

Enabling Independence Design Guide for Independent Living



Providing whole solutions for whole lifestyles, providing genuine options and real choice which deliver opportunities for individual growth, development and wellbeing.

Version 8 – Updated April 2013

CONTENTS		Page
Foreword		4
Introduction		5
Section 1	Complete and Thorough Design	6
1.1	Attractive, Safe and Secure Places	6
1.2	Putting the Customer First	7
1.3	Co ordinating design and development with long term management and maintenance	8
1.4	High Quality with Low Costs	8
1.5	Local Context	9
1.6	Schedule of Accommodation	10
Section 2	Place Shaping	14
Section 3	Maximising the Use of Outside Space	17
3.1	Seating and Planting	17
3.2	Activities	19
3.3	Fitness areas	21
Section 4	Maximising the Natural Environment	22
4.1	Biodiversity	22
Section 5	Energy and Resources Efficiency	24
5.1	Sustainability and Energy Conservation	24
5.2	Affordable Running Costs	24
5.3	Minimising Energy Consumption in Construction and Design	25
5.4	Minimising Construction Waste	25
5.5	Recycling Materials and Buildings	25
5.6	Environmental Sustainability	26
Section 6	Building Operations	28
6.1	Refuse and Recycling	28
6.2	Care Teams / Staffing	28
Section 7	Accommodation Requirements – Extra Care	29
7.1	Security	29
7.2	Tenure	30
7.3	Management Arrangements	30
7.4	Health and Safety Including Fire	30
7.5	Colour Contrast and Material Selection	31
7.6	General Signage	32
7.7	Communal Facilities	33
7.8	Restaurant / Café areas	35
7.9	Lounge Areas	36
7.10	Circulation	37
7.11	Stairs and Protection from Falling	40
7.12	Acoustics	40
7.13	Emergency Call and CCTV	40
7.14	Lifts	41
7.15	Treatment Rooms and Assisted Bathing	42
7.16	Bariatric Care	45
7.17	Guest Suite	45
7.18	Meet and Greet	46
Section 8	Space Inside the Home	47

8.1	The Apartment / Living Space	48
8.2	Bedrooms	49
8.3	Bathrooms	50
8.4	Cooking and Eating	51
Section 9	Living, Playing, Working and Studying	55
Section 10	Designing for Dementia	56
10.1	General Building Design	57
10.2	Dementia and sight loss	58
10.3	Internal communal areas	59
10.4	Dining and Participation	60
10.5	Outside / Garden Areas	61
10.6	Doors	62
10.7	Toilet	62
10.8	Lounge	63
10.9	Stimulating the Senses	63
10.10	Snoezelen – Multi Sensory Environment	64
10.11	Living in Your Own Home	65
Section 11	Designing for Visual Impairment	69
11.1	Location	70
11.2	Space	70
11.3	Security	71
11.4	Lighting and Design	71
Section 12	Designing for Other Disabilities	72
12.1	Learning Disabilities	72
12.2	Hearing Impairment	72
12.3	Mobility	72
12.4	Long Term Illnesses / Conditions	73
	Acknowledgements	74
	Further Design Guidance and Good Practice References	75

Note:

If any organisation wishes to use this document for their own purposes either in its entirety or in part, Sunderland City Council would request that there is an acknowledgement that this is the work of Sunderland City Council, albeit that Sunderland City Council wishes to share this work as good practice.

Version 1 published - January 2010

Version 8 published – April 2013

FOREWORD

Sunderland City Council is engaged within an ambitious project to enable the delivery of non mainstream housing to meet the diverse needs of our current and future communities. This includes the provision of accommodation for our ageing population and people with a disability who require care and support to enable them to live independently at home. We want people to have the option to stay in their own home for longer, living independent lives in properties which are future proofed and 'care ready'.

To do this we need to work in successful partnerships providing high quality, vibrant, safe, attractive, sustainable and well-designed accommodation which creates an enabling environment for residents. **We expect good design** to add to environmental, economic, social and cultural value which will help local communities to flourish.

Our Suite of supportive documents includes:-

1. **The Enabling Independence Strategy** - provides our Market Position Statement outlining robust evidence of local need relating to non mainstream housing.
2. **The Enabling Independence Operational guide** - provides advice and information around services; management arrangements and operational requirements, including establishing reablement and intermediate care provision.
3. **The Design Guide** - intends to assist in achieving high quality and sustainable 'places for living'. It will support the achievement of high standards of design and construction and it will provide planning committee members and officers with the tools to challenge poor design. The guide will be subject to annual review and subsequent updating. All documents can be located on www.sunderland.gov.uk/extracare
4. **Dementia Design – The Sunderland Standard** – provides good practice information relating to designing accommodation for people with a dementia diagnosis – and adjustments which could be made in existing accommodation to improve the living environment to meet the needs of the individual.

The design of specialist accommodation often requires discussion and development of detailed layouts. Some issues may not present obvious or standard solutions. Therefore, this document is not intended to be prescriptive.

We expect Registered Providers and Developers who want to build supported accommodation in the City to sign up to the principles held within this publication.

INTRODUCTION

There are costs and challenges associated with delivering good quality and well designed accommodation. We expect that non mainstream housing developed in the city maintains longevity in terms of appearance; cyclical maintenance; running costs, responses to climate change, and adaptability to meet future life styles and technologies throughout the life of the building, and that it is care ready and will enable people to 'age in place'.

It is our aspiration to enable the development of independent living, while reducing the numbers of residential / nursing care establishments being agreed through the planning route. ¹

This guide is aligned to the City Council's Residential Design Guide (Supplementary Planning Document). The Residential Design Guide must be referred to initially for general detail and more specific detail related to supported accommodation can be identified in this document.

Design guidance in this specific field relates to extra care development including dementia specific accommodation, therefore, this document weighs heavily in this regard. Most of the general design issues for extra care can be translated into supported housing generally. However, as good practice emerges for supported housing, this will be drawn into this document.

The benefits of good design include:-

- Making people feel positive about their neighbourhood
- Creating a good quality of life
- Enriching the existing environment
- Supporting existing residential areas and create higher capital values
- Attracting people
- Increasing marketability and prestige
- Lifting confidence in the surrounding area.

Our aim is to widen the choice of accommodation available to both our active and non-active ageing population and people with a disability who choose to live in the city. Aspirations and expectations relating to their 'housing choices' must be considered, planned and achieved where possible.

We aspire to encourage within our enabling role:-

- Partners to place resident's needs and aspirations central to their design
- Joined up approach to design, development, long term management, maintenance and service charges
- Embracing sustainability and energy conservation within design
- Best value - keeping quality high and costs low

¹ Enabling Independence Delivery Strategy 2013 – Sunderland City Council

SECTION 1: COMPLETE AND THOROUGH DESIGN

Dialogue should be maintained with local planners; the wider local community and local business to support community ‘ownership’ and pride in the proposed development, even before it is built. If design or planning issues are encountered, the most constructive solution can often result from sharing them and working towards a commonly agreed solution.

Be flexible and adaptable as compromise may be required. If areas of contention are not addressed at pre planning stage, then they may become grounds for refusal or call in. The spaces and environments surrounding our homes are an extension of personal space, bringing individual homes together and forming a community of residents. The aim would be to provide an identity to be proud of and offers clear connections with the wider neighbourhood. This will be achieved by:

- Creating identity and variety – a safe environment where residents have a sense of belonging and ownership
- Designing to encourage friendships; knowing your neighbours and enjoying the use of shared spaces
- Encouraging wellness activities in external and internal spaces
- Create an external environment which is bio-diverse with multi use opportunities providing materials which will endure and improve over time.

1.1 Attractive, Safe and Secure Places

A safe and secure design can involve:

- Easy access for people with disabilities and emergency services
- Clear definition of space
- Secured by design - buildings facing onto streets and footpaths with windows facing onto them; car parking visible from homes – see <http://www.securedbydesign.com/pdfs/sheltered.pdf>

The Royal Town Planners Institute (RTPI) Good Practice Note 8: Extra Care Housing – Development Planning, Control and Management also provides planning guidance and refers to other guidance documents.

CHECKLIST – Have you:	✓
• Maintained dialogue with Local Planning Officers?	
• Supported community ownership of the building?	
• Provided clear connections with the surrounding neighbourhood?	
• Implemented Lifetime Homes guidance or considered wheelchair accessibility?	
• Provided an attractive, safe and secure design – considered secured by design guidance?	

1.2 Putting the Customer First

The accommodation must meet the needs and aspirations of people choosing to live in our communities. It must provide for the needs of the whole household; be safe and warm; enable the household to live fulfilling lives with access to social and wellness facilities whilst acknowledging cultural requirements, and provide access to care and support tailored to the needs of the individual.

Quality of housing is important for the frail elderly who spend most of their time indoors. Declining functional abilities has the potential to reduce the way they use living areas and maintain or develop social relations. Loneliness is one of the main causes of depression and affects the quality of life amongst older people.²

Quality of life must be enhanced in the accommodation ensuring that it is care ready and future proofed to meet the needs and expectations of residents into the future. This includes providing a mix of tenure where possible, enabling people to choose how they want to live based on their finances and preferences.

It is essential that the physical environment internally and externally is enabling in terms of the likely impairments that residents may experience in their lives due to increasing age, frailty, disability or impairment. Games rooms; gardening areas; men's sheds; fitness suites and equipment can support activity and socialisation, particularly for men living in an extra care scheme.

Good design can mean:-

- Enriching existing character
- Diversity
- Understandable places
- Achieving pride of place/ creating a sense of place
- Easy movement – easy to access and move through with safe and welcoming routes
- Enduring and flexible places – built to last and energy efficient according to the intended use but with the ability to be easily used for another purpose.

1.3 Co-ordinating design and development with long term management and maintenance

Developing accommodation requires thought around the use of the internal and external spaces including use of the communal spaces; against practical issues experienced by the residents due to health and social care requirements. Residents will be required to pay service charges for the repair

² Dreams and Needs of Housing for the Elderly – Finland – Housing LIN Case Study 64

and maintenance of communal spaces, furnishing and equipment. It is crucial that service charges are clearly understood; calculated correctly and are transparent for the resident – and most importantly they are affordable.

CHECKLIST – Have you:	✓
• Thought clearly about the use of all spaces?	
• Considered the ‘life issues’ of the expected occupants and how they will use the spaces?	
• Considered the impact of your design on service charges – is it affordable for future maintenance?	
• Considered how the scheme will be managed and paid for?	
• Designed areas appropriate to their use?	

1.4 High Quality with Low Costs

Quality should not always be costly and can be provided by considering best value, design, and understanding the people who will be living in; working in, and visiting the accommodation.

Embracing value for money principles and being efficient in some areas may enable additional resources to be invested elsewhere.



Silksworth Community Library at Beckwith Mews Extra Care Scheme

Services and facilities in the local area should be complimented by the scheme rather than put at risk due to duplication of services. Gaps in services for the local area must be considered for inclusion within the scheme to encourage community use.



Winton Court Extra Care Scheme, Gateshead – local shop

CHECKLIST – Have you:	✓
• Identified services in the local area which could support the scheme?	
• Identified services lacking in the local area which could be provided within the scheme?	
• Considered how services provided in the scheme can support the wider local community?	
• Ensured that shelved provision is safe, practical and accessible to all, including people in wheelchairs / mobility scooters.	

1.5 Local Context

The accommodation must be designed within the context of the local area. Larger new developments e.g. extra care accommodation and higher density retirement villages must cater for the needs of residents and visitors, and must consider and raise the general aspirations and expectations of neighbouring residents and the general public (as appropriate).

CHECKLIST – Have you:	✓
• Carried out an appraisal of the site, taking into account the surrounding local area	
• Carried out a demographic analysis of the local population in terms of age profile, the existing provision for housing 'with care' in the area and its 'fitness for purpose' and a projection of future need to establish a case for new housing?	
• An explanation of the model of development including communal provision, tenure opportunities and integration into the wider neighbourhood?	
• Benefits that the development will bring to the area in terms of facilities, employment, release of existing housing in the community due to under occupation (as appropriate)?	
• Reference to precedent and guidance on similar models to aid the planning process?	

<ul style="list-style-type: none"> Assessed / evaluated your parking requirements based upon residency and expected service provision within the scheme? 	
<ul style="list-style-type: none"> Created distinctive and care ready homes which are safe, spacious, welcoming and user friendly? 	
<ul style="list-style-type: none"> Provide homes which are tenure neutral in appearance and standards? 	
<ul style="list-style-type: none"> Provide environmentally sustainable homes and future-proofing designs to bring long term benefits to residents? 	
<ul style="list-style-type: none"> Ensure that high quality standards and materials are maintained throughout the whole life of the building? 	
<ul style="list-style-type: none"> Considered location of bus stops? Is a discussion required with Highways / transport provider to relocate or provide new 'stop' or shelter? 	
<ul style="list-style-type: none"> Considered pathways / pavements/ dropped kerbs and crossings in relation to increased use of mobility scooters; wheelchairs and walking aids? 	

1.6 SCHEDULE OF ACCOMMODATION³

Accommodation

Residents Accommodation

1 bed 2 person flats

Approx 54m squared

2 bed 3 Person flats

Approx 68m squared

Communal Accommodation & Facilities

Main Communal Lounge

1.5m squared / flat

Located near to and visible from the main entrance with a focal point such as a fireplace or similar. Dining and lounge spaces should be linked but should occupy distinctly separate spaces. Views and direct access onto a south facing terrace and garden area a major benefit. Alcoves and niches will allow smaller groups to gather together.

Dining Area

1.2m square / flat

If possible this room should link to an external terrace to allow dining outside in good weather. This space could be designed in several ways, as a restaurant or café with table service or servery counter, or as a domestic dining room. Allow space for residents using wheelchairs and walking aids. The overall area is dependent upon the number of diners e.g use as a luncheon club by outsiders.

Residents Tea Kitchen

10m squared

³ Design Principles for Extra Care – Housing LIN Factsheet No. 6 – 13.2.08

Provide adjacent to lounge and dining space, for use by residents and for refreshments for small functions. Could double up as servery counter for main meals.

Small Lounges or Hobby rooms (2 min) min 15m squared

Can be located on upper floors and used for private parties with relatives, small gatherings, specific activities etc. Should be easily accessible and not located at the ends of corridors or isolated from the main circulation route. The number of these will depend on the size of the scheme and whether the flats are arranged in clusters.

Communal WCs 4m squared

Located near to entrance area and communal lounge / dining areas. Designed for wheelchair accessibility.

Assisted bathrooms (1 min) 12 – 15m squared

Equipped with baths to allow both assisted and independent use by residents. These rooms should be designed to be as domestic as possible, space should allow baths to be located in a peninsula position. WCs should be screened from the main bathroom or ideally located in a separate but adjoining room.

Hairdressing and Beauty Therapy 6m squared

Could be located near to entrance area and might have a multi purpose use.

Informal Seating Spaces 3m squared (min)

(Throughout scheme)

Large re charging store for electric buggies and scooters 25 – 30m squared and

Staff and Ancillary Accommodation

Manager's Office 15m squared

With views into the main entrance area, space for desk, computer table, chair, plus two visitors chairs and document storage.

Care Staff Office 18m squared

Space for two desks, files storage and table for handover meetings. Privacy is important due to the confidential nature of the work.

Photocopy Area 4m squared

Easily accessible by all staff

Staff overnight room 18m squared

With en suite facilities

The need for this space will depend on staff arrangements and whether night waking staff will be employed.

Staff rest room with kitchenette 15-20m squared

Space for table and chairs plus a couple of armchairs.

Staff locker / change room & shower/wc **12m squared**
All staff will need locker space and possibly an area for changing clothes. Provide at least two dedicated staff toilets and consider the need for a separate staff shower.

Guest room with en suite **20m squared**
To be designed for wheelchair user access, accommodating twin beds with en suite shower WC and basin.

Laundry **20 m squared**
For use by residents and staff with adjoining external drying yard. It may be appropriate to divide the laundry to provide separate resident and staff areas. Specify at least one machine with a sluice cycle option.

Main catering kitchen and associated Storage and staff facilities **60m squared**
The brief for this space will depend on whether a full catering service is to be provided or if the requirement is for a less intensive use e.g regeneration kitchen.

Cleaners storage **5m squared**
General storage **20m squared**

Services and Plant
Minimum of 1 no. lift to all floors: **2600 x 1800mm**
Minimum 13 person (stretcher size)

Lift motor room if required **4m squared**

Refuse Store (including lobby and cupboard for clinical waste) **20m squared**

Recycling collection point **6m squared**

Plant Room and Service Risers
The size of the plant room(s) will vary significantly from scheme to scheme depending on the method of space heating selected and the extent of individual metering decided upon. Space required for water storage (including the possibility of booster tanks and pumps if the building height dictates) will also vary. As a guide allow 20-25m squared, but ensure specialist service engineer's advice on size and location at the earliest possible opportunity.

Electrical Intake / Meter room **10m squared**

Other spaces to consider:
A number of additional spaces should be considered which will of course be determined by factors specific to the site, the scale of development and local need. The need for such additional facilities may be identifiable but it may still

be financially prohibitive. Where appropriate consider the following additional facilities:-

- Shop (if there is no provision in local area)
- Library
- Healthy Living / Relaxation Suite
- IT facilities / information points / touch screens
- Café / bar / pub
- Leisure facilities
- Outreach staff offices.



Restaurant / café – Woodridge Gardens, Sunderland – Housing 21

SECTION 2: PLACE SHAPING

A study undertaken in Finland identified from those involved that they felt unsafe living in an unfamiliar neighbourhood because they felt socially and physically insecure. Those familiar with the neighbourhood but with declining functional capacities were reluctant to go out alone – preferring to go out accompanied. Main concerns included (i) loss of strength while walking (ii) fear of getting lost (iii) incontinence – not being able to find / get to / use a toilet. Respondents advised that more age friendly seating; toilet provision and clearly identifiable, safe and level paths would be beneficial.⁴

Wellbeing at home is vital and this can be achieved by ensuring there are effective links to local amenities, shops, public transport, opportunities for social interaction and green and attractive surroundings. Feeling safe at home and in the neighbourhood is a recurring issue and effective urban design must consider the information above to support the achievement of good connectivity between neighbourhoods, defensible private space; identifiable and accessible amenities; safe walking areas and places that feel safe. The following should be considered:-

Creating and sustaining a community is about building homes in places where people want to live for the longer term, with access to social and wellbeing activities; shops; public transport and local amenities. To help deliver this we should:

- At an early stage, establish the context of the site by analysing how well it will serve the client group for whom the supported accommodation is being developed;
- Local convenience shops should be available, ideally within a safe five minute walk of the site;
- Larger shops and supermarkets should be easily available within a ten to fifteen minute drive or by public transport
- There should be good and regular public transport nearby
- If there is no large open space or park nearby will the scheme provide communal garden / outside space?

CHECKLIST – Does your design:	✓
• Have entrances that are clearly visible from the street, well lit and welcoming?	
• Provide formed boundaries between public and private space using attractive and durable materials – are the barriers clear but unobtrusive?	
• Avoid putting car parking under buildings at ground or semi basement level so as not to create poor quality street frontages?	
• Ensure that communal spaces and gardens have a clear purpose and are overlooked by homes or passers by (as appropriate)?	

⁴ Dreams and Needs of Housing for the Elderly – Finland – Housing LIN – Case Study 64

Areas for Consideration

- If there are strong local patterns of urban design this may need to be reflected within new design. This may be re interpreted in a contemporary way.
- If a 'place' lacks character or is poor in terms of design, the new development can become a beacon or exemplar for regeneration and future development.
- Materials must be chosen for their longevity and not cause undue and costly maintenance problems.
- There must be no distinction between different forms of tenure within the layout or the architectural treatment of the buildings.
- New development must be integrated into and connected with the wider neighbourhood, avoiding the feeling of a separated estate or gated community and should help to breakdown barriers to adjoining neighbourhoods.

CHECKLIST – Does your Design:	✓
<ul style="list-style-type: none"> • Provide sustainable and innovative designs which can strengthen neighbourhood identity and community ownership (<i>this could include provision of district heating or CHP to the local community</i>)? 	
<ul style="list-style-type: none"> • Encourage the dissolution of barriers to adjoining neighbourhoods? 	
<ul style="list-style-type: none"> • Provide homes and facilities to strengthen neighbourhood cohesion and sustainability? 	
<ul style="list-style-type: none"> • Maximise the use of green spaces as focal points, meeting places, activity areas for all ages? 	
<ul style="list-style-type: none"> • Understand the sustainability of services and buildings in the area, and support them within the aims of the scheme? 	

Car parking must be carefully considered and integrated with the landscape. Although a transport statement is required as part of the planning application it is important to be clear about the number of residents who are likely to use a car; number of staff providing housing management; number of staff providing care and support; number of expected visitors to the scheme; facilities which may encourage regular external visits e.g. library; doctors, shop.

Areas for Consideration

- Local streets must not be dominated by cars and car parking
- Larger parking courts for apartment developments need to be carefully designed to avoid compromising the living conditions for ground floor homes.
- Parking courts should be designed to be safe for pedestrians; cyclists; people in wheelchairs and those using mobility scooters.
- Car parking areas and public walkways to the scheme / front door should be well lit. Low car speeds must be encouraged through design.

- Safe drop off point is required and consideration must be given to accommodate rear tail wheelchair lifts on minibuses.
- It is good practice to arrange a 'horse shoe' drop off configuration to avoid the need to reverse with the associated health and safety risks.
- The entrance canopy should be designed to allow residents to move directly into a sheltered area and minimise exposure to inclement weather.
- Developing a home zone arrangement – prioritising pedestrians

If the scheme incorporates local shops and facilities, are close to public transport and include attractive, safe pedestrian and cycling routes this will help reduce car usage without reducing car accessibility or car ownership. It will also enable a high quality of life for those least likely to own a car. Convenient cycle storage should be provided for any staff and visitors to the development (dependent upon scale of the building). Parking provision must be determined by locality and the availability of other forms of transport. Adequate spaces should be provided to prevent people parking in inappropriate places e.g. footpaths, grass verges, across local resident's driveways, local residents off street parking areas.

CHECKLIST – Have you:	✓
• Provided adequate parking for the successful operation of the building and minimised inappropriate 'public' parking?	
• Considered planting of trees and shrubs in the parking areas?	
• Provided lighting to the car park area to help with way finding, safety and security?	
• Designed the car parking and drop off areas to be safe for pedestrians, cyclists, people in wheelchairs and people using mobility scooters?	
• Provided canopy or shelter provision at the main entrance?	
• Provided cycle storage and buggy storage areas?	



SECTION 3: MAXIMISING THE USE OF OUTSIDE SPACE

3.1 Seating and planting

Views from inside to the garden are important sources of wellbeing to the residents. The outdoor area / green-space also plays an important role in social contacts with other residents many of who like to follow activities in the garden from the privacy of their rooms. Moreover, activities in the garden encourages residents to go out. In a study undertaken in Finland residents with their room facing the communal garden space took part more frequently in social activities, whereas residents who had their rooms facing other buildings expressed that they were abandoned and not aware of all the activities that took place spontaneously in the garden. Interestingly, the residents also felt that the outdoor area was a neutral zone to socialize in and that contact with neighbours was therefore natural and easy. As a result, they desired to have more sheltered sitting places, more activities and plays in the garden. The gardening and the outdoor games were enjoyable social activities and the residents desired tools and equipment in sight, free to use, for their activities.⁵

Outside space should be maximised enabling accessibility and activity provision during warmer weather. This includes al-fresco dining area; circuit area for people to move around on foot or in their wheelchair with pagoda's and seating areas as stop off points; gardening area with raised planting beds and potting shed/ greenhouse and outside fitness / activity area.

Planting should be chosen to encourage wildlife into the garden area – the type of planting must be carefully considered eliminating those plants which are poisonous and / or prickly and thorny, while using plants which encourage wildlife into the garden via the use of native shrubs.

Pergolas covered in climbing plants can provide shading for south facing terraces or to shade seating areas. Water features can support a stimulating and tactile environment and provide effective focal points. Bird baths and tables will encourage wildlife into the garden area and are good conversations starters and excellent for reminiscence.

⁵ Dreams and Needs of Housing for the Elderly – Finland – Housing LIN Cast Study 64



Example seating and environmental design

Seating areas should be designed to meet the requirements of all residents of all abilities, particularly wheelchair users and those using mobility aids. Seating should be located at all main entrances for those awaiting transport; or who want to sit and watch the world pass by. The design and location of seating at the entrance must consider the requirements for a minibus and taxi drop off undercover and to allow for the anticipated size and tracking of emergency and service vehicles, turning heads and waiting bay.

Secure wandering circuits of a suitable material should be incorporated into the scheme to provide opportunities for gentle walking and exercise. Seating points should be located to allow for rest points and way finding. Loose gravel surface treatment should be avoided, especially if there are disabled or elderly residents. Resin bound gravel is usually more appropriate. Avoid unguarded changes in site level with only very gentle ramps acceptable if residents are to include people with mobility issues. A minimum path width of 1200mm is adequate if wider wheelchair passing spaces are required. Dead ends should be avoided; short cuts anticipated and paths providing a clear route back to their origin. A figure of eight or returning pathway is recommended.

Garden areas should be functional, useful and safe external spaces which can provide areas for relaxation; socialising; activities and private space. The benefits of green space have a direct effect on quality of life in terms of both physical and mental wellbeing.

More information is available in Section 10.5 on garden areas for people diagnosed with dementia which should be considered for all extra care schemes.



Seating areas giving private but attractive space – The Staiths at Gateshead



Clear circulation routes and seating areas with raised flower beds – Ravensfield, Dukinfield

3.2 Activities

Appropriate play provision, regardless of the age groups living in the new development should be considered. This could be reablement fitness equipment; grassed area for fitness / games; crazy golf – or basketball area; kick-about area for young people and small play area for families with children or visiting young children.

With a flat green area provided in communal garden areas older people can be encouraged to take part in fun activities. A crazy golf area designed into the landscaping can also provide activities for residents to take part in, or just sit back, watch and enjoy.



Outdoor table tennis and social space - The Staiths at Gateshead



Flexible games / activities



Incorporating crazy golf into landscaping

3.3 Fitness Area

Fitness provision for older people should be considered as part of the design for new older persons housing schemes. The equipment is ideal for reablement purposes as it strengthens hips, tones legs and trains the upper body. It provides equipment designed to give older people a gentle workout with parts of the exercise stations accessible to wheelchair users. It encourages exercise, appetite and opportunities for socialising along with laughter and fun. Using the equipment can also help those with dementia to reduce the need to wander.



CHECKLIST – Have you:	✓
• Maximised the outside spaces and provided seamless access from indoors?	
• Designed the scheme to maximise use of the outside as an extension to the building?	
• Considered activities which could be undertaken outside and designed the external areas in such a way to accommodate those activities?	
• Considered wellness, socialising, laughter and fun for all residents within the activity provision?	
• Considered providing focal points including water features; pagodas; seating; sculptures; outside games areas?	
• Provided a garden which meets the needs of residents including providing potting sheds; green-houses; raised bed planters; fruit trees; herbs?	
• Provide adequate and appropriate seating arrangements?	
• Provided wandering circuits with adequate seating and providing shade?	
• Maximised views and the landscape (if available)?	
• Provided appropriate ground covering to meet the needs of those living in the scheme / building?	
• Made the outside place a vibrant, interesting, accessible and enjoyable place to use?	

SECTION 4: MAXIMISING THE NATURAL ENVIRONMENT

4.1 Biodiversity

Biodiversity should also be incorporated into the design to encourage wildlife into the garden space and maximise the potential of the plants used i.e. fruit trees; herbs for kitchen use and craft use; plants for sensory enhancement; areas to encourage fitness activities and social activities. BREEAM and Middlemarch will recommend wildlife attracting planting to support Code for Sustainable Homes. However, consideration must be given to the plants recommended in these lists omitting any poisonous; prickly and thorny planting.



Gardening club and potting shed can provide social opportunities; personal interest; self-worth and opportunities for reminiscence.

Llys Eleanor Extra Care Scheme has a wealth of state of the art features including 'intelligent' sprinkler system and telecare/assistive technology to aid daily living. Environmental features include rain water harvesting linked to wc facilities and allotments in pleasant extensive grounds.



Llys Eleanor Extra Care – Flintshire County Council

CHECKLIST – Have you:	✓
• Considered plants to stimulate the senses including tall sweeping forms to provide movement, varied textures to create sounds and encourage sense of touch?	
• Used vibrant colours and highly aromatic plant mixes?	
• Minimised maintenance and provide opportunities for resident participation?	
• Considered integrating activities and opportunities for social engagement within the 'outside' spaces?	
• Designed garden areas to incorporate raised beds for easy accessibility, particularly for people using a wheelchair – or who need to sit to garden?	
• Provided shed/ greenhouse to make gardening a reality – somewhere to be active; to store and to create?	
• Considered green spaces as a wide web of spaces and habitats; planting plans should enhance the natural ecology of these spaces?	
• Considered the use of green roofing in the scheme design to provide an attractive outlook for upper floor homes as well as contributing to rainwater retention; bio diversity and energy efficiency?	
• Provided privacy and enclosure for residents, especially where their front windows may overlook public access areas / car parks?	
• Maximised the use of rain water storage to provide easy recycled watering systems for garden / lawn areas?	
• Considered providing, wherever possible / appropriate, Sustainable Urban Drainage Systems (SUDS)?	
• Ensured refuse collection points are within limits set by the local authority and if vehicles are required to enter the site, ensure that adequate turning areas are provided?	

SECTION 5: ENERGY AND RESOURCES EFFICIENCY

5.1 Sustainability and energy conservation

New developments must consider their impact on the environment; how they can respond to rising energy cost, providing affordable warmth, the need to reduce carbon emissions and for overall, long term sustainability and recognise good practice in these areas.

We expect to see both sustainability and energy conservation embraced within design for new buildings, in particular, the use of natural light, recycling of rain water, high levels of heat conservation, solar panels, heat pumps, ground and air source, and biomass heating along with renewable electricity supply where practicable. In turn we anticipate lower costs for residents in terms of heating charges and service charges due to efficiencies which can be accrued over a period of time due to reaching and surpassing sustainability standards. This will support affordable warmth and help people out of fuel poverty.



Example of sustainable design - BedZed and Peabody Trust

5.2 Affordable running costs

The design, installation and management of energy efficient and affordable utilities are crucial to the continuing success of every home. Each design must ensure that energy consumption and costs to residents are as low as possible. This will require design consideration from the very initial stage of a

project so that orientation, window design, heat loss and heat gain are considered along with the potential cost in use of appliances.

Sustainable energy supply should be incorporated with the intention of minimising or eliminating the use of fossil fuels and reducing carbon emissions.

For space and water heating this may result in the use of:

- Solar hot water
- Ground source heat pumps
- Air source heat pumps
- Biomass boilers
- Biomass district heating linked to the local community

For electricity supply this may result in the use of:

- Wind turbines (including off site wind generators with dedicated supply)
- Solar photo-voltaic cells, panels or roof tiles
- Biomass combined heat and power

Long term costs within management and maintenance that may be passed to residents through service or maintenance charges are considered early and kept to a minimum.

Early consideration should be given to the provision of telephone; TV; broadband and digital services to eliminate the need for residents to make their own arrangements. Communal TV aerials and / or cabling of services should be provided.

5.3 Minimising energy consumption in construction and design

It is the responsibility of all new development to minimise energy use in the construction and ongoing use of buildings and to maximise passive and active technologies to support the reduction of both CO₂ emissions and fossil fuel energy use.

5.4 Minimising Construction Waste

Careful design and specification, including off site manufacture, can help reduce waste during construction.

5.5 Recycling Materials and Buildings

Reusing buildings, parts of buildings or elements of buildings such as bricks, tiles, slates or large timbers all help achieve a more sustainable approach to design and construction. Re-cycling and re-use of materials can help to minimise the extraction of raw materials and the use of energy in the production and transportation of materials. Developments should maximise

the re use of existing buildings (where appropriate) which can support social environmental and economic objectives.

5.6 Environmental sustainability

Developer partners should aspire towards achieving the Code for Sustainable Homes level 4 with the aim to achieve higher Code levels in the future. Innovative design and construction, including the contribution of modern methods of construction, will be a vital element of delivering this target.

The Code requires that the design of the buildings and the layout of the site is considered across the following topics: energy use, carbon emissions, water, materials, run-off, waste, pollution, health and wellbeing, management, and ecology. There is a Code requirement for a design stage assessment and post-completion assessment which should be identified in the design programme from the outset. Our approach is to maximise passive solar gain, build airtight dwellings with adequate ventilation, shading and cooling, and incorporate thermal mass to reduce overheating where appropriate.

All designs and technologies that affect how the home works must be designed and installed so that they can be easily managed by residents or, alternatively, do not require their attention at all. We believe that design that meet the Code standards will, at each level, have increasingly significant benefits for residents, through reduced running costs and improved health.

Needs and aspirations of residents will change in time and we must acknowledge that the pace in technological change is rapid. New developments should be adaptable to those changes over their lifespan.

Every building and each individual home should be designed for future proofing, to allow for the addition of new technologies. Also as summers become warmer the need for cooling is likely to increase and efforts should be made to provide this through natural ventilation methods rather than by air conditioning.

Where appropriate flood resistance and resilience measures must be considered within the development design, along with measures to reduce overheating and promote water efficiency.

Internal air pollution and toxicity is a particular issue in buildings made more airtight to prevent heat loss. Many materials used in construction and finishing give off VOCs (volatile organic compounds). This can be avoided by using natural breathable products and water based finishes.

CHECKLIST – Have you:	✓
• Recognised good practice within sustainability and energy conservation?	
• Maximised natural light, recycling of rain water, high levels of heat conservation, solar panels, heat pumps, ground and air source, and biomass heating along with renewable electricity supply where practicable?	
• Ensured that energy consumption and costs to residents are as low as possible alongside supporting affordable warmth?	
• Minimised or eliminated the use of fossil fuels and reduced carbon emissions in design?	
• Integrated communal TV aerials, satellite and / or cabling of services into the building?	
• Minimised construction waste?	
• Provided for re-cycling and re use of materials if practicable?	
• Achieved or surpassed Code for Sustainable Homes Level 4?	
• Acknowledged future proofing to allow for new technologies?	
• Provided for natural ventilation methods?	
• Arranged for the use of natural breathable products and water based finishes within the building?	



Eco Homes Scheme, Great Bow Yard, Somerset demonstrating sustainable construction.

SECTION 6: BUILDING OPERATIONS

6.1 Refuse and recycling

- Designs within the home and the building must be innovative and adaptable to meet the increasing demands for effective recycling and refuse collection.
- Refuse / recycling points must be located in easily defined areas
- Adequate refuse points/ facilities must be provided for restaurant services within close proximity to the restaurant area
- Refuse and recycling requirements will be met within the internal arrangements of the building
- Collection facilities must not be intrusive in the landscape or within the communal areas
- Refuse collection and storage with recycling facilities puts greater demand on good management and maintenance. Adequate space must be provided for the increased size of containers and the amount of refuse which is now separated for recycling.

CHECKLIST – Have you:	✓
• Provided effective opportunity for recycling and refuse collection ?	
• Located refuse / recycling points in easily defined areas?	
• Provided internal arrangements for collection of refuse?	
• Provided refuse collection arrangements designed so as not to be intrusive in the landscape?	
• Provided adequate sized refuse collection areas which can be easily cleaned with easy collection?	
• Provided collection points away from buildings and communal areas?	
• Considered and provided for refuse and recycling provision required for services operating within the scheme e.g. restaurant?	

6.2 Care Teams / Staffing

The working environment must be pleasant, accessible and practical for staff. Functional facilities including storage areas (lockers) ; changing area; shower; rest room with small kitchen area and adequate office space should be available.

CHECKLIST – Have you:	✓
• Considered the staffing provision in the scheme and their accommodation requirements?	
• A clear understanding of the number of staff expected to work in the building and their roles to understand the impact on the building design?	
• Considered the charge to residents for the provision of the staff space – is this cost effective?	

SECTION 7: ACCOMMODATION REQUIREMENTS

Extra Care

7.1 Security

The main entrance to the scheme will have two-way access door which will allow people to gain open entrance during working hours. Switching to one way will ensure security of the building with access only by intercom system or fob for after hours.

The foyer area will include office space for the scheme manager and will act as a reception area. CCTV offers residents a means of communicating with the front door and can be a Secure by Design requirement. It would be usual to provide two CCTV monitors with 28 day recording facility. The location of the monitors must be practical and accessible by the Scheme Manager and also the 'out of hours' staffing team to ensure health and safety of residents and contracted care staff out of office hours.



Resident's areas should only be accessible behind progressive privacy doors, giving their areas clear and distinct space.

Progressive Privacy – Bramble Court, South Shields - Hanover

Ancillary access to the restaurant and laundry areas should be separate to the main entrance for safety and visual reasons.

CHECKLIST – Have you:	✓
• Provided adequate main entrance door provision which gives two way access?	
• Provided an intercom/ door panel for out of hours visitors to access residents and for residents to come and go with fob access?	
• Provided adequate CCTV arrangements with clear access to monitors at all times of the day / night?	
• Provided progressive privacy doors giving residents a clear and distinct space which is behind public areas?	

7.2 Tenure

Consideration must be given to mix and type of tenure proposed. Tenure choices should be pepper-potted throughout the scheme – rather than being grouped together which could create a ‘them and us’ scenario which is best avoided.

CHECKLIST – Have you:	✓
• Provided mixed tenure?	
• Identified which apartments / housing units will be available for which tenure type?	
• Ensured that the tenure types are pepper potted throughout the scheme?	

7.3 Housing Management Arrangements

Effective housing management of the scheme must be considered from the onset. Housing management is particularly important at higher density where there is more intensive usage and a greater proportion of shared, communal space. The cost of housing management, reflected in service charges, is a major issue in terms of affordability so designing to minimise the cost of housing management and spreading the cost over as many homes as possible is a key part of the design process.

7.4 Health and Safety Including Fire

Schemes must be designed to ensure the safety and wellbeing of residents, staff, and visitors to the scheme. The fire strategy for the building and means of escape need to be fully considered as part of the overall design. In particular the evacuation procedure and how the buildings structural fire precautions and the Fire Management Plan work together.

If sprinklers are incorporated the design of the system shall be in accordance with relevant British Standards and LRC Guidelines.

Fire responses need to be carefully managed with the assistive technology put in place within the building.

CHECKLIST – Have you:	✓
• Considered the management arrangements for the scheme and how they will be paid, without impacting too significantly on service charges?	
• Compiled a clear fire and evacuation strategy?	
• Provided adequate fire management and fire escape facilities?	
• Arranged fire management alongside the assistive technology?	

7.5 Colour Contrast and Material Selection

Please also refer to Section 10 designing for dementia and Section 11 Designing for Visual Impairment.

Spatial planning, interior design, furnishing colours and material choices – as well as natural elements influence people’s well-being. Environmental and architectural design has an emotional impact on people, such as creating a desire or aspirations to live in a particular place. These factors must not be neglected within the overall scheme design.

With an ‘open plan’ arrangement the use of colours and lighting, the perception of space and ease in way finding can be vastly improved.⁶

Colour contrast between different surfaces, as well as fittings and furniture, assists residents with visual impairment to identify the different surfaces and edges of their surroundings. Patterns should be limited to prevent visual confusion between, for example, the edge of a chair and the carpet.

Providing a different colour scheme on each floor can help with way finding. Non resident areas such as storage cupboards; cleaning stores; staff areas should be locked off with doors and frames ‘visually lost’ in the wall colour.

Handrails should be on both sides of corridors and stairways. A change in material and colour at changes of direction, will assist residents with visual impairment in identifying the route through the building.

Shiny and glossy surfaces must be avoided, especially on floors. Tiling in a satin or matt finish reduces glare that can confuse residents with visual impairment. Borders on flooring should also be avoided to prevent those with visual impairment or with dementia from seeing the change in colour within the border as a step or a barrier and either preventing them from walking across or causing a fall.

Interior timberwork painted with satin wood as opposed to gloss will reduce glare.

Use of patterned wallpapers should be avoided as they cause problems in the following ways;

⁶ Dreams and Needs of Housing for the Elderly – Finland – Housing LIN Case Study 64

- Bold patterns can be over stimulating
- Small patterns such as geometric ones can produce blurred vision and eye fatigue
- Vertically striped wallpaper can make some people feel dizzy
- Curved and angled lines on walls can affect balance
- Still life patterned wallpaper / decals can be confused with reality.

CHECKLIST – Have you:	✓
• Carefully considered the materials, colours and interior design of the building?	
• Considered the needs of potential residents of the building against the design / interior design?	

7.6 General Signage

Signage to comply with Approved Document Part M which includes guidelines such as minimum character size, sentence case, embossing, height, type face etc. The Sign Design Guide produced by The Sign Design Society and JMU, which is cross-referenced in Part M, is a useful reference. Appropriate signage delineating disabled parking bays will be designed in accordance with BS 8300:2001. The use of Braille signage should be considered as appropriate for the scheme. If the scheme is designed for people who are registered blind and most can 'read Braille' – then Braille signage will be a requirement. It is highly unlikely that people moving into extra care will be able to read Braille – therefore, a decision needs to be reached as to whether this is cost effective to provide. Signage must not be over used in the building as this will give an institutionalised feel to the building.

For residents with dementia, there is signage available which can help to identify their apartment and rooms in their apartment. The signage provides both the word e.g. 'Bathroom' alongside a picture of a toilet. This enables people with either special or word issues to recognise the sign and help them to way find in the building and in their own apartment. Such signs can be found:-



www.dementia-signage.co.uk

CHECKLIST – Have you:	✓
• Identified which signage you require?	
• Considered the location of signage both internally and externally?	
• Ensured that the signage meets the needs of people who will be using it?	
• Provided specialist signage if required?	
• Monitored signage to make sure there isn't too much provided?	
• Considered the cost effectiveness of providing Braille signage?	

7.7 Communal Facilities

Communal areas are central to serve all residents.

The scheme must have progressive privacy. Visitors to the building should not need to walk through corridors and pass apartments to reach their destination. Entrances to service areas should be separated visually from the main entrance.

The building must have a clear and logical layout which can be easily understood. Communal areas shared with members of the public should lead from the main entrance foyer with minimal barriers to encourage use and easy access.

Good lighting is important throughout the routes but higher light levels can be used to differentiate public from private areas.⁷ Lighting in corridor areas should be programmed to dim during later evening hours, with PIR detection of movement which will cause the lighting to return to full power and gradually return to dim while corridors are unused. This will help to reduce electric usage and associated service charges for electric utility.



Entrance, main foyer and lounge with library access to the right – Beckwith Mews, Silksworth

⁷ Extra Care Housing: Environmental Design to support activity and meaningful engagement for people with dementia – Journal of Care Services Management Vol. 3 no. 3 pp 250-257

Small seating bays can break up walking distances and provide a ‘rest stop’, however, this should be discussed with Fire Officers to ensure that they are confident and in agreement with the proposal.

Communal spaces should be designed to accommodate specific activities and include adequate storage for related equipment.

Disabled access toilets must be provided in the communal spaces, preferably close to principal entrances. They should be easily identifiable with automatic lighting which dims as someone leaves the facility. Wash hand basins must be provided in each toilet facility and they should all be linked into the telecare system. An alternative to a pull cord fitting for the alarm should be considered to prevent children from pulling the cord and activating the alarm. All hand and grab-rails must be in a contrasting colour to the walls and doors.

A child friendly toilet area including a baby changing area should be provided for those visiting people in the scheme; or using the communal areas who have children with them.



Seating area, Beckwith Mews, Silksworth

CHECKLIST – Have you:	✓
• Agreed which communal facilities you are providing?	
• Agreed the location of the facilities and ensured that they are in the most accessible location?	
• Looked at the proposed facilities and their location in front of progressive privacy and away from staircases and lifts which lead to resident only areas?	
• Provided a clear and logical layout of the facilities with an easy flowing route?	
• Removed all barriers to the communal facilities, encouraging access and use from residents and visitors to the scheme?	
• Provided adequate seating areas in the main foyer?	

<ul style="list-style-type: none"> • Provided adequate disabled toilet provision with adequate lighting provision, washing provision and linked to assistive technology? 	
<ul style="list-style-type: none"> • Maximised the use of natural lighting whilst providing effective natural ventilation? 	
<ul style="list-style-type: none"> • Adequately and innovatively designed areas to meet the needs of the activity to be carried out in the area? 	
<ul style="list-style-type: none"> • Provided adequate storage facilities? 	
<ul style="list-style-type: none"> • Agreed a discrete 'entrance and exit' provision within the building on the ground floor, to provide dignity and privacy to those being taken from the building by ambulance or by Funeral Service? 	
<ul style="list-style-type: none"> • Provided a 'stretcher' sized lift to enable people to be moved from their apartment with dignity using a hospital stretcher? 	

7.8 Restaurant / Café Areas

Restaurant areas are usually located in the main foyer of the scheme. The restaurant size should be adequate to cater for residents, staff and visitors and provide an adequate kitchen area; storage provision; changing area and office space. Kitchen areas require effective ventilation to maintain a comfortable and safe working area for staff. The use of CCTV and telecare speech units should be considered (as appropriate) in the restaurant area, to facilitate the safety of residents and staff, depending upon its location in the scheme.



Open Plan communal and restaurant area – Maaternshoff Care Community – Holland

The restaurant must provide adequate turning points and space for people using wheelchairs; being supported by a carer(s); and using walking sticks / mobility aids around the restaurant furnishing. Dining chairs with arms should be provided to help people to safely push themselves up and out of the chair.

Where space is available the restaurant should be clearly linked to an outside patio space to enable the restaurant to be extended outside in warmer weather encouraging 'al fresco' dining. Access doors should not be identified as 'fire exit' doors as this may discourage people from venturing outside.



Outside eating area, providing al fresco dining - Belong, Wigan

CHECKLIST – Have you:	✓
• Located the restaurant (if provided) in the best location for the building and its residents?	
• Provided for adequate office space, kitchen space, storage, wc and changing facilities?	
• Provided adequate natural ventilation with secondary ventilation during warmer months in the kitchen area?	
• Considered how the restaurant area can be maximised by linking it to external spaces?	
• Provided adequate turning spaces and walking areas for people with a disability?	
• Provided locks to the kitchen; office; changing areas?	

7.9 Lounge Areas

Lounge areas use a large amount of space and the location is important to ensure residents maximise the space. Lounges accommodate a range of activities, each of which generates equipment and items that need to be kept available for use, this may include television; DVD player; CD player, radio, games, books, Wii game, i-pod docking station.



Example lounge area at Woodridge Gardens, Washington – Housing 21

All items represent activities that people living in extra care accommodation can enjoy, however, adequate storage or display must be provided to remove clutter which is not helpful for people with dementia. A design approach which allocates specific zones to different activities with adequate designated storage would produce more legible spaces.⁸ Any shelved areas should be accessible to all including those in wheelchairs to prevent people from trying to stretch and reach to high places; eliminating risk of injury through climbing onto chairs to reach for items, or by items falling off shelves onto the person.

CHECKLIST – Have you:	✓
• Planned the location of your lounge(s) to gain maximum use from residents?	
• Considered the potential use of the spaces and designed them with those activities in mind?	
• Provided adequate TV sockets and electrical sockets in sensible locations?	
• Considered the layout of the room to provide for furnishing and ensure a comfortable rather than institutional layout of furnishing?	
• Provided adequate storage provision either integral or within a furnishing budget?	
• Ensured that storage areas and shelving are easily accessible from a standing position with lower shelving for access from a wheelchair?	

7.10 Circulation

Circulation areas should be adequately designed for people with poor mobility and wheelchair users, avoiding long, dull areas. Circulation spaces should be clear and rational to assist people with a cognitive impairment. It is also useful to break down the building into identifiable zones and the provision of visual clues (through pictures and graphics).

Windows should reveal orientating external views and landmarks to help people to feel in contact with the natural world and part of a community in addition to providing reference views to the outside. Signage will greatly assist way finding, however a consistent approach to signage and display of notices should be adopted to prevent them from becoming overwhelming and creating an ‘institutional’ appearance. Spaces should clearly convey their purpose with routes designed to support way-finding using graduated spatial hierarchies from public to private space.

⁸ Extra Care Housing: Environmental Design to support activity and meaningful engagement for people with dementia – Journal of Care Services Management Vol. 3 no. 3 pp 250-257



Example of way finding / identifiable zones at Bramble Hollow, Hetton le Hole



Electronic notice board, Bramble Court, South Shields - Hanover

The use of an electronic notice board can be useful advantageous in communal areas by providing the information in an easy and accessible way, while minimising unsightly notice boards and posters.

Providing a place to sit and enjoy a view at the end of corridors can avoid the sense of frustration suffered by residents with short term memory loss who might wander to the end of corridors. Double banked internal corridors with rooms opening off both sides are notoriously bad for way-finding (especially when they are subdivided by closed fire doors) and should be avoided or minimised. Many extra care buildings have corridors leading to private apartments that are similar in appearance; the design challenge is to make

them distinct from each other. Colour coding is often used to distinguish different zones, but it is not as effective as glazed openings with views to significant external features, which also convey information about seasonal variation. 4

CHECKLIST – Have you:	✓
• Avoided long corridors which can feel institutional and affect accessibility?	
• Avoided using mirrors in circulation areas?	
• Maximised the use of natural light?	
• Created clear circulation patterns for orientation?	
• Provided the ability to see outside at regular points to aid orientation?	
• Provided regular seating areas, rest stops (if agreeable with Fire Officer)	
• Designed ends of corridors to avoid dead ends which can be frustrating for people diagnosed with dementia?	
• Ensured that corridor widths are a minimum of 1800mm wide to allow for wheelchairs to pass?	
• Designed corridors as a social space linking the flats rather than just as a means to access accommodation?	
• Used different colour pallets to identify different floors or clusters of flats?	
• Provided artwork and features at key access points and changes in direction to aid orientation?	
• Provided handrails which turn into the walls at the end of corridors?	
• Provided level thresholds (prevent tripping hazards)?	
• Provided a cill at the front door to enable the area to be personalised?	
• Designed in a 30% tonal contrast between the wall and the floor?	
• Avoided bands or border strips of colour on floor surfaces so as not to suggest a barrier or step?	
• Provided circulation areas internally to avoid residents having to go outside to gain access to central facilities?	
• Provided hold open devices on fire doors which are linked to the fire alarm system which are recessed flush to reduce snagging points?	
• Provided for a 300mm space which is required to the leading edge of all doors to facilitate ease of use by wheelchair users, in accordance with Approved Document Part M?	
• Ensured that skirting boards are continuous across the base of riser cupboards to make them appear as part of the wall?	
• Ensured that riser cupboard doors and doors to non resident areas are painted in with the wall colour so they are visually lost within the wall (if appropriate for the client group). This will reduce confusion and frustration amongst residents with dementia.	
• Considered using colour and personalisation to enable people to	

identify with their own front door?	
<ul style="list-style-type: none"> • Avoided the use of a monotonous succession of doors along the corridor? 	
<ul style="list-style-type: none"> • Provided vision panels in doors on main traffic routes with a minimum visible zone between 900mm and 1500mm above floor level? 	

Residents must be able to move freely around the building without needing to carry key fobs or remember codes as this can create an institutional environment. People need to feel that they are entitled to use a space. If people do not feel a sense of ownership of a space they will tend to avoid it, or behave in a passive way within it. Design strategies can help to counteract disengagement, for example people are more likely to access facilities that are presented as part of a flowing route. Closed doors onto rooms tend to be avoided. Open plan areas are used, partly for social reasons where people will sit to give them more of a chance to socialise, particularly if in an area where people are walking through. 3

7.11 Stairs and Protection from Falling

Stairs and ramps are to be guarded to protect people from falling on both landings and flights. Where possible the stairs should be designed to avoid a straight flight in order to avoid falls. The balustrades should be solid to mitigate the need for an open stair well and avoiding possible trapping of limbs etc.

7.12 Acoustics

Acoustics must be considered by separating noisy rooms from residents living, sitting and sleeping areas. If layout permits, try to ensure that the living rooms of two adjoining flats are next to each other, and bedrooms of adjoining flats are next to each other. Hearing assistance systems should be made available in the main public area for residents with impaired hearing. The reverberation time of large spaces needs to be controlled in accordance with relevant guidance to improve intelligibility.

7.13 Emergency Call and CCTV

The chosen system must enable residents to maintain independence with an appropriate level of assistance - without intrusion on their rights. Dispersed systems of telecare and telehealth assistive technology should be provided enabling peripheral technology to be added as resident's needs change.

A telecare overlay allows the implementation and use of telecare sensors, combined with communications technology and tailored support, it helps to manage the risks associated with independent living including, falls, gas leaks and fire. It enables care staff to receive alarm calls from a variety of identifiable telecare sensors. Alarm calls received by the Contact Centre off site, can provide details of the sensor type and location. The telecare system

must provide the ability to configure telecare on a per resident basis enabling telecare to be utilised to provide tailored care services. It is an important back up system to support the care team.

CCTV should cover the full curtilage of the building and will be recorded preferably on a 21 day arrangement within the care manager’s office. The CCTV monitor must be in an easy to view position within the office and provide easy reach to the recording system. A second monitor should be provided to enable monitoring during out of hours by the care team, in an easily accessible location.

CHECKLIST – Have you:	✓
• Considered the design of staircases to reduce the risk of falls?	
• Considered your acoustics and areas in which they need to be managed?	
• Provided for hearing loop facilities?	
• Provided a telecare overlay which links in with your contracted care team and contact centre? (as appropriate)	
• Provided efficient CCTV and recording facilities which adequately promotes safety within the building; providing easy access to visual monitors and the recording unit?	
• Undertaken a safety check of the designed building to ensure that CCTV and assistive technology is in place as required?	

7.14 Lifts

Lifts should be located adjacent to central facilities and have a clear ‘waiting’ space in front of them. If the lifts are intended to be used for evacuation they will require a lobby, ideally with hold open devices.



Lift in main entrance – Beckwith Mews, Silksworth – Housing 21

Sizing of lifts must be in relation to the transportation of wheelchair users and stretchers. Mirrors should not be provided in lifts as these can cause confusion to residents with dementia and visual impairment. If they are provided, alternative approaches such as use of manifestations can provide an effective and decorative solution.

Normally two lifts are provided in case of breakdown with one wheelchair lift whilst the other needs to be a stretcher lift. Emergency call buttons must be available near the ground floor of the lift to enable someone to push this if they fall in the lift and are unable to reach the emergency call panel which is usually provided on the wall of the lift.



Manifestations in lift at Woodridge Gardens extra care scheme, Washington

CHECKLIST – Have you:	✓
• Agreed the number of lifts your building requires?	
• Considered how lift breakdown will be managed and future proofed this arrangement?	
• Ensured that the lift is large enough to transport stretchers and to meet hospital and undertaker requirements?	
• Made sure that the lift manufacturer’s design does not include mirrored interiors or shiny floor surfaces?	
• Considered how easy the lift is to operate and how clear the signage / buttons are within the lift casing?	
• Ensured that the lift has a verbal system which advises the passenger of their location / doors opening / doors closing etc.?	

7.15 Healthy Living Suites and Bathing Rooms

Wash hand basins are to be provided in all clinical areas, healthy living suites and medical rooms. In clinical and hazardous areas wash hand basins should be stainless steel with wall mounted lever mixer taps to avoid cross contamination.

Hand washing and drying provision facilities must be available at all times.

If providing assisted bathing then a suitable assisted bath must be fitted which provides thermostatic and computer-controlled filling systems to prevent scalding. A separate toilet and changing area must be provided to respect the dignity and privacy of the individual. Alternatively, an accessible spa bath may be more appropriate to the scheme, rather than an assisted bath. Low level step in access with bathing seat would be advantageous.

The bathing and healthy living suites should be decorated in such a way to promote a 'spa' appearance rather than a clinical appearance. The use of plants and domestic furnishing can give these areas a comfortable and relaxing feel alongside providing light dimming facility; atmospheric music; and aromatherapy being piped into the room. Consideration can be given to combining both provisions into one area to maximise the use of the space and keep service charges to a minimum. Providing a shower curtain and rail around the bath or a retractable screen can provide a more relaxing and informal bathing experience for the bather; or can screen off the bathing area when not in use, for those receiving treatments, if the room provides for both.



Assisted bathing suite – Beckwith Mews, Sunderland – Housing 21

The use of the healthy living suite must be carefully considered. It is likely to provide opportunities for external practitioners to visit to provide services such as:-

- Chiropody / podiatry
- Beauty / massage
- Optical
- Flu jabs
- Bandages / dressings
- Complimentary therapies



Pamper Room at Bramble Court, South Shields - Hanover

At least a therapy chair must be provided which easily converts from a treatment chair into a strong and stable couch allowing transition from a seated to a lying position. Such an item would usually provide an electronic lift and power-assisted section. Information outlined earlier should be considered to enhance the 'spa appearance and experience' of this room

CHECKLIST – Have you:	✓
• Confirmed which treatment / health areas the scheme will provide?	
• Considered the uses of the rooms and designed them to accommodate those uses?	
• Considered providing both facilities in one area to keep costs lower; maximise use of space and provide a spa experience	
• Provided for whb, changing, toilet provision to respect the privacy of the 'customer'	
• Provided for clinical waste disposal as required?	
• Provided soap dispensers; towel dispensers as required?	
• Provided storage areas for cleaning equipment; medical provisions; safe; towels etc.,	
• Considered the cost of the equipment that will need to be supplied within the rooms to make them fit for purpose?	
• Ensured that the therapy chair is fit for purpose?	
• Maximised the comfort of the room/s using decoration; furnishing; lighting; music and aroma?	

7.16 Bariatric Care

Consideration should be given to the level of care and need that the facilities and accommodation can offer and be designed to meet.

Any units designated for Bariatric Care (care of residents over 26st) if included will need to be located on the ground floor. These require wider door-sets to accommodate larger specialist equipment, wheelchairs, shower chairs etc.,

The bedroom and bathroom should have the ability to provide a heavy duty XY ceiling track hoist fitted that will lift up to 45st. The bathroom if furnished will need to accommodate larger residents.

CHECKLIST – Have you:	✓
• Considered the need to design for bariatric care in your building?	
• If it is to be designed in, have you provided this on the ground floor?	
• Have you provided for reinforced ceilings and floors to take heavy duty hoists?	
• Have you considered the type of bathroom furnishing you will require to accommodate the resident and considered reinforced flooring on well used areas?	
• Have you designed wider doorways and spaces to accommodate larger wheelchairs in both the apartments and communal spaces?	

7.17 Guest Suite

A comfortable and welcoming room should be provided for visiting guests to the scheme. Twin beds should be provided with space for a wardrobe, small fridge and hot drink making facilities. An aerial socket should be provided for TV provision. The guest suite will provide a bath with overhead shower – or walk in shower, whb and toilet. It will follow similar principles to those outlined later for 'Bathrooms'.

CHECKLIST – Have you:	✓
• Have you provided a room of adequate size for a guest room?	
• Have you considered the amenities to be provided in the room i.e tea bar / shower / bath?	
• Have you provided enough space for twin beds and furnishing?	
• Have you provided aerial socket and sufficient twin electric sockets and are they located in the most appropriate place?	

7.18 Meet and greet

Regardless of where residents choose to meet and greet their visitors, the environment should be welcoming and pleasant. The following must be considered:-

CHECKLIST – Have you provided outside of the home:	✓
• Space to park a vehicle; store a bicycle?	
• Space to store a mobility scooter with charging point?	
• Space to store a buggy, wheelchair, pram or pushchair?	
• Communal decoration which is easily cleaned, easy to maintain but welcoming?	
• Space for visitors in a wheelchair, or with a support frame to gain access to rooms and facilities?	

CHECKLIST – Have you provided in the home:	✓
• Adequate room to enter into the home, put down bags, and take off and hang up coats and outside shoes?	
• Space to greet visitors?	
• Easy access to bathroom facilities from the front entrance?	
• Circulation spaces which are adaptable to meet the changing needs of residents?	



SECTION 8: SPACE INSIDE THE HOME

8.1 Apartment / Living Space

Every design for new supported accommodation must focus on the quality of the spaces created, establishing the sense that this is a pleasurable place to live in, which will adapt to, rather than constrain the changing needs of a household. The HAPPI report outlines the open plan approach to older persons living – this approach can support an apartment to be flexible and 'care ready' utilising the provision of sliding doors and removing barriers within the apartment space. However, building regulations need to be carefully considered and the implementation of sprinkler systems may be required depending upon the open plan arrangements.



Example living area at Barton Mews, Staffordshire

Resident's needs and aspirations may vary according to tenure mix, culture and household mix, property size, location and adaptation due to disability.

As a baseline we want to ensure that people are safe; with good natural light; warm comfortable rooms; space to manoeuvre comfortably; adequate storage and a pleasant outlook. A well designed home should meet the physical and social needs of all residents and be receptive to the needs of vulnerable residents.

Future proofing and making the apartment / living space 'care ready' is crucial to enable people to live at home independently for longer.



Example open plan living area (left) and traditional cellular apartment (right) – HAPPI report

Good natural lighting should be maximised in the apartment. Low light levels reduce the ability to read, lip read and increases the risks of falls and it is not suitable for people with visual impairment. An extension to the sitting room, providing a ‘sun room’ can provide a warm and practical area for people to sit and / or eat in the warm area, but with the feeling that they are outside due to the floor to ceiling glass structure. Hanover have designed this into their extra care schemes and the provision has been received very positively by residents, giving an interesting feature to apartments especially where the apartment may not have a particularly good outlook. Alternatively, a balcony can provide useful external space.

Storage is important. People will have de-cluttered to move into their new home but will need storage areas and cupboard spaces to keep personal possessions. Shelving height must be safe and accessible. There is a risk of falls or injury if shelves are ‘out of reach’ as people may climb to reach items placed on top shelves; or items may fall off shelves onto the person trying to reach it.

CHECKLIST – Have you:	✓
• Provided a property which someone can make into their own home?	
• Provided a home which will adapt to, rather than constrain the changing needs of the household?	
• Considered the needs of the people who will be living in the building e.g. religious / cultural / disability requirements and fed this into the design?	
• Does the living area provide a safe, comfortable space, maximising natural light, providing manoeuvrability, adequate storage and a pleasant outlook?	
• Has the needs of people using a wheelchair been considered when designing the accommodation?	

<ul style="list-style-type: none"> • Designed the living space to consider the potential that care needs may change, yet the person needs to be able to maintain living in this accommodation? 	
<ul style="list-style-type: none"> • Has natural lighting been maximised considering those with visual impairment? 	
<ul style="list-style-type: none"> • Does the whole environment promote opportunities to socialise; enable people to feel proud to live in it and to welcome their friends and families into it? 	
<ul style="list-style-type: none"> • Considered storage and shelving provision, including heights and accessibility of shelves? 	

8.2 Bedrooms

A bedroom must provide for sleep and relaxation with safe movement and adequate space for storage. The bathroom should be linked directly to the bedroom to enable easy access for those with poor mobility. Windows must be easily accessible and easy to open giving consideration to people with mobility, disability and dexterity problems. Ventilation must be achieved while maintaining home security / safety.



Bedroom into bathroom / walk in shower at Woodridge Gardens, Washington

CHECKLIST – Have you:	✓
• Provided adequate storage; a comfortable and relaxing space with safe movement?	
• Have you linked the bathroom ‘en suite’?	
• Provided easy access windows, which are safe and secure as well as providing adequate and easy ventilation?	
• Ensured that accommodation is noise insulated to minimise noise from neighbours?	
• Provided double glazing?	
• Provided reinforced ceiling to enable hoist fixing if required?	
• Considered those with dexterity problems when providing built in blinds, and made sure they are easy to reach from a wheelchair?	

8.3 Bathrooms

The layout of the bathroom must be space efficient allowing for later adaptation of additional supports and aids.

CHECKLIST – Have you designed a bathroom which will have:	✓
• At least a walk in shower with shower curtain and the facility to move the shower head lower on the wall for those using bath seats?	
• A lower level bath / accessible bath and walk in shower provision with shower curtain or screen (as appropriate to the household)?	
• Combine shower head rails with a grab rail to avoid residents pulling the shower rails off the wall in the event of losing their balance?	
• Easily operated shower controls?	
• Thermostatic control button on the shower control?	
• Toilet with economy flushing system and support rails as appropriate?	
• Accessible wash hand basin, which can be reached at wheelchair height?	
• A mirror which can be used by either someone standing or someone in a wheelchair? A mirror which can be removed in cases of dementia where person may find their reflection confusing or upsetting?	
• Taps with lever handles?	
• Non slip flooring?	
• Towel rail with thermostatic control (if provided)	
• Thermostatically controlled heating?	
• Ease of access on the approach to the bathroom?	
• Outward opening doors which allow access by the care team, should a resident fall against it?	
• A simple lock which can be released from outside in an emergency?	
• Been designed to building regulations part M and BS 8300:2001.	

This provides configurations for wheelchair access to toilets and to showers.	
• Toilet with a contrasting toilet seat for easy identification?	
• Lighting which will immediately activate upon access into the bathroom and gradually reduce illumination when resident leaves the room?	
• Minimised splash back from the shower area onto other bathroom fittings?	
• Adequate drainage to make sure that water does not pool or leak into other living areas?	



Example bathroom provision at Barton Mews, Staffordshire

In larger family bathrooms consideration must be given to:-

CHECKLIST : Have you designed for a larger family bathroom:	✓
• With a low level bath with shower attachment on the taps in addition to the walk in shower?	
• With a separate toilet and hand basin to the main bathroom to meet wheelchair standards, located on the ground floor to meet lifetime homes standards.	

8.4 Cooking and Eating

Allow space for kitchen / dining table and chair for the household / visitors. This can be easily achieved if the kitchen is open plan within the living space. Keep 'eating station' heights to a manageable level – making sure the bench / table top can be easily reached from a normal chair height.

Are fully fitted kitchens practical? Would open shelving at an accessible height be more appropriate enabling people to easily identify regularly used items? A mixture of both open shelving and fitted units can help an apartment to be flexible and 'care ready'. This form of kitchen is particularly helpful for people with dementia as it helps them to easily see crockery; food etc without the barrier of unit doors.



Sitting room with dining area at Woodridge Gardens, Washington – Housing 21



Flexible open plan kitchen and dining area - Solinsieme – St Gallen,

CHECKLIST – Have you:	✓
• Provided adequate, accessible and comfortable space for seating and dining?	
• Provided good working surfaces and plenty of space for preparing food?	
• Ensured that there are no unnecessary spaces or gaps between floor units?	
• Maximised storage space while making sure that the wall units and base units are practical for frail and disabled people?	
• Considered the viability of including open shelving and free standing units within the kitchen area to keep the area flexible and 'care ready'?	
• Provided excellent ventilation in the kitchen area to eliminate cooking odours from moving into the living area of the home?	
• Provided white goods with excellent efficiency ratings?	
• Provided a fridge with the freezer to the lower part of the appliance?	
• Integrated the electric oven into the cupboards at a height easily accessed without having to bend down to lift food (taking into account frail / elderly / disabled residents)	
• Provided snag free cupboard handles?	
• Provided a contrast between the workbench/ the units and the flooring?	
• Good lighting which prevents shadows and glare, especially if natural lighting is not available?	
• Electric hob with controls to the front to stop people from reaching over and burning themselves?	
• Flat glass hob to prevent pans from being off balance on raised plates?	
• Induction hob which turns off as soon as a pan is lifted off – to prevent the hob being left on and eliminate burns	
• Provided an isolation switch to enable the hob to be isolated if appropriate?	
• Provided a washer dryer and / or dishwasher and provided a flood detector linked to assistive technology?	
• If washer dryer / dishwasher are not to be provided as standard, is the plumbing in place to enable the resident to plumb appliance in if they require?	
• Provided a window? If so, is it easy to reach and open without having to stretch across benches or reach up?	
• Provided a window with integral blinds? If so, is it easy to reach, easy to clean and is it blackout?	



Kitchen with accessible oven and hob with front controls

Integrated cookers and hobs are usually provided as part of the fit out of the kitchen areas. The cookers should provide an easy opening door. Side opening oven doors can help people to access the oven and its contents easily, putting cooked food straight onto the bench areas. Bottom hinged oven doors create an immediate barrier into the oven as people need to stretch over it and into the oven for their food.

A flat glass electric hob is an ideal solution in the kitchen, providing a safe to use and easy to clean cooking solution. They can provide touch control, timers, residual heat indicators warning when the hob is still hot. Some models also have a safety lock preventing settings being changed.

Avoid the use of hobs with raised surfaces / rings which can cause pans to topple over; keep temperature controls to the front of the hob to stop people stretching over hot surfaces to switch off the ring. Provide a contrasting hob to the bench surface to help people easily identify the cooking area.



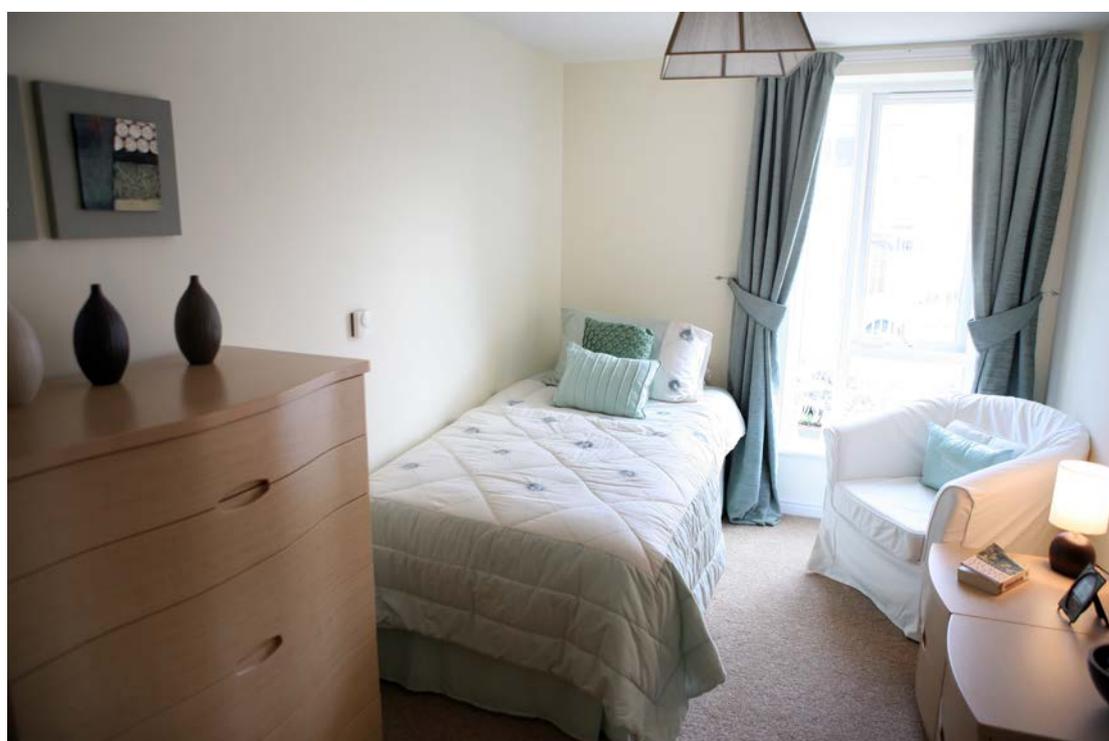
Modern, open and accessible kitchen area can help to prepare the kitchen to be 'care ready' by using easy reach shelving; open units and preparation areas

SECTION 9: LIVING, PLAYING, WORKING AND STUDYING

A home must provide different areas to fulfil different needs of those living there.

CHECKLIST – Have you:	✓
• Provided individual rooms and spaces with areas that can accommodate different furniture layouts?	
• Provided adequate storage areas?	
• Located service provisions e.g. TV aerial; satellite in a location which is logical, taking into account furniture layout?	
• Provided key digital connections, such as telephone points, TV and broadband in accessible locations with telephone point provided in sitting room and both bedroom?	
• Are communal spaces wi-fi accessible ?	

Evidence shows that a second bedroom is a high priority for residents. It can provide for couples who choose to have their own rooms, often caused due to a medical issue; provision for caring arrangements /sleepover provision; spare room for family and friends; enables older people to continue to have grandchildren sleeping over. A third habitable room in housing for older people is an HCA expectation (if the scheme is receiving grant funding from the HCA). However, one bedroom apartments must be considered to enable those people under pensionable age but over 55 to still access extra care housing but not pay for second bedroom tax.



Second bedroom provision at Beckwith Mews, Silksworth

SECTION 10: DESIGNING FOR DEMENTIA⁹

Basic dementia design guidance includes the following recommendations, which have been addressed in the overall design guide (in particular within the section covering Extra Care Accommodation):

- Observing a domestic scale
- Creating a homely and culturally specific environment for residents
- Using familiar materials and colours, including fixtures and fittings as appropriate to meet a cultural context.



External appearance providing useable and accessible places - Millhouse, Nantwich

A fundamental principle in any building design is that the design should compensate for impairments. Impairment becomes a disability only when the built environment does not compensate for impairments, which could include:-

- **physical** – requiring a wheelchair, mobility scooter, walking frame or handrail
- **visual** – no or partial sight
- **aural** – full or partial deafness
- **cognitive** – dementia, which can be mild or severe and affects individuals in different ways.

Any building designed for older people should be dementia friendly as it offers a greater flexibility should there be future changes in the profile and needs of the people who live there.

⁹ Extracts from The design of housing for people with dementia – 20 January 2009, published on DH care networks www.dhcarenetworks.org.uk have been provided throughout this section.

The principles of designing for people with dementia includes –

- compensating for impairments
- maximising independence
- enhancing self esteem and confidence
- demonstrates care for staff
- design should be orientating and understandable
- reinforces personal identity
- welcomes relatives and the local community.

10.1 General Building Design

People with dementia are less able to judge risk or foresee danger; forgetfulness is another issue which could lead to danger in some areas. It is common for people with dementia to get lost trying to find their way around a building. This reflects a person forgetting such basic information as the location of one room in relation to another. If numerous visual cues or reminders are incorporated in the design, these can help by acting as way finders and make the situation less stressful and confusing.

The ability for residents to watch the world going by, or to visit the local shops, integrates them within the neighbourhood and helps to eliminate any sense of isolation or being institutionalised. Opportunities to encourage members of the local community to come into the building need to be considered against the context of the scheme. Safeguarding residents is paramount, however, so is integration and social opportunities.



Gradmann Haus Stuttgart, Germany

Drawing shows rooms for people with dementia in green with the right hand side block and block along the front for carers / partners to live in, independently. (25 rooms for dementia and 18 apartments)



Gradmann Haus apartments for partners to the scheme

10.2 Dementia and sight loss

A person's experience of dementia can be significantly worsened by sight loss, including cataracts, and potentially their ability to cope with stress can be heightened.

The combination of cognitive and visual impairment is likely to be an overwhelming experience, profoundly affecting functional ability, activity, mood and sense of identity. Research suggests that individuals with dementia and sight loss may experience a profound sense of disorientation and may be highly vulnerable to isolation. There is also a destructive effect on an individual's ability to enjoy hobbies and interests. For example, the combination of poor sight, poor concentration and poor memory restricts older adults' ability to read, and cognitive difficulties prevent them from learning how to use alternatives such as audio books. It is important to provide this client group with corrective remedies for sight loss, a 'user-friendly' environment, optimal lighting, colour and contrast, assistive technology, clear verbal instructions, one-to-one contact and opportunities for interaction and activity.



Open plan communal areas at Millhouse, Nantwich, Cheshire, helps residents to see different uses and spaces

Research suggests that strong colours such as reds, oranges and yellows are easiest to recognise, with blues, greens and violets the more difficult. The following section 'Designing for Visual Impairment' should be referenced to help with design for specialist dementia accommodation.

- Strong colours should be contrasted with muted / pastel shades to help people identify doors; changes in direction; different areas e.g. floors and walls
- Make all toilet doors the same colour to help with identification, in both communal areas and private spaces
- Tailor the environment to maximise an individual's visual input e.g. increase the contrast between objects and background, such as crockery and table/placements and marking steps with a contrasting colour.
- Avoid providing borders as part of floor design – this can look like a barrier and some people may stop at this point and not progress further.

- Very dark floors may look like a large hole, again preventing people from stepping onto it or walking across it
- Corridors should have progressive lighting. Dark corridors ahead can unsettle people and prevent them from moving forward.
- Flooring should be plain – flecks and speckles can cause confusion

10.3 Internal Communal Areas

People with dementia often look at the floor as they walk, so placing clear signs nearer ground level or using the surfaces of the path to help with way finding.

- Clear and uncomplicated circulation routes reduce the possibility of residents getting lost and frustrated.
- Avoid dead end corridors and stairs with blind turnings – always provide a destination point.
- Provide well lit, inviting entrances to day rooms, natural lighting, changes in floor and wall textures, colours, identifiable architectural features, recognisable and distinctive individual room designs to compensate for residents' sensory and memory losses.
- Use tactile furnishing and decoration to help stimulate the resident via touch, but also to help with recognition of space.
- Remove walls and doors (barriers) – keep spaces as open plan as practical



Design without barriers and requirements for signage, Belong, Macclesfield

Many people with dementia like to walk a lot. Design should provide natural and seamless access from inside to outside areas and vice versa, taking into account weather issues, and at the same time allow unobtrusive observation by staff and families. Limit the numbers of doors in communal corridors and to communal rooms to encourage people to have 'free walking experience'. Integrating exercise equipment into internal and external spaces, can help to eradicate excessive energy, which suggests that the need to wander can be reduced and it can also help to increase appetite.

Non accessible doors and gates can be hidden by painting them the same colour as the walls, extending skirting board and handrails and omitting architraves to ensure that people with dementia are not alerted to

opportunities to leave the premises. Distractions at the end of a corridor, where there may be an exit door, like a table and chair or a hat stand, and things to look at along the way will also help with this as well as addressing impaired memory issues.

Open plan areas or clear glazed screens will permit residents to understand the use of a room without resorting to signage. Use manifestations on large glass areas to stop people from walking into them or becoming confused by reflective surfaces. Providing an open plan layout to communal areas helps people to easily find their way to different communal spaces. Avoid visual clutter, it can distress and confuse residents, especially where glazed and open plan areas are provided within design. Cupboards and cabinets will be required to safely store items away.

People with dementia may have other sensory disabilities. Hearing and sight loss may be common along with the cognitive impairment and must be considered within the design stages of the development.

- Aromatherapy and music therapy should be factored into the design of the building to enhance communal areas, assisted bathing suite; healthy living suite etc., this provision could help to relieve a person's anxiety
- Television noise may upset and / or confuse people so this needs to be carefully managed.

10.4 Dining and Participation

Provide people with an opportunity to contribute to the life and community of the scheme. Supporting residents and carers to be active – food preparation; tidying up; cooking and baking can reinforce a sense of home and reminiscence.

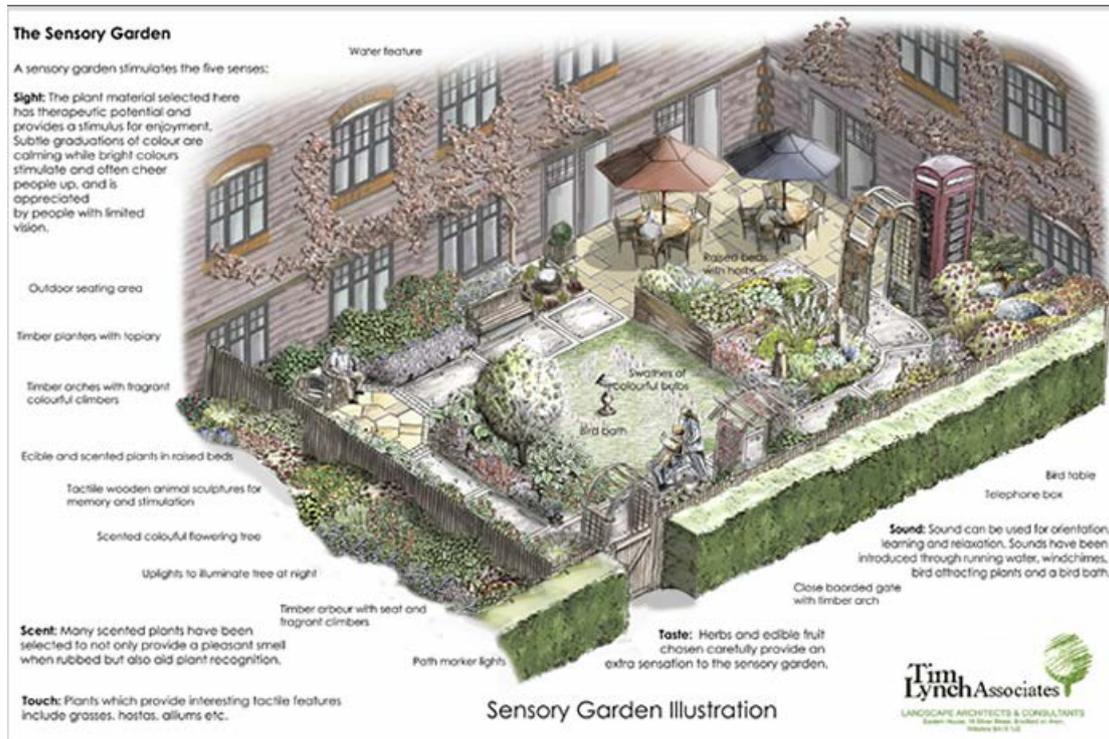
- The main kitchen area (secret kitchen) is discretely designed to the rear of the 'front kitchen'. This provides an area for sharp knife preparation; hot water; boiling; hot oven types of cooking to be undertaken by the catering team.
- Place any hazardous materials in a lockable cupboard in the secret kitchen area.
- A domestic style kitchen will provide a familiar area for people to get involved in food preparation, cooking and baking. An oven may not be provided here, but facilities to wash up; prepare food; and take part in activities with care staff; volunteers; catering team and carers can be undertaken here. Table and chairs should be integral within this kitchen area to enable people to sit and take part. No one should be prevented from entering this area – it should be an area where people are encouraged to be.
- Use glazed cupboard or open shelving, and glazed fridge doors in a domestic kitchen setting to enable people to easily locate items. Where items are used regularly, place them on workbenches or open shelves in clear jars for easy access

- Do not provide high cupboards and shelves, as they can cause accidents as people stretch or climb to reach objects, which if unstable can cause a fall, or for the item to fall and hit the resident.
- Provide red and orange crockery or red and orange interior decoration – research suggests it helps stimulate appetite
- Provide varying crockery including dignity crockery and utensils to help people to maintain their independence and dignity when eating. Lay them out on tables with contrasting coloured surface or table cloth.
- Make temperatures clearly identifiable – use thermostats to prevent scalding / burning
- Provide easy to use door handles which do not protrude e.g snagging hazard which could cause a fall.
- Ensure that dining tables can accommodate wheelchairs comfortably so the individual can move under the table easily to enable them to eat
- Provide chairs with and without arms
- Use movable barriers which can give people dignity when eating – if they are struggling with feeding and drinking. They can also be used as leaning bars to help people move around
- Lighting is important. Visual impairment varies from one individual to another. Providing adjustable lighting over each table can make a difference between someone managing to eat on their own – or needing support to eat. Lighting that lowers and dims up or down is particularly helpful.
- Provide a toilet very close to the dining area to give people reassurance that they have the facility available close by.

10.5 Outside / Garden Areas

- Keep any circulation routes away from vehicular access / parking areas
- Enable the garden, as far as possible, to be accessible from apartments and main communal areas
- Use soft lighting to illuminate the garden areas at dusk so that people can continue to go outside
- Provide different sensory stimulation e.g. water features; wind chimes; attract birds into the garden area; sensory planting
- Do not use any spiky or poisonous planting
- Provide a familiarity layout, what would people have had in their back gardens – shed, greenhouse, bench, bird tables, bird baths, vegetable patch
- Maintain concentration and interest within the perimeter using sculptures, and murals to support way finding
- Treat boundary areas with planting to prevent people attempting to climb / leave the boundary
- Provide furniture which is bolted to the ground or is too heavy to move – this will prevent people from using it to help climb over the boundary
- Develop courtyard areas providing protection from weather.
- Provide seating with shade – skin can become more prone to sunburn with some medication so shaded areas are required
- Plant herbs and lavender next to paths to release fragrance when brushed
- Fill garden with colourful and scented flowers to encourage wildlife

- Provide arches over pathways to break up the path and give areas of interest / recognition
- Provide a memory garden and garden club to encourage participation
- Avoid dark shadowy areas as this can cause distress to some
- A well designed garden should cater for people with wheelchair and mobility aids as well as able bodied people.



Source: Tim Lynch Associates Landscape Architects

10.6 Doors

- Use red, orange, yellows to help people to see / identify access doors
- Use the same colour for wc's both in communal spaces and in own apartment including contrasting wc seat
- Make entrance doors welcoming and comfortable with seating
- Identify doors to help people to see where it leads (particularly main doors)
- Use glazed door panels to help with way finding
- Provide fire doors where required but try and ensure that doors are not heavy and are easily opened by people physically frail and by those in wheelchairs / using mobility aids.

10.7 Toilet and bathroom areas

- Provide a light that can be easily located and switched on and off – or alternatively, a PIR lighting arrangement so the light dims up upon someone entering the toilet and dims down after they have left.
- Contrasting wc seat to toilet bowl and contrasting door handle
- Use a flush that is recognisable
- Provide door locks that can be unlocked from both sides

- In communal areas provide a recess to the wc door for dignity reasons in the event that someone doesn't lock the door properly or needs support to dress themselves
- Provide soap recesses and shelving for soaps and personal items
- Non slip and matt flooring
- Provide matt wall tiling (high gloss can cause glare and reflection which can upset people with dementia)
- Under floor heating – helps keep a warm and comfortable temperature
- Use mirrors that can be removed if necessary (can cause confusion or distress)
- Make sure that shower fixtures enable the shower head to be pulled down to a level that can be easily reached from a shower chair
- Provide shower with thermostatic control that can be fixed to a safe temperature.

10.8 Lounge Areas

- Keep furnishing tactile, with rounded edges
- Provide a focal point, such as a fire / fireplace or media unit
- Recreate an era, by providing familiar objects to help prompt memory recollection
- Place seating in small groups in various sizes but ensuring that wheelchairs can be accommodated and are not left sitting at the edge of the room
- Avoid visual clutter and keep walkways clear
- Provide a specific area for sun downing / quiet lounge
- Provide a variety of lighting, or dimming light for mixed use areas
- Use materials to absorb sounds, helping to reduce background noise
- Avoid the use of patterns and colours that could cause confusion
- Provide blinds and / or curtains at windows to help manage the lighting in the room.

10.9 Designing to Stimulate the Senses

Uncontrolled stimulation of the senses can be overwhelming for the person with dementia.

- High levels of lighting are essential for people with poor eyesight but this must be controlled providing ceiling lighting which can be pulled down or retracted is particularly useful in activity areas and dining areas as this can be altered to meet the needs of the individual
- Large windows and taller floor to ceiling heights can bring in extra daylight, while external sun blinds and overhanging eaves can reduce glare and harsh shadows which can cause confusion
- Glare from windows or from light deflecting on glossy surfaces must be avoided
- Sound absorbing carpets, curtains and soft furnishings in communal areas can reduce overall noise levels in these areas
- A central courtyard space or communal areas with windows on both sides can provide natural cross ventilation
- Balance this with pleasant smells such as cooking, aromatherapy etc., which is desirable for subtle stimulation.

Design of stimulating activities must be prioritised within the building both in terms of the structure of the building; the finishes and the actual activities provided within the scheme.



Gradmann Haus, Stuttgart, Germany – natural day light encourage in communal walkways with clear access to the outside area

10.10 Snoezelen Multi Sensory Environments (MSE's)

Incorporating a specialized selection of sensory equipment and materials with the potential to support clients to adapt their responses to sensory stimulation and to advance education and therapy goals. The environment is tailored to meet the needs of specific populations according to age and ability incorporating a blend of sights, sounds, textures, aromas, and motion that provides stimulation of the primary sensory systems.

This environment provides people with dementia to exercise choice through action. These safe, non-threatening environments bridge cognitive, perceptual, behavioural, and physical impairments, as well as other limiting conditions to provide a sense of empowerment. They enable clients to enjoy a wide range of sensory experiences—either passively or actively—that enhance therapy, learning, and relaxation.

A typical SNOEZELLEN MSE contains:

- Items to stimulate the **visual system** such as Bubble Tubes, Fiber Optics, and Solar Range Projectors with Effect Wheels/Cassettes.
- A variety of mats, cushion, and textures that stimulate the **tactile system**. Many providing vibratory input or deep pressure.
- Different sounds and smells to stimulate the **auditory, olfactory, and gustatory systems**. Examples including relaxing music and aromatherapy centres.
- Products for the **master systems** and fundamental targets in Sensory Integration Therapy—**proprioception and vestibular motion**—such as ballpools, weighted items, rockers, and swings.
- Soft furnishings and wall padding for positioning, safety, and comfort.



White room :- www.worcestersnoezelen.org.uk

The room in the image above has elements which can be operated by the user from any position in the room through a series of simple switches which provides complete control over the individual's environment.

The colour, shape and position of many of the projected images can be changed, thereby altering the whole atmosphere of the room. There is also gentle music, coloured bubble tubes, glowing fibre optic sprays and many other fascinating visual effects.

10.11 Living in your own Home



Compensating for impaired reasoning is demonstrated by contrasts between surfaces and objects. Provide a clear contrast between floor and wall finishes and between handrails and grab rails and the walls behind. Light-switches must contrast with the background, toilet seats contrast with the WC, which in turn contrasts with the background floors and wall tiling.

Light switches which can provide a contrast against the wall decoration

Provide a notice board next to the front door to remind people of important visits; appointments they have that day and anything they should take with them. The board should be big enough to hold pictures and photographs to help inform the person about where they are going or who is visiting.

Toilet doors should always be highly visible with contrast and the WC visible from the bed. A connecting door between the main bedroom and shower room provides the en suite accessibility, but providing a door from the hallway into the shower room provides a more 'traditional' layout which should provide easy access for the resident.

Multiple cues for doors could involve for example, a toilet door being a single bright contrasting colour with a sign showing both the words and the picture. Objects or architectural features work better than colour for orientation. Certain walls could be curved, have a noticeably different texture, or a painting / clock / pot plant can be strategically positioned. Motifs on doors or at eye level on walls and noticeably different joinery can give an identity to each household and cues for residents to know where they are.



Clear visibility into bathroom from the main bedroom – Woodridge Gardens, Washington, Sunderland

Providing self contained apartments is a key factor in maximising independence. There is a need for residents to personalise their own space. A shelf next to each front door can provide a space for a photo, picture or item so people know they are home. Memory boxes can be helpful for personalising a door area as well as providing a cue for a resident to identify their own space and telling others about the person whose room it is.

Design must enhance self esteem and confidence by enabling people to use and maintain skills they may have used in the past. This could be from making a cup of tea to playing a musical instrument. Providing kitchens within the residents own apartment allows them to make a drink or snack independently and not to have to go to a communal kitchen, where other activity may be taking place.

Culture and context must be considered within design e.g. a resident may be confused by the more widely used under floor heating, as they are used to a fire place and radiators; and this is something that will change as future generations are more familiar with remote control television, computers, the internet etc. Confusion can arise for people with dementia because something is unfamiliar. The design of a kitchen can help a person with dementia to find and use what they need. It is also important for a carer to know whether the person is eating / using food in the cupboards and fridge. To support this, clear glazed cupboard and fridge fronts are often used.

Eating and drinking is always important, but a person with dementia may lose their appetite and their ability to care for themselves in this way.



An example of clear glazed kitchen units

Open shelving is an alternative used in many kitchens. These can be fitted with rails and blunt-ended hooks to hang utensils. A fridge with a glass door entices the person with dementia to eat what is in there. This open, visible approach also makes it easier for care staff to glance in the kitchen and get an idea whether the person is eating well.¹⁰



Open plan kitchen idea with glazed units and seating bar

Provide a white board or cork board on the wall to record important numbers; tasks for the day; record of visits to be made during the day by care and support / friends / family.

¹⁰ Source: <http://www.scie.org.uk/publications/dementia/environment/kitchens.asp>

CHECKLIST – Have you:	✓
• Taken into account the guidance already covered for extra care within this design guide?	
• Considered the client group in your design removing features which could cause confusion or risk?	
• Considered the accommodation types required i.e one or two bedroom apartments and external bungalows?	
• Considered that people may move into this accommodation with their spouse carer who may not suffer from dementia?	
• Provided very clear routes, with no dead ends, use of windows for land-marking and identifiable features?	
• Designed out borders on floors; across entrances to facilities and minimised shadow casting to avoid 'false' barriers being created?	
• Designed the building and garden areas to be easily accessed and aid those who wander, while providing secured access at the garden boundary?	
• Designed a building with gardens which ensures that individual's dignity and rights of privacy are maximised?	
• Provided visual clues and reminders within the overall design of the scheme?	
• Maximised natural day light and ensured that all areas of the building are well lit ?	
• Considered the potential that residents may have hearing and sight loss and factored this into the design?	
• Provided clear glazed screens in communal areas and within apartments as appropriate to enable residents to find their way easily around the building and minimising frustration?	
• Maximised colours the use of colours and textures within the designs to stimulate and engage the residents	
• Provided areas specifically to stimulate and engage residents in activities including therapy areas which provide aromatherapy and massage; sensory rooms; texture walls and pictures to encourage touch and recognition?	
• Provided reminiscence features e.g. pictures and boards?	
• Considered dignity features within fixtures and fittings i.e. vivid colours can aid visually including toilet seats; handrails; door furniture;	
• Provided dementia signage to support people to navigate their way around their apartment and the building?	
• Considered the internal design and ensured that no high gloss or mirrored surfaces are designed into the scheme?	
• Provided a restaurant / café area which is warm, colourful and inviting, which encourages people to eat; is safe; respects people's dignity; provides for the needs of the residents?	
• Provided dignity crockery to ensure nutrition and hydration features are enhanced?	

SECTION 11: DESIGNING FOR VISUAL IMPAIRMENT

Potential health and safety issues must be designed out e.g. preventing electric flexes from trailing the floor by providing ample electric sockets; providing rounded corners where walls meet or at door recesses.

Lighting, colour schemes and tonal contrast, casting of shadows, audible signals and tactile information must also be taken into account. There should be a contrast between ironmongery, doors, door frames and walls to distinguish these clearly; the new Part M requirements of the Buildings Regulations should be considered. Defining walls and floors can be resolved by providing different textures. Different floor coverings can be used to help 'way finding' by producing different sounds. Additional lighting can help to identify the toilet and bathing area or work areas in the kitchen, while being careful not to introduce glare into the area.

Avoid shiny surfaces, especially shiny floor surfaces. Non reflective materials, such as matt wall finish tiles and flooring, especially in bathrooms and kitchens, reduce glare. Highly patterned floor and worktop surfaces should be avoided as this makes objects set against them harder to distinguish.

Natural materials assist way finding, divide spaces, highlight level changes and help create a warm and less clinical environment. Callers can be recognised – via clear glazing beside the door, a door view, audible caller recognition or door entry system. Letter boxes should be centred within the door with a 'letter cage' on the inside and door numbers centred at eye level.



Example of gated dog run for Guide dog

Where homes share a communal outdoor space, an enclosed and gated dog run, with water and drains, is available for guide dogs to be taken for toileting. A dog run in a private garden conforms to minimum size requirements defined by 'Guide Dogs' and adheres to good practice defined by them.¹¹

Floor covering, such as laminate, tiled or hard wood flooring can be problematic for dogs that may slip on such flooring. If a building is to be provided for people with visual impairment and sight loss, then non slip flooring should be considered in all areas, to support guide dogs to carry out their working role.

All edges to stairs and steps should be highlighted with illumination and texture and tactile cue provided at the top and bottom of each flight.

If a scheme is to be developed for occupation by people with visual impairment and sight loss it is important to consider consistency within the design, enabling people to identify their own apartment; where light switches will be located; same colour for all wc doors in communal areas and in own apartment; same floor covering in same areas e.g restaurant / bistro area has tiled floor same as in the apartment's own kitchen area. Use of smells; colours and textures must be maximised to help with the resident's way finding.

The Thomas Pocklington Guide – The Housing and Support Needs of Adults aged 18-55 with impaired vision outlines:-

11.1 Location

Location is the most significant issue for people of working age with sight loss. A satisfactory housing location is one in a familiar area that offers proximity to important amenities, people and public transport links, employment and leisure opportunities.

Location of housing can play a crucial role in helping people with sight loss develop a greater sense of independence, security, social inclusion and belonging. Housing providers should therefore carefully consider location of housing when they consider offering accommodation to such applicants.

11.2 Space

Having sufficient space in the home emerged as one of the top priorities for adults with sight loss. Space has to take account of people's ability to store equipment, to socialise, to house a guide dog, to be free from harm, and to accommodate overnight guests or carers. Colour and tone contrast, especially when combined with good lighting, can also make an enormous difference to a visually impaired person's ability to understand and 'read' their surroundings. It also makes a big difference between being able to move about safely at home and being totally unable to navigate the domestic

¹¹ Housing for People with Sight Loss – A practical guide to improving existing homes – Thomas Pocklington Trust Good Practice Guide June 2009

interior. Lighting and colour contrast need to be tailored to people's personal requirements. Finally, flexibility is an important principle to bear in mind, as this makes it possible for a property to be adapted to individual needs or to be altered as the occupant's personal, sight or health needs change.

11.3 Security

The features that make people with sight loss feel safer and less open to harassment in the home include perimeter fencing accessed by a locked security gate, sensor-activated external security lighting, porch lighting, CCTV, an entry-phone or intercom, secure doors, locks and windows catches, a burglar alarm and a smoke alarm. Matters of safety and security, as well as modifications and maintenance, can be improved with thoughtful intervention and modest adjustments. Such matters should be very carefully considered by housing providers, when offering accommodation to people with vision impairment.

11.4 Lighting and Design

Thomas Pocklington Trust undertook research published in April 12 called 'Extra care housing for people with sight loss: lighting and design. In summary the report outlined:

The design of extra care housing does not meet the needs of people with sight loss as well as it could. Apartment lounges should have lighting levels at 200 lux or above; bedrooms 150 lux and 200 lux for halls and entrances.

Residents place a high value on having a view from a window even when their ability to see was limited. A view makes people feel connected to life outside. Trees in the view were valued because it was possible to deduce weather conditions from the movement of the branches.

Residents appreciate sunlight coming into their apartment for part of the day.

Many participants had withdrawn from engagement in activities outside their own homes. Building design is clearly important to help people to maintain contact with the outside world and engage in social activity.

CHECKLIST – Have you:	✓
• Considered lighting requirements; colour schemes and tonal contrast within design, specifically for those people with partial sight?	
• Minimised borders on floors and shadow casting?	
• Maximised audible signs and tactile information?	
• Provided contrasting between ironmongery and doors; door frames and walls; kitchen units and benches; walls and floors?	
• Avoided the use of shiny / glossed surfaces?	
• Provided natural materials to support way finding, enabling the resident to feel their way along corridors and communal spaces?	
• Avoided the use of patterns within design?	

• Provided ways in which visitors to the building / individual apartments can be recognised?	
• Provided for the current or future needs of guide dogs i.e. provided gated dog runs; non slip flooring; play pen area when dog is off duty?	
• Maximised the use of assistive technology to counter impairment or warn of dangers?	

SECTION 12: DESIGNING FOR OTHER DISABILITIES

12.1 Learning Disability

Design features to assist people with visual impairment are generally useful for people with learning disabilities. Please see information on Snoezelen Multi Sensory Environments in Section 10, which can be beneficial to people with learning disabilities and autism.

12.2 Hearing Impairment

Consideration needs to be given to the provision of hearing loops in all communal spaces as appropriate. Materials that reduce reverberation times are essential, particularly in larger spaces where acoustics can become a problem. Greater 'visual access' to a person's surroundings can help compensate for impaired hearing. Specify finishes for large spaces with higher ceilings such as lounges and dining rooms with a high acoustic absorbency to reduce echoes for the benefit of those with hearing impairment. The position of hearing loops must be considered and be sensibly located ie not be located in the middle of lounge walls which affect the decoration.

CHECKLIST – Have you:	✓
• Provided adequate hearing loops in sensible locations?	
• Provided materials to reduce reverberation times?	
• Enhanced visual access to compensate for impaired hearing?	
• Provided high acoustic absorbency in communal areas to reduce echoing?	

12.3 Mobility

A number of people with severe learning disability may also have a physical disability. Properties should be constructed that can be adapted easily and economically, particularly considering the Lifetime Homes standard which can enable people with moderate mobility to be accommodated in general needs accommodation.

People living in and visiting an extra care scheme may use wheelchairs, and / or walking aids. Space standards should accommodate the use of all of these. The Wheelchair Housing Guide produced by the Homes and

Communities Agency should be taken into account when designing for people using wheelchairs.

12.4 Long Term Illnesses / Conditions

Long term conditions must be considered within designs alongside health aspects associated with stroke, heart disease, cancer, diabetes and obesity.

CHECKLIST – Have you:	✓
• Considered within the design, the needs of residents with long term conditions?	
• Provided adequate treatment areas to provide preventative treatments in addition to providing healthy living suites?	

As guidance is developed for other vulnerable groups within our communities, the guide will be updated to reflect those needs in relation to building accommodation to suit identified disabilities.

ACKNOWLEDGEMENTS

The following guidance has been considered when devising this information:-

HAPPI: Housing our Ageing Population: Panel for Innovation – Dec 2009

www.homesandcommunities.co.uk/ourwork/happi

HAPPI - 2 report – Plan for implementation - 2012

http://www.housinglin.org.uk/Topics/browse/Design_building/HAPPI2/?&msg=0&parent=8649&child=8650

Non Mainstream Housing Design Guidance literature review Jan 2012 – Levitt Bernstein and PRP Architects on behalf of Homes & Communities Agency

Secured by Design – sheltered housing

<http://www.securedbydesign.com/pdfs/sheltered.pdf>

Design Principles for Extra Care – Factsheet Number 6 – PRP Architects Feb 2008

www.housinglin.org.uk

Older Persons' Housing Design: A European Good Practice Guide – Welhops European Working Group 2007

www.brighton-hove.gov.uk

A Very sheltered Housing in Suffolk: A Design and Management Guide april 2008

www.housinglin.org.uk

Eco Housing: taking extra care with environmentally friendly design - Fact sheet 13 – DH – Jan 2005

www.housinglin.org.uk

Giving consideration to this guidance and to other publications from the Department of Health (DH) and Housing Learning Improvement Network, we have defined the principles, guidance and requirements that enforce a quality framework to encourage a consistent approach towards quality design within all future supported housing schemes.

Thanks are extended to the Housing LIN and its members who provided information and comments which have been drawn into this guide.

Further Design Guidance and Good Practice References

NHF: Standards and Quality in Development – A Good Practice Guide
Relevant Sections – Part C: The Internal Environment
Part E: Accessibility & Technical Illustrations, with in the appendices
National Housing Federation, 1998

Wheelchair Homes Design Guidelines – South East London Housing Partnership – Updated October 2011

<http://www.selondonhousing.org/Documents/080530%20WC%20guide%20May%2008.pdf>

Adapting Homes: A guide to adapting existing homes for people with sight loss, Linda Rees and Caroline Lewis, RNIB Cymru, 2003

A Design Guide for the Use of Colour and Contrast to Improve the Built Environment for Visually Impaired People - Dulux Technical Group, ICI Paints, 1997

Building Sight: the Royal Institute for the Blind – a useful handbook of building and interior design solutions for the needs of visually impaired people. Peter Barker, Jon Barrick, Rod Wilson, HMSO in association with the RNIB, 1995.

The Housing and Support needs of adults aged 18-55 with impaired Vision: A Good practice Guide – Thomas Pocklington Trust - December 2005

<http://www.pocklington-trust.org.uk/Resources/Thomas%20Pocklington/Documents/PDF/Research%20Publications/RF11.pdf>

Extra Care housing for people with sight loss: lighting and design: Research findings – Thomas Pocklington Trust – April 2012

The following documents are also recommended:

- BREEAM guidelines – see Extra Care Housing: Designing, assessing and delivering sustainable homes – Technical Brief no. 4 – DH Feb 10
www.housinglin.org.uk
- The Extra Care Housing Toolkit, October 2006: Provides a range of papers, ideas, checklists and diagrams designed to help in planning specialist housing and service provision. Replaces the document 'Developing and Implementing Local Extra Care Housing Strategies'.
http://icn.csip.org.uk/library/Resources/Housing/Support_materials/Toolkit/ECH_Toolkit_Website_Version_Final.pdf

- Extra Care Housing: Development Planning, Control and Management RTPI Good Practice Note 8, Updated 2012.
http://www.housinglin.org.uk/library/Resources/Housing/Support_materials/Reports/GPN8.pdf
- Housing Green Paper, Homes for the Future, July 2007. Briefly discusses 'Housing for an Ageing Population' in chapter 5, also refers to the 'National Strategy for Housing and Ageing Society' paper for more detail.
www.communities.gov.uk.
- Designing Lifetime Homes – 2012
http://www.housinglin.org.uk/Topics/browse/Design_building/LifetimeHomes/?&msg=0
- Building for Life, CABE: <http://www.designcouncil.org.uk/our-work/CABE/Our-big-projects/Building-for-Life/>
- The Suffolk Very Sheltered Housing Design and Management Guide, Ninth Revision, January 2007, Available on line from www.suffolkcc.gov.uk.
- Towards Lifetime Neighbourhoods: Designing Sustainable Communities for All, published in partnership with Communities and Local Government November 2007.
- Legislation Maze: Inclusive Accessible Design, Guidance on accessibility design issues required during the course of a building project, using the new RIBA Plan of Work Stages.
- National Strategy for Housing in an Ageing Society, 2008. This Strategy includes announcements such as Lifetime Homes becoming a mandatory part of the Code for Sustainable Homes. www.communities.gov.uk
- Housing for people with sight loss - A Thomas Pocklington Trust design guide. 2008. Thomas Pocklington Trust and Habinteg Housing Association.
<http://www.pocklington-rust.org.uk/lightinganddesign/newdesignguide.htm>
- Good Practice Guide No 4: Housing for people with sight loss: A practical guide to improving existing homes. 2009. Nikki Joule and Ros Levenson. Published by Thomas Pocklington Trust. Email: research@pocklington-trust.org.uk
<http://www.pocklington-trust.org.uk/research/projects/goodpracticeguides/gpg4.htm>
- The Dreams and Needs of Housing for the Elderly – Finland – Housing LIN – Case Study 64 (2013) <http://www.designcouncil.org.uk/our-work/CABE/Our-big-projects/Building-for-Life/>

Various Publications on Designing for Dementia are available from:

- Design for Dementia, Stephen Judd, Mary Marshall & Peter Phippen, London: Hawker Publications, 1998
- Dementia Services Development Centre, University of Stirling, Stirling, FK9 4LA, Scotland. www.stir.ac.uk/dsdc
- Designing for Special Needs. An architect's guide to briefing and designing options for living for people with learning disabilities, Maurice Harker & Nigel King, the Shirley Foundation, 2002, RIBA Enterprises
- Homes for the Third Age, a design guide for extra care sheltered housing, David Robson, Anne-Maria Nicholson, Neil Barker, University of Brighton and Hanover Housing Association, E&F N Spon, 1997
- Housing Sight, a guide to building accessible homes for people with sight problems, Linda Rees and Caroline Lewis, RNIB Cymru, 2003
- Put Yourself in My Place, designing and managing care homes for people with dementia, Caroline Cantley and Robert C Wilson, The Policy Press, 2002.
- www.wanderinginfamilarspaces.com/iris.html
- Design for Dementia – Gregor Timlin and Nic Rysenbry
<http://www.hhc.rca.ac.uk/2988-3029/all/1/Design-and-Dementia.aspx>