilet, shower and basin and are able to see what is in the room upon approach. Glare must be avoided.

ENSURE:

- sufficient even natural (and artificial) lighting for daytime and night-time use

AVOID:

- glare
- lighting that creates strong shadows
- uneven lighting within the toilet/ensuite

CONSIDER:

- placement and identification of switches for patient use (lights, nurse call)
- consistent use of recognisable plates for similar types of switches
- lighting that uses night lighting and/or dimmers
- task lighting above the basin
- the design of window furnishings

1.7 Does the lighting in the shared bathroom provide bright, even lighting when using the toilet, shower and/or basin?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient natural and/or artificial lighting to ensure that patients are able to see when using the toilet and be able to see what is in the room. Glare must be avoided.

ENSURE:

- sufficient even natural (and artificial) lighting for daytime and night-time use

AVOID:

- glare
- lighting that creates strong shadows
- uneven lighting within the toilet/ensuites (especially between cubicles)

CONSIDER:

- placement and identification of switches for patient use (lights, nurse call)
- consistent use of recognisable plates for similar types of switches
- lighting that uses night lighting and/or dimmers
- task lighting above the basin
- the design of window furnishings

1.8 Are corridors free of trip hazards and obstructions?

Most patients living with dementia will also be elderly and may be at greater risk of trips and falls. Maintaining or increasing mobility in hospital patients delivers better health outcomes. To support mobility and minimise trip hazards and obstructions, corridors should be kept tidy and free of stored furniture and equipment.

ENSURE:

- corridors are free of trip hazards and obstructions

AVOID:

- storage of furniture along corridors
- storage of equipment and supplies in patient corridors

CONSIDER:

- using designated storage areas for equipment, supplies and excess furniture
- maintaining one side of corridor clear of obstruction to facilitate patient movement if corridor storage is necessary
- in the absence of adequate nearby storage, restricting the placement of equipment in patient corridors to times when it is most needed (e.g., storing hoists in corridor only when a number of patients are having showers)

1.9 Are patient rooms free of clutter, trip hazards and obstructions?

Providing a patient room that is free of clutter, trip hazards and obstructions can maximise the patient's ability to mobilise safely and perform activities of daily living independently. To support mobility and minimise trip hazards and obstructions, patient rooms should be kept tidy and free of trip hazards and obstructions.

ENSURE:

- patient rooms are free of clutter
- trip hazards and obstructions are removed
- separate lockers/cupboards are provided near each patient bed for patient and staff use

AVOID:

- storage of furniture in patient rooms
- storage of excess equipment and supplies in patient rooms

CONSIDER:

- using designated storage areas for equipment, supplies and excess furniture

1.10 Inside, is contrast *between* floor surfaces at the thresholds of rooms avoided?

A person living with dementia may perceive two floor surfaces that have a high level of contrast between them as one floor surface which is adjacent to a hole or step or barrier. A resident may not wish to leave their bedroom, for example, as he/she perceives the corridor floor (which has a high level of contrast with the adjacent bedroom floor) is a danger to them. This can lead to falls, anxiety and limit a person's ability to move about freely and be independent.

ENSURE:

- contrast between different floor finishes is minimised
- where contrast is used, it is used intentionally to guide a person (e.g. by using a contrasting border in front of a cleaner's cupboard to deter a person living with dementia from entering)
- clear differentiation between horizontal and vertical surfaces

AVOID:

- strong contrast between changes in floor surfaces as these can result in the floor being perceived as a step or hole

CONSIDER:

- using floor finishes to guide and direct patients to places of interest and importance

1.11 Inside, is contrast *within* floor surfaces (e.g. patterns and/or features) avoided?

A person living with dementia may perceive two floor surfaces that have a high level of contrast between them as one floor surface which is adjacent to a hole or step or barrier. A patient may not wish to leave their bedroom, for example, as he/she perceives the corridor floor (which has a high level of contrast with the adjacent bedroom floor) is a danger to them. This can lead to falls, anxiety and limit a person's ability to move about freely and be independent. Patterns within floor finishes can have the same effect as patients try to step over or around patterns or pick up objects from the floor surface.

ENSURE:

- contrast within floor finishes is minimised

AVOID:

- strong contrast within floor surfaces as these can result in the floor being perceived as a step or hole
- unnecessary features in floor finishes such as vinyl or carpet
- strongly contrasting or complex patterns in floor finishes

CONSIDER:

- clear differentiation between horizontal and vertical surfaces

1.12 Inside, is glare from artificial lighting minimised?

As people age their eyes react more slowly to changes in light, meaning they require more time to transition between different light levels and issues with glare become more significant. Glare can be an irritant and can actually decrease visual performance.

ENSURE:

- patient areas are not over-lit but have appropriate lighting levels, ideally that can be varied according to time of day and patient/staff needs

AVOID:

- the use of spotlights
- lights that shine into patients' eyes
- lights that shine upwards from below eye level
- shiny surfaces that reflect light

CONSIDER:

- the height and angle of lights so they don't shine directly into the patient's eyes
- the use of dimmers and complementary light fittings to allow lighting levels to be varied to meet patient and staff needs
- using window treatments to manage internal glare

Outside

1.13 Is glare from natural and artificial lighting minimised?

In **outdoor** areas, and particularly in the transition zone when a patient is moving for an internal to an external spaces, the age related slowing of the eyes reaction to changes in light levels must also be considered. Glare should be minimised and older eyes given time to adjust to external light levels.

ENSURE:

- transition zone at exit to outdoor space to create similar lighting conditions between inside and outside
- shaded areas within outdoor areas

AVOID:

- the creation of dark shadows across paths and in sitting areas
- white paving/ground surfaces
- shiny surfaces that reflect light
- the use of spotlights
- lights that shine upwards from below eye level (e.g., lights set into pavements)

CONSIDER:

- the use of pergolas and planting to screen direct sunlight
- the height and angle of lights so they don't shine directly into the patient's eyes

- providing a transition zone inside entrance from outdoor space to allow time for eyes to adjust between indoor and outdoor lighting levels
- consider providing seating within these transition zones

1.14 Is there step free access to all areas?

As many patients use mobility aids, step free access is important so that patients can easily move about outside and access all areas. Step free access means that no changes of level must be negotiated by the patient along a path, or between outside features (such as a shelter and a raised garden bed). It does not mean that only step free access must be provided, rather that there must be at least one means of step free access available to all areas. (In some situations a ramp may lead to an area from one direction and a couple of steps from another which is acceptable.) In all cases, steps with risers of varying heights and small changes of level are unacceptable.

ENSURE:

- no uneven surfaces outside
- steps are minimised and an alternative step free access is provided
- step free route is clearly identifiable
- any change of level is clearly identified (e.g., between grass and paving)

AVOID:

- any small changes in levels (for example ridges, hobs, small steps)
- risers of varying heights
- any barrier that prevents step free access to all areas

CONSIDER:

- providing a ramp of suitable gradient to replace or complement existing steps

1.15 Is contrast between path surfaces avoided?

A person living with dementia may perceive two ground surfaces that have a high level of contrast between them as one floor surface which is adjacent to a hole or step or barrier. For example, a patient may not wish to access an outside sitting space if there is a high level of contrast between it and the path, as it is likely to present as a danger to her/him. This can lead to falls, anxiety and limit a person's ability to move about freely and be independent. Patterns in ground surfaces can have the same effect as patients try to step over or around patterns or pick up objects from the ground surface.

ENSURE:

- contrast between different outdoor ground finishes is minimised
- where contrast is used, it is used intentionally to guide a person (e.g. by using a contrasting border in front of a garden bed)
- clear differentiation between horizontal and vertical surfaces

AVOID:

- strong contrast between changes in ground surfaces as these can result in the ground being perceived as a step or hole
- unnecessary features in outside ground surfaces
- strong contrast complex patterns in ground finishes

CONSIDER:

- using ground surfaces to guide and direct patients to places of interest and importance

1.16 Are path surfaces even?

An even path surface will reduce the likelihood of patients tripping as they walk outside. Paths should be free from undulations, holes and ragged edges, as well as seasonal changes such as falling leaves.

ENSURE:

- path surfaces are even and well maintained
- continuous materials, such as concrete, are used for path surfaces

AVOID:

- slippery surfaces
- bedding paving bricks in sand which may move over time
- uneven and undefined path edges
- planting trees in close proximity to paths (to avoid tree roots raising paths and fruit, blossom and leaves falling on paths)
- glare from night lighting on paths

CONSIDER:

- path design so that the surface is well drained and ponding is avoided
- selecting a surface that is most familiar to older patients and their visitors
- protecting paths from driving rain and wind

1.17 Are paths clear of obstacles (e.g. trees, thorny plants) along and over the path?

Obstacles along a path present a great hazard to patients. Trees, plants and bushes can project onto paths (reducing their width) and creating tripping hazards. Twigs and leaves falling from trees can also be dangerous for patients. Branches which hang over the path can also be a hazard if they hang near head height.

ENSURE:

- plants close to paths are well maintained
- overhanging branches are regularly pruned

AVOID:

- thorny plants
- plants which grow too large near paths

CONSIDER:

- replacing inappropriate plants near pathway

1.18 Can patients be prevented from leaving the *outside* area by getting over/under the perimeter?

It may be important that the environment is secure to prevent patients leaving the ward if it is not safe for them to do so. Having a fence that is sturdy and difficult to climb (or go under) is vital in this regard.

The fence needs to be high enough to make it difficult for patients to climb over when it is important that the ward is secure. The fence should be 1.8m high if this is the case. It should also be continuous and well maintained, and the fence design must not allow for climbing (in or out).

It is important that measures to create a secure garden are as unobtrusive as possible to avoid frustration, agitation and anger.

ENSURE:

- fence is continuous and well maintained
- fence is 1.8m high where the perimeter is needed to be secure
- fence design does not allow for climbing (in or out)
- gates are able to be secured but allow for controlled coming and going

AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds
- planting near the fence which can be used for climbing
- latch on outside of the gate

CONSIDER:

- designing the fence so that it blends into the landscape
- using vegetation to hide the fence so it is not foreboding or institutional

1.19 Can patients be prevented from leaving the *outside* area through a gate (e.g. could the gate be locked if required?

It may be important that the environment is secure to prevent patients leaving the ward if it is not safe for them to do so. Having a gate that is sturdy and difficult to climb (or go under) is vital in this regard.

The gate needs to be able to be locked while allowing for exit in an emergency (if this is part of an emergency evacuation route). Mechanical keypads or keypads which are linked to a staff call system can be installed on gates. (If keypads are linked to a staff call system, they will release automatically in the event of a fire). It is important that measures to create a secure garden are as unobtrusive as possible to avoid frustration, agitation and anger.

Double handles/latches and handles which open in an anti-clockwise direction may also be effective to prevent easy opening by patients from within the grounds. It is also important that patients cannot reach over a gate and open it from the outside while inside the grounds.

ENSURE:

- gate design does not allow for climbing (in or out)
- gates are secured but allow for controlled coming and going
- fence is continuous and well maintained
- fence is 1.8m high where the perimeter is needed to be secure
- fence design does not allow for climbing (in or out)

AVOID:

- fences and gates with openings or horizontal members which can be used as foot holds
- latch on outside of the gate

CONSIDER:

- designing the gate so that it blends into the fence
- double handles/latches, handles which open in an anti-clockwise direction, keypads to secure exit
- designing the fence so that it blends into the landscape
- using vegetation to hide the fence so it is not foreboding or institutional

2. Provide a human scale

2.1 Does the length of the corridor(s) allow a person to feel comfortable (and not uneasy because it is/they are too long)?

Corridors on wards are also important in creating a human scale. Long corridors in hospitals can be overwhelming for patients living with dementia. Patient circulation routes should be subdivided into a more human scale with clearly identifiable staff bases to aid orientation.

ENSURE:

- patient corridors are divided into zones to create a more human scale (colour, finishes, materials)
- staff bases are clearly identifiable to enable easy recognition by patients (colour, details and materials)

AVOID:

- long corridors with repetition of colours, materials and details
- institutional finishes

CONSIDER:

- use of redundant cueing to differentiate corridor zones (i.e., use colour, theme, materials, graphics, signage that complement each other, and are familiar and appropriate to hospital location and context)

2.2 Is furniture in place to sit arranged so people can sit on their own or in small groups?

Furniture should be arranged so that a person would feel comfortable spending time there. The way furniture is placed can affect the scale of the space. Furniture could be grouped to create a comfortable space for small groups, or a single chair could be placed in a location that provides a pleasant view that is not in the way of others.

ENSURE:

- places to sit are designed and detailed to create a human scale setting
- small areas for quiet conversation/interaction are provided
- large lounge or dining rooms are edged with nooks and smaller areas for small groups and individuals
- nooks and the smaller edge rooms have a good view of ward activities and/or outside
- corridors, especially long corridors, are broken up by the provision of a space and furniture that enables people to have a conversation

AVOID:

- large undifferentiated places
- rows of chairs located in busy corridors with no view
- institutional multi-use places to sit
- using storage spaces or excess corridor area as sitting spaces

CONSIDER:

- varying corridor and hall widths to accommodate small sitting places
- regularly arranging furniture in designated sitting spaces to encourage a range of interactions
- a variety of furniture selection so that not all rooms look the same
- domestic decoration (pictures, etc)

2.3 Are a variety of colours, finishes and materials used in the ward?

Using a variety of colours, finishes and materials can be used to help reduce the ward to a more human scale. Through these design tools, spaces can appear larger or smaller, ceilings higher or lower and corridors shorter or longer. The use of colours, finishes and materials can also help create an environment that is easier to understand, navigate and can facilitate wayfinding.

ENSURE:

- use of colour, finishes and materials to break a ward into zones
- the ward entrance is designed and detailed to emphasise a human scale (rather an institutional or corporate one)
- the ward entrance is friendly, and says 'welcome' (rather than being cold and impersonal)

AVOID:

- long corridors
- institutional finishes
- repetition of colours, materials and finishes throughout ward

CONSIDER:

- hospital wide design scheme to ensure standardised, logical and integrated approach (e.g., toilet doors finished in a common colour)
- small scale shared spaces (i.e., for small groups)
- a variety of furniture selection so that not all rooms look the same
- domestic decoration (pictures, etc)

3. Allow people to see and be seen

3.1 What proportion of patients can see the toilet pan, toilet door, or a commode from their bed?

A toilet is a room that needs to be used often and therefore needs to be easy to find and get to. For a confused patient in an unfamiliar environment, being able to easily identify the toilet from their bed can be helpful for both the patient and for staff.

ENSURE:

- contrast is used to highlight location of toilet door (in room and in toilet)
- appropriate signage (size, clear text, graphics, location, matt finish)

AVOID:

- non-standardised approach to toilet signage (i.e. variety of signage throughout ward and/or hospital)

CONSIDER:

- hospital wide approach to toilet door finish and standardised signage to ensure standardised, logical and integrated approach
- night lighting to support easy location of toilet at night
- location of toilet door and bed placement to maximise visual access to toilet when designing or renovating patient bedrooms

3.2 What proportion of patients can see a staff base as soon as they leave their room?

If patients can easily see a staff base it can help them to feel supported while in hospital. At the same time, if staff can more easily observe patients, this can reduce their anxiety and make it easier to monitor their patients.

ENSURE:

- staff bases can be easily seen from the corridor (through the use of location, colour, finishes, appropriate signage, lighting)

AVOID:

- corridor clutter that obscures the view of the staff base when a patient leaves their room

CONSIDER:

- hospital wide approach to staff bases and standardised signage to ensure standardised, logical and integrated approach
- establishing clear lines of sight from patient room thresholds to staff base (or way to staff base)

3.3 What proportion of patients can see the entry to their room from the corridor?

Patient rooms are the places where patients will spend the majority of time during their hospital stay. When a patient leaves their room, for example to use a toilet or to spend time away from their bed, the entry to their room needs to be easy to see to ensure they can return easily.

Entrances to patient rooms offer patients an important way to recognise their room, and consideration should be given to the finish and decoration of room entrances and signage around the door and/or at the room threshold. The placement of a landmark (such as a piece of artwork) near the entrance can also be important in highlighting the entry to a patient room. These measures will help patients locate their room.

ENSURE:

- patient rooms can be clearly distinguished from one another
- patient room entrances can be clearly distinguished from one another
- patient room entrances or doors are positioned so they can be easily seen from the corridor
- where room entrances or doors cannot be easily seen, features are placed near adjacent walls to identify rooms

AVOID:

- repetition of finishes and features, as this makes all patient room doors and approaches to rooms appear to be the same

CONSIDER:

- how clear lines of sight can be provided to patient room entrances or doors
- the use of redundant cueing, i.e. providing more than one cue to the same thing (for example, through the use of colour, texture, finish, names, numbers, images, artwork) recognising that different things can be meaningful to different patients and at different times.

3.4 What proportion of patients can see their bed from the entry to their room?

As many patients will be in a shared room, individual beds should be easily seen and recognised from the entrance to the shared patient room. Good visual access will make the identification of an individual's bed space easier and reduce stress and anxiety.

ENSURE:

- bed curtains are pushed back when not in use
- furniture and equipment is minimised to maximise visual access to beds

AVOID:

- curtains, partitions or other barriers that obstruct views to the beds from room entry

CONSIDER:

- how clear lines of sight can be provided to patient beds from the room entry during design
- differentiation of each bed space to make identification of individual bed easier for patients (such as use of colour, materials, artwork, and provision of a place to display personal items)

3.5 What proportion of patients can see a place to sit as soon as they leave their room?

A place to sit on a hospital ward provides patients with an opportunity to spend time relaxing and socialising with others or on their own away from their bed. A place to sit may be a designated patient lounge, a nook along a corridor or even a seat placed along a corridor. However, a place to sit should be comfortable, have a pleasant or interesting view, and be in a location that does not get in the way of other ward activities. It needs to be easy to find and recognise. If patients can see the way to a place to sit when they leave their room this will help them know where they are heading and give them a hint of what they will find when they get there.

ENSURE:

- a place to sit is provided for patients
- the place to sit is located in a prominent position on the ward
- the place to sit is identifiable when leaving the bedroom (e.g. by furniture, furnishings and/or colour)

CONSIDER:

- how clear lines of sight between patient rooms and a place to sit can be created

3.6 Can a toilet door be clearly seen from the most used place to sit?

A toilet is a room which needs to be used often and therefore needs to be easily located. If it is in close proximity to a place to sit and can be seen from the place to sit, it can act as an important prompt for patients.

ENSURE:

- door (ie toilet door) is visible but still offers patient privacy
- clear path between the toilet and the place to sit
- contrast is used to highlight location of toilet door
- appropriate signage (size, clear text, graphics, location, matt finish)

AVOID:

- locating the door (ie toilet door) so that it dominates the view from the place to sit
- locating the toilet pan so that if the door is left open patient's privacy is compromised
- obstructing the view between the place to sit and the toilet
- obstructing the path between the place to sit and the toilet
- the spread of toilet odours into the place to sit

CONSIDER:

- the location of screens and the placement of fixtures in the toilet
- use of appropriately adjusted door closer so that the toilet door closes but patients can easily open the door
- hospital wide approach to toilet door finish and standardised signage to ensure standardised, logical and integrated approach
- night lighting to support easy location of toilets at night

3.7 Can the exit to an *outside area* be clearly seen from the most used place to sit?

Spending time outside is important and some hospital wards have direct access to an outside space (verandahs, courtyards, roof top gardens or garden spaces). It is important that patients on these wards are able to see the way to go outside, especially from the most used place to sit within the ward.

ENSURE:

- that the door to outside is clearly recognisable as a door
- that it is clear this door leads to an outside space
- clear lines of sight to outside areas especially to places where activities may be occurring
- easy (step free) access to outside area

AVOID:

- obstructing the view of the door to outside
- obstructing the view out of any places to sit
- designing doors that could be mistaken for windows (and visa versa)

CONSIDER:

- using sidelights to doors if the door is solid so people can see their destination
- ways to distinguish between windows and doors (e.g., design of mullions and transoms, size of glazing panels, sill heights, door furniture)

3.8 Can the place to sit be clearly seen from where staff spend most of their time (such as the staff base)?

Patients are likely to be reassured if they know staff are around and so good visual access between the point(s) where staff spend most of their time and places to sit is important. As patients become more mobile they may spend a lot of time out of their rooms and in places to sit on the ward. It will be an advantage if staff can easily see patients and assist them if required.

ENSURE:

- good visual access to places to sit from staff areas, circulation routes and patient rooms

AVOID:

- a dominating central staff base

CONSIDER:

- the general transparency of building (planning, the placement of windows, windowsill height and glazed doors). Perforated screens, small inside windows and low walls may increase the transparency between rooms, whereas solid walls and furniture may decrease the transparency.

3.9 Can an *outside area* be clearly seen from where staff spend most of their time?

It is important that patients spend time outside if possible. Patients are likely to be reassured if they can see where staff are and so good visual access between the point(s) where staff spend most of their time and any outside areas is important. It will also be an advantage if staff can easily see patients and can assist them if required.

ENSURE:

- good visual access to outside from staff areas and circulation routes

AVOID:

- a dominating central staff base

CONSIDER:

- the general transparency of building (planning, the placement of windows, window sill height and glazed doors)
- decentralised staff bases

3.10 Can the door back into the ward be clearly seen from an *outside* area?

It is important that patients spend time outside if possible. It is, however, vital that they can easily return inside from an outside area (verandahs, courtyards, roof top gardens or garden spaces). The door back into the ward should be easy to find and recognise.

ENSURE:

- door to inside is clearly recognisable as a door
- door to inside can be clearly seen from outside area
- where door to inside cannot be easily seen, features are placed near the door location to draw attention to it (such as colour, garden features, artworks, landmark plants)

AVOID:

- repetition of finishes and features across building exterior in outside area, as this makes entry door difficult to identify

CONSIDER:

- positioning door to inside so it can be easily seen from anywhere in the outside area
- how clear lines of sight can be maintained to door to inside from the outside space
- the use of redundant cueing, i.e., providing more than one cue to the same thing (for example, through the use of colour, texture, finish, signage, images, artwork) recognising that different things can be meaningful to different patients and at different times.

3.11 Can the exit to an *outside* area be clearly seen from a corridor?

Ward corridors provide the main circulation space for patients once they are able to move beyond their bed. The corridors are likely to be an important place in the life of the ward. As it is important that patients spend time outside if possible, it is important that patients are able to see the way to go outside from the ward corridor/s.

ENSURE:

- that the door to outside is clearly recognisable as a door
- that it is clear this door leads to an outside space
- clear lines of sight to outside areas especially to places where activities may be occurring
- easy (step free) access to outside area
- if signage is required that it is appropriate (size, clear text, graphics, location, matt finish)

AVOID:

- obstructing the view of the door to outside
- obstructing the view out of the corridor
- designing doors that could be mistaken for windows (and visa versa)

CONSIDER:

- using sidelights to doors if the door is solid so people can see their destination
- ways to distinguish between windows and doors (e.g., design of mullions and transoms, size of glazing panels, sill heights, door furniture)

3.12 Can a kitchenette be clearly seen from a corridor?

If patients are able to move beyond their bed and move around the ward, access to a kitchenette can provide independence, choice and the ability to engage in a meaningful activity. It may also be an important part in facilitating a patient's return to home. (It is recognised, however, that for some patients this may not be appropriate for a variety of reasons). If a kitchenette is provided for use by patients it needs to be easy to find and recognise. If patients can see the kitchenette from the corridor it will help them know where they are heading and what they will find when they get there. Seeing inside the kitchenette (rather than just the outside of the room) will give them added information and inspiration as to what they may be able to do in this space (e.g. make a cup of tea/coffee, access a microwave, refill a water bottle).

ENSURE:

- the kitchenette is located in a prominent position in the ward
- the kitchenette is identifiable from the corridor by, for example, form, colour, appropriate signage (size, clear text, graphics, location, matt finish)
- entry doors to the kitchenette are glazed to allow people to look inside
- it is clear that this is a space for patients and families (rather than a staff only area)

AVOID:

- repetition of building form, scale and colour which doesn't distinguish the kitchenette from other areas
- obstructing the view in or out of the kitchenette, for example by closing curtains, using solid doors

CONSIDER:

- how clear lines of sight between the kitchenette and the corridor can be achieved
- sidelights to doors to allow people to see inside the kitchenette (if the door is solid)

3.13 Can a toilet be clearly seen from a corridor?

A toilet is a room which needs to be used often and therefore needs to be easily located. If it can be clearly seen from the corridor it can be readily used and can act as an important prompt for patients.

ENSURE:

- toilet is visible but still offers patient privacy
- clear path between the toilet and the corridor
- contrast used to highlight location of toilet door
- appropriate signage (size, clear text, graphics, location, matt finish)

AVOID:

- locating the toilet pan so that if the door is left open patients' privacy is compromised
- obstructing the view between the corridor and the toilet
- obstructing the path between the corridor and the toilet
- the spread of toilet odours into the corridor
- non-standardised approach to toilet signage (i.e., variety of signage throughout ward and/or hospital)

CONSIDER:

- the location of screens and the placement of fixtures in the toilet
- use of appropriately adjusted door closer so that the toilet door closes but patients can easily open the door
- hospital wide approach to toilet door finish and standardised signage to ensure standardised, logical and integrated approach
- night lighting to support easy location of toilets at night

4. Reduce unhelpful stimulation

4.1 Is there a public address, staff paging or call system with bells, audible medical equipment, loud speakers or flashing lights in use?

Within an acute care environment patients may require equipment that often has audible alarms or sounds. It is important to recognise that these can be distressing to a patient living with dementia, as she/he is more likely to have difficulty filtering out unnecessary noise.

The noise from public address and staff paging systems can also be disturbing. Bells, lights and public announcements can interrupt patients' daily life and cause distraction and confusion. They often give information which is not directed to patients, and so provide an unnecessary interruption for them.

A staff call system plays an important role in a hospital as it assists patients to contact staff and enables staff to respond to patients' needs. There are many types of staff call systems which are available. All have advantages and disadvantages and can be tailored to varying degrees to fit particular circumstances and settings. It is important to do research to determine which is the most appropriate system in a particular location, remembering that these systems can be a source of distress to patients living with dementia if they are noisy and difficult to use. There are also a number of additional items which are available and can be linked to a staff call system (such as a bed sensor). These can significantly enhance the ability of the staff to do their work and play an important role in meeting patients' needs.

ENSURE:

- staff paging systems sound only as needed, rather than throughout the ward
- the staff call system can be adapted and additional items used to meet a particular patient's needs
- Audible alarms, sounds and flashing lights on medical equipment at the patient bedside is turned off or minimised

AVOID:

- loud bells, flashing lights and public announcements

CONSIDER:

- ability to reduce volume of public address system and call bells in patient rooms to minimum acceptable level

4.2 Does the noise from closing doors disturb patients (e.g. flapping doors, noisy automatic doors)?

The sound of doors closing in a ward can be very distracting for a patient. It is important that doors can be closed quietly and door closers are adjusted to close doors quietly.

ENSURE:

- doors close quietly

AVOID:

- door closers that are poorly adjusted

CONSIDER:

- installing cushioning seals around doors

4.3 Is the impact of noise limited in patient areas (e.g. deliveries, lifts, plant, door entry systems are not heard)?

A hospital ward requires many deliveries. These are 'back of house' functions and need to remain that way. The introduction of unnecessary noise and the visual distraction of trolleys and new people making deliveries may interrupt patients and compromises their ability to focus on their recovery.

ENSURE:

- there are separate entrances and circulation routes for deliveries

AVOID:

- deliveries through patient areas

CONSIDER:

- zoning activities within the ward to ensure service areas (such as laundry washing and drying, food preparation and bulk supplies and cleaning stores) do not conflict with patient areas

4.4 Are unnecessary sources of noise such as TV's, radios and audible medical equipment turned off or minimised?

Unnecessary sources of noise can be very distracting for a patient. It is important that unnecessary sources of noise such as TVs, radios, audible medical equipment are turned off or minimised to reduce the impact on other patients. Such noise can significantly add to the amount of unhelpful stimulation the patient is exposed to.

ENSURE:

- unnecessary sources of noise such as TVs, radios and audible medical equipment is turned off or minimised
- patients utilise headphones if possible, particularly in shared rooms

AVOID:

- patient entertainment systems with individual speakers that are audible to other patients
- patient entertainment systems that combine a number of functions in one device

CONSIDER:

- type of patient entertainment system that is provided. It needs to be simple to use, with recognisable components and clear instructions.

4.5 Are there designated quiet times (which staff as well as visitors must observe?)

Hospitals are a challenging setting due to the busy, unfamiliar and stressful nature of the environment. For a patient with dementia the experience can be even more challenging with prolonged exposure to large amounts of stimulation which is confusing and disorientating for her/him. Providing a designated quiet time allows time for rest and recovery so a patient can better cope with the demands of the day.

ENSURE:

- designated quiet times on the ward
- quiet times are observed by all staff, patients and visitors

AVOID:

- unregulated access by visitors
- deliveries during designated quiet times

CONSIDER:

- using the environment to emphasise that this is a quiet time e.g., dimming lights, closing blinds

4.6 Can the transfer of sound from one room to another be managed (e.g. by closing doors)?

Many patients are extremely sensitive to their auditory environment and in particular to noise levels, which at times may be very high in a hospital environment. Reducing noise levels and transmission of noise between ward areas may reduce stress and agitation.

ENSURE:

- noise levels are minimised on the ward
- doors are used when appropriate to help reduce transmission of noise between rooms

AVOID:

- socially isolating patients by leaving doors shut at all times

CONSIDER:

- selection of finishes to provide for absorption of noise (floor, wall, ceiling, doors)
- identifying a designated route through the ward is used for the delivery of supplies and removal of waste
- separating noisy and quiet functions within the ward
- placing patients with sensitivity to noise in quieter rooms on the ward

4.7 Are single rooms available that have little exposure to staff operational noise?

Some patients may become distressed and may disrupt or intrude on other patients if in a shared patient room, or if subjected to high levels of noise. Placing a patient in a quieter part of the ward may provide her/him with a less stimulating environment, which is likely to result in better sleep and lower levels of anxiety and stress. It will, however, also mean that there is less capacity for staff supervision and observation.

There is often a balance between having a patient who requires higher levels of supervision near the staff base, and the awareness that patients with dementia have greater sensitivity to noise. Each patient should be assessed to provide the best option for them. Wards should have some quieter, single rooms available to provide the required flexibility.

ENSURE:

- single rooms with little exposure to staff operational noise are available
- staff operational noise is minimised (particularly during designated quiet times)

AVOID:

- routinely placing all patients with dementia in rooms near staff bases without considering individual needs

CONSIDER:

- installing features to allow for observation/supervision while minimising exposure to operational noise (i.e. closed doors with glass panels for unobtrusive observation, use of technology such as pressure mats and remote patient sensing to allow for remote observation)

4.8 Is there a lot of visual clutter in the ward (i.e. staff notices, signage, objects, furniture that are either irrelevant to patients &/or make it hard for them to interpret their environment)?

Too much visual stimulation in a ward can be very distracting and/or distressing for patients living with dementia. People can feel overwhelmed when faced with information which they are not able to process and understand.

Signs can become visual clutter when there are many of them, as they no longer stand out and catch people's attention. Notices and signs in patient areas need to be patient focused. Signage which is directed primarily at staff needs to be minimised in wards and instead placed in staff areas. Signage placement needs to be carefully considered, recognising that signs can have a negative impact if poorly located. Signs next to an artwork, for example, diminish the impact and ambience of the artwork.

A room full of furniture or equipment can also be visual clutter when it is difficult for someone living with dementia to see what they are looking for. Furniture that is left inadvertently in a room can create an impression of a store room, rather than a shared space or place to sit.

ENSURE:

- patients are able to focus on the most important objects in the room
- signs are only used when other environmental cues or means of communication are inadequate
- all signs and notices are current

AVOID:

- storing objects, equipment and furniture in rooms that are not store rooms
- clutter resulting from clinical information and objects
- placing information for staff only in patient rooms

CONSIDER:

- regularly reviewing the environment for visual clutter

4.9 Is the entry to the ward easily visible to patients?

Activity at the ward entry can be disturbing for patients if they are not able to come and go as they wish. It is important that such activity is screened so that patients are not constantly prompted to think about trying to leave or faced with unnecessary distractions.

ENSURE:

- design allows for a discreet entry that is not easily observed from the main public areas of the ward

AVOID:

- direct entry into place to sit for patients

CONSIDER:

- making an obvious entry less obvious from the ward side by painting it the same colour as the wall or disguising it in another way, e.g. with a mural. (It is important to carefully consider the content of any mural so that it is relevant, age appropriate and not confusing.)

4.10 Are doors to staff only areas easily seen (e.g. storerooms, clean and soiled utility rooms)?

Patients have no need to enter staff only areas or open doors to cleaners' cupboards. More importantly, these spaces may contain materials or equipment that could be harmful. It is important that patients' attention is drawn only to those doors which they can open and may lead to somewhere of interest, rather than to those which may be locked, are irrelevant, or present a potential danger to the patient or visitor.

ENSURE:

- doors to staff only rooms and cleaners' cupboards are unobtrusive
- doors to staff only rooms and cleaners' cupboards, and doors to patients' areas are not the same

AVOID:

- doors to staff only areas and cleaners' cupboards in patients' areas

CONSIDER:

- planning/location of staff only areas and cleaners cupboards
- locating staff only areas and cleaners' cupboards in staff zones

4.11 Is the service entry (where food, linen etc is delivered) easily visible to patients?

As with activity at the ward entry, seeing activity at the service entry is unhelpful for patients. These functions relate to the 'back of house' services of a ward and should be carried out unobtrusively. The service entry should be screened and hidden so that it is not a focus for patients. Instead, their attention should be drawn to other more fulfilling areas of the ward. For staff, this separation will make their job easier as the likelihood of inappropriate involvement in these functions by patients is minimised.

ENSURE:

- separate unobtrusive service entry

AVOID:

- deliveries through the main ward entrance used by patients and visitors
- noise from service entry interrupting patients

CONSIDER:

- timing of deliveries to minimise patient interruption (i.e. avoid deliveries during designated quiet times)
- if no separate service entry, using side entrances for deliveries
- if no separate service entry, managing the use of main entry to minimise impact on patients and visitors

4.12 Inside, can glare from natural light be managed by using curtains and blinds?

Natural and artificial lighting should be designed to avoid glare to ensure that patients can see easily within a room and to outside. The use of curtains and blinds can assist in managing glare at key times of day. The type of lamp and light fitting that are selected, the selection of surfaces and finishes, and the use of glass (which can reflect the light) should also be considered.

ENSURE:

- ability to control glare from windows using window furnishings
- light fittings and shades that protect from glare

AVOID:

- highly reflective surfaces and finishes

CONSIDER:

- light paint colours around windows to reduce contrast around windows as this can reduce glare
- orientation of windows
- using adjustable internal window shading treatment such as curtains or blinds
- outside awnings

4.13 Is the wardrobe (or cupboard) that the patient uses full of a confusing number of clothes and/or irrelevant objects?

It is important that patients have the opportunity to put their clothes or possessions away. Sometimes, however, too many choices aren't helpful and can leave a person feeling frustrated and confused. Limiting the number of things that can be easily accessed in a wardrobe/cupboard is a good way of minimizing this. Providing a less obvious wardrobe/cupboard, where the majority of clothes are stored, and a more obvious wardrobe with only limited, appropriate clothing (preferably chosen by the resident) is one approach.

ENSURE:

- patients have access to a wardrobe/cupboard containing only a small number of items
- simple layout of wardrobes/cupboard

AVOID:

- large wardrobes/cupboards with many doors/drawers
- locking all wardrobe/cupboard doors
- overcrowding wardrobe/cupboard with a lot of contents
- storing hospital supplies and equipment in patient storage

CONSIDER:

- making some wardrobe/cupboard doors less obvious
- reducing the number of wardrobe/cupboards

4.14 Are light fittings positioned so that they shine directly into a patient's eyes when they are lying on the bed?

As people age their eyes react more slowly to changes in light, meaning they require more time to transition between different light levels and issues with glare become more significant. Glare can be an irritant and can actually decrease visual performance. Lights that shine directly into a patient's eyes can be uncomfortable, confusing and distressing.

ENSURE:

- light fittings at the patient's bed do not shine directly into the patient's eyes when she/he is lying on the bed
- appropriate task lighting to enable staff to perform clinical tasks

AVOID:

- the use of downlights or spotlights
- shiny surfaces that reflect light

CONSIDER:

- the height and angle of lights so they don't shine directly into the patient's eyes
- providing adjustable lights at the patient's bed

4.15 At night, is task lighting provided which enables staff to see to perform tasks without a) increasing overall lighting level in patient room & b) light shining directly into patient's eyes?

At night, the change in light levels when a bright light is switched on to enable staff to perform tasks requiring high levels of illumination is more marked. This can cause great distress for a patient, particularly if she/he has been asleep and is awakened by a bright light. The discomfort and distress of sudden exposure to bright light in an ageing, slow to react eye, is greater than for a younger person. A well considered lighting plan can provide appropriate task lighting for staff at night without increasing the overall light level in a room or shining light directly into the patient's eyes. This is particularly important in a shared patient room where a number of patients can be unnecessarily impacted upon by poor lighting design.

ENSURE:

- light fittings at the patient's bed do not shine directly into the patient's eyes when she/he is lying on the bed
- appropriate task lighting to enable staff to perform clinical tasks at night

AVOID:

- the use of spotlights
- only providing lighting options that increase general illumination in the room
- shiny surfaces that reflect light

CONSIDER:

- the height and angle of lights so they don't shine directly into the patient's eyes
- providing adjustable lights at the patient's bed

4.16 At night, can light from the corridor be prevented from entering a patient's room?

As a person living with dementia experiences difficulties in coping with a large amount of stimulation, the environment should be designed to reduce the impact of stimulation that could impact on their wellbeing. This includes providing appropriate levels of darkness at night to promote sleep. Stray light from corridors can delay or disturb sleep. It may also suppress melatonin production, further disrupting sleep.

ENSURE:

- light from the corridor can be prevented from entering the patient's room through the use of shut doors, blinds or curtains
- corridor lighting is reduced at night

AVOID:

- leaving doors, blinds or curtains open to facilitate observations at expense of patient sleep

CONSIDER:

- night lighting of corridors

5. Optimise helpful stimulation

Inside

5.1 Are signs easy to see, read and understand?

Signage is integral to the design and function of hospitals, however, there is a risk of overstimulation and confusion when there is excessive and inappropriate use of signage. It must be remembered that not all signage is helpful or necessary. The content and placement of signs needs to be carefully considered. If signs are not effective, they are not providing helpful stimulation.

ENSURE:

- signage has a distinct and consistent identity
- signage is located in critical locations such as key decision points and locations
- appropriate signage (size, clear text, graphics, matt finish)
- signs are carefully positioned so they can be easily seen (height, location)

AVOID:

- unnecessary replication of signage

CONSIDER:

- a consistent, hospital wide signage strategy
- the use of redundant cueing to aid in wayfinding, i.e. providing more than one cue to the same thing (for example, through the use of colour, texture, finish, signage, images, artwork) recognising that different things can be meaningful to different patients and at different times
- regular review of signage on ward to remove unnecessary, out of date or damaged signs

5.2 What percentage of patients have a clearly defined path from their room to a place to sit (e.g. by using colour, objects and/or signage)?

A place to sit can be a key destination for patients once they are able to leave their beds. Therefore it is important that patients can make their way there with little assistance. While it is desirable for patients to see a place to sit as they step away from their rooms, this may not always be possible and so attention needs to be paid to the design of the route to the place to sit.

ENSURE:

- patients can either see a place to sit, or or the way to a place to sit, from the doorway of their room
- the way to a place to sit is clearly recognisable e.g. through the use of colour, furniture, artwork or appropriate signage

AVOID:

- corridors which do not have a clear indication of where they lead (e.g., to a place to sit)
- corridors that look like each other (refer 5.4)

CONSIDER:

- the transparency of the place to sit if it is a separate room. (Perforated screens, glass, small inside windows and low walls may increase the transparency between rooms, whereas curtains, solid walls and furniture may decrease the transparency)
- the use of multiples cues such as visual, auditory and olfactory (e.g. the smell of coffee brewing or toast being made)

5.3 Is a place to sit clearly recognisable from the corridor?

A place to sit can be a key destination for patients once they are able to leave their beds. It is important that it can be easily recognised upon entering the corridor, and upon approaching the space. The use of colour, artwork and/or appropriate signs or symbols will assist patients in this regard. An indication from outside the room as to what is inside is also valuable, rather than relying upon someone to open a closed door to see what is inside.

ENSURE:

- the place to sit is recognisable (whether it is a room, a nook, part of a larger space or an area along a corridor)
- the use of multiples cues to assist recognition and wayfinding (visual, auditory and olfactory)

AVOID:

- barring entry to the place to sit through a locked door
- closing the door and turning off lights when the room could be used
- using 'left over' furniture in these areas which does not clearly indicate the use and purpose of the space
- using these areas as storage areas
- using curtains, solid walls and furniture in a way that decreases the transparency of the place to sit

CONSIDER:

- the transparency of the place to sit (for example, using perforated screens, glass, small inside windows and low walls to increase the transparency.
- furniture selection so that the purpose of the place is highlighted
- introducing images near the approach such as a painting of people sitting relaxing, lounge chairs etc
- promoting music, song and chatter

5.4 Are different corridors clearly recognisable so patients can identify where they are (e.g. variety of materials, appropriate signage, colour)?

There can be many corridors within a ward and each corridor can be quite long if it leads to a number of rooms. It is therefore important that the corridors do not all appear the same, and that each corridor is broken up into different parts, to highlight, for example, a group of patient rooms, a sitting alcove, a view, or a door leading to outside. This can be done in many ways, for example, by using lighting (both natural and artificial), colour, artwork, a change in ceiling height or treatment, varied placement of windows, framing of a view or by varying the width of the corridor.

ENSURE:

- corridors have identifiable parts
- a range of finishes and features are included in a corridor

AVOID:

- repetitive corridors
- repetitive finishes
- using the same features in different corridors

CONSIDER:

- introducing features such as lighting (both natural and artificial), colour, artwork, a change in ceiling height or treatment, sitting alcove, skylight, views, paintings, framing of a view, varying the width of the corridor, varying the placement of windows

5.5 Is colour, artwork or appropriate signage used to differentiate patient rooms?

It is important to be able to identify the room before a door is opened and when a person looks into a room. This will enable patients to find their room, feel confident it is theirs, and (ideally) only enter their room. The finish on patient room doors can be varied (in detailing or colour) to assist this. Patient name, photos, art work and memory or shadow boxes (which allow a person to display some of their favourite things outside their room) can also be used effectively to identify patient rooms as belonging to a particular person prior to entry.

It is also important to be able to differentiate between the inside of patient rooms as well. This will reassure patients that they are in the correct place, and also promote some sense of wellbeing when inside the room.

ENSURE:

- patients have the opportunity to identify their room from outside the entry
- patients can personalise their rooms in some way

AVOID:

- repetition (for example of door finish, colour, furniture, layout)

CONSIDER:

- colour, photos, art work and memory or shadow boxes (inside and outside the patient room)
- a standardised signage system to identify individual patient rooms with names as appropriate that can also allow for variety and personalisation (e.g., clipframe on door to provide easy and clear patient name signage with the possibility of finish in colour and decoration)

5.6 Is colour, artwork or appropriate signage used to differentiate patient bed bays?

In shared rooms it will be important for a patient to not only find their room, but to be able to identify which bed bay is theirs.

ENSURE:

- each bed bay is differentiated (colour, finishes, artwork, clear signage, furniture, personal items)
- patients can personalise their bed bay
- some personal space is provided at the bed bay

AVOID:

- repetition (for example of colour, furniture, artworks)

CONSIDER:

- colour, photos, art work and shelf for personal items
- providing standard furniture in a variety of colours or finishes to allow for variety within a patient room

5.7 Can patients see their personal items (e.g. photos, pictures, objects) when in bed?

Having some personal items with them in hospital can provide a unique and familiar reminder to a person that this is their room or bed. This can help reduce anxiety in an otherwise very unfamiliar environment. These items (such as photos, pictures and objects) need to be placed so that the patient can see these items when in bed if they are to be of benefit to them.

In an acute care environment, extensive personalization cues may not always be appropriate due to short length of stay, frequent turnover of patients and infection control regulations. However, consideration should be given to limited personalisation of spaces and provision of cues, especially for patients living with dementia.

ENSURE:

- items are displayed where patient can see them while in bed

AVOID:

- placing items above bed head or in visually obscured location in room

CONSIDER:

- dedicated space for displaying patient personalisation items (such as a shelf or Velcro 'pin' board located on wall at foot of bed)

5.8 Can most patients see out of a window from their bed?

Patients may spend more time in their bed if they are less mobile, for example because they have difficulty moving about or are ill. It is particularly important that patients are not removed from contact with nature just because it is difficult for them to go outside. Having a view to outside gives patients the opportunity to connect with nature, to be aware of the time of day, the season, and the changes that take place in any day. An attractive view can provide an important source of stimulation and provide a good conversation point.

ENSURE:

- each patient room has a view to outside
- curtains and other obstructions in shared rooms are opened/removed when possible to ensure all patients have a view to outside

AVOID:

- rooms which have a poor view to outside e.g. of a plain brick wall

CONSIDER:

- designing layout of rooms to enable all patients to have a view to outside
- how attractive outside views can be created

5.9 Are ensuite/shared bathroom/toilet doors clearly marked with an appropriate sign and contrast?

Shared ensuites, bathrooms and toilets need to be clearly recognisable. These rooms will be used frequently, and if they can be easily found when they are needed it will reduce the stress and anxiety in older people. The finish to doors to shared ensuites, bathrooms and toilets should be clearly different from bedroom doors. Any signage should be meaningful and appropriate in size, language, contrast and colour. Signs should combine words and symbols, be placed at eye level or lower and contrast with the background.

ENSURE:

- ensuite/bathroom/toilet doors are recognisable

AVOID:

- ensuite/bathroom/toilet doors being the same colour and finish as bedroom doors

CONSIDER:

- colour, contrast, plates, sign, symbol, lighting
- hospital wide design scheme to ensure standardisation, logical and integrated approach (e.g., a toilet door is always the same shade of blue with consistent signage)

5.10 In a typical patient room can most patients see the toilet pan, toilet door, or a commode from their bed when lying down?

If patients are able to see the toilet door it will assist them to locate and use the toilet.

If the toilet pan can be seen as soon as the ensuite door is opened, it will assist patients to recognise and use this room. Placing the toilet pan in a prominent position in a room will reduce the chance of the confusion and distress that can occur if patients fail to recognise the room and so continue to look for a toilet. In particular at night, the visibility of an ensuite door and a toilet pan will help a patient to maintain independence. This can reduce inappropriate use of other parts of a room and minimise discomfort and embarrassment for the patient, their family and staff. If commodes are used, they also need to be clearly visible from the patient's bed to encourage their use and reduce the anxiety caused by the patient needing to find a toilet.

ENSURE:

- toilet door or toilet pan can be visible from the bed
- contrast between the toilet pan, floor and walls
- contrasting toilet seat is used

AVOID:

- obscuring the toilet pan
- using white fittings in a room with white finishes

CONSIDER:

- artificial lighting over the toilet (to ensure it is not in shadow)
- a low level of night lighting to the toilet and ensuite area
- skylight over toilet
- positioning of pan in the room so it is clearly visible upon opening the door

5.11 Is contrast used to help people see key features in shared bathrooms (including taps, basin, rails and toilet)?

If a patient is unable to see an object such as a toilet, it is unlikely that they will be able to use it. Contrast is often of far more importance than the colour of an object. (It is possible for objects to be of different colours but have little contrast between them and so appear the same. In these cases the objects will blend into one another.) It is important that there is contrast between horizontal surfaces, e.g. toilet seat and floor, basin and vanity bench top, taps and basin so that object that is to be used stands out. Contrast between vertical surfaces is also necessary, for example so that doors can be easily seen, handles stand out against cupboard doors etc.

ENSURE:

- contrast is used so that objects can be seen easily

AVOID:

- bland environments where there is little contrast
- contrasting floor finishes (refer 1.10 & 1.11)

CONSIDER:

- the use of contrast when selecting colours, finishes, fittings and furniture

5.12 Is contrast used to help people see key features in the ensuite (including taps, basin, rails and toilet)?

As with 5.11 if a patient is unable to see an object such as a toilet, it is unlikely that they will be able to use it. It is important that there is contrast between horizontal surfaces, e.g. toilet seat and floor, basin and vanity bench top, taps and basin so that object that is to be used stands out. Contrast between vertical surfaces is also necessary, for example so that doors can be easily seen, handles stand out against cupboard doors etc.

ENSURE:

- contrast is used so that objects can be seen easily

AVOID:

- bland environments where there is little contrast
- contrasting floor finishes (refer 1.10 & 1.11)

CONSIDER:

- the use of contrast when selecting colours, finishes, fittings and furniture

5.13 Do the toilet seats (commode/over toilet seats) contrast with the floor and/or wall?

It is vital that toilet seats contrast with the background so that they can be easily seen and identified by the patient. This is necessary for commodes and over toilet seats too.

ENSURE:

- contrasting toilet seats
- contrast between the toilet pan, floor and walls
- toilet pan is visible from doorway of shared ensuite, bathroom or toilet

AVOID:

- white toilet seats with white pans and white tiling
- obscuring the toilet pan

CONSIDER:

- lighting directly over the toilet
- positioning of pan in the room so it can be easily seen

5.14 Are olfactory cues (such as food smells and familiar toiletry products) used to provide a variety of experiences for a patient?

It is important that all of the senses are considered when providing cues that can be helpful to a person living with dementia, and the sense of smell has an important role to play. The smell of coffee brewing or toast being prepared can stimulate memories and orientate someone to time of day. The smell of food can help people feel ready to eat, and to find their way toward a kitchen or dining room if that is the goal. These cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing. It should also be recognised that patients may have positive or negative associations with certain aromas and these need to be considered when using olfactory cues. Allergies will also need to be taken into account.

ENSURE:

- olfactory cues are considered and regularly reviewed to meet patients' needs

AVOID:

- multiple concurrent olfactory cues as this can be confusing
- contradictory messages being given by olfactory cues e.g., the smell of food and cleaning products. Is it lunch time or time to clean the ensuite?

CONSIDER:

- how to change olfactory cues to reflect different times of day and seasons

5.15 Are there auditory cues to provide a variety of experiences for a patient?

It is important that all of the senses are considered when providing cues that can be helpful to a person living with dementia, and the sense of sound has an important role to play. Music can stimulate memories, alter moods and give patients a variety of experiences. Auditory cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing. Patients may have positive or negative associations with certain sounds, and this also needs to be taken into account when using auditory cues.

ENSURE:

- auditory cues are considered and regularly reviewed to meet patients' needs

AVOID:

- multiple concurrent auditory cues as this can be confusing

CONSIDER:

- how to change auditory cues to reflect different times of day and seasons

5.16 Is there an attractive view to outside from the place to sit for a person when seated or lying down? (does not include patient's room)

When patients may spend time lying down, perhaps because they are ill. This should not, however, mean that they need to remain in their rooms, just because they are not able to sit up. Where possible a place to sit should allow for patients to both sit and lie down. Having an attractive view when sitting or lying down gives patients the opportunity to connect with outdoors, to be aware of the time of day, the season and the changes that take place in any day. An attractive view can provide an important source of stimulation and provide a good conversation point.

ENSURE:

- low sill height e.g. 600mm to allow a view outside when sitting or lying down
- place to sit has an attractive view to outside
- when a bed is used in the place to sit or other common space it can be located to take advantage of the view

AVOID:

- windows with high sill height
- providing only small places to sit where patients' beds cannot be accommodated

CONSIDER:

- how furniture can be arranged flexibly to meet different sitting/lying positions

5.17 Is the ward reception/staff base easily identifiable?

If patients (and visitors) can easily see a staff base it can help them to feel supported whilst in hospital.

ENSURE:

- staff bases can be easily seen from the corridor (colour, finishes, appropriate signage, lighting)

AVOID:

- corridor clutter that obscures the view of the staff base

CONSIDER:

- location(s) of staff bases(s) within the ward so they can be easily seen and their purpose identified
- hospital wide approach to staff bases and standardised signage to ensure standardised, logical and integrated approach
- establishing clear lines of sight from patient room thresholds to staff base during design phase

5.18 In a typical patient room, can you (the observer) read this easily without the use of artificial light from each bed location?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient natural lighting in a patient's room so that artificial lighting is not required during the daytime. This will increase the usability of the room and ensure that patients are able to see the room and what is in it at all times, rather than being reliant on someone turning on the light for them. Natural (and artificial) lighting should be designed to avoid glare to ensure that patients can see easily within the room and to the outside.

ENSURE:

- sufficient natural lighting for daytime use

AVOID:

- glare
- reflective surfaces

CONSIDER:

- the positioning of beds in relation to windows
- the location of the entry to the patient room to avoid glare or backlighting
- the design of window furnishings

5.19 In a typical corridor, can you (the observer) read this easily without the use of artificial light?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient natural lighting in ward corridors so that artificial lighting is not required during the daytime. This will increase the usability of the space and ensure that patients are able to see the corridor and what is in it at all times, rather than being reliant on someone turning on the light for them. Natural (and artificial) lighting should be designed to avoid glare to ensure that patients can see easily within the room and to the outside.

ENSURE:

- sufficient natural lighting for daytime use

AVOID:

- glare
- reflective surfaces

CONSIDER:

- location of windows in the corridor
- the design of window furnishings

5.20 In the most used place to sit, can you (the observer) read this easily without the use of artificial light?

Lighting plays a key role in making a place easy to navigate and pleasant to be in. There should be sufficient natural lighting in the place to sit so that artificial lighting is not required during the daytime. This will increase the usability of the place to sit and ensure that patients are able to see the space and what is in it at all times, rather than being reliant on someone turning on the light for them. It is important that a person looking into the room can see who and what is there. Natural (and artificial) lighting should be designed to avoid glare to ensure that patients can see easily into the room, within the room and to the outside.

ENSURE:

- sufficient natural lighting for daytime use

AVOID:

- glare
- reflective surfaces

CONSIDER:

- the location of the entry to the place to sit
- positioning of furniture in relation to windows
- the design of window furnishings

5.21 Are a variety of materials and finishes used to create an interesting and varied environment for a patient?

When a variety of materials is used important stimuli can be emphasised, scale can be reduced (by avoiding repetition and making areas appear more intimate) and a more familiar environment can be created. Materials and finishes can also be used to make places more memorable, and the experience of being in them more memorable. The feel of different materials and surfaces can stimulate memories and give patients varied and rewarding experiences. Walking on tiles feels different to walking on carpet or timber. Materials need to be used carefully so that they do not compete with each other or become overwhelming and confusing.

The environment can also give us a strong indication of how we are to behave, and what we are to do in a certain place. If a person is no longer able to initiate an action or remember what a certain room is for, it is especially important that he/she is able to receive this information from the environment and receive a cue as to the room's purpose. Each room should have its own distinctive characteristics so that its use is clearly identifiable, for example as a patient lounge, or place to sit. This also means that patients and staff are offered a variety of experiences.

ENSURE:

- that the purpose and identity of rooms are easily recognisable
- the use of multiples cues including furniture, room arrangement, furnishings and finishes

AVOID:

- using common colour schemes and furniture throughout a hospital

CONSIDER:

- how identity can be created, e.g. by the use of different wall colours, artwork, fabrics in a variety of areas

Outside

5.22 Are contrasting materials used so that the edges of surfaces and objects can be easily seen (e.g. clear distinction of path edge, between seats and paving)?

If a patient is unable to see the edge of a path it is less likely she/he will remain on it. If a patient cannot see an object such as a chair, it is unlikely that she/he will be able to sit down. It is important that there is contrast between horizontal surfaces, e.g. chair seat and path, table top and seat, table top and floor so that object stands out. Contrast between vertical surfaces is also necessary.

ENSURE:

- contrast is used so that objects can be seen easily

AVOID:

- bland environments where there is little contrast

CONSIDER:

- contrasting path surfaces (refer 1.10 & 1.11)
- ways to integrate contrast into finishes and furniture (as well as colour)

5.23 Are olfactory cues (such as perfumed plants) used to provide a variety of experiences for a patient?

There are many cues that can be helpful to a person with dementia. It is important that all of the senses are considered when providing cues and the sense of smell has an important role to play. The smell of lavender or basil can stimulate memories and help people find their way to a pergola or entry to the ward. These cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing. Patients may have positive or negative associations with certain aromas and so this to be taken into account when using olfactory cues. Allergies will also need to be taken into account.

ENSURE:

- olfactory cues are considered and regularly reviewed to meet patients' needs

AVOID:

- multiple concurrent olfactory cues as this can be confusing

CONSIDER:

- how to use olfactory cues to reflect different seasons

5.24 Are there auditory cues to provide a variety of experiences for a patient?

There are many cues that can be helpful to a person with dementia. It is important that all of the senses are considered when providing cues and the sense of sound has an important role to play. The sound of wind chimes, for example, can draw people to that part of the garden. Auditory cues need to be used carefully so that they do not compete with each other or become overwhelming and confusing. Patients may have positive or negative associations with certain sounds and so this needs to be taken into account when using auditory cues.

ENSURE:

- auditory cues are considered and regularly reviewed to meet patients' needs

AVOID:

- multiple concurrent auditory cues as this can be confusing

CONSIDER:

- how to change auditory cues to reflect different times of day and seasons

5.25 Are a variety of materials and finishes used to create an interesting and varied external environment for a patient?

When a variety of materials is used, important stimuli can be emphasised, scale can be reduced (by avoiding repetition and making areas appear more intimate) and a more familiar environment can be created. Materials and finishes can also be used to make places more memorable, and the experience of being in them more memorable. The feel of different materials and surfaces can stimulate memories and give patients varied and rewarding experiences. Walking on tiles feels different to walking on carpet or timber. Materials need to be used carefully so that they do not compete with each other or become overwhelming and confusing.

ENSURE:

- a variety of materials and finishes are used to create an interesting and varied environment

AVOID:

- the repetitive use of materials and finishes
- contrasting path surfaces (refer 1.10 & 1.11)

CONSIDER:

- how to use a variety of materials and finishes to offer a range of experiences and reinforce a sense of place

6. Support movement and engagement

Inside

6.1 Is there a clearly defined and easily accessible path that guides the patient back to their starting point without taking them into a blind alley or to a locked door?

It is important that patients are able to move freely and continuously when moving around the ward and reach destinations that are meaningful. They should not end up at a dead end where they can go no further and cannot easily see how to go back. If the environment supports patients in this way it will also give them more confidence to explore the ward, providing a greater level of comfort and reducing stress.

Another aspect of encouraging patients to move about freely is to ensure that not only the ward layout, but the ward corridors themselves are well designed. Attention needs to be given to sight lines, the selection of flooring and minimising obstacles.

ENSURE:

- pathways around the ward are continuous
- pathways do not contain hazards such as stored furniture, equipment and supplies

AVOID:

- dead ends, pathways that lead to nowhere
- multiple decision points

CONSIDER:

- widening corridors occasionally to provide sitting areas and places off the main route but without dead ends
- how relevant destinations can be made obvious to patients

6.2 Can patients clearly see opportunities for meaningful engagement (either actively or passively)?

When patients are well enough to leave their bed, it is important that they are able to see opportunities for meaningful engagement. Patients may not have a clear idea of what they would like to do, or what they are looking for. They may also have forgotten where the place they are looking for is. The goal of designing the circulation within a building is not to keep patients moving, but rather to help them find places of interest and give them a rewarding experience once they are able to move beyond their bed and explore the ward. If destinations are easy to see, and there are clear landmarks along the way, the journey will be more interesting. This journey could offer patients opportunities to engage with others, to sit quietly, to take in a view and to engage in some activities, e.g., look at a newspaper, look at some artwork or reminisce about some old photos. In this way patients will be offered an experience that it is interesting and engaging.

ENSURE:

- the internal path is clearly defined and opportunities for participation are highlighted

AVOID:

- corridors with no view to other areas
- dead ends/corridors that lead to nowhere

CONSIDER:

- familiar landmarks along the way to important areas of the ward

Outside

6.3 Is there a clearly defined and easily accessible path that guides the patient back to their starting point without taking them into a blind alley or to a locked door?

The goal of designing the **external path** layout is also to not to keep patients moving, but rather to give them a rewarding experience. Patients may not have a clear idea of what they would like to do or what they are looking for. They may also have forgotten where the place they are looking for is located. If the path takes a patient past places of interest which are easy to see, it can give patients an idea of what they might like to do.

This journey should offer patients opportunities to engage with others, engage with activities, a range of stimuli and other people or to sit quietly, for example to take in a view. In this way patients are offered experiences that are interesting and rewarding.

ENSURE:

- the path guides patients to points of interest and participation, such as raised garden beds, fragrant plants or artworks

AVOID:

- paths that lead to nowhere
- dead ends

CONSIDER:

- changing landscaping to create a varied outside environment
- at some point along important paths ensuring there is a close view (e.g., of patients and activities) and a medium view (e.g., of possible destinations within the ward). Where patients are used to having a long view (e.g., view to the paddocks), this may also be appropriate.

6.4 Can patients clearly see opportunities for meaningful engagement (either actively or passively)?

Patients should be offered opportunities to engage with others, to sit quietly by themselves, to take in a view or engage in activities while outside. Patients may not have a clear idea of what they would like to do or what they are looking for. They may also have forgotten where the place they are looking for is located. If opportunities for meaningful engagement are easily visible, patients will be able to choose what they wish to do and enjoy a variety of experiences.

ENSURE:

- places of interest are easy to see
- paths guide patients to places of interest

AVOID:

- paths that lead to nowhere

CONSIDER:

- what will be interesting and engaging for patients (based on context, life experience etc)
- changing landscaping to create a varied outside environment
- a range of things for patients (their visitors and staff) to do (recognizing people's preferences can vary enormously)

6.5 Are there chairs or benches at frequent intervals so people can sit and enjoy the fresh air?

A patient can become tired while walking and may need a place to rest to prevent falls and injury, or to simply enjoy being outside. The provision of seats and benches at frequent intervals around the path is important.

ENSURE:

- seating is provided at regular intervals
- seating is clearly recognisable as a place to sit (and not a garden object)

AVOID:

- seating with sharp edges and rough surfaces

CONSIDER:

- a variety of different seats (heights, materials and locations)
- allowing for wheelchair stopping points near seating

6.6 Are there both sunny and shady areas along the path?

There will be times when sunshine is sought after and others when shade is required. Patients can become hot and dehydrate if they are outside in summer, or cold if they are outside in winter. Opportunities to be in the shade or in the sun are therefore important if patients are to enjoy being outside.

ENSURE:

- places along the path offer patients shade and sun

AVOID:

- making outside sitting areas in places that are windy
- large surfaces that reflect the heat of the sun onto patients walking on the path

CONSIDER:

- where and when the sun will shine in winter and summer in relation to the building, outside structures and verandahs

6.7 Are there verandahs or shaded seating areas in close proximity to the building?

It is important that patients are encouraged to spend time outdoors, and that it is easy for them to do so. Verandahs and shaded seating areas provide a great opportunity for patients to enjoy fresh air, without being unduly exposed to the weather, be it rain, sunshine or heat.

ENSURE:

- there is good view from the building to outside verandah areas and shelters
- the exit to the outside verandah and seating areas is easily identified
- the path to the sitting areas is clearly defined

AVOID:

- placing sheltered seating areas out of sight and
- placing sheltered seating areas not within easy reach of the building

CONSIDER:

- direction of sun and wind to ensure that different areas can be used in different weather conditions and seasons
- furniture is inviting and ready to use (e.g. chairs not stacked in a corner)

7. Create a familiar place

7.1 How many of the patients have familiar items (e.g. photos, pictures, objects) near their bed?

If patients' rooms are to be familiar to them, it will help if they are able to bring some favorite and/or recognisable items into hospital with them. For some people, a cushion or blanket, or perhaps a dressing gown will be best, for others photos of family and friends will be important. The form of this decoration will depend on the patients' life experiences, hobbies, likes and dislikes. In a shared room, it is essential that patients are able to personalise a part of the room if they wish.

ENSURE:

- opportunity to display personal items so they can be seen from a patient's bed
- hooks and rails on walls to hang photos and other objects

AVOID:

- decorating rooms in a way that leaves no opportunity for personalisation by patients
- placing familiar items out of the patient's line of sight

CONSIDER:

- areas of pin board or fabric covered materials that will allow an easily maintained surface for pinning (or velcroing) photos and pictures onto the walls

7.2 Does the most used place to sit contain pieces of furniture that would be seen as domestic by the majority of patients?

Patients are likely to spend a large amount of time in the place to sit. It is therefore important that these rooms are familiar to patients, as this can contribute to a sense of wellbeing and calm. The presence of domestic furniture will not only help to create a warm and inviting atmosphere in the room but will encourage patients to use the places and enjoy them. Materials and finishes need to be selected to allow for cleaning.

ENSURE:

- there is a variety of furniture types i.e. several styles of chairs
- a variety of furniture heights
- a variety of familiar furniture coverings
- finishes are selected to allow for cleaning of surfaces and fabrics

AVOID:

- commercial or institutional furniture selection
- repetitive use of furniture

CONSIDER:

- the domestic lounge room as the model for furniture selection
- how familiar furniture can encourage people to find their favourite place
- furniture that is appropriate for inside and outside and can be easily moved from one to another

7.3 Is the most used place to sit used to store items such as linen trolleys, medical equipment, wheelchairs, hoists and furniture?

Making the space to sit welcoming and comfortable is essential if it is to be used by patients and their visitors. Using this space as a storage area for ward equipment and furniture means that the use of the space may be unclear to patients and as a result the space may be unused.

ENSURE:

- the space is maintained as a place to sit
- the space is recognisable as a place to sit

AVOID:

- storing ward equipment and furniture in this area

CONSIDER:

- regular review and tidying of this space

8. Provide a variety of places to be alone or with others

8.1 Are there places where a person can sit on their own or in private conversation away from their bed?

All wards need to have a number of places where patients, friends, staff and families can sit, either on their own or with others. Small areas or nooks are an important way to give people many choices. They can be an area to the side of a corridor, a space at the end of a corridor, a bay window in a larger room, or a little room off a larger room. The more of these small areas or nooks there are in a ward, the greater the opportunity for patients to enjoy privacy or community.

ENSURE:

- small areas for quiet conversation/interaction are provided away from a patient's bed
- large common areas are edged with nooks and smaller areas for small groups and individuals
- nooks and the smaller edge rooms have a view or something to look at
- corridors, especially long corridors, are broken up by the provision of a space and furniture that enables people to have a conversation

AVOID:

- large undifferentiated places
- creating spaces to sit in dark, unfriendly or uninteresting spaces on the ward
- creating spaces to sit in places where patients may feel they are in the way of ward activity

CONSIDER:

- varying corridor and hall widths to accommodate small sitting places

8.2 Are there places (not in a patient's room) where a small group of people can gather?

People can do different things and feel different emotions when they gather in a small group. For example, in a small group people may have a private conversation, listen to music or play cards. It is important that small groups of people can gather away from the patient's bed without needing to rearrange the furniture, or bring seats from one room to another. (If the furniture has to be rearranged for people to gather in this way, it is less likely to happen and so opportunities for patients to experience a more private gathering will be lost.)

ENSURE:

- furniture layouts accommodate small groups

AVOID:

- undifferentiated furniture arrangements that cater only for large groups
- furniture arrangements that require everyone to be together

CONSIDER:

- the varied use of common areas for different group sizes
- flexible furniture design and layout to suit different group sizes

8.3 Can a family member/support person sit with the patient at their bedside?

Family members and support people can make an important contribution to care within the acute care environment, especially for people living with dementia. Providing a comfortable space for visitors can increase social support for the patient.

ENSURE:

- comfortable furniture is available at the bedside for use by visitors

AVOID:

- making access to visitor furniture difficult

CONSIDER:

- providing adequate space for visitor furniture at the bedside so the visitor is not required to move out of the way when staff are in attendance

Outside

8.4 Are there places where a person can be on their own and/or in private conversation?

Patients should be able to choose to socialise in different ways. Sometimes people may choose to spend time on their own or in a small group. Certain activities are better suited to a more private setting, such as having a conversation. The **outdoor** environment needs to allow patients opportunities to gather in small groups in public and private so that patients can choose what is best for them at a particular time.

ENSURE:

- outdoor furniture arrangement encourages conversation
- the widths of verandah areas can accommodate small groups and still allow safe circulation past the group
- there are seasonal outside places where people can be on their own or in private conversation (shaded summer places and sunny winter places)

AVOID:

- wind and sun exposed seating and tables outside
- installing fixed furniture which does not allow for private conversations

CONSIDER:

- how the selection of outside furniture can support people to be on their own or in private conversation

8.5 Are there places where a small group of people can gather?

People can do different things and feel different emotions when they gather in a small group. For example, in a small group people may have a private conversation, listen to music or play cards. It is important that small groups of people can comfortably gather outside without rearranging the furniture. If the furniture has to be rearranged for people to gather in this way, it is less likely to happen and so opportunities for patients to experience a more private gathering will be lost.

ENSURE:

- furniture layouts accommodate small groups

AVOID:

- undifferentiated furniture arrangements that cater only for large groups
- furniture arrangements that require everyone to be together

CONSIDER:

- a variety of different external settings which are designed for different group sizes
- flexible furniture design and layout to suit different group sizes

9. Link to the community

9.1 Is it possible for a family member/support person to stay with a patient during the night?

Providing an environment that can support an appropriate family member/support person to stay overnight with the patient living with dementia may help the patient feel safe and secure. It may also assist staff to provide dignified care. Ideally this space should be comfortable for the family member/support person and help them to feel welcome, as well as get some rest. Staff should be able to attend the patient without disturbing the family member/support person.

ENSURE:

- a comfortable bed or appropriate reclining chair is available for overnight stays by an appropriate family member/support person

AVOID:

- providing unsuitable seating for overnight stays

CONSIDER:

- providing space at the bedside that will accommodate an overnight stay without obstructing staff when delivering patient care

9.2 Is there a place where families and friends can share meals and/or celebrations with their relatives/friends who are patients (e.g. café, garden)?

A person living with dementia can become isolated and less engaged as they become frailer. Engagement with family and friends (as well as the wider community) is vital to reinforce a person's identity, encourage interaction with other people and maintain the skills and interests of the person living with dementia. This also plays an important role in reducing the stigma that can be associated with dementia.

Sharing a meal together is a pleasure for many people. Community spaces in the hospital may provide opportunities to gather in a public and social space. However, it is important that patients and their families also have the opportunity to gather in a more private setting to eat and relax if they want to. The inclusion of such places is likely to encourage family and friends to visit a hospital as they feel welcome and are able to interact with their loved one in the way they are used to in the community.

ENSURE:

- one or more areas or rooms which can be used by families to dine with a patient
- area is attractive and comfortable
- places are included in the hospital where the person with dementia can engage with the wider community (e.g. café's and gardens)
- places are included in the hospital which encourage the wider community to come to the hospital

AVOID:

- distractions near the area such as main circulation pathways
- signage with lots of rules and instructions
- isolating the ward so it is difficult for patients to gain access to other parts of the hospital

CONSIDER:

- flexible furnishings, flexible screening to accommodate small or large group
- location of cafés, gardens and other community spaces for ease of access by frail or less mobile patients and visitors
- location of meeting rooms and gathering places so they are easily accessed by the wider community
- providing internal and external places for the community to use

10. Design in response to vision for way of life

10.1 **What is the vision of the ward? To provide:**

a) **a homelike environment**

b) **a hotel like environment with hotel like services**

c) **a medical care hospital**

d) **a salutogenic* environment**

e) **other . . .**

**A 'salutogenic' approach is one that focuses on factors that support health and wellbeing, beyond a more traditional, 'pathogenic' focus on risk and problems.*

The development of a clear vision for a way of life in the hospital is vital. The vision will influence the design of the ward, for example a kitchen may be essential if the vision is one of taking part in ordinary activities of daily life. However, if the focus is instead on social activities, the kitchen may be replaced with a patient common room or a place for playing bowls or bocce. The vision will influence the priorities of a ward and how patients will spend their time within the ward and in the wider community. It will give the staff direction and help patients and their families understand what kind of care they can expect. Patients are not all the same. They come to hospital with a variety of life experiences and preferences. They enjoy doing different things and will look to continue these as far as they are able whilst in hospital. This is important to make the hospital stay as short and pleasant as possible, and to retain these skills for the patient's return home. It may not be possible for a hospital ward to meet the needs of every potential patient, but articulating a vision will assist both the hospital and the patient (and their families and friends) to know what is possible.

ENSURE:

- there is a clearly articulated vision for how patients are to live while in the hospital, what they can do etc

AVOID:

- assuming all patients enjoy the same lifestyle and have the same needs

CONSIDER:

- ways in which the environment can enable the vision to be realised

10.2 How well does the built environment enable this to happen?

1 = not at all well

5 = extremely well

The term 'built environment' refers to aspects of our surroundings that are built by humans (i.e., buildings and gardens), rather than the natural environment (air, water etc). Sometimes the built environment of the ward (and perhaps the wider hospital environment) supports staff to implement the vision, and sometimes it hinders its realization. The vision has been identified in question 10.1. Consider how well the built environment of your ward CURRENTLY supports staff to implement the vision when answering this question.

10.3 How well could the built environment enable this to happen?

1 = not at all well

5 = extremely well

Now consider how well the built environment of your ward (and perhaps the wider hospital environment) COULD support staff to implement the vision as identified in question 10.1? Does the built environment have potential or is it currently under-utilised (for example is there an unattractive or inaccessible outside spaces that COULD allow access to outside spaces for patients even if this is currently not possible due to other issues (e.g. hospital policy, maintenance issues, staffing, etc). Consider what could happen if current barriers or limitations were removed.

Or it may be that the built environment is so poor that despite all the resources and best intentions in the world, the vision could not be fully realised (for example, no possibility of access to outside spaces, no single rooms and no places to sit away from the patient's bedside may prevent the full implementation of a salutogenic vision).

RESOURCE 7

EAT-Acute Care Handbook

APPENDIX 1

ENVIRONMENTAL ASSESSMENT TOOL - ACUTE CARE

INTRODUCTION TO THE EAT-ACUTE CARE TOOL

PURPOSE OF THE TOOL

- To identify strengths and weaknesses of the acute care environment
- To enable a systematic conversation about ways the environment can support people living with dementia

WHERE TO ASSESS?

- Before you start, please be clear about the extent of the ward ie what is in and what is out

ANSWERING THE QUESTIONS

You will need to ask the manager to

- Identify where is the *most used* place to sit
- Identify where is the *most used* outdoor area
- Respond to the questions under principle 10 'Design in response to vision for way of life'

Answer questions based on how the environment is when you are there – not what it might be like at another time. (This is recorded on the cover sheet so we know).

TERMINOLOGY

Place to sit:	a room, alcove, nook or part of a corridor where a patient can sit
Ensuite:	a toilet and/or shower directly accessed from a patient room. It may be used by one or more patients
Shared bathroom:	a shower or bathroom directly accessed from a corridor
Shared toilet:	a toilet directly accessed from a corridor

FINAL QUESTION UNDER EACH PRINCIPLE

At the end of each principle you will be asked to rate how well the ward responds to the principle. This gives you an opportunity to record your overall impression of the ward.

EAT-ACUTE CARE

Date: Time: Hospital:

Ward (name and type): No. of patients:

Unusual circumstances at time of visit:

Observer:

1	UNOBTRUSIVELY REDUCE RISKS	N/A	NO	YES	ADD 1 IF UNOBTRUSIVE	SCORE
Inside						
1.1	Can the entry to the ward be secured?		0	1	1	
1.2	Can all side doors leading out of the ward be secured? (This does not refer to side doors leading to a secure outside area. *(N/A = no side doors)*	0	0	1	1	
1.3	Can people be prevented from climbing in or out of windows when they are open? *(N/A = windows non-openable)*	0	0	1	1	
1.4	Is lighting at the patient's bed adjustable (e.g. choice of light source, adjustable direction or dimmable)?		0	1		
1.5	Is there dimmable or night lighting in the patient's ensuite/toilet?		0	1		
1.6	Does the lighting in a typical patient's ensuite provide bright, even lighting when using the toilet, shower and/or basin? *(N/A = no ensuite)*	0	0	1		
1.7	Does the lighting in the shared bathroom provide bright, even lighting when using the toilet, shower and/or basin? *(N/A = no shared bathroom)*	0	0	1		
1.8	Are corridors free of trip hazards and obstructions?		0	1		
1.9	Are patient rooms free of clutter, trip hazards and obstructions?		0	1		
1.10	Inside, is contrast **between** floor surfaces at the thresholds of rooms avoided?		0	1		
1.11	Inside, is contrast **within** floor surfaces (eg patterns and/or features) avoided?		0	1		
1.12	Inside, is glare from artificial lighting minimised?		0	1		

1	UNOBTRUSIVELY REDUCE RISKS	N/A	NO	YES	ADD 1 IF UNOBTRUSIVE	SCORE
Outside *(Answer with reference to the most used outside area)*						
1.13	Is glare from natural and artificial lighting minimised? *(N/A = no outside area)*	0	0	1		
1.14	Is there step free access to all areas? *(N/A = no outside area)*	0	0	1		
1.15	Is contrast between path surfaces avoided? *(N/A = no outside area)*	0	0	1		
1.16	Are path surfaces even? *(N/A = no outside area)*	0	0	1		
1.17	Are paths clear of obstacles (e.g. trees, thorny plants) along and over the path? *(N/A = no outside area)*	0	0	1		
1.18	Can patients be prevented from leaving the outside area by getting over/under the perimeter? *(N/A = no outside area)*	0	0	1	1	
1.19	Can patients be prevented from leaving the outside area through a gate (e.g. could the gate be locked if required? *(N/A = no outside area)*	0	0	1	1	
1.20	On the whole, how well do you think this ward responds to the principle of 'Unobtrusively reduce risks'? *1 = not at all well, 5 = extremely well*	Circle one option 1 2 3 4 5				
					SCORE	

2	PROVIDE A HUMAN SCALE				
	Scale of the ward	N/A	NO	YES	SCORE
2.1	Does the length of the corridor(s) allow a person to feel comfortable (and not uneasy because it is/they are too long)? *(Answer with reference to typical ward corridor)*		0	1	
2.2	Is furniture in place to sit arranged so people can sit on their own or in small groups? (Answer with reference to place to sit most used by patients) *(N/A = no place to sit)*	0	0	1	
2.3	Are a variety of colours, finishes and materials used in the ward?		0	1	
2.4	On the whole, how well do you think this ward responds to the principle of 'Provide a human scale'? *1 = not at all well* *5 = extremely well*	Circle one option 1 2 3 4 5			
				SCORE	

3	ALLOW PEOPLE TO SEE AND BE SEEN	0-25%	26-50%	51-75%	76-100%	SCORE
3.1	What proportion of patients can see the toilet pan, toilet door, or a commode from their bed?	0	1	2	3	
3.2	What proportion of patients can see a staff base as soon as they leave their room?	0	1	2	3	
3.3	What proportion of patients can see the entry to their room from the corridor? *(Entry includes door, architrave or other feature specific to a particular patient's room)*	0	1	2	3	
3.4	What proportion of patients can see their bed from the entry to their room? *(Assume curtains at bed bays are open)*	0	1	2	3	
3.5	What proportion of patients can see a place to sit as soon as they leave their room? *(A place to sit may not be a separate room)*	0	1	2	3	

		N/A	NO	YES	SCORE
3.6	Can a toilet door be clearly seen from the most used place to sit? *(N/A = no place to sit)*	0	0	1	
3.7	Can the exit to an outside area be clearly seen from the most used place to sit? *(Answer with reference to the most used outside area)* *(N/A = no place to sit or no outside area)*	0	0	1	
3.8	Can the place to sit be clearly seen from where staff spend most of their time (such as the staff base)? *(Answer with reference to the most used place to sit)* *(N/A = no place to sit)*	0	0	1	
3.9	Can an outside area be clearly seen from where staff spend most of their time? *(Answer with reference to the most used outside area)* *(N/A = no outside area)*	0	0	1	
3.10	Can the door back into the ward be clearly seen from an outside area? *(Answer with reference to the most used outside area)* *(N/A= no outside area)*	0	0	1	
3.11	Can the exit to an outside area be clearly seen from a corridor? *(Answer with reference to the most used outside area)* *(N/A= no outside area)*	0	0	1	
3.12	Can a kitchenette be clearly seen from a corridor? *(N/A= no kitchenette)*	0	0	1	
3.13	Can a toilet be clearly seen from a corridor?		0	1	
3.14	On the whole, how well do you think this ward responds to the principle of 'Allow people to see and be seen? *1 = not at all well, 5 = extremely well*	Circle one option 1 2 3 4 5			
				SCORE	

4	REDUCE UNHELPFUL STIMULATION	N/A	NO	YES	SCORE
4.1	Is there a public address, staff paging or call system with bells, audible medical equipment, loud speakers or flashing lights in use?		1	0	
4.2	Does the noise from closing doors disturb patients (e.g. flapping doors, noisy automatic doors)?		1	0	
4.3	Is the impact of noise limited in patient areas (e.g. deliveries, lifts, plant, door entry systems are not heard)?		0	1	
4.4	Are unnecessary sources of noise such as TV's radios, audible medical equipment turned off or minimised?		0	1	
4.5	Are there designated quiet times (which staff as well as visitors must observe?)		0	1	
4.6	Can the transfer of sound from one room to another be managed (eg by closing doors)?		0	1	
4.7	Are single rooms available that have little exposure to staff operational noise?		0	1	
4.8	Is there a lot of visual clutter in the ward (ie staff notices, signage, objects, furniture that are either irrelevant to patients &/or make it hard for them to interpret their environment)?		1	0	
4.9	Is the entry to the ward easily visible to patients?		1	0	
4.10	Are doors to staff only areas easily seen (e.g. storerooms, clean and soiled utility rooms)?		1	0	
4.11	Inside, can glare from natural light be managed by using curtains and blinds?		0	1	
4.12	Are light fittings positioned so that they shine directly into a patient's eyes when they are lying on the bed?		1	0	
4.13	At night, is task lighting provided which enables staff to see to perform tasks without a) increasing overall lighting level in patient room & b) light shining directly into patient's eyes?		0	1	
4.14	At night, can light from the corridor be prevented from entering a patient's room?		0	1	
4.15	On the whole, how well do you think this ward responds to the principle of 'Managing levels of stimulation – reduce unhelpful stimulation? 1 = not at all well 5 = extremely well	Circle one option 1 2 3 4 5			
				SCORE	

5	OPTIMISE HELPFUL STIMULATION	N/A	NO	YES	SCORE
Inside					
5.1	Are signs easy to see, read and understand?		No 0	Yes 1	
5.2	What percentage of patients have a clearly defined path from their room to a place to sit (e.g. by using colour, objects and/or signage)? *(N/A= no place to sit)*	0	0-25% 0 / 26-50% 1	51-75% 2 / 76-100% 3	
5.3	Is a place to sit clearly recognisable from the corridor? *(N/A = no place to sit)*	0	No 0	Yes 1	
5.4	Are different corridors clearly recognisable so patients can identify where they are (eg variety of materials, appropriate signage, colour)? *(NA – only one corridor)*	0	No 0	Yes 1	
5.5	Is colour, artwork or appropriate signage used to differentiate patient rooms?		No 0	Yes 1	
5.6	Is colour, artworks or appropriate signage used to differentiate patient bed bays?		No 0	Yes 1	
5.7	Can patients see their personal items (eg photos, pictures, objects) when in bed? *(N/A = no personal items)*	0	No 0	Yes 1	
5.8	Can most patients see out of a window from their bed? *(Assume curtains at bed bays are open)*		No 0	Yes 1	
5.9	Are ensuite/shared bathroom/toilet doors clearly marked with an appropriate sign and contrast? *(N/A = no ensuite, shared bathroom or toilet)*	0	No 0	Yes 1	
5.10	In a typical patient room can most patients see the toilet pan, toilet door, or a commode from their bed when lying down?		No 0	Yes 1	
5.11	Is contrast used to help people see key features in shared bathrooms (including taps, basin, rails and toilet)? *(N/A = no shared bathroom)*	0	No 0	Yes 1	
5.12	Is contrast used to help people see key features in the ensuite (including taps, basin, rails and toilet)? *(N/A = no ensuite)*	0	No 0	Yes 1	
5.13	Do the toilet seats (commode/over toilet seats) contrast with the floor and/or wall?		No 0	Yes 1	
5.14	Are olfactory cues (such as food smells and familiar toiletry products) used to provide a variety of experiences for a patient?		No 0	Yes 1	
5.15	Are there auditory cues to provide a variety of experiences for a patient?		No 0	Yes 1	
5.16	Is there an attractive view to outside from the place to sit for a person when seated or lying down? (does not include patient's room) *(N/A = no place to sit)*	0	No 0	Yes 1	

5	OPTIMISE HELPFUL STIMULATION	N/A	NO	YES	SCORE
5.17	Is the ward reception/staff base easily identifiable?		No 0	Yes 1	
5.18	In a typical patient room, can you (the observer) read this easily without the use of artificial light from each bed location?		No 0	Yes 1	
5.19	In a typical corridor, can you (the observer) read this easily without the use of artificial light?		No 0	Yes 1	
5.20	In the most used place to sit, can you (the observer) read this easily without the use of artificial light? *(N/A = no place to sit)*	0	No 0	Yes 1	
5.21	Are a variety of materials and finishes used to create an interesting and varied environment for a patient?		No 0	Yes 1	
Outside *(Answer with reference to the most used outside area)*					
5.22	Are contrasting materials used so that the edges of surfaces and objects can be easily seen (e.g clear distinction of path edge, between seats and paving)? *(N/A = no outside area)*	0	No 0	Yes 1	
5.23	Are olfactory cues (such as perfumed plants) used to provide a variety of experiences for a patient? *(N/A = no outside area)*	0	No 0	Yes 1	
5.24	Are there auditory cues to provide a variety of experiences for a patient? *(N/A = no outside area)*	0	No 0	Yes 1	
5.25	Are a variety of materials and finishes used to create an interesting and varied external environment for a patient? *(N/A = no outside area)*	0	No 0	Yes 1	
5.26	On the whole, how well do you think this ward responds to the principle of 'Managing levels of stimulation – optimise helpful stimulation? *1 = not at all well, 5 = extremely well*	Circle one option 1 2 3 4 5			
				SCORE	

6	**SUPPORT MOVEMENT AND ENGAGEMENT**	N/A	NO	YES	SCORE
Inside					
6.1	Is there a clearly defined and easily accessible path that guides the patient back to their starting point without taking them into a blind alley or to a locked door?		0	1	
6.2	Can patients clearly see opportunities for meaningful engagement (either actively or passively)?		0	1	
Outside *(Answer with reference to the most used outside area)*					
6.3	Is there a clearly defined and easily accessible path that guides the patient back to their starting point without taking them into a blind alley or to a locked door? *(N/A = no outside area)*	0	0	1	
6.4	Can patients clearly see opportunities for meaningful engagement (either actively or passively)? *(N/A = no outside area)*	0	0	1	
6.5	Are there chairs or benches at frequent intervals so people can sit and enjoy the fresh air? *(N/A = no outside area)*	0	0	1	
6.6	Are there both sunny and shady areas along the path? *(N/A = no outside area)*	0	0	1	
6.7	Are there verandahs or shaded seating areas in close proximity to the building? *(N/A = no outside area)*	0	0	1	
6.8	On the whole, how well do you think this ward responds to the principle of 'Support movement and engagement'? *1 = not at all well, 5 = extremely well*	Circle one option 1 2 3 4 5			
				SCORE	

7	CREATE A FAMILIAR PLACE	N/A	NONE	A FEW	MANY	SCORE
7.1	How many of the patients have familiar items (e.g. photos, pictures, objects) near their bed?		0	1	2	
7.2	Does the most used place to sit contain pieces of furniture that would be seen as domestic by the majority of patients? *(N/A = no place to sit)*	0	No 0	Yes 1		
7.3	Is the most used place to sit used to store items such as linen trolleys, medical equipment, wheelchairs, hoists and furniture? *(N/A = no place to sit)*	0	No 1	Yes 0		
7.4	On the whole, how well do you think this ward responds to the principle of 'Create a familiar place'? *1 = not at all well* *5 = extremely well*	Circle one option 1 2 3 4 5				
					SCORE	

8	PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS					SCORE
Inside						
8.1	Are there places where a person can sit on their own or in private conversation away from their bed?	NO Score 0	1 Score 1	2 or more Score 2		
8.2	Are there places (not in a patient's room) where a small group of people can gather?	NO Score 0	1 Score 1	2 Score 2	3 or more Score 3	
8.3	Can a family member/support person sit with the patient at their bedside?		NO Score 0	YES Score 1		
Outside *(Answer with reference to the most used outside area)*						
8.4	Are there places where a person can be on their own and/or in private conversation? *(N/A = no outside area)*	0	NO Score 0	1 Score 1	2 or more Score 2	
8.5	Are there places where a small group of people can gather? *(N/A = no outside area)*	0	NO Score 0	1 Score 1	2 or more Score 2	
8.6	On the whole, how well do you think this ward responds to the principle of 'Provide a variety of places to be alone or with others – in the ward'? *1 = not at all well* *5 = extremely well*	Circle one option 1 2 3 4 5				
					SCORE	

9 LINK TO THE COMMUNITY

				SCORE
9.1	Is it possible for a family member/support person to stay with a patient during the night? *(Answer with reference to typical patient room)*	NO Score 0	YES Score 1	
9.2	Is there a place where families and friends can share meals and/or celebrations with their relatives/friends who are patients (e.g. café, garden)?	NO Score 0	YES Score 1	
9.3	On the whole, how well do you think this ward responds to the principle of 'Provide a variety of places to be alone or with others – in the hospital'? *1 = not at all well* *5 = extremely well*	Circle one option 1 2 3 4 5		
			SCORE	

10 DESIGN IN RESPONSE TO VISION FOR WAY OF LIFE

10.1	What is the vision of the ward? To provide: a. a homelike environment b. a hotel like environment with hotel like services c. a medical care facility d. a salutogenic environment e. other .... *(Ask the manager or their representative for their view)*	Circle one option a b c d e	
10.2	How well does the built environment enable this to happen? *(Ask the manager or their representative for their view)* *1 = not at all well* *5 = extremely well*	Circle one option 1 2 3 4 5	
10.3	How well could the built environment enable this to happen? *(Ask the manager or their representative for their view)* *1 = not at all well* *5 = extremely well*	Circle one option 1 2 3 4 5	
		SCORE	

EAT-ACUTE CARE – SUPPLEMENTARY QUESTIONS

Here are some additional questions you may wish to consider.

These are questions that did not meet measurement requirements for inclusion in the EAT-Acute Care, but may nonetheless be useful for consultation purposes.

2	PROVIDE A HUMAN SCALE				
	Scale of building	N/A	NO	YES	SCORE
2.a	Does the entry to the ward allow a person to feel comfortable (and not uneasy because the spaces are too big or too small)?		0	1	
2.b	Do places to sit allow a person to feel comfortable (and not uneasy because the spaces are too big or too small)? *(Answer with reference to place to sit most used by patients. This does not include the patient's bedside.)* *(N/A = no place to sit)*	0	0	1	

4	REDUCE UNHELPFUL STIMULATION	N/A	NO	YES	SCORE
4.a	Is the service entry (where food, linen etc is delivered) easily visible to patients? *(N/A = no service entry)*	1	1	0	
4.b	Is the wardrobe (or cupboard) that the patient uses full of a confusing number of clothes and/or irrelevant objects? *(N/A = no wardrobe)*	1	1	0	

7	CREATE A FAMILIAR PLACE	N/A	NONE	A FEW	MANY	SCORE
7.a	Are the colours or decorations in the patient's room warm and welcoming? *(Answer with reference to a typical room)*		0	1	2	
7.b	Do the colours or decorations in the most used place to sit provide a warm and welcoming space to sit? *(N/A = no place to sit)*	0	0	1	2	

9	LINK TO THE COMMUNITY	N/A	NO	YES	SCORE
9.a	Is there easy access to places which encourage interaction and engagement with the wider community (e.g. cafes, gardens)?		0	1	
9.b	Is there an easily accessible place where families and friends can feel comfortable while taking a break from visiting (eg when visiting a very sick person)?		0	1	
				MAXIMUM SCORE	

RESOURCE 7

EAT-Acute Care Handbook

APPENDIX 2

EAT-ACUTE CARE PLANNING TEMPLATE

Sept. 2020

EAT-ACUTE CARE PLANNING TEMPLATE

KEY DESIGN PRINCIPLES						
		Unobtrusively reduce risks	**Provide a human scale**	**Allow people to see and be seen**	**Reduce unhelpful stimulation**	**Optimise helpful stimulation**
ACTIONS	**ISSUES**					
	How can we **re-use** what is there?					
	What can we do in the **short** term?					
	What can we do in the **medium** term?					
	What can we do in the **long** term?					

KEY DESIGN PRINCIPLES

		Support movement & engagement	Create a familiar place	Provide a variety of places to be alone or with others	Link to the community	Design in response to vision for way of life
ACTIONS	**ISSUES**					
	How can we **re-use** what is there?					
	What can we do in the **short** term?					
	What can we do in the **medium** term?					
	What can we do in the **long** term?					