

Home Location and Approach 01



Universally Designed Dementia Friendly Dwellings that are well integrated into the community and close to all public services and amenities will enable a person with dementia to go about their daily activities while providing easier access for family members and carers if required.



Cormac lives near the city centre and finds this convenient in terms of doing his shopping or visiting friends. He also enjoys simply strolling around the city or sitting somewhere with a book, or just watching the world go by.

However he finds that on busy days the footpaths are too narrow and can become very crowded while the lack of public toilets and seating can be a problem for him.

Location and Approach - Overall Design Issues

Helping a person with dementia to remain living in the familiar setting of their own home and community is important as it is a recognisable environment. This familiarity will support people who may retain long-term memories while at the same time experiencing short-term memory loss.

However, where a person is moving to a new home, or where future-proof dwellings are being designed, there are a number of important location, siting and approach issues that can be considered. This will of course depend on whether it is a rural or urban location.

People living with dementia may be restricted in terms of driving, using public transport or travelling any great distance from their home. Therefore a central location within walking distance of key services will help safe and independent travel within the community, and in turn maintain Instrumental Activities of Daily Living (IADLs) such as doing chores, visiting the doctor, or shopping. A central location will provide easier access for family, neighbours, carers, and other services that enable a person with dementia to live at home for longer.

In the context of location and approach consider these key **Design Issues:**

Participatory Design: involve all relevant stakeholders in the design process to ensure that the resident's needs and preferences regarding the location and on-site circulation routes are understood and included.

Familiar Design: will help to inform the location and design of circulation routes.

Personalisation: will make the dwellings more recognisable and thus aid orientation and navigation from adjacent public spaces and within the confines of the site.

Easy to Interpret and Calm: ensure that the relationship between the dwelling and local area will protect the house from excessive disturbance.

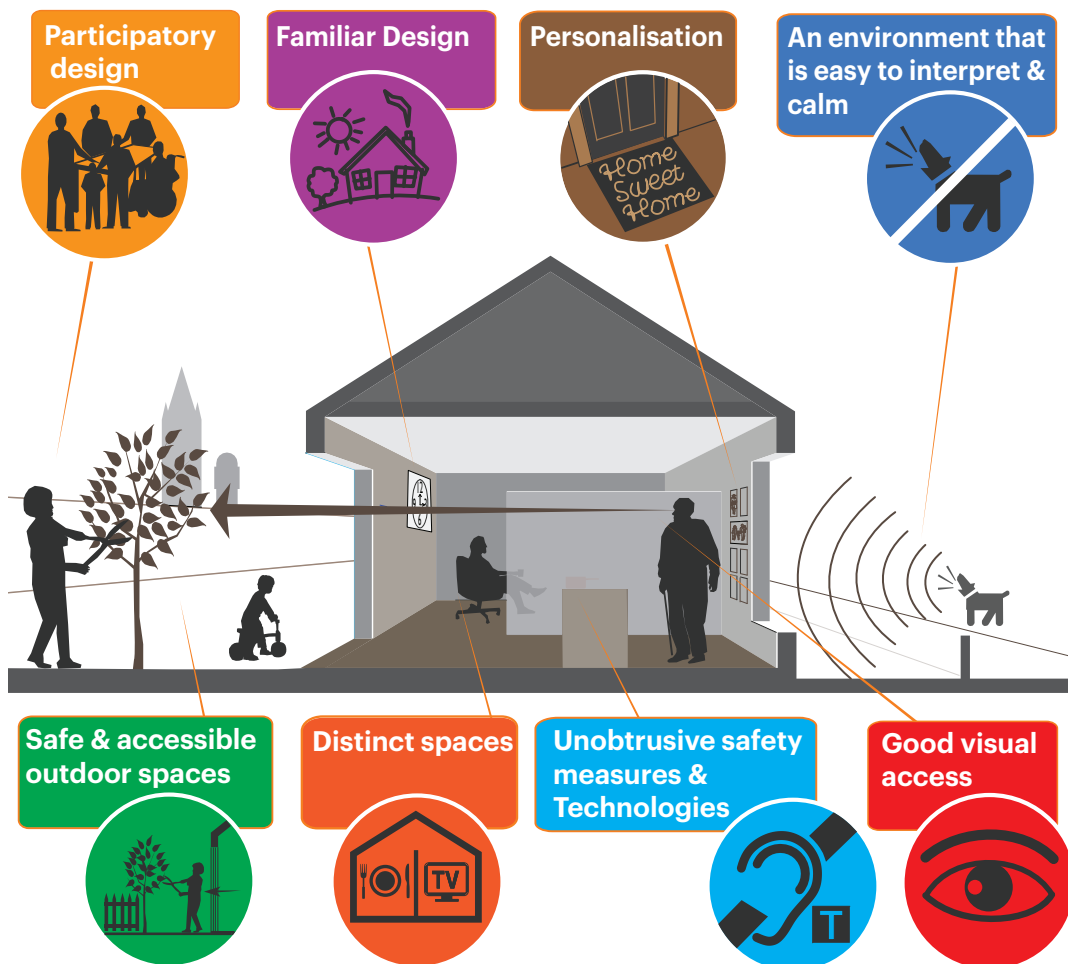
Good Visual Access: locate the dwelling and the approach to the dwelling to make sure it is clearly visible on approach from the community.

Unobtrusive Safety Measures and Assisted Living Technologies: the safety measures and technology that can be used to support a person's orientation and navigation when they are out in the community.

Distinct Spaces: in terms of planning and design of public space and approach routes consider how the creation of distinct spaces with clearly defined functions might help to inform and orientate a person with dementia.

Safe and Accessible Outdoor Spaces: whether in public, semi-public, or private areas, consider how these outdoor spaces can support people with dementia, their families and carers.

Please refer to the Introduction Section of this document for more detail on these design issues.



1.1 Location



01 Many traditional neighbourhoods in Irish villages, towns and cities provide dwellings that are well integrated into the community and close to key local services.

Photo Design Features

- Housing in a central location adjacent to key services and amenities.
- Traditional and familiar character to housing and external environment.
- Personalised front doors through the use of varying colours.
- Public realm well overlooked.





02 *These dwellings, which are part of a senior citizen complex, are in close proximity to the city centre and the design balances social interaction with the creation of a calm environment.*

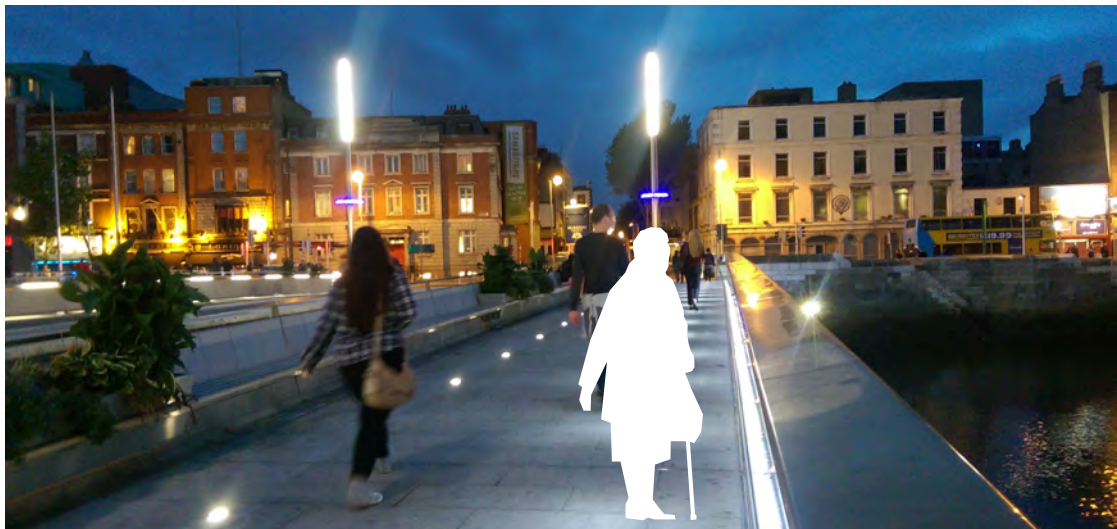
The Location and Siting of Dwellings

Design Considerations and Awareness

A centrally located dwelling will be more conducive to allowing the resident to engage in local everyday activities while also facilitating easier access for their family and carers. In terms of siting, locating a dwelling in a prominent position within a development, or directly adjacent to the public road or street will enhance legibility and visual access to the dwelling from the community, and vice versa. This will also provide opportunities for the occupant to observe everyday life and for neighbours to keep a watchful eye on the dwelling as they pass by. Locating a new dwelling, or choosing an existing dwelling in close proximity to the public thoroughfare (as opposed to the end of a cul-de-sac) also reduces travel distances to the community and enhances passive security to individual dwellings and associated access routes.

Some people living with dementia may fear getting lost and feel insecure or anxious when out in public places. This may be compounded by concerns for personal safety, or fear of crime and therefore it is important to locate and site a dwelling where occupants will feel secure while in the dwelling, using the garden, or while walking or cycling to or from the dwelling, particularly at night. Design approaches such as '**Crime Prevention through Environmental Design**' (CPTED) promote design and management practices that create safer places for inhabitants by designing out opportunities for crime and more importantly reducing the fear of crime by eliminating spaces that make people feel vulnerable.

Please refer to Section 1.1 in the UDHI Guidelines for overall guidance.



03 A well lit public space in an urban location.

Photo Design Features

- The space is well lit, uncluttered, provides generous space for pedestrians, and has enough activity to make a person feel safe when using it at night.

Photo Design Tip

- ▲ The provision of seating along this route would provide a resting place for a person with mobility difficulties, or simply a chance to stop and take things in.

UD Dementia Friendly Design Guidance

- Where possible choose a dwelling location close to local services, public transport and local amenity spaces.
- Whether the dwelling is in a new development, in an existing housing estate, or along a public road or street, ensure that the site minimises travel distances to nearby facilities and amenity spaces.
- Ensure that the siting of the dwelling maximises opportunities for informal social interaction and passive security while at the same time creating a calm environment.
- Avoid locating dwellings close to sources of excessive noise such as train lines or motorways as acoustic disturbance can be a major concern for some people with dementia.



Finally, in choosing a general location or a specific site within a location it is useful to discuss this with all relevant stakeholders and to involve the person with dementia at all stages. The more familiar or recognisable the setting the better it will be for the person living with dementia.



04 This recently redeveloped street provides traffic calming measures to reduce vehicle speed, plentiful seating and generous pedestrian areas.

Photo Design Features

- Level access provided from pavement.

Photo Design Tip

- ▲ The patterned paving may cause difficulties for people with visual difficulties.

Roads, Streets and Pavements

Design Considerations and Awareness

The UD approach for roads, streets and pavements described in the UDHI Guidelines will provide a supportive environment for people living with dementia, their families, and carers. However there are a few specific dementia friendly design issues that could be considered as part of the UD approach.

Some people living with dementia may have orientation difficulties in the external environment resulting in confusion or disorientation. Clear signage in urban spaces will enhance way-finding, as will the provision of a clear circulation hierarchy composed of distinct and legible spaces and buildings. Good visual access to key urban spaces and facilities will provide visual cues in terms of orientation and will help remind or prompt people regarding their destination.

Where possible and appropriate, urban design can reflect traditional urban patterns such as the typical grid-like street and block patterns found in towns and cities around Ireland. This urban form is recognisable to most people, and if designed using the principles of legibility and distinctiveness, it will provide more coherent and easily understood urban spaces for all people.

Some people living with dementia may be fearful of their personal security

and safety when out in the community. Greater legibility and a clear circulation hierarchy will help but as referred to previously, other design approaches such as CPTED will also help to reduce opportunities for crime and reduce fear of crime (refer to Appendix 1 for further reading on CPTED).

Creating a calm urban environment which seeks to minimise visual clutter and excessive noise will be beneficial to people with dementia. Lower vehicle speed or design that creates lower traffic volume will also contribute to calmer urban spaces for all people.

Please refer to Section 1.1 in the UDHI Guidelines for overall guidance.

UD Dementia Friendly Design Guidance

- Increase spatial legibility by employing a grid-like urban structure composed of well-connected short streets with good visual access to key landmarks and spaces. Greater enclosure formed by clearly visible buildings and spaces with obvious functions and entrances will also aid legibility.
- Use landmark objects or buildings to create urban distinctiveness especially at junctions or important nodes. This will help to create more recognisable spaces and thus enhance way-finding.
- Consider how urban spaces can engender a sense of familiarity by the provision of human-scale, informal spaces inspired by traditional urban patterns, building design and features. This does not preclude innovative design but instead challenges the designer to employ recognisable spaces, features and functions which are consistent with users' expectations.
- Provide calm spaces that avoid excessive acoustic disturbance through design that reduces traffic volume and speed, and orientates noise generating activities away from dwellings and key amenity spaces.



“...loud noises often startle older people causing confusion and disorientation, especially for those with dementia. In addition, continuous noise, such as the drone of heavy traffic, affects their ability to hear” (Burton and Mitchell 2006).



05 Recently upgraded street in the centre of a large town.

Photo Design Features

■ This recently upgraded street provides wide footpaths, plentiful seating, traditional lighting, planting and familiar landmarks such as the street clock. access provided from pavement.

Photo Design Tip

- ▲ Appropriate tactile material could be used to delineate the junction between the pedestrian footpath and the vehicular carriageway.
- ▲ The number and location of bollards may cause difficulties for many users, such as people with vision difficulties. The proper use of tactile paving could reduce the number of bollards.

Street Furniture and Lighting

Design Considerations and Awareness

In relation to the design and maintenance of street furniture and lighting, the UDHI recommends many features which contribute to a dementia friendly environment. However in the context of this document it may be worth emphasising issues around way-finding, lighting and safety, all of which are of course interconnected.

The urban form can contribute to increased legibility, distinctiveness and familiarity, which helps with orientation and navigation in the public realm. Street lighting and street furniture, such as signage, can reinforce and supplement these design

principles to ensure that the street environment is easily understood by people with dementia.

People with dementia, like most older people, will often need higher levels of lighting to compensate for vision difficulties, which may be related to both older age and dementia. The design of artificial light should seek to create even illumination, reduce the effects of glare and enhance task visibility.

Good signage and lighting will also help create a safer environment. Street lighting in particular can play an important role, not only in reducing opportunities for crime but also in reducing the fear of crime.

Please refer to Section 1.1 in the UDHI Guidelines for overall guidance



06 Public stop on on a main street in an urban area.

Photo Design Tip

- ▲ The provision of a properly designed bus shelter with adequate seating would provide a much safer and more comfortable waiting space for this older woman.
- ▲ The careful location of the dust bin should be considered to ensure it does not become an obstacle for a person with visual difficulties.

UD Dementia Friendly Design Guidance

- Provide minimal street signage, especially at junctions, which concentrates on key essential information in a legible and familiar format that will be recognisable to people with dementia.
- Ensure all signage uses non-reflective material, provides large easy-to-read graphics and characters and employs contrasting colours to increase legibility of information.
- Beyond signage, other cues such as sound, touch, or smell can be used to reinforce way-finding to help with orientation and navigation. For instance, plants with distinct smells (such as lavender) may trigger certain memories and may be used at the entrance to a park or public square to help communicate the function of the space.
- Provide comfortable seating with back and arm rests every 100m to 125m. Arm rests will help a person get in and out of a seat while back rests provide additional support and resting places to lean on as a person walks along a street.
- Provide seating and shelters at bus stops to provide greater comfort and safety for people using public transport.
- Ensure that artificial lighting provides even illumination along exterior paths while highlighting key areas such as building entrances, steps, and ramps. Pedestrian walkways should have an average maintained illuminance of 30 lux, while entrances, steps and ramps should have an illuminance of 100 lux.
- Ensure that any lighting does not produce a glare, or result in excessive reflection or shadows as this may cause confusion or disorientation for some people living with dementia.
- While lighting bollards may be useful for highlighting paths it is important that they do not emit light upwards as the resulting glare may cause difficulties for people with dementia.



1.2 Approaching the Home



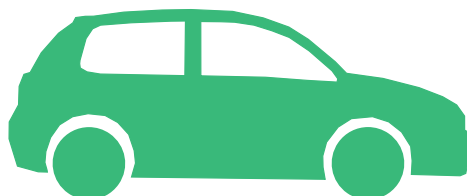
07 *The use of painted front doors to create distinctive and identifiable entrances.*

Photo Design Features

- Level access provided from pavement.
- Use of different coloured doors to distinguish different dwellings.
- Firm, non-slip, non-reflective surfaces.
- Planting and garden objects used to personalise entrance.
- A canopy is provided above each front door.

Photo Design Tip

- ▲ Plant boxes and pots could be placed on grass to remove trip hazards.





08 A well-landscaped courtyard in an urban residential development.

Appearance of the Home

Design Considerations and Awareness

The aim of this guidance is to use the UD approach to make all dwellings more dementia friendly. However in scenarios where one dwelling or a small selection of dwellings are being designed or adapted specifically for people living with dementia it is important that these are of a consistent quality with other dwellings and are integrated across the site to avoid stigmatization.

While dwellings should be of a consistent quality it is very important that they do not appear all the same. Design features such as varying door colours, distinct boundary treatments or porch canopy details, or individualised planting, can be used to identify individual dwellings. Design features which reinforce familiarity, personalisation and good visual access should be used to maximum effect to help orientate a person living with dementia and help them navigate to their own home.

Please refer to Section 1.2 in the UDHI Guidelines for overall guidance.



UD Dementia Friendly Design Guidance

- Use familiar design elements that are consistent with a user's expectations. Features such as entrance door canopies can communicate a certain function whether they are traditional or contemporary.
- Provide opportunities for people to personalise their home with planting or distinctive garden furniture which creates a unique identity for the dwelling.



Where possible consult with existing or future occupants to fully determine what would be 'familiar' or 'personal' to them in the context of the guidelines above.

Setting-down Points and Parking (including Underground Parking)

Design Considerations and Awareness

While the guidance contained in the UDHI Guidance supports a dementia friendly approach to parking and setting-down points, issues around underground carparking may need particular attention in the context of this guidance. While a person with dementia may not be driving themselves, they may travel with their partner or family carer and therefore the underground carpark environment will need to be carefully considered.

Please refer to Section 1.2 in the UDHI Guidelines for overall guidance.

UD Dementia Friendly Design Guidance

- Provide designated accessible parking bays close to the lifts or stairs serving the dwellings above which can be used by family carers who may have a person with dementia as a passenger.
- Provide good lighting, obvious signage and dedicated clearly delineated paths to guide a person to and from any underground parking facilities.



09 Entrance gates from public street to townhouses.

Photo Design Features

- The gates in these images are in a logical location directly in front of the entrance door. The image to the right shows a distinct gate with a selection of bright colours which will make it easy to identify from the pavement.

Design Tip

- ▲ The gates shown in the image to the left should be easier to identify within the fencing. Use of patterned or coloured gates should have clear distinction from one house to another to avoid confusion.

Gates and Paths (Private and Communal)

Design Considerations and Awareness

The entrance gate to any dwelling or communal space should be located so that it is easily seen and identified from within the site when leaving, or from the street or road when entering.

The operation of the gate itself should be easily understood and it should be easily opened by all people. If the ironmongery on the gate is a different tone or colour from the gate itself it will stand out and provide greater visual access.

Care must be taken with keypad entry systems or intercoms to ensure they are intuitive and easy to use for everyone, and especially people with dementia.

As discussed earlier in relation to urban spaces, a clear circulation hierarchy composed of distinct and legible spaces will make it easier to navigate within a site. Good visual access to key paths and main entrance doors will help with orientation and prompt people about their destination.

Clear signage and good levels of even lighting will also enhance way-finding.

Please refer to Section 1.2 in the UDHI Guidelines for overall guidance.



10 Exterior circulation within an apartment courtyard.

Photo Design Features

- Clear paths and signage providing orientation within an apartment courtyard. Access routes to each apartment block are clearly visible and the light fittings or signage do not impede the pavement.

Photo Design Tip

- ▲ The change in surface finish and colour employed for the access routes to each block may be perceived as a change in level and may cause a person with dementia to alter their gait and lead to a fall.
- ▲ The surface water drainage should ensure that no ponding takes place as this could impede access or reflect light in a way that could be perceived by a person with dementia as a hole or step.

UD Dementia Friendly Design Guidance

- Locate the entrance gate in a logical location and ensure it is easily visible upon entering and exiting the site.
- Provide an entrance gate and associated gate furniture that is intuitive and simple to use and that is familiar to the extent that it is consistent with the occupant's expectations around appearance and function.
- Use colour and tone to make the entrance gate stand out from the background and distinguish it from adjacent surroundings.
- Allow opportunities to personalise the entrance path to make it more recognisable and familiar for people with dementia.
- Provide good lighting, obvious signage and dedicated clearly delineated paths which guide a person to and from their dwelling.



11 *Complicated ramp at the main entrance to a building that may be confusing.*

Photo Design Tip

- ▲ This ramp could be laid out in a more logical manner so it is easier to use and be understood for all users of the building. Handrails made of wood or plastic metal could help in cold weather.

Ramps, Steps and Landings

Design Considerations and Awareness

The UDHI Guidelines outline design features that support a dementia friendly approach to ramps, steps and landings. However, some people living with dementia may have difficulties perceiving certain 3-dimensional objects or may not fully understand certain functions and therefore a number of cues may be needed to make them aware of ramps, steps and landings. The logical location of external ramps and steps, achieving good visual contrast, providing multiple cues and adequate warnings, will all contribute to a dementia friendly external circulation.

Please refer to Section 1.2 in the UDHI Guidelines for overall guidance.

UD Dementia Friendly Design Guidance

- Provide ramps in locations that are obvious and convenient and which are clearly visible along the circulation route so they provide a usable and easily understood alternative to steps.
- Avoid convoluted ramp designs by ensuring that ramps are laid out in a logical manner where their use is intuitive and clearly understood. Ensure that entry and exit points are clearly visible and adjacent to the main circulation route.



12 *Steel handrails to exterior ramp.*

Photo Design Features

- Black handrails either side of this ramp act as a good way-finding device and provide an additional visual cue about the nature and function of the ramp.
- The black handrails also stand out clearly against the brick and concrete and thus provide good visual contrast.

Photo Design Tip

- ▲ Steel handrails are cold and uncomfortable to touch for many people. Specify timber or plastic-coated handrails to avoid this problem.
- ▲ The provision of low level lighting would enhance way-finding at night.
- ▲ The provision of a second lower handrail, with the upper surface positioned 600 to 750mm above the ramp and landing would benefit people of different heights.

Handrails

Design Considerations and Awareness

In the context of dementia, handrails can act as a way-finding device and provide an additional visual cue to remind people about where ramps or stairs are located or how they should be used. Providing a handrail that contrasts visually with the background, by using distinct colours or tones, will help a person see a handrail more clearly.

Please refer to Section 1.2 in the UDHI Guidelines for overall guidance.



13 Metal guarding between carriageway and footpath.

Photo Design Features

■ People will often use fixed objects to lean on or to help them navigate. This guarding acts as a good support and also as a way-finding device.

Photo Design Tip

▲ If the handrail was painted black or a distinct colour it would stand out better.

UD Dementia Friendly Design Guidance

- Use a handrail design that will be familiar to most people and will be consistent with their expectations.
- Use colour and tone so that the handrail stands out clearly from its background.
- Where possible, use some feature to clearly indicate where a handrail ends, as this will help provide a better signal to the user that the handrail is ending and thus give them a chance to adjust accordingly.
- Handrails should be provided on both sides of ramps and steps and should be continuous to the full length of the flight and around intermediate landings.
- Handrails should be positioned with the upper surface 900 to 1000mm above the ramp slope and 900 to 1100mm above landings.
- The provision of a second lower handrail, with the upper surface positioned 600 to 750mm above the ramp and landing surface is desirable and will benefit people of different heights.
- Handrails should extend 300mm beyond the top and bottom of a ramp or steps to provide support to people as they move from a level surface onto a slope and vice versa.



14 Access path with lighting bollard.

Photo Design Features

- The bollard lighting does not shine upwards and is set back so it does not obstruct the path.

Photo Design Tip

- ▲ Loose objects, such as the rock featured in the photo above, should be placed in a location where they do not present a trip hazard.

External Lighting

Design Considerations and Awareness

As described in Section 1.1, people with dementia, like most older people, often need higher levels of lighting. The design of artificial light should seek to create even illumination, reduce the effects of glare and enhance task visibility.

External lighting is not only important for usability, safety and security, it is also important in terms of perceived security and fear of crime. As discussed previously, some people with dementia may experience disorientation and anxiety when outside. Therefore lighting can be used to enhance a sense of security and to illuminate key routes or access points to help with navigation at night.

Please refer to Section 1.2 in the UDHI Guidelines for overall guidance.

UD Dementia Friendly Design Guidance

- UD** Provide dedicated lighting to key features such as paths and entrances to provide additional visual cues for way-finding.
- UD** Be careful with automatic lighting or sensor-activated lighting as this may startle or cause confusion if a person is unaware of the automatic function. In some cases, this may lead them to believe that another person has activated the light.



In scenarios involving known occupants, direct engagement with the occupants will allow the designer to understand the occupant's understanding or awareness with regard to automatic lighting.





15 *Planting and trees are traditionally used to signify entry points or focal areas.*

Photo Design Features

■ The planting in these images helps to personalise and identify each entrance.

Photo Design Tip

- ▲ Planting should not visually obscure an entrance and regular pruning and maintenance is required to ensure entrances are not overgrown.
- ▲ Change of colour or tone (i.e. dark to light) in the paving can cause difficulties for some people with dementia as it may appear there is a step or change in level.

Planting

Design Considerations and Awareness

The UDHI Guidelines cover most of the important issues relating to planting and for dementia friendly dwellings. However, it may be worth reiterating some key features which take on additional significance in the context of this current guidance.

In terms of dementia friendly dwellings, planting can be used to make approach routes and entry points more recognisable, create opportunities for personalisation, and help mediate against external negative stimuli, such as glare and noise.

Planting can also be used to create multisensory cues providing visual, smell, and tactile experiences that can help with orientation and wayfinding. For instance, lavender planted by a front door may help draw an individual towards the aroma, or trigger memories of a similar arrangement from their past that may help them to remember or recognise their own door. **(See Section 3 for further information on planting)**

Please refer to Section 1.2 in the UDHI Guidelines for overall guidance.

UD Dementia Friendly Design Guidance

- Use planting familiar to the person with dementia to personalise entrances and pathways.
- Use colourful and distinctive planting in strategic locations and destinations to create visual landmarks to help with way-finding.
- In line with the creation of visual landmarks, use fragrant planting to reinforce way-finding by providing aromas in certain key locations such as entrances or junctions along approach paths.
- Ensure planting does not cause excessive shadows on the ground which may be perceived as a step or cause other difficulties for people with dementia.
- Avoid plants that irritate the skin or are toxic if ingested.
- Carefully locate trees that shed excessive fruit or leaves so that these do not cause slipping or tripping on paths. Maintain planting to keep pathways clear.



In scenarios involving known occupants, direct engagement with the occupants will inform the designer about what planting would be familiar to the occupant or that may help trigger memories.





16 Shared recycling facilities on residential site.

Photo Design Features

- These recycling facilities are located in an obvious position on this residential site and can be clearly seen from the main entrance area.

Photo Design Tip

- ▲ Clearer signage and the use of colour would make the various bins stand out and help a person to distinguish one bin from the other.

Refuse Disposal and Recycling

Design Considerations and Awareness

The UDHI Guidelines outline a range of design considerations to ensure that refuse and recycling are accessible and usable by a wide variety of people.

In terms of dementia friendly design, dealing with refuse and recycling are daily activities that can be encouraged so that people maintain their independence and remain involved in everyday tasks. Ensuring that refuse and recycling facilities are in a convenient, easily accessed location, and is clearly visible from a key location, such as the kitchen or backdoor, will enable and prompt a person to continue with this activity for as long as possible.

Please refer to Section 1.2 in the UDHI Guidelines for overall guidance

UD Dementia Friendly Design Guidance

- Locate refuse disposal and recycling bins in close proximity to the dwelling and provide direct visual access from the kitchen window or back door where possible.
- Use colour, tone and signage to make bins visible and to clearly indicate their function.
- Where shared recycling facilities are provided, make sure these are located in an obvious position that can be clearly seen from the main circulation area.
- Provide high levels of natural or artificial lighting to refuse and recycling areas to make sure that the facilities are legible and easy to use for people with visual difficulties.
- Where refuse and recycling areas are located in an underground carpark, for example in an apartment building, make sure the access route to these facilities is legible, well lit, and provided with clear signage to help with way-finding.

