Outdoor Spaces

Outdoor spaces in care communities have the potential to provide opportunities for sensory stimulation, socialization, and meaningful activity.

The Importance of Outdoor Spaces

Outdoor spaces have many benefits for residents, their families, and staff. Scenic walking paths and gardens add residential character and are features demanded by consumers\(^1\). Interviews with people in the early stages of dementia revealed that they value the outdoor spaces for reasons that include exercise, fresh air, emotional well-being, and the opportunity for social interaction\(^2\)\(^\circ\). Not being able to go outside was associated with feelings of depression. Residents with dementia benefit from both active and passive engagement with outdoor spaces. Active engagement offers feelings of usefulness and productivity, opportunities for self-expression and personalization, and physical activity\(^3\)\(^\circ\). Gardens enable residents to continue engaging in enjoyable activities, which helps to create familiar, non-institutional surroundings\(^4\)\(^\circ\). Gardening activities encourage positive affect among persons with dementia and an outdoor garden space may result in less agitation or be used to calm an agitated resident\(^5\)\(^\circ\). Gigliotti and Jarrot found that compared to traditional adult day center activities, such as exercise and crafts, horticulture therapy activities resulted in higher levels of active engagement among participants with dementia\(^6\)\(^\circ\).

The benefits of passive engagement with outdoor nature spaces include increased socialization, environmental stimulation, increased exposure to sunlight (e.g., possibly affecting bone density, vitamin D absorption, and regulation of circadian rhythms), and improvement in older adults’ coping strategies\(^7\)\(^\circ\). Benefits such as better sleep patterns, decreased agitation and aggressive behavior, and
improved hormone balance have been observed in association with contact with nature and the outdoors\(^8\).  

The presence of a garden is important not only for residents, but also for families and staff. Families visit gardens to sit, walk, and connect with nature, which may help to relieve the stress of having an ailing family member\(^9\). Gardens have a positive impact on staff morale and the pleasantness of the work environment\(^10\). Other benefits for staff include using nature spaces for walking or other exercise\(^11\).

**Views of Outdoor Spaces**

Outdoor spaces that are easily visible from common spaces and circulations areas within the care community may elicit curiosity, encourage engagement, and increase independent use\(^12\). Views to the outside help keep residents connected to the time of day, seasons, wildlife, and landscaping and are a source of stimulation\(^13\). In addition, views to the outside allow residents to prepare for the transition between the inside and outside of the building as they exit. Ensure that transition areas from indoors to outdoors are well lit and provide a place for residents to stop and rest while their eyes adjust to the change in light levels\(^14\). Creating views between residents’ living spaces and public areas (e.g., courtyards, atriums, gardens) may lessen feelings of perceived crowding\(^15\). Staff must be able monitor or view the outdoor space, which allows residents to use the space more independently and reduces the burden on staff to accompany residents\(^16\). Large, strategically placed windows are one strategy to create greater visibility.

Consider the building’s placement, the areas where residents will spend the most time, the view content, and technology (e.g., webcam technology) that can help residents to look outside\(^17\). Positioning the building to capture a range of views (e.g., nature, street) will ensure that the content of the views to the outside are diverse and changing. Increase the number and location of windows and avoid obstructing views with the building structure.

Within larger outdoor spaces, visual access to entries and exits is important, particularly for residents who have dementia or anxiety\(^18\). Certain views offering
partial obscurity, such as greenhouses with poly glazing rather than glass, spark curiosity and encourage residents to take a closer look\(^{(19)}\). Gardens that disguise enclosure elements and gates to unsecure areas may appear less restricting or reduce episodes of visitors or staff being followed by residents as they exit\(^{(20)}\).

**Gardens**

Ideally, a landscape architect should be included in the design team, particularly one with the skills to create a garden that will be easily understood and minimize confusion among residents with dementia\(^{(21)}\). Garden areas should include planters, flower beds, containers, and retaining walls with varying heights or that gradually slope to be accessible at different heights\(^{(22)}\). This makes gardening activities easier for residents in wheelchairs and raised planters are also easier to view without having to bend over. Using color for these garden structures can help with orientation and independence\(^{(23)}\). A nearby water source should also be available\(^{(24)}\).

Appropriate plant selection is critical when designing for people with dementia. Non-toxic plants that are safe to ingest are important, particularly for residents with mid- to late-stage dementia because they may put plants in their mouths and thorny plants should be avoided\(^{(25)}\). Familiar regional and old-fashioned plants should be chosen for gardens and landscaping because they may trigger past memories for some residents\(^{(26)}\). Plant choices based on residents’ experiences, memories, and preferences can enhance their interest and personal commitment to gardening activities\(^{(27)}\). Gardens with plants and flowers that live or bloom in all four seasons are desirable because it stimulates the senses (i.e., sight, touch, smell) year-round\(^{(28)}\). Plan for fragrant plants throughout the year and also consider fragrance from trees\(^{(29)}\). Select plants for visual variety and orient seating to ensure nature views to maximize opportunities for passive engagement\(^{(30)}\). Encourage the presence of birds with specific plant species and by allowing perennial flowers and herbs to go to seed and remain over the winter to provide food and nesting materials\(^{(31)}\).
Orientation and Accessibility

It is best to have direct, unrestricted access to enclosed outdoor spaces\(^{(32)}\). Multiple access opportunities are recommended so that residents do not feel the physical effort is too great, lose their stamina, or become disoriented\(^{(33)}\). Place washrooms in close proximity to the outdoor space\(^{(34)}\). Inconveniently located washrooms deter residents from using the space and staff from initiating outdoor activities.

Easy-to-open doors help to make outdoor spaces accessible and may increase independent use of gardens\(^{(35)}\). Automatic doors improve access, but avoid solid doors because once closed, they block views of the outdoor space\(^{(36)}\). The door leading to the outdoor space should be easy to identify from the outside, particularly if the garden is relatively large\(^{(37)}\). Railings and frequent opportunities for seating also increase the accessibility of outdoor spaces\(^{(38)}\).

Even slight grade changes at the entry to an outdoor space can discourage residents from using the space\(^{(39)}\). Ensure pathways are smooth and level without steps or significant changes in elevation\(^{(40)}\). Choose stable paving materials that will minimize the potential for slips and falls. Outdoor spaces should have paths of brushed, tinted concrete with strong edge delineation to provide traction and to minimize glare\(^{(41)}\). Paving material in a medium or darker color value reduces glare\(^{(42)}\). Paths should be wide enough for two people to walk side-by-side and to accommodate wheelchairs. The recommended minimum width is 6 feet\(^{(43)}\). Slightly contouring the edges of the pathway to cause minimal drop-off provides a contrast between the paved surface and its surroundings, which improves visibility and the ease of walking\(^{(44)}\).

Access points to outdoor spaces and path configurations are also important to consider. One strategy is that a single access point, with simple path configurations, may increase residents’ orientation and reduce confusion when using the garden\(^{(45)}\). Alternatively, design several smaller garden spaces located throughout the care community instead of a central courtyard to minimize difficulties with wayfinding and reduce the distance from residents’ rooms\(^{(46)}\). Residents may not use outdoor spaces independently, because of their distance from resident rooms, or
with the assistance of staff, because of the time required to assist residents to the space\(^{(47)}\). A circular main garden path with secondary branching paths that have no dead ends reduces confusion while walking in the garden\(^{(48)}\). In large outdoor spaces with multiple paths, create a layout that ensures the paths are continuous, lead back to the building, and incorporate distinctive landmarks at critical junctions, such as a brightly colored bench\(^{(49)}\). Paths should be inviting, encourage exploration, and provide a reward for using them\(^{(50)}\). Structures, features, and plantings can be selected to attract interest and encourage engagement.

**Safety and Security**

Secure outdoor spaces that residents can freely access support their sense of independence and may alleviate the feeling of confinement that some experience inside the facility\(^{(51)}\). If the outdoor space is not surrounded by buildings, fencing should be at least 6 to 8 feet high and difficult to climb\(^{(52)}\). Avoid using horizontal supports in fencing, which can be used for climbing, and arrange the space to discourage residents from using furniture to climb over the fence\(^{(53)}\). Fencing can be either spaced or solid. A spaced fence can be distracting and increase a resident’s desire to leave, particularly if there is an interesting view (e.g., activity in the parking lot) on the other side of the fence\(^{(54)}\). Although solid fences tend to be safer, they may be visually restrictive\(^{(55)}\). One strategy to enhance a solid fence is to make the top portion (e.g., the top 2 feet) stylistically different than the bottom. Camouflage the fence so it does not feel prisonlike or attract attention\(^{(56)}\). If there is an exit door located on the perimeter of the fence, it should be disguised so it will not be noticed by residents\(^{(57)}\). Include perimeter lighting for security at night\(^{(58)}\). Bollard-type lighting fixtures (i.e., short, vertical posts) that are 2 to 3 feet high should be provided to light walkways without eye glare\(^{(59)}\).
Connection and Flexibility

Connect spaces physically and visually. Make spaces in the outdoor area relate to each other by interlocking the pieces (e.g., potting table, green house, chairs). Locate different kinds of activities in close proximity so residents can observe the action, comment on it, and develop a desire to participate\(^{(60)}\). Create flexible and intimate spaces for different levels of engagement and social interaction.

As with interior common spaces, the ability to control social interaction and privacy is important in outdoor spaces, such as gardens and courtyards. Allow for individual choice of activities, such as providing outdoor areas that simultaneously enable both solitary, quiet activities (e.g., bird watching) and social, group activities\(^{(61)}\). Outdoor spaces can be divided into smaller areas with outdoor furniture, planters, retaining walls, and landscaping\(^{(62)}\). The placement of semi-private niches and seating off the side of the main pedestrian thoroughfare encourages use of courtyards for social engagement\(^{(63)}\). Gradual transitions between public and private areas of outdoor spaces promote psychological ease-of-use.

Creating both passive and active recreation opportunities accommodates residents’ varying needs and preferences. Including features (e.g., feeders) that attract birds, particularly songbirds, engages residents who want to tend to the birds and provides positive stimulation for residents with more severe cognitive impairment\(^{(64)}\). Other opportunities to consider include patios for cookouts and places to putt golf or throw a basketball\(^{(65)}\). Outside storage places are useful for storing outdoor recreation equipment\(^{(66)}\).

Shelter and Shade

When positioning the building footprint, consider where the outdoor areas will be located and the sun, shade, shelter, and microclimate they will offer throughout the day\(^{(67)}\). Providing shade encourages greater use of outdoor spaces throughout the entire day and during inclement weather, instead of only early or late in the day when the sun is not too direct or hot\(^{(68)}\). Design elements for shade include porches, gazebos, arbors, trellises, awnings, umbrellas, and trees. In addition to shelter from rain, heat lamps in cooler weather encourage greater use of garden
In northern climates, outdoor spaces that provide shelter from wind and some direct sunlight enable residents to go outside during winter. Gardens with covered areas by the door may increase use by residents who do not wish to venture far from the building.

**Furnishings**

Take a balanced approach to furnishings (e.g., built-in and moveable furniture) while also retaining the authentic natural elements (e.g., trees, grass, flowers). Providing a vista with informal seating, such as benches or ledges, allows nature settings to be viewed comfortably. Place seating of different materials and configurations to take advantage of different microclimates that range from warm and sunny to cool and shady. Outdoor spaces with ample seating that offers a choice of sun or shade helps residents who may need to rest while walking. Seating and landscaping also provide attractive destinations that encourage outdoor walking, along with gazebos, trellises, and fountains. For outdoor use during cooler weather, design seating areas that use the building mass, surrounding walls, trellises or raised beds to capture, reflect and retain heat. Avoid using furnishings and handrails that conduct heat or cold (e.g., tubular metal handrails need rubber coating, or wooden or plastic horizontal elements). Also, select furnishings with non-reflective finishes to minimize glare.
References


