APPLYING THE KEY DESIGN PRINCIPLES
IN ENVIRONMENTS FOR PEOPLE WITH DEMENTIA

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RESOURCE 2

Environmental Design Resources

February 2017

Dementia Training Australia

DESIGNING FOR PEOPLE WITH DEMENTIA

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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

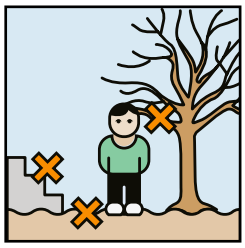
KEY DESIGN PRINCIPLES

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).

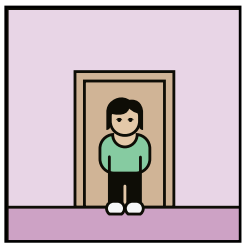
The design principles are:-

1. UNOBTRUSIVELY REDUCE RISKS



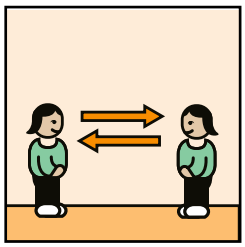
People with dementia require an internal and external environment that is safe and easy to move around if they are to continue to pursue their way of life and make the most of their abilities. Potential risks such as steps must be removed. All safety features must be unobtrusive as obvious safety features,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

2. PROVIDE A HUMAN SCALE



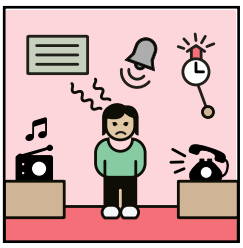
The scale of a building can affect the behaviour and feelings of a person with dementia. The experience of scale is influenced by three key factors; the number of people that the person encounters, the overall size of the building and the size of the individual components (such as doors, rooms and corridors). 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

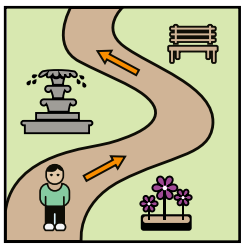


Because dementia reduces the ability to filter stimulation and attend to only those things that are important, a person with dementia becomes stressed by prolonged exposure to large amounts of stimulation. The environment should be designed to minimise exposure to stimuli that are not specifically helpful 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

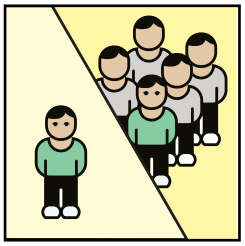


Purposeful movement can increase engagement and maintain a person's health and wellbeing. It is encouraged by providing a well defined pathway, free of obstacles and complex decision points, that guides people past points of interest and opportunities to engage in activities or social interaction. The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

7. CREATE A FAMILIAR PLACE

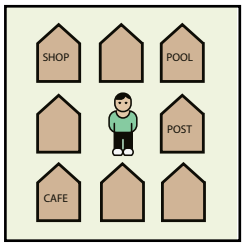
A person with dementia is more able to use and enjoy places and objects that are familiar to them from their early life. The environment should afford them the opportunity to maintain their competence through the use of familiar building design (internal and external), furniture, fittings and colours.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

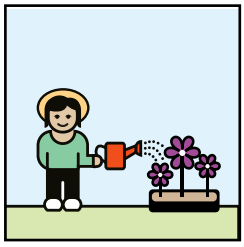
9. PROVIDE A VARIETY OF PLACES TO BE ALONE OR WITH OTHERS - IN THE COMMUNITY



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.

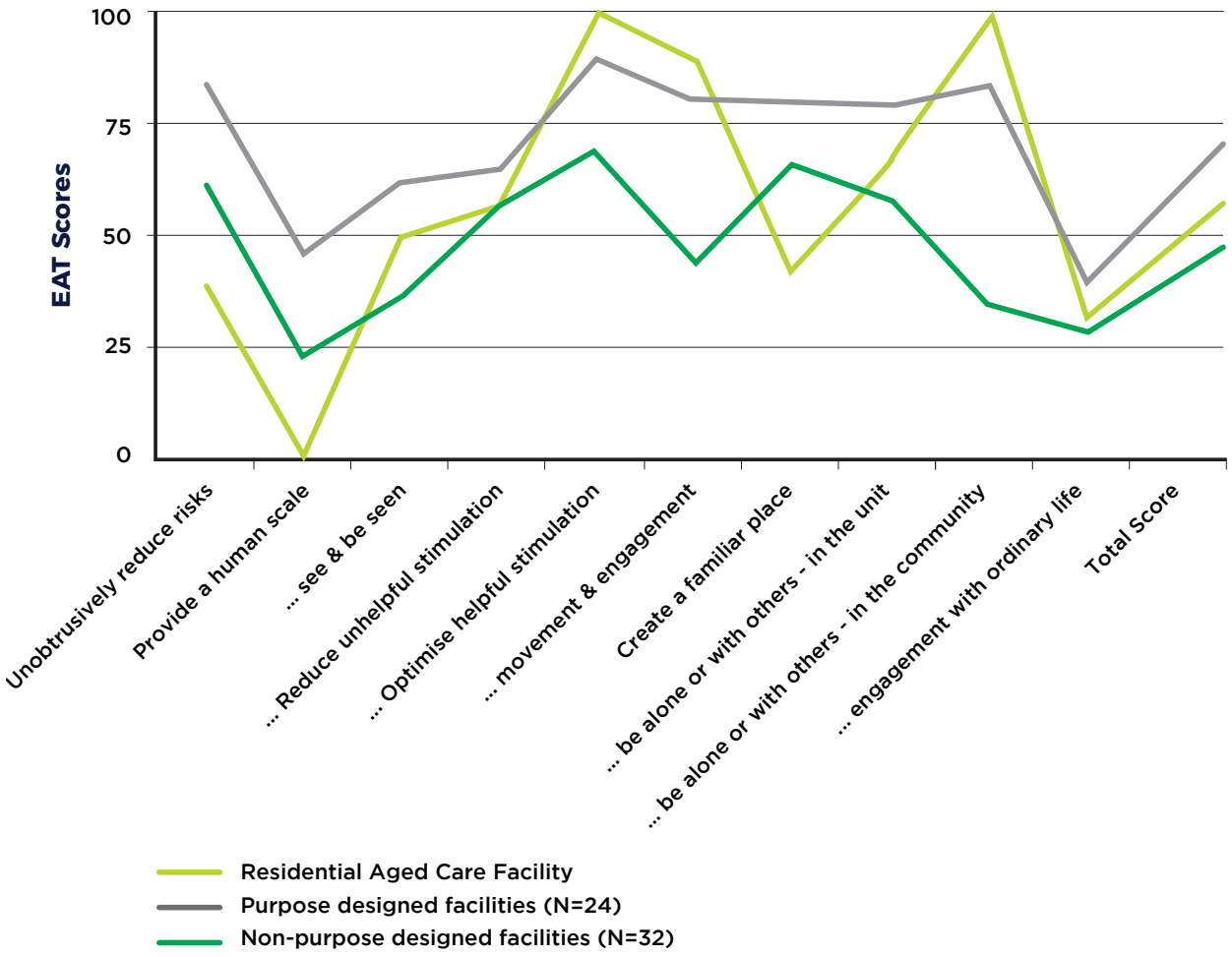
The spreadsheet allows the scores of up to five EAT users to be entered. In this instance the average of the ratings is used in the graphs and reports generated.

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

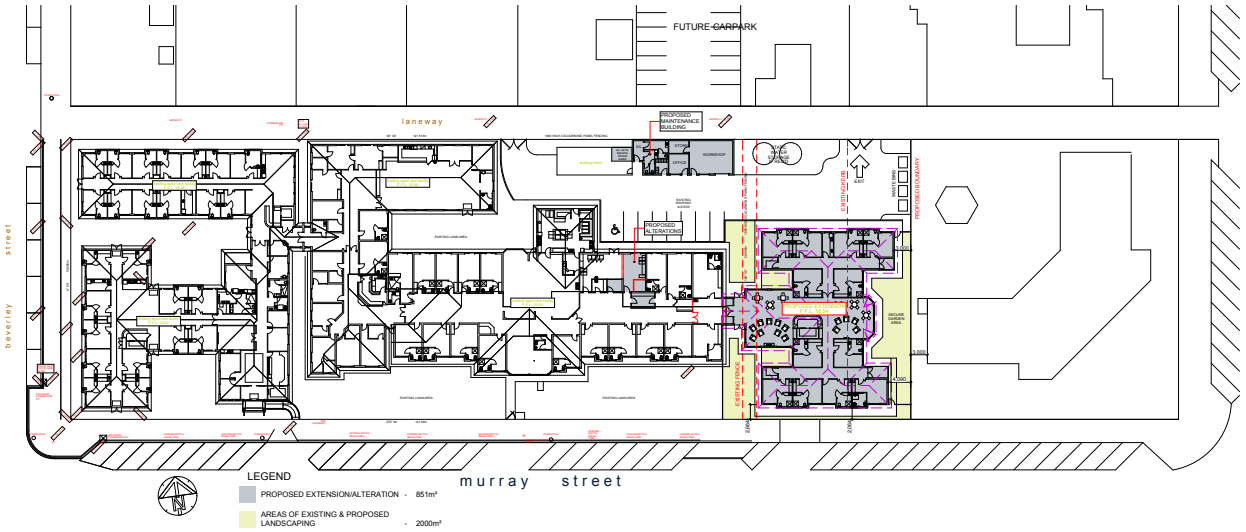
Murray House in Wentworth NSW illustrates how key design principles can be applied even once the design of a project is well underway. While working within the existing building layout and planning approval, a number of areas were identified which could be altered relatively simply to better respond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

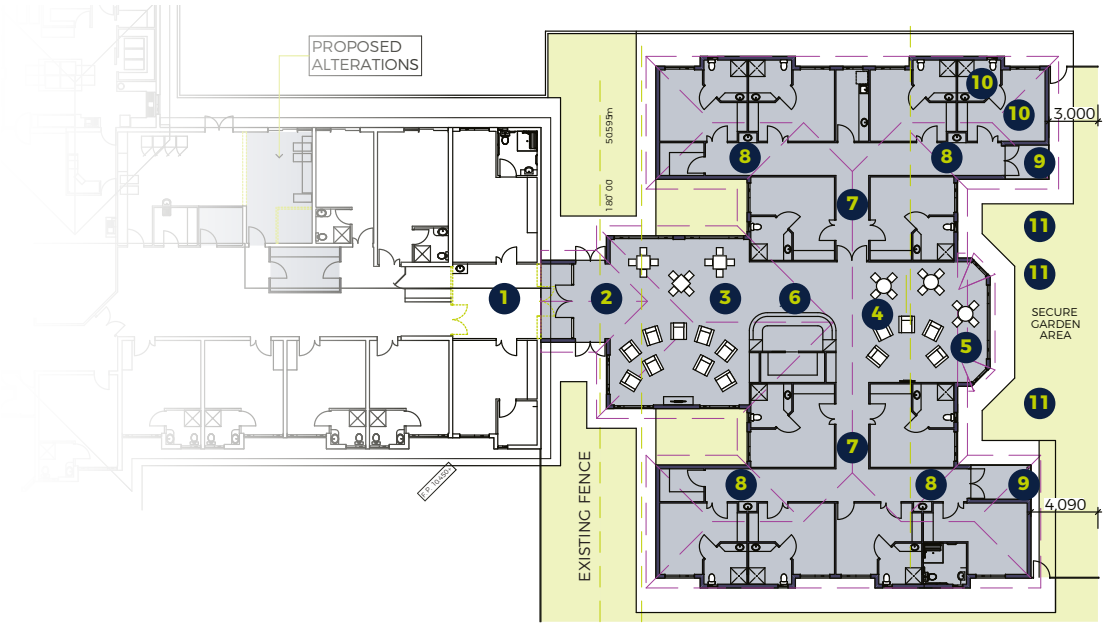
Geoff told us that 'a key design goal is to have the ability to close the unit to create a secure environment when needed, but not to isolate or separate the unit from the rest of Murray House'. GSD Architects placed social spaces at the junction between the old and the new buildings so these can be 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

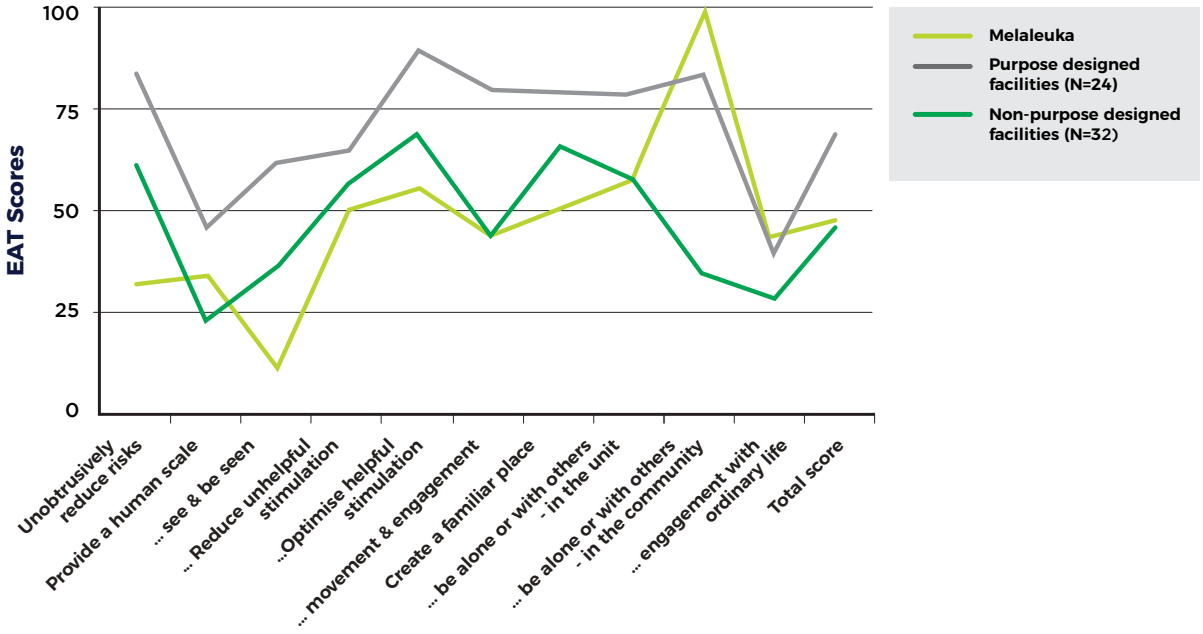
After the BlueCross Executive Team decided to invest in refurbishment and improvements to Melaleuca, Blue Cross contacted the Designing for People with Dementia (DPD) service to enquire about their design education service. The design education service focuses on two key elements: a conversation about 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.

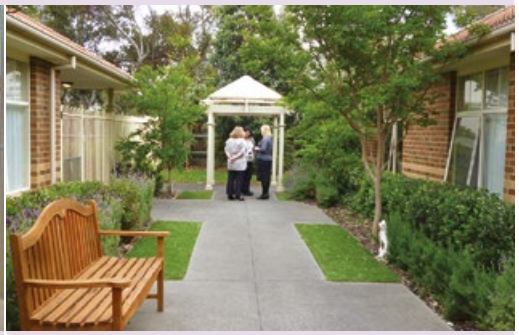
BEFORE

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

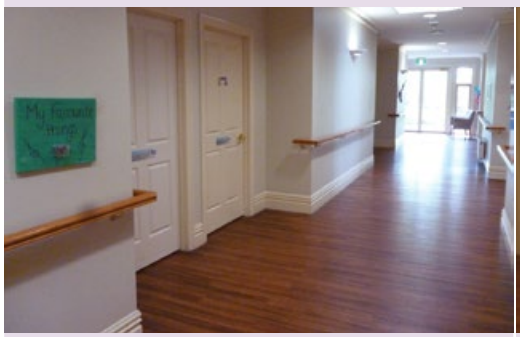
A mural representing an Italian street café was used to disguise the main entrance from within the unit. As the dining room is to the right of the mural it also was an important wayfinding prompt to head in that direction. This replaced the existing mural which had been ineffective in hiding the entry 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.



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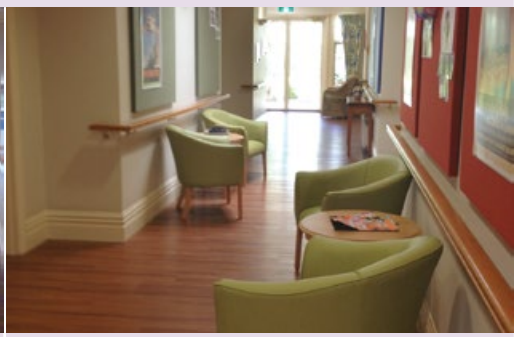


AFTER

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

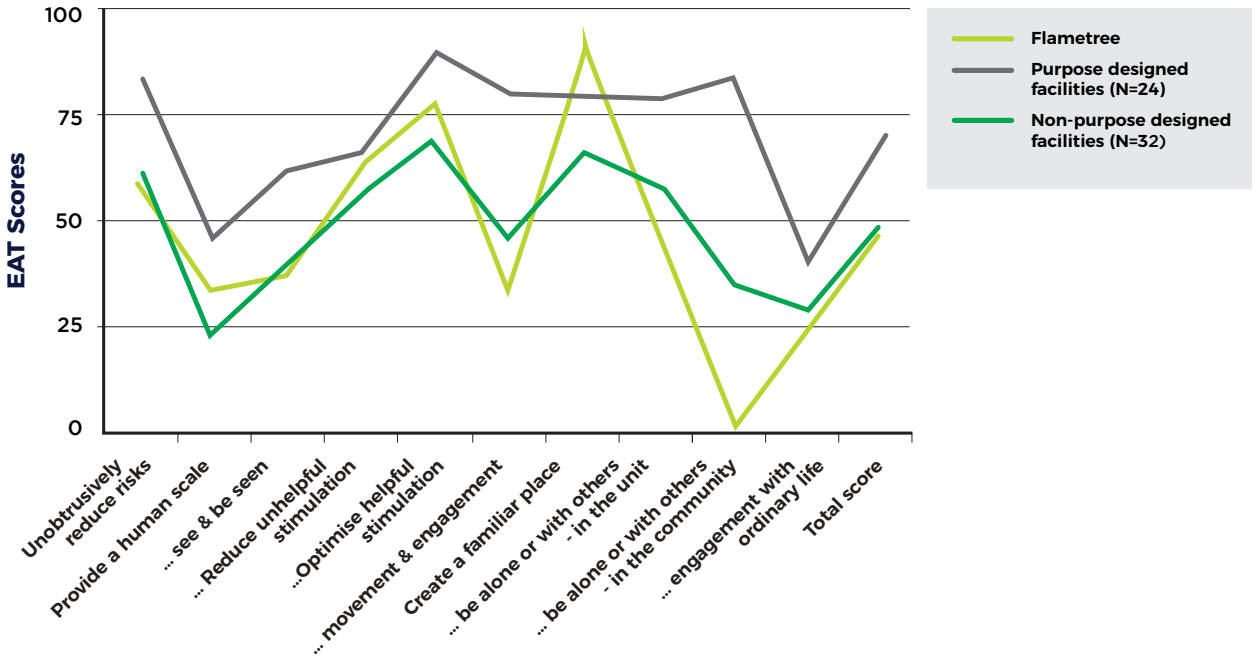
Flametree is a secure unit accommodating 34 residents owned by IRT in Woonona (a suburb of Wollongong) in NSW. It comprises two wings connected by a shared garden. While most of the residents were mobile at the beginning of the project, there was a small number of frail residents living there.

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

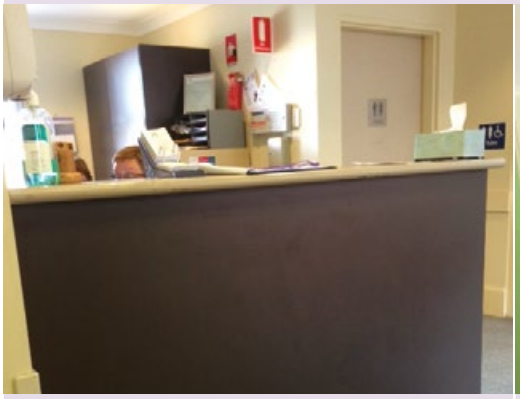
DESCRIPTION	Data	Maximum possible score	RFI score	Relevant Principle
Kitchen easily seen or signed	1	1	0	Optimise helpful stimulation
Artificial light bright enough	1	1	0	Optimise helpful stimulation
Lighting is free from glare	1	1	0	Optimise helpful stimulation
Path within a secure perimeter	1	1	0	Movement & 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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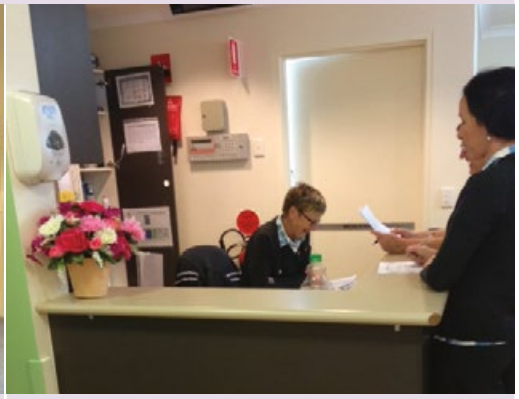
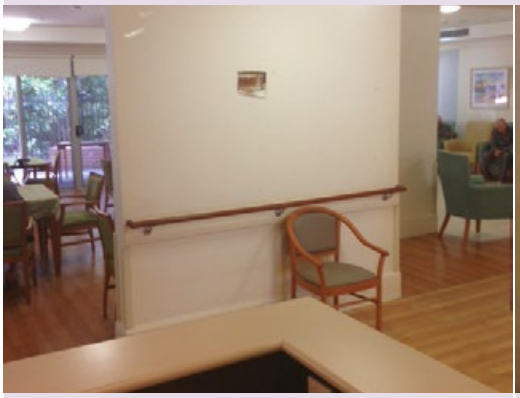


AFTER

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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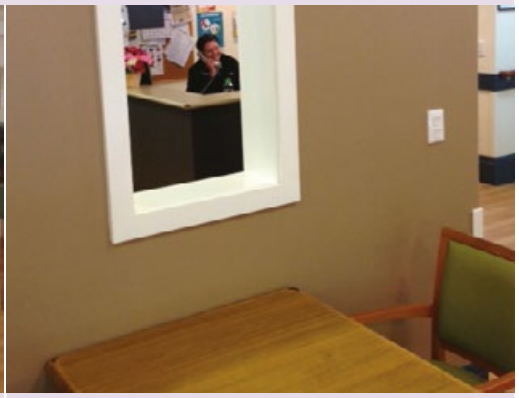


AFTER

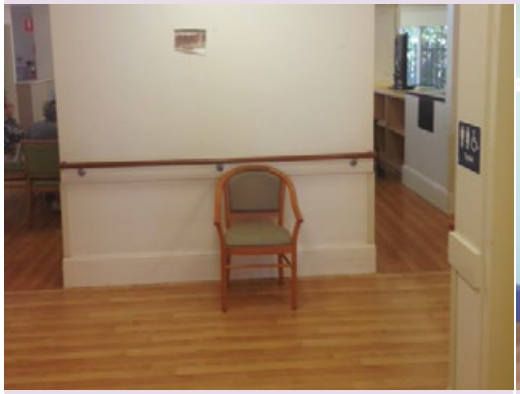
OPTIMISE HELPFUL STIMULATION

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

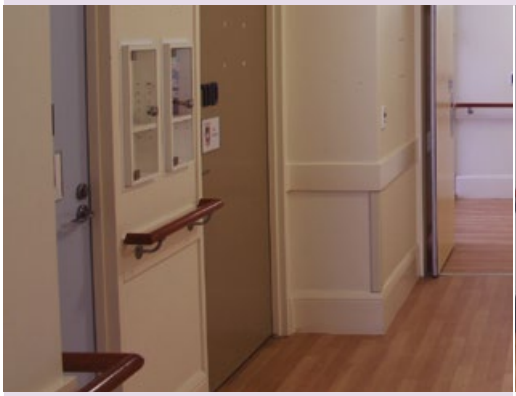
Improving the contrast between the toilets and their surroundings.

BEFORE

AFTER

OPTIMISE HELPFUL STIMULATION

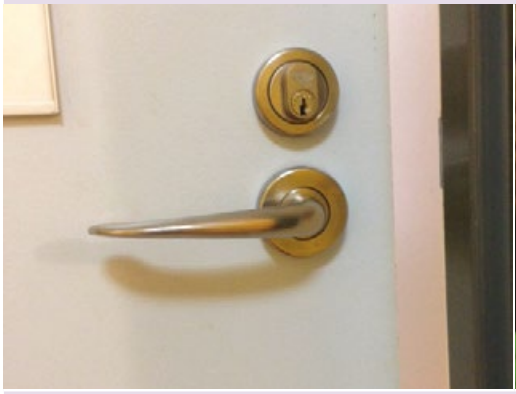
Making each bedroom door unique in colour and design.

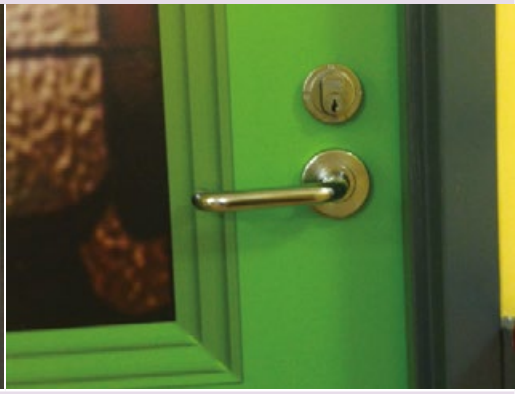


BEFORE

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

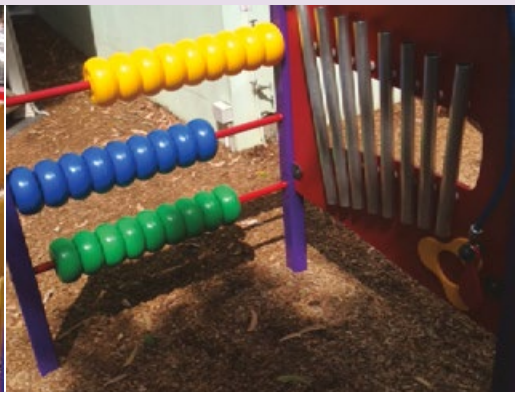
Covering the obvious metal railing fence with an attractive 50m long mural depicting a rural scene.

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

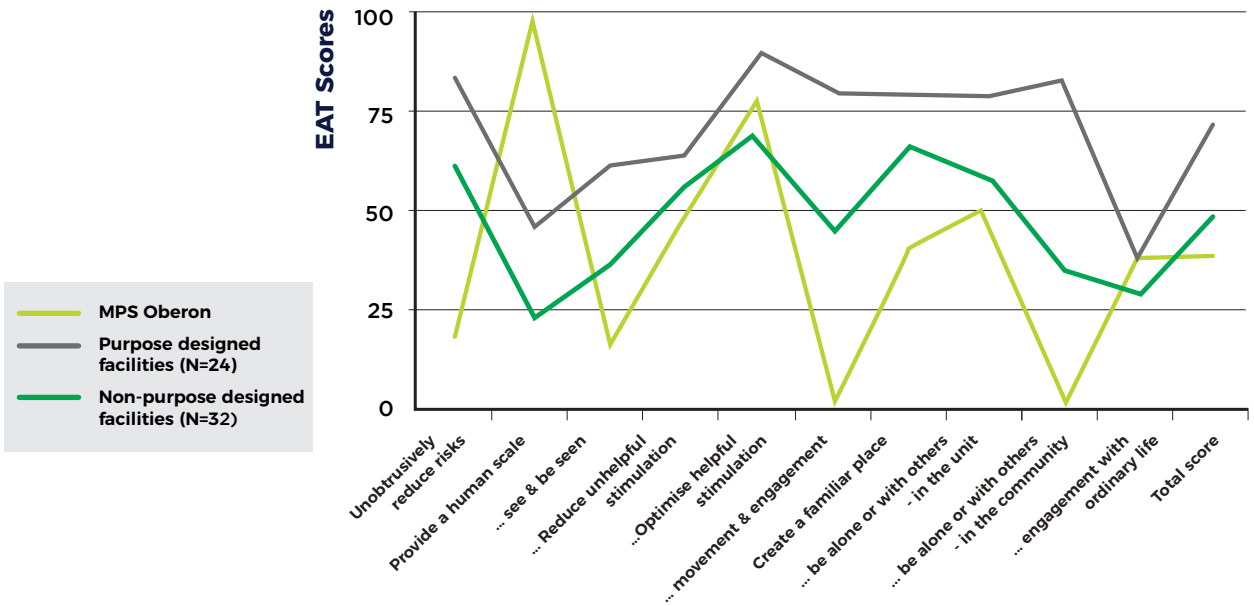
The MPS at Oberon is a small multipurpose facility in a country town. It provides both acute and residential aged care. All services are provided within the one building, with a number of areas shared. The discussions at Oberon with key staff centred around how the key design principles could be used 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?					