

Housing Learning & Improvement Network

Design Principles for Extra Care

This fact sheet gives essential basic information about key design principles and issues to consider when designing and developing a brief for a new Extra Care Scheme. Case studies illustrate the variety of models that this concept of housing takes and show ways of developing a range of different sites.

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The Health and Social Care Change Agent Team (CAT) was created by the DoH to improve discharge from hospital and associated arrangements. The Housing LIN, a section of the CAT, is devoted to housing-based models of care.

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Introduction

This fact-sheet is No.6 in a series commissioned by the Housing Learning and Improvement Network, Change Agent Team, at the Department of Health. The earlier fact sheets describe in detail what Extra Care Sheltered Housing is, how to go about commissioning it plus further guidance specific to this type of housing and care for older people.

This fact sheet, written by PRP Architects focuses on design principles and issues to consider when designing a scheme from the outset. The guidance draws on the experience of PRP who have considerable experience in this field and have built up a large portfolio of housing designs for older people spanning from the early 1980's to the present day. PRP have worked with a wide variety of clients from the private, voluntary and public sector.

There is no guidance in this fact sheet about the process of development itself or obtaining statutory approvals such as planning permission. Likewise there is no guidance about building contracts, procurement or the appointment of consultants. However, it must be stressed how critical it is to appoint Architects, other consultants and contractors who have a proven track record in the design of Extra Care Sheltered Housing if the development is to be a success. If just one member of the team, including the client, does not understand or is not closely guided through the design process then the end product will most certainly suffer.

1. Design Principles and Aims

The following should be the main drivers behind the design and development of an Extra Care Sheltered Housing scheme:

- To provide a 'Home for Life' – as far as practically possible
- To create an enabling environment
- To be domestic in style
- To create a building to be proud of
- To enable staff to run and manage the building efficiently and to meet the care and support needs of residents.
- To allow individuals to find privacy, comfort, support and companionship
- To create a resource for the local community

2. Design Criteria – The End Users

Residents

Along with the social and emotional support provided to residents by staff in an Extra Care scheme it is essential that the physical environment is 'enabling' in terms of the likely impairments that those residents will experience with increasing age and frailty.

- Visual Impairment: consideration needs to be given to lighting, colour schemes and tonal contrast, casting of shadows, audible signals and tactile information. The RNIB have produced a number of publications that deal with design issues for people with a visual impairment, see section 7 for specific references. www.rnib.org.uk
- Hearing Impairment: consideration needs to be given to the provision of hearing loops in all communal spaces. 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. Contact the RNID for more information www.rnid.org.uk
- Mobility Impairment: Residents may use wheelchairs, zimmer frames, sticks or any combination of these. Space standards should accommodate the use of all of these. Floors should be level with no steps and be flush at junctions such as door thresholds, shower trays and changes in floor finish. Mobility impairments can also effect reach and dexterity and require that all ironmongery, fixtures and fittings be easily reached and easy to turn or operate.
- Cognitive Impairment: A large proportion of people over 80 now suffer from a cognitive impairment. Principles of design for dementia sufferers must be included from the outset. Most of these principles will benefit all users of the building. Design features to assist way finding and reduce frustration are key, e.g. maximising natural lighting, creating landmark features and avoiding long monotonous corridors or ones with numerous changes in direction. Reference to more detailed design guidance can be found in section 7.
- Learning Disabilities: Housing LIN Fact Sheet No. 3 '*New Provision for Older People with Learning Disabilities*' outlines issues and good practice in relation to the development of supported housing specifically for older

people who have a learning disability. This includes extra care. Reference to further design guidance can be found in section 7.

Staff

- Require easy access to all areas of the building.
- Require conveniently located ancillary accommodation
- Require comfortable and functional facilities such as; changing area, rest room and office space.
- Should be able to provide care to residents discreetly e.g. should not need to take utility trolleys through public spaces

Visitors

- The entrance should be clear and welcoming.
- The building layout should be simple to understand for way finding.
- It should be obvious what spaces are public and which are private or semi-private.
- Adequate parking spaces for visitors should be provided.

3. The Brief – Key Issues to Consider

The following are questions that need to be answered before signing-off an initial brief

- Scale of development – 30 units or 330?
- Tenure – rented, shared ownership, private sale?
- Specific cultural requirements – catering/bathing/worship etc?
- Dementia care – from day 1 or in the longer term? Caring for mild, moderate or severe dementia sufferers?
- Day care or community use – will there be any and will it be a formal arrangement requiring consultation with Social Services and/or the Primary Care Trust or NHS Trust?
- Integrated Care / Centre of Excellence – will the scheme be combined with other residential or day services on site or in the locality?
- Meals provision – in main dining room or taken to a number of smaller cluster dining rooms? Will there be a main catering kitchen or simply a regeneration kitchen for heating frozen meals?
- Laundry facilities – will there be separate staff and residents laundries? Number and specification of machines? What sluice facilities are envisaged?
- Refuse collection and storage – central or localised? What is the management strategy?
- SMART Technology – Housing LIN Factsheet No.5 '*Assistive Technology in Extra Care Housing*' summarises the most common applications and gives examples and further reference for finding out more details.

4. Design Concept & Layout Considerations

Relationship of flats to communal areas

The majority of completed Extra Care schemes have been designed with central communal facilities serving all residents. A number, however, have been developed on the principle of 'clusters' or friendship groups, with 8 or 10 flats having an individual lounge and dining room (and possibly an assisted bathroom). Consideration needs to be given at the very earliest stage of the

design process to whether such an arrangement is appropriate, and to whether the individual clusters are to cater for specific needs.

Progressive Privacy:

This is key to ensuring that residents are afforded the privacy and security that all of us require within our own homes. Public spaces such as communal lounges and dining rooms along with ancillary spaces such as laundries and catering kitchens should all be located away from residents' flats. Staff, visitors or day users of the building should not need to walk through corridors off which flats are accessed in order to reach their destination. Keep restrictive internal locking systems in corridors, staircases and to any communal spaces to an absolute minimum. This will ensure that residents can move around the building freely without needing to carry 'key fobs' or remember codes, since this can create an institutional environment and can outweigh the positive security aspect.

Location and arrangement of spaces near to the main entrance:

There are many rooms that work best when located 'front of house' which can all end up competing for space near to the entrance. Care must be taken not to clutter the front of the building or leave out key spaces such as buggy storage. A small sitting area at the main entrance for residents can be a great success.

Vertical Circulation:

Walking distances for all users of the building should be kept to a minimum by sensible location of stairs and lifts. It is ideal for both a lift and stair to be easily reached from the main entrance. To break up walking distances for residents consider introducing small seating bays; these are very popular with residents who want to meet in small groups for a chat, as well as providing a 'rest stop'.

Site specific issues

Sites come in all shapes and sizes. Adjoining buildings, existing trees, changes of level and location of mains services are a few of the factors effecting the size, height and siting of a new scheme. Consider in particular:

- Orientation of dwellings and principle communal spaces to ensure sunlight for part of the day.
- Site layout to achieve usable external spaces; preferably a sheltered, reasonably private south facing garden, directly accessed from the principle communal spaces. If possible arrange main circulation routes to overlook the garden, to assist orientation and to encourage a sense of community.
- Logical external circulation between site entrance/car parking and building entrance. Ensure that residents can be dropped off and picked up close to the main entrance, preferably under cover.
- Ensure that refuse collection points are within limits set by the Local Authority.

5. Essential Design Issues and Specification Items to Consider

This section summarises some of the most important design features to consider in any Extra Care scheme, over and above any minimum standards.

Supporting Physical Frailty

- 'Free-swing' door closers linked to the fire alarm should be fitted to the front doors of flats and other doors regularly used by residents. This will avoid the hazard and frustration associated with heavy overhead door closers.
- Remove obstructions such as fire compartment doors, which can be held open on magnetic pads.
- Handrails along both sides of circulation routes that are appropriately scored to assist way-finding for those with visual impairments. Consider the design of handrails to avoid snagging of clothing on their free ends, which can easily lead to a fall for a frail older person.
- Appropriate ironmongery, taps etc for older people with limited dexterity.
- Stretcher sized lift to accommodate long-base wheelchairs
- Wheelchair standard design should be provided throughout the building. However, consideration should be given to the fact that certain areas such as residents individual kitchens can be designed for adaptation for people who do not use a wheelchair until a later stage in their life. This will avoid costly fit outs at the initial stage and result in a more user-friendly space for the majority of residents who will never use a wheelchair in the kitchen.
- The construction and detailing of the building should allow for ceiling hoists to be retrofitted within flats.

Orientation

- Good use of natural light particularly on circulation routes.
- Good visual access throughout. The use of glazed screens to communal areas greatly improves the feeling of light and space within the building and provides good visual contact between spaces.
- Good use of colour and tonal contrast to aid orientation and ensure that corridors do not become monotonous. Use 'key' colours to pick out important landmarks or entrances.
- Small seating bays along corridors or overlooking interesting vistas are very popular with residents and help to create landmarks to aid orientation.

Domestic Environment

- Interesting corridors, ideally lit from windows or roof-lights. Avoidance of long dull vistas.
- Use of natural materials to help create a warm and less clinical environment

Lighting

- Lighting design is crucial. Careful design of switching and dimming will ensure that different atmospheres can be created and different needs catered for. A range of different luminaries and light sources are critical. Good lighting should avoid glare and sharp shadows.

Gardens

The landscaping should be designed with the special needs of the residents in mind, to this end consider the following points:

- Landscaped gardens should be thought of as an extension to the building or 'rooms outside'.
- Gardens are also an important focal point to view from within the building at both ground and upper floors.
- Provide protected, sunny, sheltered outdoor seating spaces with design features appropriate for residents needs.
- On larger schemes consider incorporating greenhouses, potting sheds and other outdoor activity spaces.
- Outdoor dining is very enjoyable and designs should accommodate activities such as barbeques, garden parties and simply eating out.
- Raised bed are essential to allow residents to participate in gardening activities
- Planting specification should consider easy maintenance, include vibrant colours and scents to stimulate the senses. Avoid poisonous plants.
- A water feature will provide an aural stimulation and central feature to a garden.
- Lighting to illuminate pathways and features within the garden to create different atmospheres and allow the space to be enjoyed after dark

Flexibility

- Flexibility should be a major consideration in order to avoid redundant buildings in the future or the need for residents to move on to other accommodation. Specialist Housing is always subject to changes in policy, legislation, funding and allocation arrangements.
- Expectations of subsequent generations will continue to rise in terms of what would be an acceptable home environment.
- Construction methods, flexible spaces and facilities, access to technology or ability to install SMART technology and personal computer systems are means of trying to 'future- proof' our buildings.
- Careful consideration should be given to the size of dwellings and the number of bedrooms. A balance needs to be struck between current cost constraints and likely future demand for increased space standards and a second (or even third?) bedroom. Evidence shows that a second bedroom is a high priority for residents where the rent level or purchase price allows.

6. Typical Schedule of Accommodation

The following schedule represents a scheme of 50 flats and gives an indication of spaces to consider with suggested floor areas. Project specific factors will dictate which spaces are appropriate and where they are located within the scheme. For example some schemes will offer formal day care and will therefore be able to sustain more activity spaces and there will be different requirements in schemes located in vibrant urban settings as opposed to a quiet rural area.

ACCOMMODATION	Approximate Area
RESIDENTS ACCOMMODATION	
34 No. 1-Bed 2-Person Flats (See Typical Layout in Appendix)	51m ²
16 No. 2-Bed 3-Person Flats (See Typical Layout in Appendix)	68m ²
COMMUNAL ACCOMMODATION & FACILITIES	
Main Communal Lounge	1.5m ² /resident
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 are a major benefit. Alcoves and niches will allow smaller groups to gather together.	
Dining area	1.2m ² /resident or 2m ² / diner
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.	
Residents tea kitchen	10m ²
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 minimum)	min 15m ² each
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 WC's	4m ² each
Located near to entrance area and communal lounge/dining areas. Designed for wheelchair accessibility.	

<p>Assisted bathrooms (2 minimum)</p> <p>At least 1 per floor, 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.</p>	12 - 15m ²
<p>Hairdressing & Beauty Therapy</p> <p>Could be located near to entrance area and might have a multi-purpose use.</p>	12m ² minimum
<p>Informal seating spaces</p> <p>Beside main entrance, along corridors and at ends of corridors. Number will be dependant on the individual scheme layout.</p>	3m ² each minimum
STAFF & ANCILLARY ACCOMMODATION	
<p>Managers office</p> <p>With views into the main entrance area, space for desk, computer table, chair, plus two visitors chairs and document storage.</p>	12m ² minimum
<p>Care Staff office</p> <p>Space for two desks, files storage and table for handover meetings. Privacy is important due to the confidential nature of the work.</p>	15m ² minimum
<p>Photocopy Area</p> <p>Easily accessible by all staff</p>	4m ²
<p>Staff overnight room with en-suite facilities</p> <p>The need for this space will depend on staff arrangements and whether night waking staff will be employed.</p>	18m ² minimum
<p>Staff rest room with kitchenette</p> <p>Space for table and chairs plus a couple of armchairs. It may be worth considering a staff smoking area e.g. a covered external terrace.</p>	15m ² minimum
<p>Staff locker/change room & WC</p> <p>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.</p>	10m ²
<p>Guest room with en-suite</p> <p>To be designed for wheelchair user access, accommodating two twin beds with en-suite shower, WC and basin.</p>	20m ²

<p>Laundry</p> <p>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.</p>	30m ²
<p>Sluice room</p> <p>Consider the need for this facility which could be incorporated into the main laundry</p>	5m ²
<p>Main catering kitchen and associated storage and staff facilities</p> <p>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.</p>	55m ²
Cleaners storage	5m ² each
General storage	15m ² minimum
Large re-charging store for electric buggies and scooters	25-30m ²
<p>Public payphone</p> <p>Consider whether this is required as most residents will have access to their own private telephones.</p>	
SERVICES & PLANT	
Minimum of 1 no. Lift to all floors: minimum 13 person (stretcher size)	2600 x 1800mm shaft approx
Lift Motor Room if required	4m ²
Refuse store (including lobby and cupboard for Clinical waste)	16m ²
Recycling collection point	6m ²
<p>Plant Room & Service Risers</p> <p>The size of 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 20-25m², but ensure specialist service engineer's advice on size and location at the earliest possible opportunity.</p>	
Electrical Intake/Meter room	10m ²

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
- Library
- Therapy Suite
- Treatment Rooms
- IT Facilities / Information Points /Touch Screens
- Café / Bar / Pub
- Leisure Facilities
- Outreach staff offices

EXTERNAL AREAS

In addition to the brief guidance on garden design given in Section 5 the following should be considered:

- Adequate Car Parking for residents, visitors, staff and visiting professionals, including disabled parking bays.
- Requirements for minibus drop-off under cover. To allow for the anticipated size of such vehicles.
- Emergency and service vehicles – turning heads and waiting bays.
- Maintenance/Garden store
- Bicycle store
- Refuse, clinical waste and recycling storage

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7. Relevant Design Standards and Guidance Documents

Compulsory Standards:

The following is not an exhaustive list of all standards and legislation to be met when designing and building Extra Care Sheltered Housing but does give the main documents that apply specifically. A definitive guide to Extra Care with statutory status does not exist so careful interpretation and detailed knowledge of all the related standards is essential.

Approved Document M (2004 Edition):

The Stationery Office, 2003

The Building Act 1984 requires compliance with the building regulations. Within England and Wales this is covered by guidance found within the 'Approved Documents'. *Approved Document M* gives technical guidance on providing access to and within buildings by all building users including disabled people. The latest version of this document is informed by BS 8300:2001 *Design of Buildings and their approaches to meet the needs of disabled people – Code of Practice* (see below)

Housing Corporation – Scheme Development Standards:

Fifth Edition, April 2003

These standards must be met if funding is being provided via the Housing Corporation.

The Scheme Development Standards classify accommodation in order to distinguish the different design criteria required for the variety of housing models being developed. The classifications under 'Housing for the elderly' include 'Frail Elderly' and this is described as: *'Extra Care supported accommodation which may be either shared or self contained, for frail older persons...'*

The Scheme Development Standards also make further reference to two additional documents where design standards must be met:

- **Wheelchair Housing Design Guide**
Stephen Thorpe
National Wheelchair Housing Association Group, 1997
- **NHF: Standards and quality in development - a good practice guide**
Relevant Sections - Part C The internal environment, Part E Accessibility & Technical Illustrations within the appendices.
National Housing Federation, 1998

Disability Discrimination Act 1995

The Stationery Office, 1995

Please note: Under 'The Care Standards Act 2000' the Department of Health have published 'National Minimum Standards for Care Homes for Older People'. This document is not applicable to the built environment of Extra Care Sheltered Housing as the building would not be registered as a Care Home.

Further Design Guidance & Good Practice:

The following is a list of relevant design guidance that includes publications commissioned or produced by individual organisations or user groups. Although some of these documents do not have statutory status they can often provide essential background reading and useful good practice guidance.

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

BS 8300:2001 Design of buildings and their approaches to meet the needs of disabled people – Code of practice.
The British Standards Institution, 1999

Building Sight

Peter Barker, Jon Barrick, Rod Wilson
HMSO in association with the RNIB, 1995

Design for Dementia

Stephen Judd, Mary Marshall & Peter Phippen
London: Hawker Publications, 1998

Various Publications on Designing for Dementia are available from:
Dementia Services Development Centre
University of Stirling, Stirling, FK9 4LA, Scotland
www.stir.ac.uk/dsdc

Design Guide - for the development of new build accommodation for older people

By PRP Architects for The Abbeyfield Society
The Abbeyfield Society, 2001

Designing for Special Needs - An architects 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-Marie 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

Planning for Retirement Housing

A Good Practice Guide by the Planning Officers Society and the Retirement Housing Group, November 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

The Suffolk Very Sheltered Housing 'Design and Management Guide'

Third Revision, April 2004

Available on line from: www.suffolkcc.gov.uk

8. Summary

- Extra Care Sheltered Housing requires an experienced team to implement the specialist design principles highlighted in this fact sheet. This includes the client and those representing the client.
- There is no single 'model' of Extra Care but there are now a significant number of built examples upon which to draw feedback. The specifics of each site, the local need, the scale and size of development, the types of service and care to be provided and both the capital and revenue funding available will determine the brief in each instance.
- There are basic design features and specification items to incorporate in any scheme.
- Guidance documents and current standards need careful attention and interpretation.
- The case studies show that Extra Care Sheltered Housing can be an alternative to residential care, provide a setting for dementia care and intermediate care and can also be a resource for the local community if well designed and located.

APPENDIX A

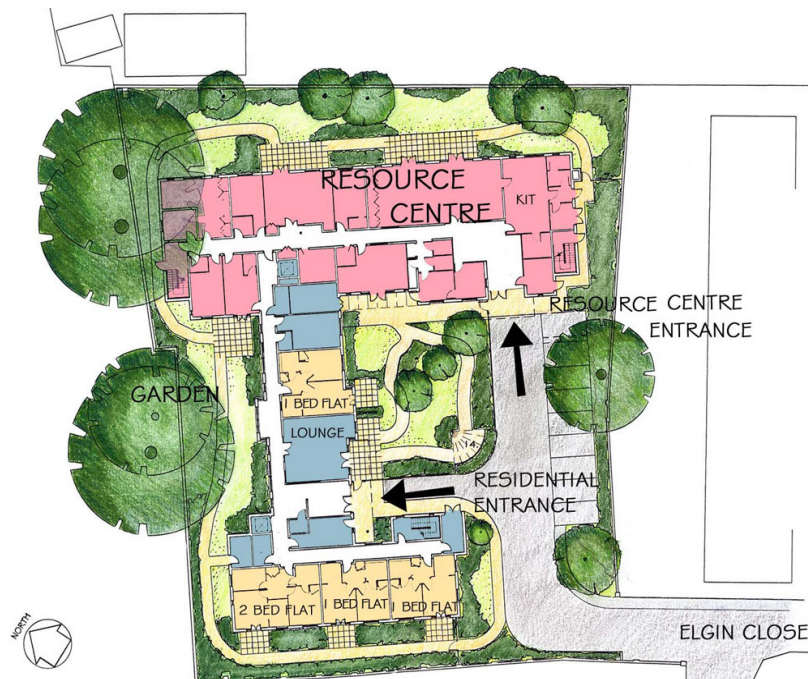
Case Studies

The following case studies illustrate recently designed Extra Care schemes by PRP. They provide a range of real life examples in a variety of settings to meet a range of end user requirements. The case studies have been chosen to illustrate that Extra Care Sheltered Housing can offer the following:

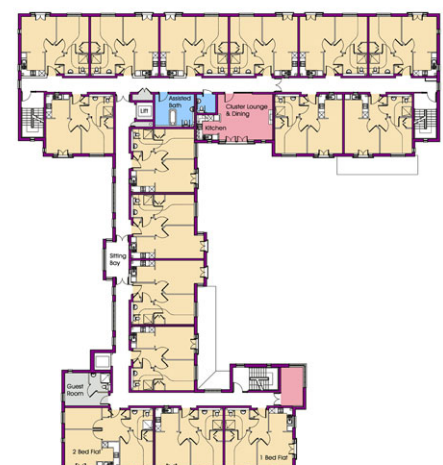
- An alternative to Residential Care
- The setting for the provision of dementia care in a non registered environment
- The setting for the provision of intermediate and respite care
- The opportunity for provision of integrated care in the community

Elgin House, Elgin Close, London W12

Client:	Notting Hill Housing Trust & The London Borough of Hammersmith and Fulham
Type of Accommodation:	Extra Care Sheltered Housing with formal Resource Centre for the local community.
Number of Units:	33 No. 1 bed flats 3 No. 2 bed flats Resource Centre
Construction Cost:	approx £3.4 Million
Completed:	2002
Other information:	Located in backlands urban site near to local facilities. Cluster lounge/dining rooms on each floor enable residents to gather together communally in small groups. Designed as an alternative to Residential Care.



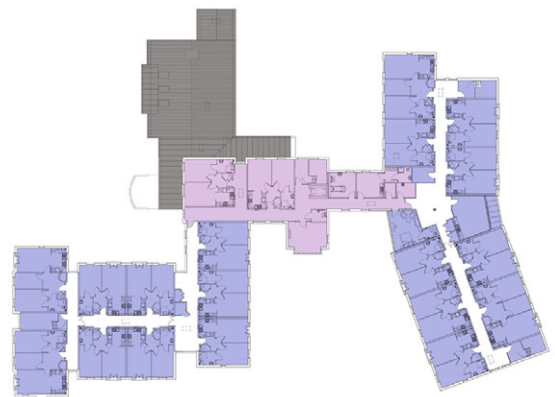
Ground Floor and Site Plan



First Floor Plan

Oak House, Bentley Lane, Stutton, Suffolk

Client:	Housing 21 and Suffolk County Council
Type of Accommodation:	Very Sheltered Housing i.e. Extra Care. The communal facilities are designed to provide informal day care for local people.
Number of Units:	30 No. 1 bed flats 8 No. 2 bed flats
Construction Cost:	approx £3.4 Million
Completed:	April 2004
Other information:	Located in rural setting within a small village. The accommodation is arranged in 4 clusters of 9 flats with an additional 2 flats for respite use. One of the clusters is designed to be occupied by residents with mild to moderate dementia who would receive additional specialist care.



First Floor Plan



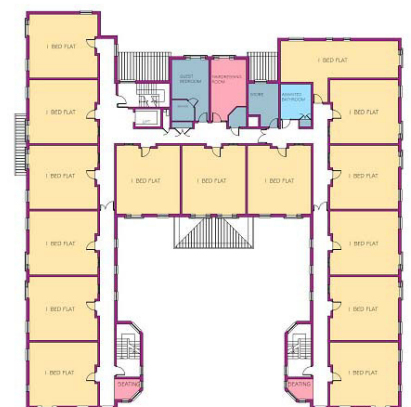
Ground Floor and Site Plan

Duncan Court, Zetland Street, London Borough of Tower Hamlets

Client:	Circle 33 Housing Trust
Type of Accommodation:	Extra Care Sheltered Housing. The communal facilities are designed to provide informal day care for local people.
Number of Units:	40 No. 1 bed flats
Construction Cost:	approx £2.9 Million
Completed:	January 2002
Other information:	Located in a tight urban setting near to local facilities. The accommodation is arranged in a U-shaped plan, the centre of the plan contains a secure and private communal garden. Single banked corridors bring in natural light and offer views of the garden.



Ground Floor Plan



First Floor Plan

60 Penfold Street, Westminster, London

Client:	Notting Hill Housing Trust & Westminster City Council
Type of Accommodation:	Extra Care Sheltered Housing and housing accommodation for 8 people with moderate to severe dementia. A full range of communal accommodation and support facilities have been included and designed to ensure that both formal or informal day care can be provided.
Number of Units:	43 No. Extra Care Flats (41 No. 1 bed and 2 No. 2 bed) 2 No. 4 bed Dementia Care Flats
Construction Cost:	approx £5.75 Million
Completed:	Summer 2004
Other information:	Located in a tight urban setting surrounded by high rise apartment blocks.



Ground Floor Plan



Typical Upper Floor Plan



Barkway Court, King's Crescent Estate, London Borough of Hackney

Client:	Circle 33 Housing Trust
Type of Accommodation:	Extra Care Sheltered Housing integrated with other residential and retail accommodation.
Number of Units:	38 – 1&2 Bedroom Extra Care Flats 14 – Affordable Rent 13 – Low Cost Shared Ownership 1 – Penthouse 2 – Retail Units
Construction Cost:	approx £10.3 Million (for entire development)
Completed:	August 2004
Other information:	Located in urban setting near to local facilities



Ground Floor and Site Plan

Denham Garden Village, Buckinghamshire

Client:	Anchor Trust
Type of Accommodation:	Continuing Care Village for older people. The mixed tenure arrangement provides 55% of units for outright sale and 45% for affordable housing. 24 hour care can be offered to all the residents as they become frailer therefore avoiding the need for them to move on.
Number of Units:	326 New Dwellings ranging from apartments, bungalows and 2 storey cottages.
Construction Cost:	approx \$49.3 Million
Completed:	Start on site with phase one 2004
Other information:	Located adjacent to the centre of Denham Green, South Bucks. The site will include a range of communal and leisure facilities including a fitness centre, shop, restaurant and pub. The design incorporates a Winter Garden at the heart of the scheme and internal atria spaces.



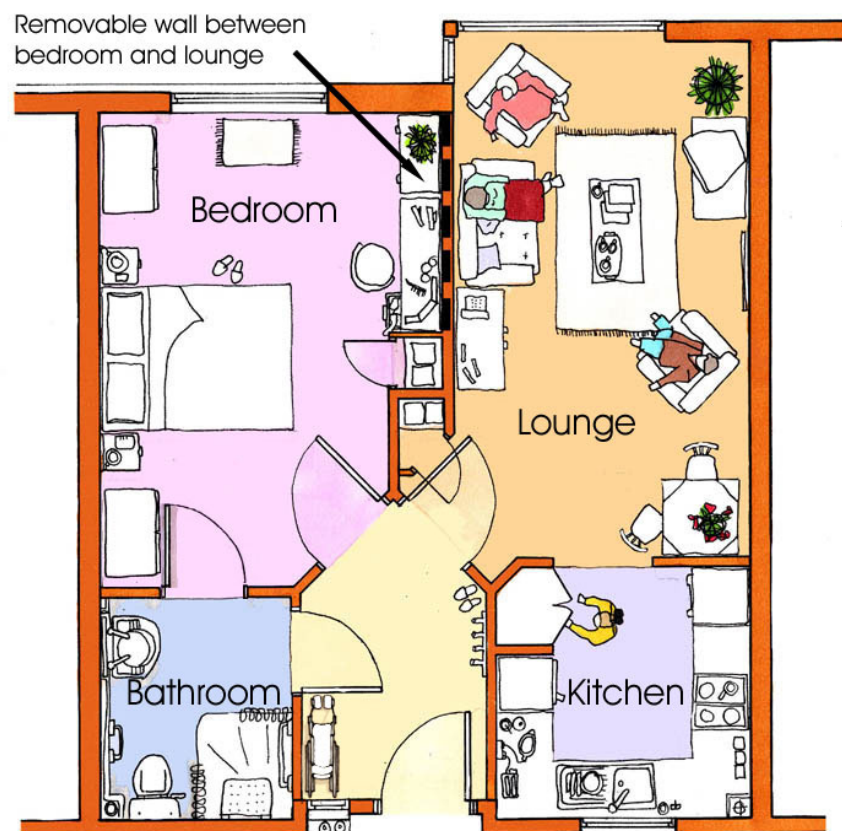
APPENDIX B

Typical Flat Plans – 1 Bed 2 Person Flat, approx 51m²

This example of a typical flat has been designed to provide wheelchair access throughout. Features include space for a fully fitted domestic kitchen, flush floor shower (no bath) with doors to link both the bedroom and the hallway to the bathroom.

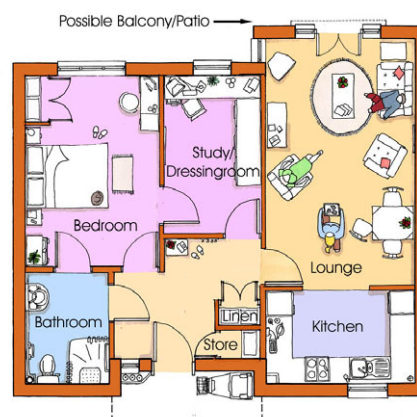
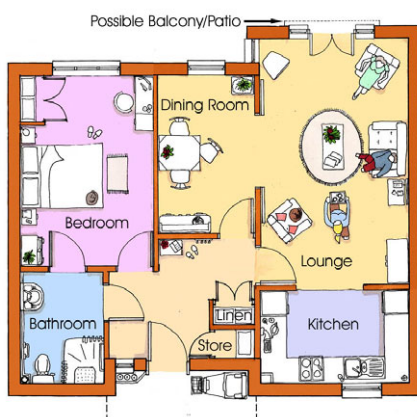
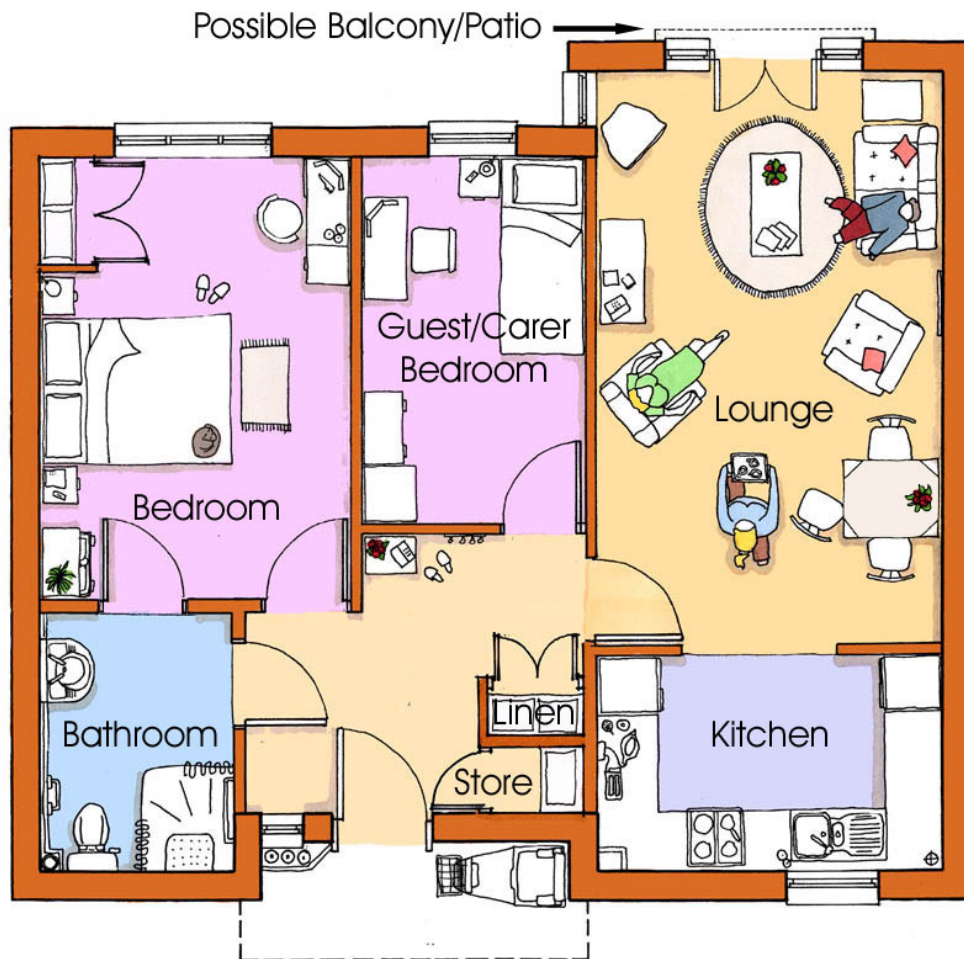
Locating the storage within the bedroom/lounge allows space in the hallway to store a wheelchair; alternative arrangements for storage should be discussed with the end users needs in mind. A bay window has been provided which offers a focal point to the room, wider views of the surroundings and plenty of natural light. The alcove kitchen off the lounge makes it easier to move between the two spaces without negotiating door swings.

Alternative flat plans should be considered but this narrow fronted flat is very efficient when designing a corridor accessed scheme. Wider fronted flats which are more rectangular in shape result in longer corridors but slimmer buildings.



Typical Flat Plans – 2 Bed 2 Person Flat, approx 67m²

These examples of a typical 2 bedroom flat include similar features as those described within the 1 bed flat. The three different layouts show how the second bedroom might be used for alternative purposes to achieve full flexibility for the residents. It may be worth considering a further separate WC and wash basin accessed off the hallway.



Other Housing LIN publications available in this format:

Factsheet no.1: Extra Care Housing - What is it? *This factsheet gives essential basic information, explains the various forms extra care housing takes, and describes key ingredients and central principles (28.07.2003 updated August 2004)*

Factsheet no.2: Commissioning and Funding Extra Care Housing *Summary of essential facts about commissioning extra care and other housing based solutions for care. Most important facts about funding, what is involved, who is involved, who has to be involved and how long projects can take. (28.07.2003 updated August 2004)*

Factsheet no.3: New Provisions for Older People with Learning Disabilities *An introduction to the characteristics and needs of an emerging group to be provided for in developing new housing and services for older people. This includes extra care (23.12.2003 updated August 2004)*

Factsheet no.4: Models of Extra Care Housing and Retirement Communities *An explanation of the different types of retirement community and examples of how key decisions about the choice of model are made (04.01.2004 updated August 2004)*

Factsheet no.5: Assistive Technology in Extra Care Housing *AT can play a part in supporting people in extra care housing. Summary of the most common applications, with examples and where to get more details (20.02.2004 updated August 2004)*

Factsheet no.6: Design Principles for Extra Care *Basic information about key design principles and issues to consider when designing and developing a brief for a new Extra Care Scheme. Variety of models and ways of developing a range of different sites (26.07.2004)*

Factsheet no.7: Private Sector Provision of Extra Care Housing *The private sector has had an involvement in the provision of extra care housing for at least 20 years. This factsheet is intended to help statutory authorities commissioning extra care housing and private developers work together with a better understanding (21.07.2004)*

Factsheet no.8: User Involvement in Extra Care Housing *The role of the users in the development and management of extra care schemes, linked to concepts of independence, self determination, control and choice, key themes in national policy (August 2004)*