Continuing Care
Design Standards
and Best Practices
in Alberta, 2023
(CCDS)



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- Alberta Infrastructure
- Alberta Health Services
- Alberta Health
- Alberta Seniors, Community and Social Services

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# Section A: How to use the continuing care design standards and best practices

## I. Purpose and guiding principles

The Continuing Care Design Standards and Best Practices in Alberta, 2023 (CCDS) is intended to promote innovative design for Continuing Care Homes (which includes Long-Term Care (LTC) and Designated Supportive Living (DSL)) and Supportive Living accommodations that provide continuing care services in Alberta.

The overall goal of the CCDS is to integrate design concepts to facilitate the provision of quality accommodation and health care services within comfortable, safe, aesthetically pleasing, and home-like environments. These standards are intended to foster the highest quality of life for residents by designing supportive environments that respond positively and appropriately to their diverse physical, psychological, social, cultural, and spiritual needs. Notably, the home design should provide an environment that is culturally appropriate and embraces the diversity and sensitivity needs of residents, visitors, and staff.

#### The intent of the CCDS is:

- To provide a clear description of the design expectations for Continuing Care Homes larger than 14 spaces, which are DSL or LTC spaces that are contracted by Alberta Health Services (AHS). This includes new construction and renovation/ rejuvenation projects.
- 2. To be used as a guide for Supportive Living providers (both not-for-profit and for-profit) in the design of Supportive Living accommodations or other non-contracted spaces.

The design requirements in this document are based on industry standards, best practices, and evidence-based research. The CCDS will be reviewed and updated periodically to reflect changing delivery practices, technologies, emerging research, evaluation findings, and expectations.

Note: The CCDS is specifically targeted to Continuing Care Homes larger than 14 spaces. Continuing Care Homes or Supportive Living Accommodations that are 4 to 14 spaces can use the "Small Care Home Design Requirements Checklist", which is available for download on the Continuing Care Capital Program webpage. A "Small Care Home" is a small residential standalone supportive living, DSL, or LTC home for a minimum of 4 to a maximum of 14 residents who have health care needs.

The CCDS is not exhaustive and does not address all facility and design elements essential for a successful Continuing Care Home. In all instances, developers will need to ensure their designs meet or exceed legislated requirements. This includes all provincial (and federal, if applicable) building, fire, life and safety codes, as well as requirements from authorities having jurisdiction such as local bylaws, land use (e.g., zoning) restrictions, and permit conditions.

Note: The requirements outlined in this document were updated and approved in 2022/2023. In cases of difference between CCDS and National/Provincial Codes, the most restricted and higher requirements shall govern.

## **Principles to Guide Planning**

The planning process for a Continuing Care Home should be collaborative, involving several constituents, including operator's staff, designated health professionals/specialists (i.e., an interdisciplinary team), resident and family stakeholders, representatives of the sponsoring agencies, representatives of various levels of government, and planning consultants.

As part of the planning process, the development of a functional program should be considered. It is regarded as best practice and serves three primary purposes:

- It translates residents' need for care, support, and everyday living experiences, combined with efficient and effective operations, into a comprehensive understanding of program and facility requirements.
- It provides direction to the architectural team for the preparation of preliminary building design.
- It is an effective tool for decision making and communication with others, including approval and funding sources, through all subsequent stages of planning.

The underlying principles upon which high quality Continuing Care Homes are developed include:

- Continuing Care Homes are residents' homes. The design encompasses similar residential features as those common to family homes.
- Innovation and creativity guide the planning and design of Continuing Care Homes.
- The design and planning are person-centred, which means that it is resident- and family-focused.
- · Continuing Care Home design balances the need for space and equipment that may be required by residents.
- Continuing Care Homes promote wellness and independence for residents, their families and friends, and the staff who work there. The design supports easy and independent use of the space by residents.
- These standards, and the best practices upon which they are based, will continue to change over time. Flexibility in the design of space is essential to allow operators to respond to new trends, best practices, and resident needs.
- While these concepts are helpful in creating desirable Continuing Care Homes, they do not replace lived experience. Creating
  mock-ups or virtual mock-ups of key rooms can be effective in determining what works best for residents, their families, and
  staff.
- It is recognized that continuing care environments accommodate a wide variety of demographic groups, including seniors and persons younger than 65 years old who may have specialized needs. These design standards and best practices are intended to be supportive of all resident needs and may need to be augmented and refined to respond to specialized needs of specific populations.
- Design incorporates flexibility to address the needs of residents aging in place and/or the changing needs of diverse populations.
- These standards and best practices incorporate the principles of universal design in support of the resident populations that will be served in these Continuing Care Homes.
- Design supports efficient care and operations and maximizes staff visual sightlines to provide oversight.

## II. Context: Continuing care services overview

Alberta's continuing care system provides Albertans with the health, personal care and accommodation services they need to support their independence and quality of life.

Any Albertan can receive continuing care services, no matter their age, diagnosis or the length of time they need support. Eligibility is based entirely on a professional assessment of a person's unmet need for care.

Continuing care services include assistance with dressing, eating and bathing, meal preparation, respite, wound care, medication administration, and various other health care and support services. These services and supports may be provided in different settings including individuals' homes, community-based service locations, and residential congregate care settings (See Figure 1).

#### FIGURE 1: CONTINUING CARE SYSTEM OVERVIEW

Note: This table provides a general summary of Alberta's continuing care system, current as of November 2023

#### Home and Community Care

Home and community care includes a range of in-home and community-based health and personal support services for clients of all ages living independently in a private residence, supportive living, or congregate care facility.

## Palliative and End-of-Life Care

Palliative and end-of-life care includes symptoms management, comfort, and family/caregiver supports for individuals experiencing a life limiting illness in a personal residence, hospice, or congregate care facility.

Setting	Independent Living	Supportive Living Accommodation	Continuing Care Home		
Description	Private residence (e.g., House,	Supportive living provides accommodation in a congregate home- like setting, where people can remain as independent as possible while they have access to accommodation, supports and services. Supportive living may include lodges, retirement residences, group homes, and private supportive living care settings.	Provide publicly funded facility-based continuing care. Includes designated supportive living and/or long-term care homes (includes nursing homes and auxiliary hospitals).		
	Apartment, Condominium, etc.).		Designated Supportive Living (DSL) Designated Supportive Living is a community-based living option where publicly funded 24-hour on-site personal care and support services are provided for individuals who require a higher level of personal care and support services that cannot be safely provided in their own home.	Long-Term Care (LTC) Long-term care, which includes nursing homes and auxiliary hospitals, provides individuals a range of personal care and health care in a congregate setting, as well as other support services, including for those with complex health care needs that require 24-hour onsite care.	

Setting	Independent Living	Supportive Living Accommodation	Continuing Care Home			
Level of Care	Publicly funded health	Publicly funded health care may be	DSL3	DSL4	DSL4D - Dementia	24-hour on-site care provided by Health
	care may be provided through the Home Care Program.	provided through the Home Care Program.	24-hour on-site personal care and support provided by Health Care Aides, and other scheduled professional care providers depending upon one's needs.	24-hour on-site personal care and supports provided by Health Care Aides, Licensed Practical Nurses, and other scheduled professional care providers depending upon one's needs.	24-hour on-site personal care and supports, including specialized dementia care, provided by Health Care Aides, Licensed Practical Nurses, and other scheduled professional care providers depending upon one's needs.	Care Aides, Licensed Practical Nurses, Registered Nurses, and other scheduled professional care providers.

Throughout Alberta, it is important to create home-like congregate living environments that support quality of life and respond to the varied and distinct needs of residents for optimal everyday living experiences including care, socialization, participation in meaningful activities, and personal, spiritual, and therapeutic support. In planning for both the site and the building, it is equally important to ensure sufficient flexibility to accommodate potential changes in needs, resident populations, and the types of care provided. This must be considered in concert with the needs of the local community and the care delivery model(s) proposed for the home.

While Continuing Care Homes or Supportive Living environments can stand alone on a site, the literature also supports "campuses of care" where individuals can "age in place" as their needs for care and support change over time. An "aging in place" philosophy, when supported by an appropriate physical environment, has been associated with improved resident independence, well-being, and quality of life. Further, campuses of care have the potential to promote continuity of care, flexibility in responding to changing resident needs, and economies of scale. A campus of care that also incorporates other community-based programs on-site (e.g., respite spaces, day programs, hospice, sub-acute, transition care) may enhance the use of the physical space and the site.

## **Supportive Living (Designated and Non-Designated)**

Supportive Living provides a residential setting where people can maintain control over their lives while also receiving the support they need, all within a safe environment. Residents and their family members are equal partners in decision making and health care delivery. Supportive Living provides accommodation/housing in association with hospitality services, personal support services, and sometimes health services support. Hospitality services may include meals, housekeeping and laundry services, and life enrichment activities. Supportive Living environments are characterized by private resident living areas, as well as common areas for dining and social functions. Staffing is available on-site for supervision, socialization, personal care, and/or health care. In non-DSL settings, residents may receive scheduled health professional visits, case management functions, and consultative allied health services within their living environments through AHS' Home Care Program (this may not apply to all Supportive Living facilities operating in the province). In DSL spaces, AHS provides, or contracts to provide, scheduled health professional visits, case management functions, and consultative allied health services to residents within their living environments.

Figure 2 depicts the relationship between common resident characteristics/needs and the physical features of a Supportive Living environment. Figure 2 also highlights some key aspects that are unique to DSL in comparison to a non-DSL setting.

#### **FIGURE 2: SUPPORTIVE LIVING**

## Resident characteristics



- Variability in ethnic, religious and cultural preferences
- Variability in languages spoken
- Variable levels of awareness of time, personal space and others
- · Potential visual and auditory loss
- · Minimal to significant difficulty with expressing needs
- · Minimal risk of harm to self/others\*
- Potential risk of elopement, for some
- Minimal, mild\*, or extensive functional, physical, and/or cognitive decline

#### **Resident needs**



#### (MAY INCLUDE)

- 24 hour on-site supportive care (HCA and/or LPN)\*
- · Partial to total assistance with personal care
- · Variable levels of need for mobility aids
- Variable dependence for health care equipment (e.g. O2, enteral feeding equipment, lifts)
- Minimal to full assistance with Activities of Daily Living (ADL)\*
- Moderate to full assistance with Instrumental Activities of Daily Living (IADL)\*
- Assistance with/administration of medication
- Support to maintain quality of life (spiritual, mental, emotional, physical, etc.), potentially included in care plan\*

#### **Building features**



- Supply storage within home unit
- Interdisciplinary team workspace within home unit\*
- Utility rooms easily accessible by staff
- Equipment storage close to/within home unit
- Provision to secure some home units
- Design that minimizes visual and physical access to non-resident areas (e.g., supply rooms)
- · Design that facilitates optimal views of resident spaces, while not compromising privacy
- Design that effectively facilitates supportive work environments for staff and volunteers

## Living areas



- Private living areas (bedrooms, 3-piece ensuite washroom)
- Space to carry out ADL independently or with assistance
- Congregate dining and social spaces large enough to accommodate in-person resident and family council meetings
- Design that promotes participation in activities (e.g. optimal views; easy access)
- Design that provides purposeful wandering/strolling and encouragement into activities
- Views of positive outdoor areas from within home units and congregate areas (e.g. nature)
- Progression of spaces from public to semi-public to private resident spaces
- Visual and physical access from resident living areas to safe therapeutic and positive outdoor areas
- Welcoming family/visitor spaces that provide varied socialization opportunities

## \*Red text = unique to Designated Supportive Living

Note: Activities of Daily Living (ADL) encompass various basic daily living tasks, including toileting, bed mobility, transfers, mobility, dressing/undressing, eating ability, personal grooming, hygiene, oral care, and bathing. Instrumental Activities of Daily Living (IADL) encompass various daily living tasks, including laundry, grocery shopping, managing finances, preparing meals, transportation, productivity (work/school/volunteer), telephone use, computer/technology use, and other housework.

## **Long-Term Care (LTC)**

LTC describes an approach to care and a living environment that supports the provision of care, therapy, and treatment, in concert with everyday activities, to individuals who are unable to live at home or within a Supportive Living environment. Individuals have medical and care needs that require the involvement of various medical, nursing, and allied health personnel in their daily living routines. LTC environments are characterized by private resident living areas that allow high levels of care and support to be provided. Common areas for dining, socialization, as well as therapy and treatment are also included within these facilities. LTC environments also require specialized spaces and facility infrastructure to support the delivery of high levels of care, including complex care.

Figure 3 depicts the relationship between common resident characteristics/needs and the physical features of a LTC environment.

Individuals living with unique care requirements and requiring an adapted living environment may also live in Supportive Living and LTC environments. However, the distinct spaces required to meet the special needs of these residents are not outlined in this document.

#### FIGURE 3: LONG-TERM CARE

## Resident characteristics



- Variability in ethnic, religious and cultural preferences
- Variability in languages spoken
- Variable levels of awareness of time, personal space and others
- · Potential visual and auditory loss
- Minimal to significant difficulty with expressing needs
- Potential for complex clinical needs including palliative and end-of-life care\*\*
- Moderate to extensive functional and/or physical decline
- Variable level of cognitive impairment, but majority living with dementia and experiencing mild to extensive cognitive decline\*\*
- Potential for unpredictable behaviours; risk to self/others\*\*
- · Potential risk of elopement, for some

#### Resident needs



- (Generally includes)
- 24 hour on-site nursing care (RN)\*\*
- Rehabilitation services\*\*
- Total assistance with personal care
- · Need for mobility aids
- Intensive/extensive involvement of allied health disciplines\*\*
- High levels of assistance with ADL\*\*
- High levels of assistance with personal care\*\*
- Variable dependence on personal care equipment (e.g. O2, enteral feeding equipment)
- May require advanced medical care\*\*
- Administration of medication
- Support and maintain quality of life (spiritual, mental, emotional, physical, etc.)

## **Building support**



- Supply storage within home unit
- Interdisciplinary team workspace within home unit
- · Utility rooms easily accessible by staff
- Equipment storage close to/within home unit
- Provision to secure some home units
- Design that minimizes visual and physical access to non-resident areas (e.g., supply rooms)
- Design that facilitates optimal views of resident spaces from staff areas
- Design that effectively facilitates supportive work environments for staff and volunteers

## Living areas



- Private living areas (bedrooms, 3-piece ensuite washroom) that accommodate high care needs
- Space in private bedrooms to provide treatments\*\*and support visitation
- Therapy areas in proximity to/within units\*\*
- Space to provide high levels of assistance with ADL, including assistance provided by caregivers
- Congregate dining and social spaces large enough to accommodate in-person resident and family council meetings
- Design that promotes participation in activities (e.g., optimal views; easy access) and quiet reflection
- Design that provides purposeful wandering/strolling and encouragement into activities
- Views of positive outdoor areas from within home units and congregate areas (e.g., nature)
- Progression of spaces from public to semi-public to private resident spaces
- Visual and physical access from resident living areas to safe therapeutic and positive outdoor areas
- Welcoming family/visitor spaces that provide varied socialization opportunities
- Potential for other diagnostic and treatment areas within facility (e.g. diagnostic imaging)\*\*

<sup>\*\*</sup>Blue text= unique to Long-Term Care

## Principles and values of continuing care

The major principles and values that guide continuing care services and environments, consolidated from several provincial publications, are described below in Figure 4.

## FIGURE 4: PRINCIPLES AND VALUES OF CONTINUING CARE SERVICES

PRINCIPLE/VALUE	FEATURES		
Aging in Place	Bring services and care to the client and adjust as care needs change rather than the client having to move to another setting.		
Person-Centred Care	<ul> <li>Care plans, coordination, and delivery of health services will be centred on residents' unique needs and preferences¹.</li> <li>Residents and health service providers will collaborate in developing care plans (Source: Continuing Care Health Service Standards, July 2018).</li> <li>Residents will participate in care decisions, which will be respected. <ul> <li>Person-Centred Care is about being centred on and driven by the perspective of the resident (and family) and ensuring choice, decision making, and autonomy.</li> </ul> </li> <li>Continuing care operators must take into consideration resident preferences, religious practices, and cultural customs, as far as reasonably practicable, in planning (Source: Supportive Living and Long-Term Care Accommodation Standards, 2010).</li> </ul>		
Person and Family Involvement	<ul> <li>A residential facility is the home of its residents; therefore, the residents should be involved in matters that affect their daily lives.</li> <li>Each member of the team (including residents) understands their roles/ responsibilities, what is expected, and supports others in making informed decisions about care (Source: Continuing Care Health Service Standards, July 2018).</li> </ul>		
Wellness	<ul> <li>Residents will be provided with health services to address assessed<sup>2</sup> unmet health needs and promote their wellbeing (Source: Continuing Care Health Service Standards, July 2018).</li> </ul>		
Capacity Enhancing	<ul> <li>Resident's and family's ability, desire, and willingness to make/provide care choices will be supported.</li> <li>Families and residents will be assisted in developing necessary skills, knowledge, or adapting processes to carry out functions independently.</li> </ul>		
Supporting Resilience <sup>3</sup>	Resident and family resilience will be supported.		
Respecting Autonomy and Independence <sup>4</sup>	Residents' personal autonomy to make decisions that affect their life and living conditions will be respected.		
Case Management and Integrated and Collaborative Care Teams	Residents will have access to integrated and collaborative care teams. A collaborative person-centred strategy for the provision of quality health and supportive services, using a case management approach, will be used.		

## FIGURE 4: PRINCIPLES AND VALUES OF CONTINUING CARE SERVICES

CONTINUING CALL CELIVICES				
PRINCIPLE/VALUE	FEATURES			
Residential/Home-Like Environment	<ul> <li>Living environments should be:         <ul> <li>Residential in nature and provide amenities reflective of a family home.</li> <li>Organized to allow for a smaller number of residents to be accommodated in households that include private rooms with ensuite bathrooms, congregate dining and living spaces.</li> <li>Designed to encourage resident participation in activities.</li> <li>Organized to provide a variety of spaces for resident privacy, small intimate gatherings with family/friends, and large group activities.</li> <li>Designed to promote resident interest in accessing and exploring their living environment through visual cues, interesting circulation routes that promote purposeful wandering, short distances between rooms, and simple wayfinding cues.</li> </ul> </li> </ul>			
Affordable	<ul> <li>All residents will have access to required health services, regardless of their ability to pay.</li> </ul>			
Safety and Security	<ul> <li>Resident and family safety and security will be promoted.</li> <li>An operator must ensure that the building that houses the accommodation, the accommodation itself and its grounds or common areas are in a safe condition and maintained to remain free of hazards (Source: Supportive Living and Long-Term Care Accommodation Standards, 2010).</li> </ul>			
Accessibility	<ul> <li>High levels of multi-sensory accessibility will be reflected throughout the environment.</li> </ul>			
Cost Effective	<ul> <li>Continuing Care Homes and Supportive Living environments will have cost effective ways of delivering health services without a loss of quality or an increase in resident risk.</li> </ul>			

Standardized assessments will provide guidance to the health-care professional who assesses and advises individuals and their families/caregivers about health services within living options. Throughout the assessment and recommendation process, the role of the resident and their family, as well as physicians and other care providers, will remain integral. In addition to the assessment tools, decisions on access will consider family/caregiver and other support for the individual being assessed (Source: AHS, Progressing the Continuing Care Strategy, "The Right Care in the Right Place", 2010).

<sup>&</sup>lt;sup>2</sup> Assessed care requirements that cannot be met by the resident or their caregiver(s) taking into consideration their willingness, availability, and ability (Source: Alberta Health/AHS).

<sup>3</sup> Able to handle change or misfortune without being overwhelmed or acting in dysfunctional or harmful ways (Resiliency Centre, 2010).

Individuals have the right to make informed decisions regarding their own situations including participating in activities that may place them at risk (Continuing Care Health Service Standards, July 2018). Recognizing the right to live at risk, negotiated risk is the process of informing, discussion, and coming to consensus, balancing personal risk to the resident and respect for resident choice (Assisted Living Federation of America, 2009).

## III. Design objectives

Each section of the CCDS is based on the following format:

- **Design Objective**: describes the purpose and design expectations for the area under consideration, including how the space can be used to achieve optimal resident outcomes.
- **Design Standards and Best Practices**: outlines design requirements, as well as suggestions and helpful guidance regarding features/concepts to include during the design process.

#### IV. Orientation to the document

## **Key Terms**

Whether a design element is a mandatory requirement or a suggested best practice will be indicated through the following terms:

- "shall" is used to express a requirement, specifically for those design aspects that must be included in the design of a Continuing Care Home to receive capital grant funding from Alberta Health and to have a contractual arrangement (e.g., Master Services Agreement) with AHS for DSL or LTC.
- "should" is used to express a recommendation or that which is advised but not required.
- "may" is used to express an option.

Where "barrier-free" is referenced throughout the document, the "Barrier-Free Design Guide" is applied.

#### **Sections**

The CCDS is organized as follows:

- Sections:
  - · A How to Use the Continuing Care Design Standards and Best Practices
  - · B Resident Personal Space
    - Design requirements for resident rooms and ensuite bathrooms.
  - · C Neighbourhoods and Resident Households
    - Standards and best practices for the different components that make up a resident household or neighbourhood and foster a smaller home-like setting.
  - · D Common Spaces
    - Design requirements for areas and amenities accessible to all residents and, generally, family and visitors as well.
  - · E Staff Support Spaces
    - Design elements that support the work of staff and/or volunteers.
  - · F Facility Wide
    - Standards and best practices that apply to most areas of the Continuing Care Home.

- Appendices include:
- 1. Guidelines for Specialty Populations Guidelines related to the needs of distinct resident populations (e.g., residents with obesity, residents with dementia, residents requiring complex care).
- 2. Grab Bars Guidelines for grab bars in the Continuing Care Home.
- 3. Infection Prevention and Control (IPC) IPC requirements for Continuing Care Homes.
- 4. Room Layout Example Drawings Example of a floor plan for resident rooms.
- Architectural Design Requirements for Continuing Care Checklist Checklist that highlights key design requirements of the CCDS. Note, this Checklist is not comprehensive and does not include all requirements and guidelines outlined in the CCDS.
- References Other provincial/regional documents referenced in the development of this document.

## VI. Other requirements

The CCDS is intended to be read in conjunction with applicable codes, legislation, and standards including, but not limited to, the National Building Code - Alberta Edition (NBC-AE), the Supportive Living Accommodation Licensing Act and Regulation, the Long-Term Care Accommodation Standards, and the Barrier-Free Design Guide. All capital projects must comply with all current applicable codes and legislation, which represent the minimum acceptable standard. Further, buildings must comply with the accessibility requirements of the NBC-AE for the whole building.

Other mandatory requirements may be stated within specific Request for Proposals or other applicable solicitations where this document may be referenced. The Continuing Care Capital Program at Alberta Health periodically launches Request for Grants, which provide capital funding for the development or improvement of continuing care capacity across the province.

Note: Continuing Care Homes shall be designed and constructed to a minimum B3 occupancy classification as defined in the current NBC-AE. Please note, the Authority Having Jurisdiction will determine the appropriate building occupancy classification that meets the needs of the proposed population.

#### Reminder

In this document,

- "shall" is used to express a standard/requirement.
- "should" is used to express a recommendation or that which is advised but not required.
- "may" is used to express an option.
- "barrier-free" refers to the Barrier-Free Design Guide.

## **Section B: Resident personal space**

Note: Total building gross area should not be less than 81 m2 (871 ft2) per resident. The 81 m2 (871 ft2) includes the 32.5 m2 (350 ft2) for each resident room.

## I. Resident rooms

Note: Resident rooms are studios that accommodate one resident, with a minimum of 32.5 m2 (350 ft2) including a three-piece ensuite bathroom. A couples/companions room can be created with internal locking doors between two adjoining resident rooms.

## **Design Objective**

The resident room is the resident's private space where most personal activities take place - sleeping, grooming, and dressing. Most residents require assistance in performing personal care activities, which are carried out in a manner respectful of a resident's privacy. While the residents' needs often necessitate a caregiver, privacy from others is essential.

The resident room also meets each resident's need for comfort, safety, independence, and dignity. Each resident room has good sightlines to all areas within the room to promote resident orientation and comprehension of surroundings. Resident rooms are sized and configured to facilitate quality resident care which may include the provision of direct care by one or more caregivers/staff, simultaneously. Caregivers/staff require unobstructed access to the bed to deliver care to a resident, while in

The resident room is also the resident's "own" space; an area where they can do as they please, which may include visiting with family and friends, completing activities independently (e.g., working on the computer) or with others, relaxing privately, enjoying outdoor views, listening to music, and/or watching television. Accordingly, the room is familiar to the resident, which may be facilitated by having some of their own personal furniture (e.g., dresser, desk, easy chair, or small entertainment unit) in their room.

## **Design Standards and Best Practices**

Refer to Appendix 4 for an example of a room layout.

#### **Features of the Resident Room**

- 1. Each resident room shall accommodate one resident. A minimum of 8% of the resident rooms shall be connected for those wishing to share space (e.g., couples, companions, etc.). These rooms shall be connected by a lockable door.
- 2. The minimum room size shall be 32.5 m2 (350 ft2).
- All resident rooms **shall** include:
  - A bed area that allows for staff to access on three sides [FGI 2018 Residential Care Facilities: 3.1-2.2.2.2 (3)] and an unobstructed turning radius of a wheelchair on at least one side of the bed and at the foot of the bed.
  - Space for immediate access from the bed to a walker or wheelchair, and potentially a mobile lift.
  - A separate visiting/seating area, located to provide easy auditory and visual access from the bed area.
  - A place to charge power mobility devices. [CSA Z8000-18 8.9.3.9.2]

- 4. Room configuration, where possible, **shall** provide for at least two options for bed location. All bed location options **shall** provide:
  - Views of the outdoors from both sitting and lying in bed positions.
  - Optimal view of the bathroom, from the bed area and throughout the room.
  - Minimal distance from the bed to the bathroom.
  - No visibility of the bed from the corridor.
  - Access to a resident/staff communication and response system.
- 5. One bariatric resident room **shall** be designed for every 50 resident rooms contained within the Continuing Care Home. Bariatric rooms have unique requirements for residents living with obesity. See *Appendix 1–Guidelines for Specialty Populations*.
- 6. Each resident room **shall** include space for items such as a dresser, desk, easy chair, shelving, bookcases, and tack boards to allow residents to display and store personal items. Residents **shall** be given every reasonable opportunity to personalize their rooms.

#### **Kitchenettes**

7. Kitchenettes **shall** be provided in resident rooms. The kitchenette **shall** provide a sink and room for a barrier free microwave and mini-fridge.

#### Storage

- 8. Each resident room **shall** have enclosed storage space for the resident's personal clothing and linens/towels. Most residents will need to store several pieces of clothing including indoor and outdoor wear, typically requiring a minimum of 1 m2 (10.76 ft2) of floor space. The clothes closet **shall** be of sufficient height and depth to store and hang clothes and designed for easy access, by residents, in a wheelchair. If a free-standing closet is used, rather than a built-in closet, it **shall** be securely fastened to the wall to ensure resident and staff safety.
- 9. A component of the storage provided shall be lockable.
- 10. Provide storage for minor equipment (e.g., slings) in the resident room.

## **Doors/Entrances**

- 11. Resident room doors, **should** be lockable, **shall** be readily releasable, and simple for both residents and staff to use/open.
- 12. Doorways **shall** meet barrier free standards.

## Lighting/Windows

- 13. Each resident room **should** have overhead lighting and task lighting that has wheelchair and bed accessible light switches.
- 14. Daylight-simulated light fixtures are not recommended ambient lighting **should** be at 400 lux, or 300 lux if supplemented with wall sconces and desk lamps. [CSA Z8000-18: Table 8.9, 7d]

- 15. Each resident room requires a minimum of one operable window:
  - located at a suitable height to provide a direct view of the outside environment (not just the sky) from both a sitting and lying in bed position [CSA Z8000-18: Table 8.9, 7d];
  - the lowest edge of window glass should be a maximum of 610 mm (24 in) from floor level; and
  - the window **should** be of sufficient size to ensure good levels of natural lighting within the resident room.
- 16. A minimum of one window shall be operable with a secure limiting device to prevent resident elopement or intrusion. [CSA Z8000-18: Table 8.9. 7d]
- 17. The window **shall not** open more than 102 mm (4 in) to avoid elopement.
- 18. The window **should** include a screen on the openable portion of the window. [CSA Z8000-18: 8.8.3.6.2]

#### **Temperature Control / Humidification**

- 19. Each resident room **shall** have individual controls for air temperature within a range.
- 20. Individual room air conditioning **should** be provided.

#### Lifting Devices [Ceiling and Mobile Client Lift Guidelines for AHS Facilities: 2018]

- 21. All resident rooms shall be designed and constructed to accommodate access for mobile resident lifting devices or ceilingmounted resident lifting devices. Where ceiling lifts are contemplated, there are several design factors to consider:
  - The structure above the ceiling shall have the capacity to support the total weight of the lift plus the capacity weight of the lift.
  - The ceiling track location **shall** avoid conflict with mechanical and electrical fixtures and services.
  - For the ceiling track to extend from the resident room into the bathroom, consideration **shall** be given to ceiling heights. A consistent ceiling height allows for the track to be positioned close to the ceiling throughout, however a lowered bathroom ceiling to accommodate mechanical ducts and pipes above may require a suspended track in the resident room. This may detract from the residential feel of the room.
  - The ceiling adjustment presents challenges for mechanical distribution and ultimately has cost implications beyond simply extending the track.
  - Bi-parting sliding doors should be considered to allow for continuous travel of the overhead rail of lift system between the bed and the bathroom. [CSA Z8000-18: Table 8.9, 8 Note]
  - Note that bariatric lifts can also be used for residents with lower body weight, but the reverse is not true.

#### **Ceiling Lift Coverage**

22. The tasks to be performed in the resident room and ensuite bathroom **should** be considered, including toileting, showering, hand washing, and use of ambulating slings. This process **should** identify where falls could occur during these tasks and include measures to reduce the risk. For example, a side approach to a toilet could pose a risk if the toilet has fold-down side grab bars. In that case, a direct front-on approach to the toilet would be recommended. [CSA Z8000-18: 7.6.6.2.2 (4)]

Consideration **should** be given to maximizing room coverage to facilitate planned lifts and transfers of residents, and to allow for unanticipated lifts and transfers such as the response to a fallen resident. [CSA Z8000-18: 7.6.6.2.2 (5)]

Note: AHS owned facilities require 100% coverage in the resident room (X-Y gantry style) and a single-track extension to the toilet, at a minimum.

#### Fixtures/Finishes/Materials

23. Avoid exposed piping in all places, recommendation for streamlined bulkheads (sprinklers).

#### **Power Outlets**

24. Readiness for telephone, cable TV, and independent internet service shall be provided in each resident room. Each resident room should provide adequate numbers of power outlets, at varying heights, for other electrical equipment. Power outlets shall comply with legislative/building code requirements.

#### Cueing

- 25. Each resident room **should** have "cueing" features, (e.g., recessed locked memory boxes with familiar objects or pictures), outside the room, within the corridor, to assist residents in finding their way and identifying their room. [CSA Z8000-18: 8.9.1.2.2]
- 26. Cueing elements **should** be provided to distinguish the individual resident rooms from each other, (e.g., by using different design features for the doors, as would be the case in a neighbourhood). These differences may exist in door style, door trim, or door colour. [CSA Z8000-18: 8.9.2.3.4]

## II. Resident bathrooms

## **Design Objective**

Each bathroom promotes resident privacy, safety, dignity, and independence. Materials are selected that prioritize resident safety by preventing slips and falls. The bathroom is wheelchair accessible and provides the space for residents to safely access the washroom independently or when accompanied by up to two caregivers/staff to assist the resident with showering and use of the toilet. Having the bathroom visible from several areas within the resident's room, particularly the bed and sitting area, enhances the accessibility of the bathroom to residents and provides comfort that the bathroom is in close proximity. Privacy is maintained by ensuring there are no views into the bathroom from the corridor when the resident room door is open.

## **Design Standards and Best Practices**

#### **Features of the Bathroom**

- 1. Each resident room **shall** have a three-piece ensuite bathroom that is accessed from within the room. The bathroom **shall** include a wheelchair accessible shower, toilet, and sink.
- 2. There **shall** be a minimum of a 1500 mm (60 in) turning radius within the bathroom to allow for wheelchair or walker accessibility and for caregivers/staff to assist a resident, and appropriate space for door swing or a sliding door.
- 3. There **shall** be no direct view of the shower or the toilet from outside the resident room.
- 4. The bathroom walls **shall** be reinforced to allow for multiple locations of grab bars. The location of the grab bars may need to be customized to individual resident needs.
- 5. The ceiling lift **should** extend to the bathroom, and it **should** connect to a track extension (recessed track with dropped ceiling grid) going into the bathroom and over the toilet; the track **should** approach the toilet from the front. It **should** include access to the sink and shower where possible.
- 6. For assisted transfers: grab bars in bathrooms **should** allow staff to complete a two-person transfer for a single resident. CSA Z8000-18 requires 1100 mm clearance on one side for resident bathrooms. This includes evaluation of the toilet in relation to the wall and the grab bars provided. Clearance is required on both sides of the toilet for a double transfer to occur. [FGI 2018 Residential Care Facilities: 2.4-2.2.9.2 b]
- 7. Consideration **should** be given to the location of grab bars beyond building code requirements to facilitate self-enablement (at the sink and toilet, for example) as well as to facilitate assistance. [CSA Z8000-18: Table 8.9, 8 Advisory (a)]
- 8. Residents may not have sufficient upper body strength and mobility to use an angled grab bar on the side wall. In this case, swing-up grab bars are preferred (with or without an integral toilet paper holder).
- 9. Each bathroom **shall** have counter space for the storage of resident items and a wall-mounted soap dispenser and towel bar located at a wheelchair accessible height, with convenient access to the sink.
- 10. For accessibility, the soap dispenser **shall** be located within a 500 mm (20 in) reach of a person seated in a wheelchair. [CSA B651-23: 6.2.4.3]

#### **Storage**

11. The bathroom **should** have a cabinet with the ability to lock for storage of the resident's personal toiletry items.

#### Sinks

- 12. Electronically controlled faucets shall not be used. [CSA Z8000-18: Table 8.9, 8f]
- 13. A single lever faucet is recommended for residents with dementia to simplify the interface. [FGI 2018 Residential Care Facilities A2.5-2.3.2.3]
- 14. For wheelchair accessibility, the horizontal distance from front edge of counter to faucet controls **shall** be 400-430 mm (15-17 in). [AB Municipal Affairs, Barrier-Free Administrator]

#### **Toilets**

- 15. Height of toilet **shall** comply with **barrier-free** requirements.
- 16. Toilet seat covers or back supports **shall** be installed for resident stability.
- 17. Grab bars (see Appendix 2).

## **Showers**

- 18. Ensuite shower dimensions **shall** be a minimum of 1500 mm x 1500 mm (60 in x 60 in), with no lip around the perimeter (zero threshold), and **shall** be outfitted with appropriately placed and reinforced wall grab bars. The slope of the floor **shall** support drainage without a negative impact on resident mobility.
- 19. The shower enclosure **shall** be equipped with a securely mounted shower bar for an adjustable-height hand-held shower head. The bar may be used as a grab bar so it **should** be able to support the weight of a resident. The hose length **should** be at least 1500 mm (5 ft).
- 20. Shower controls **should** be located so that they can be accessed by caregivers/staff that may be assisting the resident with showering.
- 21. Shower stalls **shall not** have pre-molded seating or a fold-down seat.
- 22. The shower area **should** be distinct from the other fixtures in the bathroom to avoid over spray and significant clean-up.
- 23. Grab bars (see Appendix 2).

## Doors/Entrances

- 24. A swing door should be avoided, if possible. [CSA Z8000-18: Table 8.9, 8b] Bi-parting sliding doors should be considered.
- 25. When open, a bathroom door **should not** block the entrance into the resident room from the corridor and **should not** swing into another door in the room, such as the room door itself or the clothes closet door. For resident safety, the resident bathroom door **may** swing out into the room or slide on the room side of the partition to prevent accidental blockage of the door by the resident. If the bathroom door swings into the bathroom it **should** be a double action door with break-away capability. The door width **shall** be 1016 mm (40 in).

- 26. If the bathroom door is to be a sliding door, factors to consider are:
  - the weight of the door (to make sure that it is easy to move).
  - the location of the hardware (to avoid injuring caregivers'/staff's backs and getting hands caught when the door slides).
  - pocket doors are not recommended.

#### Lighting

- 27. A night light **shall** be provided on the resident room wall, by the bathroom entrance. A 3-way switch **may** be provided for the night light one at the resident bed and one at the entrance to the room for staff use.
- 28. Allowance **shall** be made for dim night lighting as well as daylight-simulated bright lighting in the resident bathroom. [CSA Z8000:18: Table 8.8, 3b]
- 29. Sensory lighting adjustable for brightness should be provided. [CSA Z8000:18: Table 8.8, 3d]

#### Fixtures/Finishes/Materials

- 30. Locks on bathroom doors are optional. If a lock is installed on a bathroom door, the lock **shall** be easily operable and readily releasable by residents and staff.
- 31. Each bathroom **shall** have a mirror, preferably located over the sink, visible by residents of all heights and those in wheelchairs. When determining the need and location of mirrors in bathrooms, consideration **should** be given to the needs of specific resident populations. See Appendix 1 Guidelines for Specialty Populations for more information.
- 32. A ceiling mounted heat lamp, provided in each resident bathroom, **may** be helpful to maintain resident warmth while in the bathroom. Connecting heat lamps to timer switches or motion detectors **should** be considered.
- 33. Bathroom floors shall have non-skid surfaces.

## Cueing

34. The use of colours to assist residents with identifying and locating the bathroom, as well as fixtures within the bathroom, **should** be considered. For example, research suggests that a contrasting bathroom door and door frame colour (from the room wall) assists with identification as does a contrasting shower floor colour (from the shower walls and fixtures) and a contrasting toilet colour (from the bathroom floor and walls).

## Section C: Neighbourhoods and resident households

## I. Neighbourhood

## **Design Objective**

Two or more households can be physically linked to form a "neighbourhood"; this can facilitate staffing and spatial efficiency. Neighbourhoods create a "working unit" that allow for the sharing of staff and/or space between households. Rooms that **may** be shared between households include central/assisted bathing rooms, larger activity rooms, and support spaces including serveries and staff work areas. Also, rooms within each household, such as dining rooms, **may** be colocated as part of the neighbourhood with a moveable wall separating them that can be opened when not in use as dining rooms to create larger shared spaces.

#### Staff Washrooms

1. At least one dedicated staff washroom shall be provided per resident neighborhood. [CSA Z8000-18: 8.9.2.5.5]

#### II. Household

## **Design Objective**

A 'resident household' or 'household' refers to a self-contained living environment sized to accommodate a set number of resident rooms, which together have a familiar, home-like, and residential feel with welcoming shared living spaces and easy and interesting wayfinding. A resident household can also be referred to as a 'pod' or 'wing'. Households offer opportunities for privacy, socialization, and participation in everyday activities, either independently or with assistance. Residential, non-institutional and home-like interior design features (e.g., wall colours, floor coverings, millwork, etc.) assist in achieving this objective. Innovation in linking individual households to optimize service operations and staff utilizations is desired and should be considered in space planning (e.g., monitoring through use of technology).

## **Design Standards and Best Practices**

## Features of the Household

- Households are the clearly defined living areas of the residents. They possess features commonly found in a family house, including spaces for everyday living and spaces that are necessary to support the self-contained functioning of the household. A household **shall** include resident rooms, dining room, living/activity rooms, and the support areas and storage spaces necessary for the functioning of the household.
- 2. The expected configuration for offering residential rooms is in resident "households". A household includes resident rooms for the designated number of residents who live within the household. Individual households **shall** have up to a maximum of 14 residents. The optimal number of residents per household **should** be determined during the functional programming process, and balance needs for:
  - a. A residential home-like setting which is best achieved with a smaller number of residents per household. Smaller households help to:
    - · avoid an institutional feel.
    - · allow for the colocation of smaller groups of residents who may have similar care needs.
  - promote resident familiarity with their surroundings.
  - limit large gatherings.
  - reduce the potential for high levels of noise and other stimuli common to high occupancy areas.

- reduce risk of virus transmission and outbreaks.
- encourage relationship building and familiarity between staff and residents.
- b. A design that responds to the needs of specific resident populations (e.g., those with dementia), which may necessitate a smaller number of residents per household, to facilitate resident participation and familiarity with everyday activities and resident safety.
- c. Operational efficiency, ensuring that staffing levels are both optimal and affordable. Households that have a very small number of residents (with no ability to share staffing with an adjacent household), or a very large number of residents may be inefficient and costly to operate.
- d. Household size variety the number of residents in each household does not have to be the same throughout the Continuing Care Home.
- e. Depending upon the functional design of the residence, the households should be linked so that more than one group of residents can be monitored or served as a group when staffing numbers are smaller (e.g., night-time); and
- f. A Continuing Care Home may contain several households.
- 3. Each household **shall** be self-contained, yet also able to easily access communal/shared spaces and other households within the Continuing Care Home.
- 4. Entry into the household **should** allow for a progression from communal/shared spaces (e.g., activity/dining areas) to private spaces (e.g., resident rooms).
- 5. Households **shall** be designed with simple circulation patterns that promote wayfinding, purposeful movement and exploring. Clear visible destinations along circulation routes help to facilitate resident orientation and participation in activities. Circulation routes, within each household and the overall Continuing Care Home, **shall**:
  - Be interesting and encourage residents to participate in activities and be active within safe and familiar surroundings.
  - Provide opportunities for resting and observing along the way.
  - Permit easy maneuverability by persons using walkers, wheelchairs, and power mobility devices of typical sizes.
  - Provide optimal and frequent sight lines (including signs and cues) for residents to be outside (as well as view the outdoors), and promote spatial orientation within the Continuing Care Home, as well as with the physical surroundings outside of the home.
  - Provide optimal sight lines for common areas to enable staff to observe and respond if supervision is required to meet resident needs.
  - Be short in length and minimize distances between resident rooms and other resident areas of the Continuing Care Home to facilitate resident mobility and independent travel, whenever possible.
  - Allow for easy travel between households, while not providing a sole thoroughfare from one household to another or through a household to other areas of the Continuing Care Home.
  - Provide easy access to outdoor areas such as gardens, patios, terraces, and solariums. Outdoor areas **should** provide a mix of spaces that offer protection from the elements and shading from the sun, as well as the opportunity to enjoy sun and all the elements that are normal in life (e.g., access to the outdoors is enjoyable and helps support health and promote sleep). To encourage resident access and facilitate staff supervision, they **should** also be located to allow for optimal visibility from within the house. All outdoor areas **must** also facilitate resident safety (e.g., suitable walking surfaces, no obstacles, strategically placed bushes, or fences) and prevent elopement or unrestricted entry.
  - Minimize obstacles (e.g., ensure continuous floor levels and handrails along walls) at doorways.

- 6. Households that respond to a specific resident population, such as persons living with dementia, **shall** be securable to provide a higher level of safety and security and **should** be located on the ground floor. In addition, this population **shall** have access to an adequate secured outdoor space on the ground floor for maximum accessibility.
- 7. If the use of power scooters is anticipated, the space implications **should** be considered (e.g., turning radius, manoeuvrability, circulation, and storage spaces, etc.).

#### **Doors/Entrances**

- 8. Households/neighbourhoods **should** have easily recognizable entrances.
- 9. All doorways in the Continuing Care Home, including the entrance, common spaces, common assisted bathing room, exercise rooms, dining rooms, etc. **shall** have a minimum of clearance (width) of 1117 mm (44 in).

#### Fixtures/Finishes/Materials

10. Avoid exposed piping in all places; streamlined bulkheads (sprinklers) are recommended.

#### III. Corridors

## **Design Objective**

Corridors are the essential link between spaces within households as well as between households and other spaces within the Continuing Care Home.

Corridors extend the residential feel of the houses into the more public spaces of the Continuing Care Home. Long and narrow corridors or overly wide and austere corridors, associated with an institutional feel, are not desirable.

Well designed corridors draw residents into positive activity, encourage resident mobility, facilitate resident orientation with their internal and external surroundings, and support resident comfort, safety and satisfaction.

Corridors are often one of the first spaces potential residents, families and visitors will observe when entering a Continuing Care Home. Accordingly, corridors should feel like home.

Well designed corridors are also instrumental in supporting operational efficiency. Corridors allow for efficient and discrete delivery and removal of supplies/linens to/from resident households and for efficient staff coverage. They are not used for storage of supplies and equipment; alcoves off of corridors or storage rooms should be used. As much as possible, corridor routes for supply delivery/removal are distinct from routes residents, families and visitors use.

## **Design Standards and Best Practices**

#### **Features of the Corridor**

- 1. Corridors in resident households and the overall Continuing Care Home should allow sufficient space for:
  - Contiguous handrails along the corridors.
  - Unrestricted wheelchair and bed access.
  - Two wheelchairs to pass simultaneously within the corridor [i.e., minimum 1830 mm (72 in)].

Note: Differences exist in unit sizes, and the appropriate width depends on the content of the corridor – for instance, the presence of storage alcoves for equipment would allow for narrower corridors, while still maintaining 6 feet of clear space. There are also different needs for bariatric spaces / residents living with obesity.

- 2. Corridors **shall** have a minimum 1830 mm (72 in) of clear space, without obstructions.
- 3. Corridors within and between the resident households, **should** provide internal walking routes that create interesting destinations by linking different areas of the household. Corridors that create a route or loop are preferred over those that come to an abrupt end (exception: see Appendix 1, 1.2 Residents with Dementia and Related Needs). Where a contiguous route is not possible, creating a sizeable turnaround space, possibly with a sitting/resting area, **should** be considered. The approach is to provide points of interest along the route and a sense of meaningful journey and arrival.
- 4. Wayfinding landmarks **should** be provided in corridors. [CSA Z8000-18: 8.9.2.3.6]
- 5. The length of corridors particularly in the households **should** be minimized to reduce travel distance for residents and to create routes that are easy for residents to manage, within their abilities. Seating and rest areas **should** be provided along the corridors to encourage residents to travel, with the assurance they can rest, when needed.
- 6. Corridors **should** provide unrestricted space to encourage easy and safe travel by residents, many of whom may require the assistance of a walker or wheelchair, and in some Continuing Care Homes, possibly scooters.

## Storage

- 7. The design and articulation of corridors **should** provide for adequate unobtrusive space, perhaps in alcoves, for the temporary presence of clean and soiled items and cleaning equipment and carts. Permanent storage of supply carts and equipment should be in a designated space, which **may** include decentralized storage alcoves off the corridors, and not in the corridor proper.
- 8. Mobile lifts **should** be stored in close proximity to point of use. The storage alcove or room **should** have electrical outlets for recharging equipment.

#### **Handrails**

- 9. Handrails **shall** be located on both sides of the corridor. The handrail design and the diameter of the cross-section **should** be 30-45 mm (1.2-1.8 in) to ensure that most hands are able to have a secure grasp of the railing. The position of the handrail **should** restrict the possibility of hands and arms slipping between the handrail and the wall. The walls on which the handrails are mounted **should** have adequate support to safely secure the handrail. The bracket supporting the handrail **should not** interfere with the fingers or the hand grip of the residents using the handrail.
- 10. Handrails with tactile indication (e.g., small bumps) at the end of the rail and/or under rail lighting **should** be considered as safety measures to assist persons with low vision and reduce the incidence of falls.

## Cueing

11. The use of colours to improve wayfinding and reduce access to non-resident areas **should** be considered.

## IV. Living rooms and activity spaces

## **Design Objective**

Resident living rooms (which may also be referred to as 'lounges') are welcoming, comfortable, and relaxing spaces. Along with the dining room, they are the main area for social interaction within the household. They provide residents with optimal flexibility to pursue their interests and preferences, whether that is to socialize and interact with others, spend time alone while observing and listening to others, or engage in group activities, passively (e.g., playing cards) or actively (e.g., fitness exercises).

Activity spaces also accommodate a variety of resident-focused planned social activities which contribute to an optimal resident's quality of life. Activities may include participating in hobbies and crafts, exercise and relaxation sessions, group recreational activities, and seasonal/special events, among others.

## **Design Standards and Best Practices**

## **Features of the Living Rooms and Activity Spaces**

- 1. There **shall** be a living room in each household.
- 2. Activity space(s) **shall** be included in each household and **may** be combined with the living room.
- 3. There **should** be sufficient spaces within each household and the overall Continuing Care Home to allow for optimal flexibility to provide a wide range of resident activities. The size of the living rooms in each household and the number and size of activity rooms in each household and/or the overall Continuing Care Home **should** be determined during the functional programming process, and will be influenced by:
  - The number (maximum of 14) of residents in each household and their needs for physical, functional, and social support. For example, a household that accommodates residents with significant cognitive impairment **may** require smaller rooms to reduce the potential for high levels of stimuli within the rooms; whereas a household that accommodates many residents who require the use of wheelchairs **may** require larger rooms to support accessibility and maneuverability.
  - Resident preference to access social gathering spaces. Some residents may prefer to use their private room for informal visiting or activities.
  - The need for small versus large group spaces in each household, as well as the overall Continuing Care Home.
  - The degree to which the living room and activity space also support other functions, such as dining.
- 4. At least one dedicated resident washroom **shall** be provided adjacent to the communal household spaces (dining, living room, activity spaces). [CSA Z8000-18: 8.9.2.5.5] There **should** be no direct views into the washroom from the living room or activity space. While this resident washroom **may** be shared with the washroom supporting the dining room, the number of washrooms **should** be determined at the functional programming stage.
- 5. Living rooms **should** be designed for clustered, rather than linear, seating to facilitate resident interaction and socialization. Materials used in the space **should** provide sound absorption, if feasible.
- 6. **Should** the use of mobility devices or bariatric wheelchairs be anticipated within the area, the space implications **should** be considered (e.g., turning radius, maneuverability, circulation spaces, etc.).

#### **Storage**

- 7. There **shall** be storage space for recreational supplies located within, or in close proximity to, the living rooms and activity spaces.
- 8. Living rooms and activity areas within the households, **may** also include spaces for the display and storage of familiar objects (e.g., books, cards, table games, etc.) that residents **may** wish to use independently, or with others.
- 9. Group spaces **should** have sufficient size to include generous space allowance for the safe storage and access of resident mobility aids, including walkers and wheelchairs, located in view of the resident seating area throughout the space. Some residents who require a wheelchair may prefer to transfer to a regular chair to participate in activities.

## **Doors/Entrances**

10. Activity areas and other spaces that accommodate large numbers of people **should** have two entrances/exits to allow for easy and quick entry into, and egress from, the room.

## Lighting/Windows

11. Each living room **should** have a direct view of outside areas. Where this is not possible, high levels of diffused natural light into the room, from an adjacent room/space **should** be provided.

## **Temperature Controls**

12. The air handling system **should** have mechanical cooling to control air temperature in living rooms and activity spaces.

## **Response Systems**

13. Where the lounge and activity space are integrated, one device **may** be used.

#### Fixtures/Finishes/Materials

- 14. Where resident-accessible electrical appliances are provided, a method of deactivating the appliances **must** be in place to ensure resident and staff safety.
- 15. The furniture in the living room **shall** be cleanable/wipeable, easy to use for residents with decreased mobility, and support bariatric residents (if applicable).

## V. Assisted bathing rooms

## **Design Objective**

Assisted bathing rooms are safe, private, relaxing, comfortable, and not austere. They enable caregivers/staff to easily and safely assist residents to bathe or shower in a manner that protects dignity and promotes resident independence. The room possesses a home-like, warm décor.

## **Design Standards and Best Practices**

#### **Features of the Assisted Bathing Room**

- 1. Each resident **shall** have access to an assisted bathing room that **should** be located in close proximity to, and on the same level as, their household. If the Continuing Care Home has only one assisted bathing room, it **shall** be designed to full bariatric standards. The number of bathing rooms required within a Continuing Care Home will be determined as part of the functional programming process.
- 2. The assisted bathing room **shall** be screened from a main circulation route.
- 3. Each assisted bathing room **shall** include:
  - A bathing tub with unrestricted access on three sides. One raised tub or side entrance tub shall be provided. If a side-entrance bathtub is installed, it shall be a "quick-filling" model to ensure resident comfort. The tub **shall** be of a non-jetted design (i.e., no air or water jets).
  - A barrier free shower [1500 mm x 1500 mm (60 in x 60 in)], with no lip around the perimeter and an appropriate location and slope of drain.
  - A toilet.
  - A hand hygiene sink.
  - A change/dressing area where residents can be undressed and redressed/groomed, following their bath or shower.
  - Storage space for supplies.
  - Shower chair and other devices to assist caregivers/staff to assist residents on and off the toilet and into and out of the shower and bathtub. The shower **shall not** have a pre-molded seat or fold down seat.
- 4. The shower, tub, and toilet areas **shall** be separate for privacy. The assisted bathing room **should** be used by only one resident at a time. [CSA Z8000-18: 8.9.2.3.9, Table 11.1 46a]
- 5. Where a Continuing Care Home has only one assisted bathing room, it **shall** be designed to bariatric standards. Where a facility is supporting several residents living with obesity, there **may** be a need for more than one assisted bathing room designed to bariatric standards. This **should** be determined during the functional programming process. Note that bariatric lifts can also be used with residents with lower body weights, but the reverse is not true.

#### **Storage**

- 6. Assisted bathing rooms **should** have an area for in-room storage (e.g., a one-day supply of clean towels, washcloths, etc.), including space for a towel warmer and a separate soiled laundry hamper. There **should** be adequate space to ensure separation between the storage/holding and flow of clean supplies and soiled items into and out of the room. Bulk storage for towels and linens is also required but **should** be in a separate location (i.e., not in the assisted bathing room).
- 7. Assisted bathing rooms **should** have secure lockable areas to store cleaning supplies for the cleaning and sanitizing of bathtubs, showers, toilets, and hair wash and hand wash basins.
- 8. Placement of towel warming and shelving cabinets **should** be a sufficient distance from the tub, shower, and sink to prevent contamination from water spray or splash. Shelving cabinets **should** be enclosed.

#### **Doors/Entrances**

9. Each assisted bathing room should have a minimum of 1200 mm (48 in) clear opening.

## Lighting/Windows

10. Whenever possible, natural lighting **should** be provided in the assisted bathing room to provide for a more pleasant and comfortable experience. Resident privacy can be assured using frosted windows.

## **Temperature Control**

11. Assisted bathing rooms **shall** have heating and be individually controlled to maintain the room temperature at a comfortable level for residents while bathing.

#### **Lifting Devices**

12. The shower, tub, and toilet areas **shall** be equipped with an overhead lift system to ensure safe movement of the resident. [CSA Z8000-18: 8.9.2.3.9] If the Continuing Care Home has only one assisted bathing room, it **shall** be designed to full bariatric standards.

#### Fixtures/Finishes/Materials

- 13. Privacy curtains, if used, **should** be single-use or washable and changed/washed at regular intervals or when visibly soiled. They **should not** touch the floor.
- 14. Effort **should** be made to make bathing a relaxing experience using decorative room finishes (e.g., murals).
- 15. A ceiling mounted heat lamp, provided in the room, **may** be helpful to maintain resident warmth while in the room. Connecting heat lamps to timer switches or motion detectors **should** be considered.

## VI. Dining room

## **Design Objective**

A positive dining experience is often cited by residents as one of the most important factors contributing to their overall satisfaction with their living environment. As in many family homes, the dining room is the central gathering space in the household where residents congregate to enjoy meal-time activities, which may include participating in meal preparation, eating good food, engaging in conversation, or just simply enjoying the company of others, all within home-like surroundings.

The dining room incorporates design features reflective of a home-style dining room to promote resident familiarity with their surroundings and reinforce everyday eating patterns. It reflects an open and inviting concept, providing a positive dining atmosphere, while minimizing extraneous distraction.

Many residents enjoy eating their meals with others; however, some residents may prefer to eat alone, perhaps with the assistance of a caregiver/staff. As a result, the dining room allows for the creation of some separate areas for those who prefer privacy.

The dining room, in addition to the living and activity rooms in the household, may also be used for social activities and events during non-mealtimes.

The dining room is easily accessed from the residents' rooms and sized to accommodate the number of residents who live in the household, many of whom may require the use of wheelchairs or walkers, as well as possibly visiting family and friends.

The design of dining room(s) and servery(ies) are dependent, to some extent, on the food service delivery model, as well as organizational practices for operational efficiency. The design needs to ensure there is functional space for kitchens/serveries to accommodate the equipment and storage needed to support the home, meal service program and any therapeutic diets.

## **Design Standards and Best Practices**

## **Features of the Dining Room**

- 1. A dining room **shall** be provided in each resident household.
  - A resident household dining room **may** be colocated with another resident household dining room with a moveable wall separating them that can be opened, when not in use as dining rooms, to create larger shared spaces (e.g., Multi-Purpose Room, see Section D).
- 2. The maximum size of the dining room **shall** accommodate 14 residents and consider:
  - The need for smaller dining rooms or subdivided areas for residents who require a lower stimulus environment to eat and/ or for residents who may prefer additional privacy (e.g., those who require caregiver/staff assistance);
  - The need for spaces within the facility to accommodate large group functions. This **may** necessitate the colocation of two or more spaces, with the flexibility to open up the rooms into one large room.
  - The need to include bariatric friendly seats for families/friends/caretakers who **may** wish to dine with their relative/friend;
  - The food service delivery model including the capacity of the serveries and requirements for operational efficiency; and
  - The minimum space for dining room(s), excluding serveries, in households **shall** be calculated based on 4 m2 (43 ft2) of floor area per resident. If serving carts are used, this area **should** be increased.

- 3. The minimum space for the dining room(s), excluding the servery, **should** be calculated to accommodate the use of wheelchairs of all sizes or mobility aids, plus food delivery systems and carts, and for there to be sufficient space for the mobility aids to be located at the table side.
- 4. Resident dining room **shall** have a hand-washing sink.
- 5. At least one dedicated resident washroom **shall** be provided adjacent to the shared/public spaces (dining, lounge, activity areas). [CSA Z8000-18: 8.9.2.5.5] There **shall** be no views into the washroom from the seating area of the dining room or the servery, though it **may** be shared with the washroom supporting the living room and/or activity space. The number of washrooms will need to be determined during the functional programming stage.
- 6. Private dining room(s) for residents and family **should** be included within a central, easily accessible area of the Continuing Care Home. It **should** encourage use by residents and their family and friends who may wish to prepare favourite foods onsite and dine together in a more intimate and private setting, often in celebration of an event. The private dining room **may** include:
  - • A home-style kitchen including a sink, stove, refrigerator, commercial grade dishwasher (i.e., able to rinse at 180oF), countertop, etc. The need for wheelchair accessible appliances/counters **should** be considered.
  - • A comfortable seating area resembling a home-style dining room. The number of seats/people to be accommodated in the private dining room **should** be determined during the functional programming process.
  - • Adjustable lighting with dimmer control. [CSA Z8000-18: Table 8.9, 3f]
- 7. Should the use of power mobility devices or bariatric wheelchairs be anticipated within the area, the space implications **should** be considered (e.g., turning radius, manoeuvrability, circulation spaces, etc.).
- 8. Provision **should** be made for the charging of power mobility devices in the dining/activity areas. [CSA Z8000-18: 8.9.3.9.2]
- 9. A housekeeping/janitorial closet **shall** be in close proximity to the resident dining room.

## **Storage**

10. The dining room **shall** have sufficient size to include generous space allowance for the safe storage and access of resident mobility aids, including walkers and wheelchairs, located in view of the resident seating area throughout the dining room. Some residents who require a wheelchair may prefer to transfer to a regular dining chair to eat their meal.

## Lighting/Windows

11. Each dining room **should** provide a direct view of outdoor space. If this is not possible, the dining room **should** have direct views into other naturally lit spaces to allow for high levels of natural light into the dining room.

#### **Temperature Control**

12. The air handling system **should** have mechanical cooling to control air temperatures in each dining room.

#### Fixtures/Finishes/Materials

13. The type of dining room chairs used **should** assist residents to raise themselves from a sitting to a standing position (often through arms on chairs), provide a firm yet comfortable seating surface, and include a chair back that provides lumbar support. There **may** also be a need for some chairs that do not have arms to facilitate residents transferring from a wheelchair to a dining chair and/or to accommodate larger residents (e.g., residents living with obesity).

## VII. Servery

## **Design Objective**

The servery is residential in feel and resembles the preparation/cooking area of a kitchen within a family home. It supports the final preparation and plating of food, all in proximity to the dining room(s), which allows residents to:

- See and smell their food prior to eating it, which has been shown to increase appetites; and
- Choose their food items and portions at the point of meal service, thereby increasing their choice and independence.

## **Design Standards and Best Practices**

## **Features of the Servery**

- 1. The servery **should** support:
  - Participation in meal preparation by residents, to the extent their abilities allow, requiring wheelchair accessible counter and equipment space (e.g., microwave at counter height).
  - Viewing of meal preparation by residents seated in the dining room.
  - Good visibility by staff to supervise the dining area.
  - Safe use of the area/equipment by residents. This **may** require safety features accessible to staff only that limit the independent use (i.e., without staff assistance) of equipment (e.g., stove) by residents.
- 2. The functional space for serveries and related storage, including secured storage, is dependent on the operator's food service model and the number of serveries required to support the dining rooms in each household, as well as other congregate dining spaces within the facility.
- 3. The servery **may** include space for:
  - Wheelchair accessible counter space for food preparation.
  - A holding area for the food delivered from the main kitchen, which **may** include a built-in steam table or portable bulk food cart and other food service equipment.
  - A double bowl sink for food preparation and a separate stand-alone hand wash sink.
  - Lockable storage of kitchen supplies (e.g., knives).
  - A microwave oven.
  - A refrigerator with capacity for refreshments and a freezer compartment.
  - A stove that has a lockout switch to control the operation of the cook top and oven range.
  - A dishwasher of commercial grade.
  - Lockable storage for cleaning supplies.
- 4. The servery will comply with all requirements regarding safe food handling practices outlined in Alberta Public Health Act Food Regulations.

#### **Temperature Control**

5. The air handling system should have mechanical cooling to control air temperatures in each kitchen/servery.

## VIII. Outdoor space

## **Design Objective**

Contact with the outside environment – both physical and visual – is an essential feature of everyday resident life. Outdoor spaces support:

- · Passive and active activities.
- Opportunities for socialization and privacy.
- Independent, safe walking.
- · Special events.
- Opportunities to observe seasonal changes and images associated with the outdoors (e.g., birds, flowers, water features, etc.).

Outdoor spaces provide an easily accessible, safe environment for residents to enjoy the outdoors. Outdoor spaces used by residents also provide safe and interesting walkways, seating areas, and activity spaces (e.g., raised plant beds).

## **Design Standards and Best Practices**

## Features of the Outdoor Space (including balconies and terraces)

1. Space requirements for controlled garden environments differ widely depending on building configurations, site restrictions, and anticipated activities of residents.

#### 2. Outdoor areas shall:

- Be accessible from each household.
- Provide a minimum of 2 m2 per resident.
- Be observable from a staffed area that is not intrusive for the resident.
- Provide a partially covered area to protect residents from outside elements.
- Be safe for residents to use independently in all seasons, weather permitting.
- Have security features that blend into the environment.
- Be accessible by all residents including those who ambulate independently, use a walker, wheelchair or possibly a scooter, and those with visual impairments.
- Have exterior lighting.
- Have exterior doorbell/access control for resident safety and ease of access.

#### 3. Outdoor areas should:

- Have interesting areas and circulation paths.
- 4. Automatic door openers and flat thresholds **shall** be installed to allow residents to open the doors and go out by themselves, and to prevent resident or staff tripping when passing through the door.
- 5. At least one outdoor area **should** be enclosed and secured to promote safe wayfinding while preventing egress of residents and intrusion by outsiders. Fences **should** comply with the home-like feel of the environment, as well as prevent the possibility of being climbed.
- 6. Outdoor areas for residents living with dementia **shall** be secured. See Appendix 1 for additional design guidelines for persons living with dementia.

- 7. There **should** be some outdoor space accessible at grade level.
- 8. There **should** be at least one outdoor area that is directly accessible from a dining room and activity area.
- 9. The landscaping and design of outdoor space **should** consider, and balance, the safety and freedom of residents.
- 10. Each outdoor area **should** provide a mix of environments including:
  - Areas shaded from the sun.
  - Sunny areas.
  - Areas protected from the wind and other weather elements.
- 11. All walking surfaces/circulation routes **shall** avoid steep inclines (i.e., no steeper than 1:20) [NBC AB Edition 2019: A-3.8.3.3 (1)], steps, tripping hazards, and indentations (e.g., ditches) beside paths.
- 12. In Continuing Care Homes where smoking is permitted outdoors, the designated area **shall** be at least 10 m (33 ft) away from the building to ensure that second-hand smoke does not filter into the facility.
- 13. In a multi-storey Continuing Care Home, outdoor space **shall** be provided on all floors. Floors above ground level provide outdoor space through balconies and/or roof terraces.

#### **Balcony/Terrace Safety**

- 14. The design and the height of the guardrails **shall** take into consideration the safety of the residents, including the possibility of self-harm. Continuing Care Homes with residents living with dementia, mental health diagnoses, and cognitive or developmental disabilities must avoid elevated platforms, balconies, or low openings or sills, from which residents could jump. [FGI 2018 Residential Care Facilities: A2.2-4.2.2 b]
- 15. Guardrails on balconies/terraces **shall** be a minimum height of 1.8 m (6 ft). The top of the barrier is designed to prevent residents from climbing over. The barrier **shall not** visually impede the view from the balcony.
- 16. Furniture on balconies **shall not** be moveable or fixed against the balcony railing to prevent people from using furniture to climb over the balcony guardrail.
- 17. The built environment, no matter how well designed and constructed, cannot be relied upon as an absolute preventive measure. However, an awareness of suicide prevention in Continuing Care Homes is important. Ensure AHS Mental Health and Protective Services experts are included in any design decisions related to these types of spaces.
- 18. Balconies **shall not** be provided in resident rooms.

#### Fixtures/Finishes/Materials

- 19. Rough surfaces, such as brick pavers, on any walking areas **shall** be avoided as they may cause tripping and impede wheelchair use. Control joints on concrete sidewalks and patios **should** be saw cut and not troweled, to eliminate a potential tripping hazard.
- 20. When decorating and landscaping outdoor space, consideration **should** be given to such residential features as fencing, outdoor furniture, raised plant beds, and parking for mobility aids.

# Section D: Site planning and common spaces

# I. Site planning and access

## **Design Objective**

Controlling staff and visitor access to the building to ensure safe practices during an emergency event, such as a pandemic outbreak.

#### **Design Standards and Best Practices**

- 1. Site planning **shall** include features that allow a Continuing Care Home to secure its perimeter so it can strictly control ingress and egress.
- 2. Staff **shall** have their own dedicated entrance and exit. Building design **shall** permit the facility to funnel personnel access to one location, sized and equipped to permit effective screening. Staff Room that includes shower(s) and washroom(s) **should** be adjacent.
- 3. There **shall** be a receiving/service space (separate from main entrance) that provides year-round access for delivery services.
- 4. There **shall** be a separate area for garbage storage and pick-up provided in the receiving/service space.
- 5. Continuing Care Homes can be very stressful places for residents, family, and staff. Extra attention **shall** be given during design to evaluate the risk of self-harm by jumping/falling from heights, specifically in public areas with atriums and balconies and in parkades. For balconies and parkades, it is advised that the design team consider fall prevention as part of the design.

# II. Main entrance and reception area

## **Design Objective**

The main entrance and reception area provides the introduction into the Continuing Care Home. It creates the first, and often lasting, impression of the essence of the home and the care that is provided to those living within it. It is a recognizable and welcoming space that invites visitors into the home. It provides orientation to the major zones or areas within the home and facilitates easy and straightforward access to desired destinations.

It is also an area where residents gather to comfortably observe the comings and goings of the home, as well as to wait and greet visiting family and friends.

## **Design Standards and Best Practices**

#### **Features of the Main Entrance**

- 1. The main entrance **should** be designed with a recognizable reception point for visitor greeting and for staff to monitor all persons entering and exiting the Continuing Care Home.
- 2. Controls **should** be provided at the main entrance so that building ingress and egress can be monitored and managed, as necessary.
- 3. There **shall** be a passenger drop-off area, in close proximity to the building entry, which offers protection from the elements and has no incline. The covered entry **should** be large enough to accommodate an ambulance or Handi-Bus with a loading and unloading zone.
- 4. If there is a reception desk, an assistive listening device **may** be required. Please see the Barrier Free Design Guidelines Chapter 9: Assistive Listening Devices.
- 5. Automatic wheelchair accessible door openers **shall** be utilized for the main entrance, and all entrances **shall** have zero thresholds.
- 6. Comfortable indoor, and possibly outdoor, seating areas **should** be provided. They will be used by residents to sit and observe the activity inside and outside of the Continuing Care Home, often while waiting to greet visiting family and friends. They will also be used by visitors to wait for and/or interact with residents.
- 7. Amenity spaces (e.g., gift shop, hair salon, large group assembly space, etc.) **may** be clustered in areas directly accessible to the main entrance to allow for:
  - Easy and straight forward access by those entering the Continuing Care Home.
  - Reduced traffic into resident spaces.
  - Improved operational efficiency.
  - Improved flexibility in the use of space.
- 8. A wheelchair accessible two-piece washroom **shall** be located in close proximity to the main entrance.
- 9. **Should** the use of mobility devices or bariatric wheelchairs be anticipated within the area, the space implications **should** be considered (e.g., turning radius, manoeuvrability, circulation spaces, etc.).
- 10. In environments that do not allow residents to use scooters within the building, space **shall** be available for residents to park their devices upon returning to the site, which is equipped with sufficient power outlets for charging of multiple devices.

#### **Transition Space between Exterior and Interior**

11. The time it takes people's eyes to adapt to changes in light levels lengthens significantly with age. Upon entering a (relatively) dark space, older adults **may** stop or move to one side until their eyes adjust. To this end, the designer **should** provide a transition area. A space with skylights or clerestory windows will help with the transition during daylight hours, while luminaires with dimmers or step-level switching will provide the reduced light levels needed at night. [ANSI/IES RP-29-20: 3.3]

#### **Storage**

12. A closet area **should** be provided at the main entrance for temporary storage of visitors' coats, boots, mobility aids, etc.

#### **Doors/Entrances**

- 13. The main entrance **shall** include a vestibule. It **should** be designed to prevent drafts into the seating/reception area; this **may** be achieved by staggering the entrances/doors and/or ensuring the doors do not open at the same time. A door opening/push plate device **should** be considered for easy access to the building.
- 14. Glass entry doors **should** be easily recognizable as doors and marked (e.g., with stripes or patterns) to assist with identification, particularly for those with visual deficits.
- 15. The main entrance **should** be clearly marked with illuminated signage that provides the name and address of the Continuing Care Home.
- 16. Automatic, barrier-free door openers should be utilized for the main entrance.

#### **Access and Security System**

17. Controls **should** be provided at the main entrance so that building access and egress can be monitored and managed, as necessary.

#### Fixtures/Finishes/Materials

- 18. Rough surfaces, such as brick pavers, on any walking areas **should** be avoided as they **may** cause tripping and impede wheelchair use. Control joints on concrete sidewalks and patios **should** be saw cut and not troweled, to eliminate a potential tripping hazard.
- 19. Floor grates at the entrance **should not** present a mobility hazard.

## III. Elevators

### **Design Objective**

Elevators located in multi-storey Continuing Care Homes **shall** be designed so that they are safe and easy for residents to use. They **should** be located in areas that are accessible to residents, staff, and the public.

# **Design Standards and Best Practices**

#### **Features of the Elevators**

- 1. The number, size, and capacity of the elevators in multi-storey buildings **shall** comply with the NBC-AE. There **shall** be two elevators, at a minimum. One elevator **should** be accessible by a stretcher in the horizontal position.
- 2. Elevators **should** have handrails in the cab; large format, touch illuminated buttons at an accessible height; non-slip floorings; and high levels of illumination.
- 3. Elevators **should** be equipped with adjustable door closing speed to ensure sufficient time for entry/exiting.
- 4. Consideration **should** be given to avoiding "through-lifts", that is, elevators with door openings at the front and back, which can be confusing to some residents.

## **Response Systems**

5. The emergency phone or button **shall** be clearly marked.

#### Fixtures/Finishes/Materials

6. Elevators **should** have an audio system to identify floors.

#### Cueing

- 7. Signage **should** make for easy wayfinding upon exiting the elevator.
- 8. Elevators that serve areas where resident access is restricted **shall** integrate a numeric code pad or card access.

## IV. Public washrooms

## **Design Objective**

All public washrooms are for use by residents, staff, and visitors.

## **Design Standards and Best Practices**

#### **Features of the Public Washrooms**

- 1. Each public washroom **shall** have at least one wheelchair accessible toilet and one wheelchair accessible hand washing sink and mirror. Consideration for sufficient space to park mobility aids will promote hygiene and safety of users.
- 2. Each public washroom **should** be a single-use universal washroom.
- 3. Counter space **should** be available to allow for temporary storage of personal items (e.g., purse), to avoid placing them on the floor.
- 4. There **should** be clear and easily understood signage identifying all public washrooms.
- 5. Washrooms should be easily accessible from common spaces to avoid unnecessary travel by residents back to their rooms.

## **Doors/Entrances**

6. Each public washroom stall **should** have a lock that is readily releasable and easily openable to ensure that a person is not accidentally locked into the washroom.

#### **Water Controls**

Hand wash sinks in public washrooms **should** be hands-free.

# V. Laundry

# Laundry Area for Resident and Family Use

## **Design Objective**

Residents and/or their families may choose to launder some portion of the residents' personal laundry. A laundry room located close to the resident household(s) may support:

- Resident independence and orientation to familiar everyday activities.
- Positive family/friend involvement in the care of their relative/friend.
- Reduced risk of losing personal resident items.
- Improved staff efficiency due to reduced time spent tracking down lost items.

## **Design Standards and Best Practices**

#### **Features of the Resident Laundry Area**

- 1. A space for washing and drying resident's personal laundry **shall** be provided at a convenient location(s).
- 2. The laundry room **should** have a washer and dryer, laundry sink, hands-free standalone hand washing sink, and areas for folding and hanging clothes.
- 3. The laundry room **should** be in a location that facilitates resident access and participation in laundering activities.

# **Central Laundry**

## **Design Standards and Best Practices**

- 1. Each Continuing Care Home will manage the resident laundry through either on-site or contracted laundry service in accordance with appropriate standards. If laundry is an off-site service, a separate soiled holding area **shall** be provided.
- Note: See Appendix 3 for additional design requirements for Laundry Area for Resident and Family Use and Central Laundry

# VI. Beauty shop / barber shop

## **Design Objective**

A beauty shop/barber shop allows residents to participate in a familiar activity that is enjoyable and supports one's sense of well-being.

# **Design Standards and Best Practices**

#### **Features of the Beauty Shop**

- 1. A beauty shop/barber shop **shall** be located within the Continuing Care Home.
- 2. There **shall** be sufficient space to include hairdressing chairs, hair wash sinks and traps, work and storage counters, secured storage space for chemicals, a hair drying area, and a hand wash sink. [CSA Z8000-18: Table 8.9, 5]
- 3. A shampoo chair **shall** be provided that allows residents to have their hair washed either by leaning forward over the sink or by leaning back. The hair wash sink **should** be accessible (open space that does not require transfer to a chair) by persons in wheelchairs.
- 4. The drying chair (chair equipped with a hooded dryer) **shall** allow for comfortable seating that does not require transfer of a resident from a wheelchair to the chair.
- 5. A ventilation system **shall** be included in the room to remove odors related to hairstyling chemicals.
- 6. The hairdressing sink **shall not** be opposite the corridor door. [CSA Z8000-18: Table 8.9, 5f].

#### VII. Fitness/wellness area

## **Design Objective**

Space provided to support the delivery of resident fitness programs that optimize residents' physical, functional, and social abilities and contribute to residents' quality of life.

## **Design Standards and Best Practices**

#### **Fitness Area**

- 1. Fitness **space** should be provided. The amount and type of fitness/wellness space(s) required within a Continuing Care Home **should** be determined during the functional program process.
- 2. A fitness area **shall** accommodate space for:
  - Safe storage for resident mobility aids.
  - Exercise equipment (e.g., parallel bars, treadmill, upper and lower body cycles, weights, etc.).
  - Tabletop activities.
  - Supplies and equipment storage (e.g., seating equipment, adaptive devices, and components, etc.).
  - Wheelchair accessible two-piece washroom for resident use.

#### **Therapy/Treatment Room**

- 3. A separate general therapy room **should** be considered to provide a separate/private space for residents to receive physical and other therapies. Entry to these spaces **shall** provide a minimum 48 in. (1220 mm) clearance to accommodate residents' movement in and out.
- Note: This space is not a common/general use activity room. [CSA Z8000-18: 8.9.2.3.7]
- 4. A separate resident treatment room **should** be provided for visiting health care professionals, and for services such as foot care and wound care.
- Note: This specific room allows treatment/care to be delivered away from the Resident Room. [CSA Z8000-18: 8.9.2.3.10]

## **Ceiling Lifts**

Consideration **may** be given to installing a ceiling lift in the fitness area and therapy/treatment rooms to assist with resident transfer to and from equipment and therapeutic treatment surfaces (i.e., mats, plinths). Note that bariatric lifts can be used for residents with lower body weights but the reverse is not true.

# VIII. Multi-purpose room

## **Design Objective**

A Multi-Purpose Room provides a flexible space to support large gatherings, events, and large group activities. A Multi-Purpose Room is typically accessed by residents, staff, and visitors to the Continuing Care Home. As a result, the space is located in an area that is easily accessible from the Resident Households and main entrance and does **not** require visitors to travel into or via the resident households to access the Multi-Purpose Room.

# **Design Standards and Best Practices**

- 1. There **shall** be a large group space within the Continuing Care Home that can accommodate major events/celebrations. The size of the space will be determined during the functional programming process and will be dependent on the anticipated use of the room and the number of people to be accommodated, with space consideration for mobility devices (e.g., turning radius, maneuverability, circulation spaces, etc.). Where the space supports a multi-use building or campus of care, there **may** be a need to accommodate a larger number of people than would be typical of a single Continuing Care Home.
- 2. Multi-Purpose Room **shall** have secure storage that can accommodate furniture, supplies, and equipment (e.g., folding tables and chairs, projectors, etc.).
- 3. Acoustic treatment **shall** be provided to reduce ambient noise and acoustic separation from other areas.
- 4. Hand hygiene station(s) **shall** be provided.
- 5. Adjustable lighting levels **shall** be provided.
- 6. A nurse call station **shall** be nearby.
- 7. A lockable housekeeping closet **should** be in close proximity to the Multi-Purpose Room.
- 8. There **should** be a kitchenette area (sink and space for small refrigerator, coffee supplies, etc.).
- 9. As per functional program, a wall mounted TV for entertainment and programing **should** be provided.
- 10. Multi-Purpose Room may require an assistive listening system.

# IX. Place for worship and cultural/spiritual expression

# **Design Objective**

A place of worship **should** be provided within the Continuing Care Home that allows residents to observe their spiritual beliefs, religious observances, practices, and affiliations. It often creates a memorable link to life-long experiences and can be a source of great personal comfort.

# **Design Standards and Best Practices**

#### **Features of the Place of Worship**

- 1. The place of worship **may** be separate or part of Multi-Purpose Room and **shall** be wheelchair accessible.
- 2. The space **shall** respond to the multi-denominational needs of the resident population.
- 3. Mechanically ventilated space **may** be required in the Continuing Care Home to accommodate culturally specific ceremonies, smudging, etc.

# X. Gift shop and snack bar (optional)

### **Design Objective**

A gift shop/snack bar allows residents, family, and friends to enjoy a snack together and/or shop for personal items. This space can help to 'normalize' the experience of living in a Continuing Care Home and improve the quality of life for residents.

## **Design Standards and Best Practices**

Space for a gift shop and snack area may be provided.

#### Features of the Gift Shop and Snack Bar

- 2. Provision should be made for display of merchandise and storage in the gift shop. The display space should allow for at least a 1.5 m (5 ft) turning radius for a wheelchair.
- 3. To encourage use, the gift shop and snack bar **should** be in a high traffic and easily accessible area of the home. Consideration should be given for generous space allowance to accommodate multiple residents at a time with mobility aids (e.g., walkers, canes, and wheelchairs).
- 4. If vending machines are planned for the area, there **should** be adequate exhaust or cooling to offset the heat generated by the machines.
- 5. Secure storage space for supplies **shall** be provided. [CSA Z8000-18: Table 8.9, 6b]

# XI. Indoor resident smoking room (optional)

## **Design Objectives**

Smoking rooms support resident choice to smoke and/or vape.

#### **Design Standards and Best Practices**

- 1. An indoor smoking room **may** be provided.
- 2. An indoor smoking room **shall**:
  - Accommodate a maximum occupancy of 5 residents.
  - Have and maintain an appropriately rated fire extinguisher in an unobstructed and easily accessible location (National Fire Code 2019 AB article 5.6.1.5).
  - Include furniture made of fire-retardant/non-combustible materials.
  - Include a fire blanket.
  - Be highly visible and observable by staff (interior windows /camera).
  - Have a nurse call bell inside the room.
  - Provide receptacles in the smoking room for the disposal of used smoking products.
  - Have seals around partitions, ductwork, and door frame that inhibit smoke from spreading to other areas.
  - Have a separate ventilation system from the non-smoking spaces.
  - Have a dedicated exhaust to capture and remove smoke with a manually operated switch and adjustable timer to activate the exhaust fan and close the control damper on the return side.
  - Ventilation requirements need to be reviewed by a mechanical engineer.
  - Provide negative pressure relationship to the adjacent spaces to contain smoke. Locate supply, return, and exhaust air outlets to contain airflows within the smoking space at doorways and openings.
  - Provide proper separation between exhaust outlet and any outside air intake to the non-smoking area, including windows and other airflow paths.
  - Follow American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE) standard 62.1 requirements for Buildings Containing Environmental Tobacco Smoke (ETS) areas and ETS-Free areas.
  - Meet requirements outlined in the Tobacco, Smoking and Vaping Reduction Act and associated Regulation.
- 3. Smoke management system (for smoking room) **shall** be coordinated with regulatory authorities (Authority Having Jurisdiction).
- 4. Indoor smoking room **should** be an exterior room to vent smoke outside.

# **Section E: Staff support spaces**

# I. Workspace for interdisciplinary team

## **Design Objective**

The provision of quality resident care is supported by a well-coordinated, interdisciplinary care team. Staff workspaces support the home-like ambience of the Continuing Care Home and are in areas that assist staff in carrying out their responsibilities in an efficient and effective manner.

Design and placement of staff workspaces provides good sight lines for staff to observe, at a glance, the residents and more public areas of the Continuing Care Home. Staff workspaces that should not be accessed by residents or families will be out of view of resident spaces. Staff workspaces that allow residents and families to connect with staff are easily accessible and recognizable, all without compromising confidentiality and privacy.

# **Design Standards and Best Practices**

#### **Interdisciplinary Team Workspaces**

- 1. Each household within a Continuing Care Home **shall** have designated workspaces that assist staff to carry out resident care responsibilities and duties. Depending on the Continuing Care Home, spaces **may** vary from a lockable desk/room to an interdisciplinary teamwork area. Spaces **shall** also allow staff to monitor the overall activity within the household/area to alert them to potential problems that may arise and diffuse/prevent them. Design of workspaces shall avoid an institutional appearance that detracts from the residential design of the home.
- 2. The interdisciplinary team workspace may vary to accommodate space for:
  - Reception/clerical functions.
  - Secure storage for paper-based resident health care records, if any (includes resident care plans and medical histories), and digital devices used by staff (i.e., laptops).
  - Interdisciplinary team activities (e.g., communication, shift reporting, completion of documentation).
  - Monitoring systems such as Resident/Staff Communication and Response System, fire alarm panels, etc.
  - Clearances for ingress/egress of workers in and out the workspace.
  - A two-piece washroom **should** be provided strictly for staff use.

# Note: AHS owned, operated, leased, or funded facilities are required to follow Tobacco and Smoke-Free Environments (TSFE) Policy.

- 3. Continuing Care Homes shall have sufficient designated workspace for AHS staff with appropriate lockable storage for records, electronic devices, and miscellaneous materials.
- 4. Continuing Care Homes **shall** provide AHS with connectivity for computer, telephone, and other required technology.
- 5. Meeting room space(s) **should** be provided within, or in close proximity, to the resident households to facilitate communication (i.e., between staff, as well as, between staff, residents, and family members), in a manner that recognizes and respects residents' privacy. [CSA Z8000-18: 8.9.2.5.4]

#### **Medication Room/Area**

- 6. Medication preparation space **shall** be in an area free from distractions. A lockable medication space/cupboard, a hand wash sink, and refrigerator **shall** be made available within each neighbourhood. Medications **may** also be stored in lockable cupboards/drawers in residents' rooms.
- 7. In addition, programs are to follow accreditation requirements and governance documents applicable to their settings. For example, AHS is subject to the Accreditation Canada Medication Management Standard, which includes requirements for medication storage in the pharmacy and resident areas. Non-AHS organizations should confirm applicable accreditation requirements.

#### **Staff Training Space**

- 8. Space **should** be provided in each Continuing Care Home for staff training and education, depending on the functional programming of the home. A classroom/conference room **should** allow for:
  - Multiple seating arrangements (e.g., linear classroom seating, break out groups, etc.).
  - Internet access.
  - Adequate storage for teaching materials, Audio-Visual (AV) equipment, etc., which **should** be available, within or close to, the staff training and education room.

# II. Administrative space

## **Design Objective**

The administration area is primarily comprised of office and meeting spaces for administrative personnel. Requirements will vary depending on the size and complexity of the Continuing Care Home.

## **Design Standards and Best Practices**

- 1. Administrative space for managerial and program staff shall be provided.
- 2. The specific need for administrative space should be determined at the functional programming stage.
- 3. Each workspace should provide a sufficient work surface to accommodate computers and reference materials, and clearance around the workspace to allow for safe ingress/egress to the work area.

# III. Storage space for care supplies and equipment

#### **Design Objective**

Continuing Care Home includes appropriate storage for the care supplies and equipment required to meet resident's needs and ensure cleanliness, safety, and efficient functioning of the home.

#### **Design Standards and Best Practices**

- Designated central space **shall** be available for the storage of supplies and equipment for the care of residents. (Also, some supplies **may** be stored in cupboards in the residents' rooms). Central space for the storage of care supplies and equipment is readily accessible to caregivers/staff and does not intrude on the personal space of the residents.
- 2. Storage spaces **should** be out of view of resident spaces and/or include design features/finishes that make them invisible to residents.

## Clean Linen Storage / Clean Utility

- 3. Each household or neighbourhood **shall** contain a lockable clean utility room for the storage of medical-surgical supplies/ products and small medical equipment. It may be combined with the clean linen storage room. **See Appendix 3 for design requirements for clean utility room**.
- 4. The room **should** be easily accessible, yet out of view of the residents' rooms.

#### **Soiled Utility**

- 5. Each household or neighbourhood **shall** have a lockable soiled utility room for storage of soiled supplies, equipment (e.g., carts, wheelchairs, mechanical lifts) or waste, and be equipped to allow for necessary cleaning of supplies and equipment in alignment with IPC requirements. **See Appendix 3 for design requirements for soiled utility room**.
- 6. In addition to the requirements in Appendix 3, the soiled utility room **shall** include:
  - Storage racks or cupboards.
  - A lockable storage cupboard for cleaning products.
  - An exhaust fan.

#### **Equipment Storage**

- 7. Each household or neighbourhood **shall** contain conveniently located storage space for frequently used, large resident care equipment (e.g., lifts, stretchers, etc.). The storage alcove or room **should** have electrical outlets for recharging the equipment.
- 8. There **shall** be storage space for emergency equipment, such as suction machines and defibrillators, located in an area easily accessible from the household(s).
- If oxygen therapy is offered (as part of the Continuing Care Home's scope of program delivery), dedicated space for storage
  of oxygen should be provided in a location that is convenient and accessible to the household(s). An oxygen storage room
  shall meet the requirements of the NBC-AE Alberta Fire Code and NFPA requirements.
- 10. The Continuing Care Home **should** provide a central storage area for large equipment and furniture that is not used daily (e.g., spare beds).

#### **Housekeeping Closets**

11. In each neighbourhood, the lockable housekeeping closet **should** be located close to the dining/servery areas. **See Appendix 3 for additional housekeeping closet design requirements.** 

# IV. Staff and volunteer space

# **Design Objective**

These spaces allow staff and volunteers to take a break from job responsibilities and store personal belongings. They also enable staff to shower before and after work to reduce virus transmission during outbreaks and change into/out of work clothing.

#### **Design Standards and Best Practices**

#### Features of the Staff and Volunteer Space

- 1. A secure lockable staff room, separate from resident spaces, **shall** be provided for breaks. The staff room **may** contain areas that facilitate interaction among staff and provide a healthy release/break from job responsibilities. The staff room **shall** include:
  - A seating area.
  - • Dining table(s).
  - • A kitchenette with a sink, a microwave, a refrigerator, and countertop space.
  - • A display/storage area for educational resources.
  - • Two-piece washroom(s) and separate private single user shower(s) or three-piece bathroom(s).
  - • Full or partial lockers to store personal belongings.
- 2. The staff room **should** have a view to the outdoors.
- 3. The staff room **should not** be in the basement.
- 4. A volunteer lounge, separate from the staff room, **may** be provided for volunteer-specific activities and information.
- 5. An exercise or fitness centre for staff and volunteers **may** also be considered within the functional programming process.

# **Section F: Facility-wide**

The following section includes standards and best practices that apply to most/all areas of the Continuing Care Home. See Appendix 3 for IPC facility-wide requirements.

#### I. General

- Continuing Care Homes shall be designed and constructed to a minimum B3 occupancy classification as defined in the current NBC-AE.
- 2. To support the integration of Continuing Care Homes into their surrounding communities, the building size **should** be limited to a maximum of 200 resident units (this includes both government/AHS funded units and privately funded units). This will ensure the scale of the building integrates into the surrounding community. In addition, this addresses findings by the Auditor General of Alberta, which identified buildings larger than 200 experienced increased COVID-19 outbreaks during the pandemic.

# II. Wayfinding

- 1. The Continuing Care Home **shall** be designed to facilitate ease of navigation and universal access. The wayfinding plan **shall** accommodate those with cognitive challenges by using redundancy and an overlap of elements. Sometimes other special needs may override the general standards and best practices to accommodate those needs. Some examples that **shall** be used within a circulation route include:
  - a. Straightforward layout in circulation routes to minimize decision-making points, encourage line of sight, and eliminate confusion and disorientation.
  - b. Use of colour/luminance contrast on walls and furniture to define spaces in addition to the use of textures on the floor to define spaces.
  - c. Use of tactile walking surface indicators to provide guidance through large, open spaces when the environment does not provide natural guidance.
  - d. Architectural and landscape features at these decision-making points that differentiate areas, making them memorable and distinctive in appearance and texture.
  - e. Landmarks that are distinctive in shape, colour, and sound to assist with orientation inside and outside the building.
  - f. Seating/rest areas at regular intervals to reduce fatigue, accommodating benches and space for wheelchairs, walkers, strollers, and guide dogs. [CSA Z317.14-17: 4.3.2]
- 2. Visual and/or textural "cueing" **should** be included on signs to assist residents in identifying different rooms and finding their way within the facility (e.g., a knife and fork sign indicating a dining room or a picture of a tub indicating a bathing room, or different colours or themes at the entrance to different households).

See Appendix 1 – Guidelines for Specialty Populations for additional wayfinding guidelines.

## III. Doors/entrances/walls

- 1. The minimum door width for the entrance, into all resident-accessible spaces in the Continuing Care Home, **shall** allow for full wheelchair access as well as a two-person assist of a resident (side by side assist) and **shall** be 1016 mm (40 in). Where larger access is required (e.g., to accommodate residents living with obesity, movement of large equipment pieces), a minimum of 1220 mm (48 in) [CSA Z8000-18: 7.8.8.1.2] **should** be planned; the need for the larger door width **should** be determined during the functional programming process.
- 2. A self-opening/self-closing (handsfree) system **shall** be provided at all doors that exit from the resident areas of the Continuing Care Home.
- 3. Kick plates on the "push" side of all doors **should** be provided to prevent damage to the doors.
- Doors and associated hardware in all resident areas, (e.g., resident rooms and bathrooms, public washrooms, lounges, resident storage cupboards, assisted bathing rooms, etc.), shall meet the requirements of the NBC-AE and be barrierfree.
- Residential style corner guards should be provided, as required, on corners of walls to prevent damage.
- 6. If transfer poles are to be used, the floor to ceiling height **shall not** exceed 10 feet, and the ceiling and floor **shall** be designed to safely secure the pole.
- Handrails that meet the requirements of the NBC-AE shall be provided on both sides of corridors that are used by residents.
- 8. Walls and wall corners that will be subject to continual striking by wheelchairs and portable equipment **shall** have features that protect the wall surface (e.g., corner guards and bumper rails) and extend to wheelchair height.
- 9. Wall bases in resident areas (e.g., resident rooms, corridors, dining, and activity rooms) and public washrooms **should** match the colour/value of the walls and provide a strong contrast to the floor to distinguish the vertical and horizontal planes. [FGI 2018 Residential Care Guidelines: A2.4-2.3.2]

#### IV. Fixtures/finishes

- 10. All surfaces, including provided furniture, shall be easily cleaned.
- 11. Fixtures and finishes in resident areas **should** be residential in style and support a home-like environment.
- 12. Finishes and furniture **should** provide sound absorption.
- 13. Sharp edges on counters, cabinets, and corners **should** be avoided.

### V. Floors

- 14. When selecting floor finishes, consideration **shall** be given to their effect on wheelchair and walker maneuverability, ongoing cleaning and maintenance, low glare, sound dampening, impact absorbing, odour control, and durability.
- 15. Flooring surfaces shall allow for ease of ambulation and self-propulsion. [FGI 2018 Residential Care Guidelines: 2.4-2.3.2.3]
- 16. Flooring Cushioning. Floors **should** be firm enough, so they do not disrupt gait and posture or inhibit roller traffic. [FGI 2018 Residential Care Guidelines A2.4-2.1.2.2 (1)]
- 17. Flooring Resilience. Use of flooring material that is flexible and "gives" **should** be considered to reduce injury to residents who fall. [FGI 2018 Residential Care Guidelines A2.4-2.1.2.2 (1)]
- 18. Flooring surfaces **shall** allow easy movement of all wheeled equipment used in the Continuing Care Home. [FGI 2018 Residential Care Guidelines: 2.4-2.3.2.4]
- 19. In wet areas, floors **shall** have a non-skid, slip-resistant surface and be integrally sealed so that water cannot penetrate under any section of the flooring. Floor/wall junctions **should** also be coved and sealed. When tiles are used, epoxy grout should be applied. Floors should be seamless or with seams that are heat-sealed or chemically bonded.
- 20. The design **should** avoid patterned floors that contain solid lines or shapes that could be perceived as "holes" or barriers. [CSA Z8000-18: 8.3.9.1.3]
- 21. Sharp contrast colours, patterns, or textures **should** be avoided between flooring types.
- 22. Flooring border accent **should not** run across doorways or entranceways.
- 23. Flooring materials **should** have a medium colour/value; use of flooring in dark colours/values **should** be avoided. [FGI 2018 Residential Care Guidelines: A2.4-2.3.2.1 b]

#### 24. Carpet:

- Where carpet is selected, consideration should be given to the pile type, length, density, and height for roll resistance to walkers and wheelchairs.
- The exertion required by staff to move a resident in a portable lift may increase with the use of carpet. However, carpet has major advantages over hard-surface flooring in terms of noise reduction, other acoustic considerations, and residential appearance, all of which are important in creating a comfortable, attractive living environment for residents [FGI 2018 Residential Care Guidelines: A2.4-2.3.2.1 d].
- The carpeting should have solid PVC backing.
- Carpets **shall not** be used in rooms where floors are likely to become wet or soiled.
- 25. Where different floor/surface materials are used, transitions (within the Continuing Care Home and between indoor and outdoor areas) **should** be smooth, with no noticeable bump or difference in elevations between floor surfaces.
- 26. All changes of level (i.e., stairs, steps, and ramps) **shall** have a strong value contrast between vertical and horizontal surfaces. [FGI 2018 Residential Care Guidelines: 2.4-2.3.2.10]

# VI. Lighting/windows

- 27. Lighting **shall** augment changes in visual acuity common to seniors, as one group who will live within these settings. There **should** be even lighting levels to avoid hot or bright spots, particularly on the floor, as well as options for:
  - Higher levels of lighting, possibly through task lighting, in areas where residents will engage in activity (e.g., reading, eating, crafts, and other activities).
  - Decorative lighting, (e.g., hanging fixtures, etc.) for a more home-like environment.
  - Higher levels of lighting in areas where cleaning and disinfection are required (e.g., kitchen, dining room, serveries, assisted bathing rooms, utility rooms, and cart wash areas).
  - Low level lighting for use during evenings and nights, particularly in resident areas.
  - Features that reduce glare or reflections on the floor.
- 28. Lighting levels **shall** follow the current Technical Design Requirements (TDR) for Alberta Infrastructure facilities.
- 29. "Daylight-simulated light fixtures" are not recommended as they are incongruent with features of the WELL Building Standard and lighting levels recommended by the Illuminating Engineering Society (IES) standard.
- 30. In the WELL Building Standard [Feature 62], "Daylight Modeling" is recommended to achieve "appropriate" amounts of natural light and reduce dependence on artificial lighting. This guideline **should** be followed for setting the number of windows needed for the individual spaces. There are two aspects that need to be satisfied for this feature, as follows:
  - Ensure enough light is provided Spatial daylight autonomy (SDA300, 50%) is achieved for at least 55% of regularly occupied spaces [i.e., at least 55% of the space receives at least 300 lux of sunlight for at least 50% of (workday) hours each year].
  - Ensure that not too much light is provided Annual sunlight exposure (ASE1000, 250) is achieved for no more than 10% of regularly occupied space (i.e., no more than 10% of the area can receive more than 1000 lux for 250 hours each year).
- 31. For interior ambient lighting (to supplement natural lighting), it is recommended to follow the Illuminating Engineering Society (IES) Standard. Currently, the Standard recommends an ambient light level of 400 lux\*\* (for residents over 65 years of age, where reading/writing is an expected daytime activity). The optimum colour/type **should** be 3500K LED for general ambient lighting. This can be supplemented with wall sconces for night-time use, and if used, **should not** be more than 2700K.
- 32. Solar glare control should be incorporated per the guidelines of WELL Building Standard Feature 56.
- 33. It is not recommended to incorporate "tunable (or variable) LED controls" in an attempt to mimic natural lighting that our circadian systems naturally follow. If the general ambient (artificial) light levels are set at a uniform level, as recommended above, the natural light provided by windows (that at times is more intense) will allow the circadian system to respond appropriately, particularly if reduced artificial light levels are available at night (i.e., a lower lux and a warmer light colour of 2700K at night).
- 34. Exterior lighting should be fully shielded (to limit night sky exposure) and should be no greater than 3000K LED lighting.
- 35. Windows that open and will be accessed by residents **shall** be safe (i.e., prevent egress) and easily operable by both frail and cognitively impaired residents. They **should** include window restrictors that limit opening to no greater than 102 mm (4 in), and screens, on the openable portion of the window.

# VII. Water controls/temperature

- 36. Hand hygiene requirements for staff/caregivers' use are addressed in Appendix 3.
- 37. Controls **shall** be in place to ensure that the water temperatures meet requirements of CSA Z317.1-16 "Special Requirements for Plumbing Installations in Health Care Facilities" Table 1 and Section 6.3.3.1.
- 38. Bathing and shower valves **shall** meet requirements of CSA Z317.1-16 "Special Requirements for Plumbing Installations in Health Care Facilities". Lever handles in resident bathrooms **shall** clearly distinguish between hot and cold water.
- 39. All common spaces used by residents (e.g., dining room, activity room, etc.) **should** have controls for air temperature, within a range.

# VIII. Communication and response system

- 40. Infrastructure that supports a resident/staff communication and response system shall be provided to **allow** staff and residents to summon assistance. The system **should** be operational in all resident areas (i.e., all rooms that residents **may** access) and facilitate prompt response to a resident or staff request. The system **should not** be intrusive.
- 41. The resident/staff communication and response system:
  - **Should** be an electronically designed system, equipped with activation devices that are easily accessible, simple, and easy to use by all residents and staff.
  - Shall be capable of always remaining "ON" and be connected to the emergency power system.
  - **Should** operate in a silent manner that is not audible to the residents.
  - **Should** be able to be integrated with wireless two-way communication between staff.
- 42. When any activation device for the resident/staff communication and response system is activated, it shall:
  - • Clearly indicate where a signal is coming (when activated), allowing prompt response.
  - • Have a cleanable pull cord with appropriate features for resident safety.
- 43. The level of sound of the system **should** be adjustable and controllable so that it is not excessive and disruptive and is equally distributed in the areas it covers.
- 44. A system that requires a voice response when activated is not recommended for residents who have cognitive and sensory impairments.
- 45. The system **should** accommodate other safety devices such as bed alarms and wander guards, as required.
- 46. All buildings **shall** provide a minimum of two fibre optic telecommunication lines from the main communication room to the building exterior, whether fibre is available in the community at the time or not. Each building **shall** contain Wi-Fi network with separate service set identifiers (SSIDs) for business and resident use with a minimum download speed of 35 Mbps and minimum upload speed of 20 Mbps. All associated infrastructure to support the network in all resident rooms and for virtual care **shall** be provided.
- 47. Public address systems in resident areas **should** be avoided.

# IX. Fire safety

48. Fire alarm systems shall include audio and visual signaling devices.

# X. Emergency power

- 49. Emergency power is required to allow for safe evacuation of all residents in a Continuing Care Home in case of emergency in conformance to all applicable codes, standards, and best practices. In addition, the design team **may** consider an emergency generator for other circumstances, such as remote locations.
- 50. The Continuing Care Home **shall** have infrastructure to support the connection of an emergency generator capable of backup support for the heating plant, kitchen, elevators, fire alarm, lighting, communication systems, and medical equipment such as resident respirator dependencies. Refer to the NBC-AE and the Authority Having Jurisdiction to determine if the building requires a generator installed.

# XI. Heating, Ventilation and Air Conditioning (HVAC) systems

- 51. The HVAC systems contribute to a healthy indoor environment by suitable control of temperature, relative humidity, ventilation rate, air movement, noise level, and indoor air quality.
- 52. The HVAC design **shall** meet applicable Class B Type II facility requirements of CSA Z317.2 "Special Requirements for Heating, Ventilation and Air Conditioning (HVAC) Systems in Health Care Facilities", and applicable Continuing Care Home design requirements of the TDR for Alberta Infrastructure Facilities.

## XII. Plumbing systems

- 53. Design of plumbing systems **shall** comply with the National Plumbing Code and **should** meet applicable Class B facility requirements of CSA Z317.1 "Special requirements for Plumbing Installations in Health Care Facilities".
- 54. Provide mixing valves compliant with the applicable American Society of Mechanical Engineers (ASME) Standard to prevent thermal shock and scalding where required. Refer to Alberta Infrastructure's TDR Mechanical section.

# **Section G: Definitions**

"Alberta Health Services" or "AHS" means the regional health authority created pursuant to the Regional Health Authorities Act of Alberta.

"Continuing Care Homes" for the purpose of this document is inclusive of Supportive Living, Designated Supportive Living, and Long-Term Care accommodations.

"Designated Supportive Living" or "DSL" means licensed supportive living settings where AHS controls access to a specific number of spaces according to an agreement between the operator and AHS for the provision of publicly-funded continuing care health services. Case management, Registered Nursing, rehabilitation therapy, and other services are provided on-site. Accommodation services in DSL must meet the requirements of the <a href="Supportive Living Accommodation Standards">Supportive Living Accommodation Standards</a> and be provided at or below the Established Accommodation Charge. Publicly-funded Continuing Care health services must be provided in accordance with the <a href="Continuing Care Health Service Standards">Continuing Care Health Service Standards</a> and any other relevant legislation or standards. DSL settings are a community-based living option where 24-hour on-site (scheduled and unscheduled) personal care and support services are provided by Health Care Aides. In some DSL settings, personal care and support services are provided by 24-hour on-site Licensed Practical Nurses and Health Care Aides.

"Functional Program" means a multi-purpose document that describes, in detail, the proposed services to be addressed in a capital project, specifying human, technical, and building resources necessary to function as intended. Overall, the functional program documents the scope of services, objectives, and basic operational description of each component to be addressed in a capital project, workload and staffing of the components, together with an estimate and description of the facility resources (space) required to support them. It provides a comprehensive understanding of the activities and the functional needs of each component, and the relationships between the components which must be accommodated within the capital project, as well as the relation of the capital project components to the broader systems external to it.

"Interdisciplinary Team" means a group comprised of health care providers, the resident or the resident's legal representative, if applicable, and other individuals of the resident's choosing, who meet for the purposes of planning, coordinating, and delivering health care services and supports to the resident. The health care providers on the interdisciplinary team are determined by the resident's assessed health care needs.

"Long-Term Care" or "LTC" is a purpose-built congregate care option for individuals with complex, unpredictable medical needs who require 24-hour on-site Registered Nurse assessment and/or care. In addition, professional services may be provided by Licensed Practical Nurses and therapists while 24-hour on-site unscheduled and scheduled personal care and support is provided by Health Care Aides. Case management, Registered Nursing, rehabilitation therapy, and other services are provided on-site. LTC facilities include nursing homes under the <u>Nursing Homes Act</u> and auxiliary hospitals under the <u>Hospitals Act</u>. Accommodation services in LTC must meet the requirements of the <u>Long-Term Care Accommodation Standards</u> and be provided at or below the Established Accommodation Charge. Publicly-funded Continuing Care health services must be provided in accordance with the <u>Continuing Care Health Service Standards</u> and any other relevant legislation or standards.

"Operator" means a person who operates a Supportive Living accommodation and/or a LTC home.

"Small Care Home" means a self-contained, home-like setting where care and daily living activities are offered to and/ or undertaken by residents living in a building configuration housing from 4 to a maximum of 14 residents. A home is clearly defined, possessing features commonly found in a family house (e.g., bedrooms, bathrooms, bathring areas, dining room, living room, activity rooms, support areas, laundry room, utility room, and storage spaces) and convenient access to the outdoors.

"Supportive Living" means licensed facilities (under the <u>Supportive Living Accommodation Licensing Act</u>) where services are delivered in a home-like setting for four or more adults needing some support but without multiple complex or unscheduled health needs. Supportive Living includes a variety of facilities such as lodges, seniors' residences, group homes, and DSL. It promotes residents' independence and aging in place through the provision of services such as 24-hour monitoring, emergency response, security, meals, housekeeping, and life-enrichment activities. Building features include private space and a safe, secure, and barrier-free environment. Publicly funded personal care and health services are provided to Supportive Living residents based on their assessed unmet needs. Individuals living in Supportive Living may receive publicly funded continuing care health services through home care in accordance with the <u>Continuing Care Health Service Standards</u> and any other relevant legislation or standards. Individuals may also obtain privately-funded services.

# References

The following documents were referenced in the development of these standards and best practices. Note, IPC references are included in Appendix 3.

- Alberta Safety Codes Council (2017). Barrier Free Design Guide, 5th edition. https://open.alberta.ca/publications/barrier-free-design-guide-fifth-edition.
- American National Standards Institute (2020). ANSI/IES RP 28-20 Recommended Practice: Lighting and the Visual Environment for Older Adults and the Visually Impaired; Illuminating Engineering Society.
- Auditor General of Alberta (February 2023). COVID-19 in Continuing Care Facilities. https://www.oag.ab.ca/reports/oag-covid-19-cont-care-facilities-feb2023/.
- Canadian Standards Association (2018). CSA Z8000-18 Canadian Health Care Facilities.
- Canadian Standards Association (2017). CSA Z317.14-17 Wayfinding for Health Care Facilities.
- Facilities Guidelines Institute (2022). Guidelines for design and construction of residential health, care and support facilities. Chicago IL.: American Society for Health Care Engineering of the American Hospital Association.
- MNP LLP (May 31, 2021). Improving Quality of Life for Residents in Facility-based continuing care: Alberta Facility-based continuing care review recommendations: Final report April 30, 2021. Prepared for Alberta Department of Health.
   https://open.alberta.ca/publications/improving-quality-life-residents-facility-based-continuing-care-review-recommendations.
- Canadian Standards Association. B651:23. Accessible design for the built environment. 2023.

# **Appendix 1: Guidelines for specialty populations**

# Appendix 1: Special resident guidelines

This section addresses the unique and special requirements for:

- 1.1 Residents with Obesity
- 1.2 Residents with Dementia and Related Needs
- 1.3 Residents requiring Complex Care

This Appendix is not comprehensive and does not capture all the different types of specialty populations that may have unique home design needs. When designing homes for any specialty population, it is expected the needs and preferences of the residents will be at the forefront of the design choices and the designers will make use of the appropriate resources and design expertise that are applicable to the proposed resident population.

Note: Throughout this section, "shall" indicates required design features and "should" indicates preferred design features that are best practices, though not required.

# 1.1 Residents with obesity

Considerations must be made for the growing population of severely obese and bariatric individuals in Alberta.

#### **Definition**

In general, bariatric individuals can be described by any of the following:

- overweight by greater than 100-200 lbs;
- a body weight greater than 300 lbs;
- and/or a BMI greater than 40. [AB Barrier-Free Design Guide, 2017]

Individuals with obesity can vary in stature, width, and weight. The weight of bariatric individuals generally ranges up to 454 kg (1000 lbs), though there may be individuals that exceed 454 kg (1000 lbs). The design of the home should consider that significant variations can exist in the type, range, and number of individuals with obesity who will use all or specific parts of their home. [CSA Z8000-18: 7.8.8.1.1 (2)]

- Average resident with obesity: 150 kg (330 lbs)
- Design target: 363 kg (800 lbs)
- Design drop weight (impact factor 1.4): 508 kg (1120 lbs)

#### **Design Objective**

Rooms for residents with obesity should be larger than regular resident rooms, but not so large as to give the perception of being overly modified. The decision to collocate rooms for residents with obesity in one house, or locate them in several houses, will be determined during functional programming.

The Continuing Care Home should not assume a universal approach to the provision of bariatric needs in the home. The purpose-built features that accommodate residents with obesity could be difficult for other populations to use (e.g., the frail elderly might not be able to easily use a bariatric toilet or open wide/heavy doors). [CSA Z8000-18: 7.8.8.1.1 (4)]

The following guidelines are in addition to the features for resident safety, comfort, independence, and infection prevention and control, described in the main body of this document.

## **Design Standards and Best Practices**

One bariatric resident room **shall** be designed for every 50 resident rooms contained within the Project proposal, unless otherwise specified.

## **Resident Rooms**

- 1. Rooms for residents with obesity **should** have 1 + ½ wide style doors, with the extra leaf operable and manageable by the resident. A door width of 1220 mm, in addition to a 305 mm side leaf, should be used. This allows staff to transfer residents in stretchers or beds. [CSA Z8000-18: 7.8.8.1.3]
- 2. A minimum 1800 mm (71 in) turning radius should be provided. [CSA Z8000-18: Table 11.1, 25b (e)]
- 3. Clear space of at least 1500 mm (59 in) shall be provided on three sides of the bed. [CSA Z8000-18: Table 11.1, 24b (d)]
- 4. Where lifts are used, additional clearance is needed to accommodate use of the lift and an expanded-capacity wheelchair, as well as space for staff to help a person with obesity transfer from bed to wheelchair. Mobile lifts require more floor space than overhead lifts to accommodate the lift footprint. [FGI 2018 Residential Facility Guidelines, 3.1-2.2.2 b]
- 5. The ceiling in a bariatric suite **should** be high enough and structurally capable of supporting a ceiling lift and floor to ceiling transfer poles if required by the resident.
- 6. Floor-mounted rails, placed strategically from bed to toilet, **should** be considered as they facilitate increased independence with toileting.
- 7. The amount and design of space **should** consider the need for oversized furniture and storage of oversized equipment, as well as additional space to allow for care by multiple caregivers when needed. [CSA Z8000-18: 7.8.8.2.1]
- 8. A fan with a resident-operated control **should** be provided. [CSA Z8000-18: Table 11.1 24b Advisory (d)]
- 9. Water and drain connections for a portable dialysis machine **should** be provided. [CSA Z8000-18: Table 11.1 24b Advisory (g)]

#### Washroom/Shower

- 1. The washroom door **shall** be a minimum of 1220 mm (48 in). [CSA Z8000-18: Table 25b, (o)]
- 2. Toilets should be floor-mounted. Wall-mounted toilets should not be used. [CSA Z8000-18: Table 11.1, 25b (j)]
- 3. The bariatric toilet **shall** be capable of supporting 453 kg (1000 lbs) [CSA Z8000-18: Table 11.1, 25b (g)]; toilet seats **should** be extra wide.

Note: Bariatric toilets are deeper and wider, and may have a higher seat height, making it difficult for the bariatric individual to use, especially if of shorter stature. [AB Barrier-Free Design Guide 2017, p.151]

- 4. Use a bariatric commode over a standard toilet, if not using a bariatric toilet. The seat height can be adjusted to fit the individual's needs. A floor-mounted toilet with an unattached flush tank is more flexible to use with various bariatric commodes. [AB Barrier-Free Design Guide 2017, p.151]
- 5. There **shall** be clear space on each side of toilet to accommodate a staff member on each side of the resident. A clear space **shall** be provided on one side of at least 1500 mm for transfer use. [CSA Z8000-18 Table 11.1 25b (i)]
- 6. A floor-mounted wheelchair accessible sink or surface-mounted wheelchair accessible sink with extra support rated for 453 kg (1000 lbs) **should** be provided. [CSA Z8000-18: Table 11.1, 25b (m)]
- 7. A turning radius of 1800 mm (71 in) is required for individuals with obesity using a wheelchair. [CSA Z8000-18: Table 11.1, 25b (e)]
- 8. Walls **should** have extra reinforcing to allow for mounting grab bars in multiple locations around the toilet and shower area.
- 9. Toilets **shall** have two drop-down grab bars. Bariatric grab bars shall be able to withstand 454 kg (1000 lbs) of downward force and shall meet accessibility standards. [CSA Z8000-18: Table 11.1, 25b (k)]
- 10. The length of rear wall grab bars should be 1120 mm (44 in). [FGI 2018 Residential Facility Guidelines: 2-4.2.2.9.3]
- 11. The toilet tissue dispenser **should** be mounted sufficiently to allow ease of access and not interfere with grab bar use.
- 12. Avoid enclosing walls to allow for ease of access and assistance by caregivers if needed.
- 13. The shower area **shall** be open to the toilet area and have a minimum dimension of 1500 mm x 1800 mm (59 in x 71 in) is recommended. [CSA Z8000-18: Table 11.1, 25b (I)] Shower controls should be mounted on the side wall of the shower.
- 14. The resident assisted bathing room **should** have a tub that can accommodate a resident with obesity and allows easy access for staff to provide bathing assistance.

## Doorways/Corridors/Elevators

- A bariatric path of travel for the public **shall** be provided from the building entry(s) to all rooms and spaces used by residents
  with obesity. Within that path of travel, doors (including elevators) **shall** have a minimum width of 1118 mm (44 in). A larger
  door width can be accomplished by use of unequal-leaf swing doors. Other ways to maximize door clearance include the
  use of folding doors and off-set hinges.
- 2. In locations adjacent to bariatric rooms where there could be a need for frequent transfers of residents with obesity, corridors and spaces **should** allow a minimum clearance of 1800 mm (71 in). [CSA Z8000-18: 7.8.8.1.6]
- 3. Swing doors for residents with obesity **shall** have a clear floor area, beside the latch edge that extends the full height of the door, of 940 mm (37 in) on the pull side and 640 mm (25 in) on the push side. Sliding doors for residents with obesity shall have a clear floor area, beside the latch edge that extends the full height of the door, of 600 mm (24 in) on both sides of the door. [CSA Z8000-18: 7.8.8.1.4]
- 4. Corridors and hallways **should** be wider to accommodate larger girth and equipment.
- 5. Elevator door clearances **should** be as large as possible [minimum of 1200 mm (47.25)]. [CSA Z8000-18 7.8.8.1.2] The interior dimensions **should** allow for a larger turning radius of wheelchairs and the transportation of a stretcher with two caregivers (i.e., emergency services).

#### **Entrance and Ramps**

- 1. Ramps **should** have a minimum unobstructed width of 1220 mm (48 in) to allow for larger wheelchair widths and sufficient clearance space for individuals to propel their wheelchairs. [CSA Z8000-18]
- 2. A maximum gradient of 1 to 20 should be provided due to the increased weight of the individuals with obesity and the impact on self-propulsion and caregiver effort when pushing the wheelchair. [AB Barrier-Free Design Guide 2017, p. 153]
- 3. A minimum 1500 mm x 1500 mm (59 in x 59 in) level area should be provided where a ramp makes a 90° or 180° turn and at intermediate levels as required in longer ramps. [AB Barrier-Free Design Guide 2017, p. 153]
- 4. Curb cut outs and openings **should** be at least 1220 mm (48 in) wide to accommodate larger wheelchair widths. [CSA Z8000-18]
- 5. If the door swings open towards the wheelchair user, increasing the clear space on the latch side of door to a minimum 940 mm (37 in) [CSA Z8000-18: 7.8.8.1.4] **should** be considered, to allow for an increased turning radius of a larger wheelchair.
- 6. Load values for handrails **should** be increased to withstand the increased weight of individuals with obesity. Handrails **should** withstand a minimum of 454 kg (1000 lbs) applied at any point and in any direction and a minimum uniform load of 340 kg (750 lbs) applied in any direction to handrails located outside of houses. [AB Barrier-Free Design Guide 2017, p. 153]

#### **Furniture**

- 1. Bariatric furniture rated to 454 kg (1000 lbs) **should** be available for use by residents and visitors with obesity in common areas throughout the home (i.e., dining room, lounge areas, etc.).
- 2. Bariatric furniture **should** be selected to mix well with the look and design of standard furniture and **should** offer choice between chairs with armrests, chairs without armrests, and loveseats.

### 1.2 Residents with dementia and related needs

Designing buildings that support people with cognitive impairment empowers them to live through the progression of the stages of dementia with an enhanced level of comfort and dignity. Comfortable, unobtrusive, person-centered, and homelike design have all been shown to contribute improved quality of life for persons with dementia and other forms of cognitive impairment.

While the design objective and the design guidelines outlined below may be beneficial for all residents within a home, they have particular importance for residents with dementia and other forms of cognitive impairment.

#### **Design Objective**

It is essential the overall character of the space is as residential and homelike as possible. Living in a homelike environment increases the probability residents will become familiar with their surroundings and interact with others in a meaningful way to maintain their independence and abilities. Residential design also fosters an engaging environment for staff to comfortably connect with residents and build relationships.

The overall scale of the space should be functional and flexible in its use and in scale and proportion to rooms found in a large family home. The home incorporates a mixture of larger congregate activity spaces and smaller spaces that accommodate small group interactions and calming environments for sensory reduction. Emphasis is placed on creating a 'family-like' environment which supports small group interactions.

The design also reduces resident confusion and orients them to the time of day through optimal natural light, and to their surroundings through a simple and understandable design and the presence of familiar rooms/activities.

## **Design Standards and Best Practices**

#### **Sensory Changes**

Sensory changes are common in the elderly and persons with dementia are particularly sensitive to these changes. The following outlines design strategies for accommodating sensory changes and enhancing the ability of residents to interpret their surrounding environment.

#### **Vision**

- Steps **should** be taken to ensure that lighting is not overly bright (creating glare) or overly dim (creating shadows). Aging
  eyes need increased light and have a reduced capacity to discern between varying levels of light intensity. Natural or flickerfree light **should** be utilized wherever possible. Sconces which produce various lighting patterns are not desirable in areas
  used by residents with dementia.
- 2. Changes in flooring elevation, or perceived changes in flooring elevation caused by colour extremes or patterns, can result in falls. Boldly patterned flooring or bright/shiny flooring **should** be avoided. Residents with dementia will often avoid walking in rooms with visually confusing flooring, which quickly leads to a reduction in mobility. [CSA Z8000-18: 8.9.3.1.2]
- 3. The reduced ability to perceive slight differences in lighting, shade, and hue experienced by residents with dementia require an increased emphasis on contrasting colours to assist residents in discerning walls from floors, door handles from doors, toilets from bathroom walls and floors, etc. Contrasting colours utilized in toilet seats, door handles, handrails, and other architectural features often assist residents to accurately identify those elements. [CSA Z8000-18: 8.9.3.1.5]
- 4. In buildings where resident elopement is problematic, non-contrasting architectural elements assist in reducing the likelihood of elopement. Exits can be disguised with design features that make the fixture/exit invisible to the resident.
- 5. All furnishings, wall colours, flooring, and window coverings **should** be chosen from colours in warm, mid-range colours. Beiges, peaches, pale pinks, and light blues are perceived as white and indistinguishable. Harsher dark colours such as navy, dark brown, and shades of black are all seen as black. Warm mid-range colours are comforting and discernible. Some research indicates red and yellow are the "best perceived" colours.
- 6. Mirrors, shiny appliances, and excessive use of glass **should** be avoided. Shimmery surfaces produce glare which impedes visibility. For some persons living with dementia, mirrors may cause confusion. Accordingly, mirrors **should** have the capacity to be covered or removed.

#### **Auditory**

- 7. Furnishings **should** be chosen to assist in the reduction of excessive noise. Fabrics, window coverings, and floor finishes **should** be selected from those that absorb noise rather than amplify it. Hearing in the elderly tends to diminish and ordinary sounds may cause confusion when too many sounds are presented together. Efforts **should** be made to dampen extraneous noise to assist residents in processing auditory information.
- 8. The use of overhead paging systems **should** be avoided.
- 9. Music and television **should** be used selectively in common areas.
- 10. Equipment and carts **should** utilize rubber tires.

#### **Tactile**

11. The sense of touch diminishes with age. This requires more contrast in textures that are meant to orient the resident to their surroundings.

#### **Orientation and Familiarity**

- 1. Resident bedroom design **should** respect the individuality of each resident. Residents and families **should** be encouraged to personalize the resident's room, as much as possible. Familiar surroundings assist in orientating residents to their living environment. For example, personal items such as a favourite ornament or personal photos may be displayed in a small curio window outside each resident's bedroom to assist in orienting the resident to their own space.
- 2. Enlarged photos of residents at meaningful times in their lives (weddings, graduations, births, working) may also be a source of personal comfort to the residents.
- 3. Built in shelving units, hutches, or desks **should** be considered for displaying interesting collections of objects within residents' reach. Rummaging through collections of fragrant, textured, or visually attractive objects provides opportunity for reminiscence and meaningful conversation.
- 4. A continuous looping corridor is not always a successful wandering path. Residents with some forms of cognitive impairment are often walking with a purpose. In these cases, a loop could reinforce the frustration of not reaching that purpose and promote continuous wandering. The provision of landmarks/focal points along the route can provide different views to enhance the wandering experience and provide positive stimulation to the resident. [CSA Z8000-18: 8.9.2.3.6]

## Safety

- The design **should** create support spaces that are invisible to residents to ensure residents do not access them and put
  themselves at risk. For example, doors into support rooms **should** have the same colour as the surrounding walls. The
  design **should** also allow for optimal visibility by staff into several congregate resident spaces to ensure optimal safety
  without compromising privacy.
- 2. Residents with dementia **should** be housed on the ground level to enable ease of emergency evacuation and emergency access.

#### **Outdoor Spaces**

- Residents **should** be allowed unrestricted access to the outdoors independently. There **should** be shaded areas protected
  from the elements and secured areas. Enclosed gardens can provide stimulation as well as an additional distraction when
  behaviors escalate. The space **should** be inviting and representative of a residential garden, but not overly large like a public
  park.
- 2. A variety of flower beds and gardens, both ground level and elevated **should** be considered. Natural plants allow both sensory stimulation as well as endless opportunity for meaningful engagement in activities enjoyed by most residents. Lists of toxic and non-toxic plants **should** be consulted when designing an outdoor space.

- 3. Outdoor spaces **should** provide opportunities for residents to engage in/observe familiar everyday activities. For example, the area **may** include:
  - a clothesline to hang laundry.
  - comfortable seating (i.e., does not absorb heat).
  - a bird bath to observe birds.
  - an area to pile firewood/logs, etc.
  - shaded areas.
  - circuitous pathways.
- 4. Fences **should** be attractive and natural. Trees, shrubs, and climbing or flowering vines will disguise fences reducing the enticement to explore elsewhere. Chain-link or plexi-glass fences are an invitation for elopement as occurrences in the distance can attract the resident's attention.
- 5. Several seating options **should** be available, scattered along a continuous walking path, to encourage purposeful wandering. Walking surfaces **should** be smooth to avoid tripping or stumbling hazards.
- 6. Areas of indirect sunlight **shall** be readily available. The use of gazebos, trellises, canopies, or umbrellas will allow residents to enjoy the outdoors without the glare of direct sunlight. A "back porch" environment is the goal.
- 7. Gates **should** be avoided and if required they **should** blend into the overall fence to be invisible to residents.
- 8. Interesting objects/features **should** be created within the centre of the space to draw attention away from the periphery.

#### **Wayfinding and Signage**

- 1. Major characteristics of persons with Alzheimer's and other dementia are a lack of attention span and an inability to orient themselves in the physical environment. To address this, the physical environment **should** provide discernible landmarks and wayfinding cues and information to aid in navigation from point to point. [FGI 2018 Residential Care Facilities: A2.4-2.2.12.3 (I)]
- 2. Consideration should be given to provision of the following wayfinding elements in dementia units:
  - Landmarks: Design elements can provide clear reference points in the environment (e.g., a large three-dimensional object, outdoor view, large picture, or other wall-mounted artifact).
  - Signs: where appropriate, large characters and redundant word-picture combinations **should** be used on signs. [FGI 2018 Residential Care Facilities: A2.4-2.2.12.3 (I)]
- 3. Residents with dementia require colour to be associated with a symbol to be recognizable. They will not automatically associate colour alone with a specific meaning. [FGI 2018 Residential Care Facilities: A2.4-2.2.12.3 (I)]
- 4. Colour may be used to distract attention from spaces. For example, mechanical doors and door frames that match the finish of the surrounding walls are less likely to draw a resident's attention to the mechanical room. [FGI 2018 Residential Care Facilities: A2.4-2.2.12.3 (I)]
- 5. The wayfinding plan **shall** include redundancy and an overlap of elements to assist people with different cognitive strengths. Generic pictograms can be used for pathways and spaces that are for resident common areas such as lounges and dining rooms. [FGI 2018 Residential Care Facilities: Annex C]

6. Meaningful methods of wayfinding (rather than the written word) through illustrations or objects **should** be considered. For example, large comfy guilts on sofas to encourage gathering in a congregate activity area, a photo of a toilet on a shared bathroom, or large plants near the doors to the garden may be more helpful in orientating the residents.

#### Resources

The Eden Alternative - http://www.edenalt.org/

Supportive Pathways - <a href="http://carewest.ca/dementia-care-training/">http://carewest.ca/dementia-care-training/</a>

# 1.3 Residents requiring complex care

#### **Definition**

Complex care can be used to describe several populations with overlapping health needs. Complex care may be generally defined as a program of services provided by a team of health care professionals to persons who have chronic, complex medical conditions requiring specialized care (e.g., chronic ventilator/respiratory respite/respiratory end-of-life programs, brain injury with severe and unpredictable behaviours, etc.). [CSA Z8000-18: 8.8.1.1.1]

## **Design Objective**

The first step in designing a physical environment is to take the time to understand the needs and preferences of the resident population that will be living in the home. It is also important to assess and minimize risk by understanding the risk of resident self-harm in the setting, as well as risk of harm to staff.

Design of the home must also be as residential and homelike as possible, as many residents will live in the home for years.

#### **Design Standards and Best Practices**

- 1. The built environment **shall** be designed to maximize the dignity of residents while facilitating appropriate levels and models of professional care culminating in the establishment of a therapeutic, supported, and residential-style environment. [CSA Z8000-18: 8.8.2.1.1]
- 2. The home **shall** be designed to facilitate independence-oriented care, focusing on health and welfare maintenance, rehabilitation, and the achievement of an optimized lifestyle. [CSA Z8000-18: 8.8.2.1.2]
- 3. Note: While some complex care facilities that provide treatment can be similar to hospitals in their spatial layout, they will have additional design requirements due to the specialized services they need to provide. [CSA Z8000:18: 8.8.4 Note]

#### **Resident Room**

- The bed area for a resident requiring ventilation care is 18.2-20.7 m2.
- The bed area for a resident with a brain injury is 20.7 m2.

[CSA Z8000-18: Table 8.8, 1]

#### Washroom

- 1. A larger washroom may be provided to accommodate a 1.8 m turning radius for larger, more complex chairs to be provided to patients. Assume 6.5 m2 for a three-piece washroom if the larger turning radius is required.
- 2. An alternative washroom configuration in lieu of the three-piece washroom with shower stall **may** be planned. Washroom options and sizes without a 1.8 m turning radius **should** be:
  - 3-piece washroom traditional (sink, toilet, and tub with shower) 7.0 m2;
  - 3-piece washroom with hand-held wand 4.6 m2; and
  - 2-piece washroom 4.6 m2.
- 3. Toilets **shall** have access on two-sides to enable staff to assist the resident.

#### **Fixtures and Furniture**

- 1. Fixture selection **shall** consider safety and avoid fixtures that can be used as weapons or for self-harm.
- 2. Fixture selection should consider fixtures and furnishings that resist damage and are easily replaced and repaired.

#### General

- 1. Indoor and outdoor common areas that encourage social interaction, facilitate staff observation, and have a mix of flexible seating arrangements **shall** be provided.
- 2. Home design **shall** maximize use of natural light and views of nature.
- 3. Design of home and selection of materials **should** seek to minimize noise to support residents who are sensitive to stimuli.
- 4. Design **should** consider if a staff respite space is needed.

#### Resources

Design Guide for the Built Environment of Behavioral Health Facilities, Facility Guidelines Institute - <a href="https://www.fgiguidelines.org/wp-content/uploads/2017/03/DesignGuideBH\_7.2\_1703.pdf">https://www.fgiguidelines.org/wp-content/uploads/2017/03/DesignGuideBH\_7.2\_1703.pdf</a>

Note: the earlier section in this document on "Residents with Dementia and Related Needs" provides design strategies that are likely relevant to many populations requiring complex care.

### References

Alberta Safety Codes Council. Barrier-Free Design Guide. 2017. <a href="https://open.alberta.ca/publications/barrier-free-design-guide-fifth-edition">https://open.alberta.ca/publications/barrier-free-design-guide-fifth-edition</a>.

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Facility Guidelines Institute. Guidelines for Design and Construction of Residential Health, Care, and Support Facilities. Chicago, IL: American Society for Health Care Engineering of the American Hospital Association; 2018.

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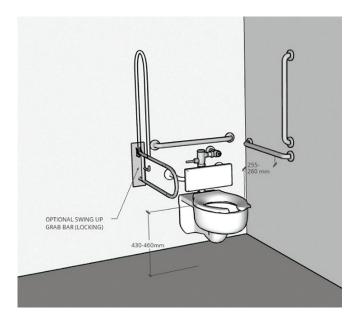
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Ulrich, R. S., Bogren, L., & Lundin, S. (2012). Towards a design theory for reducing aggression in psychiatric facilities. ARCH 12: Architecture/Research/Care/Health, 14.

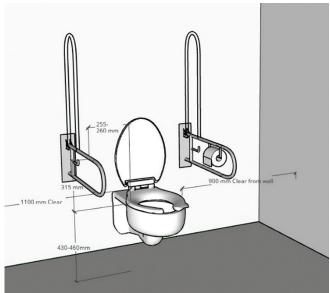
## **Appendix 2: Grab bars**

## Appendix 2: Grab bars

#### 2.1 Grab Bars for Toilets







Preferred Grab Bars for Seniors (& 2 person assist)

Permanent grab bars at toilets are designed for the stability and safety of persons who can independently transfer to and from the toilet. The rear horizontal grab bar and the L-shaped grab bar on the side wall can accommodate push/pull stresses.

Swing-up/flip-up grab bars on each side of the toilet work best for individuals who may require assistance with sitting and standing. The up/down motion is suited for persons providing the necessary assistance.

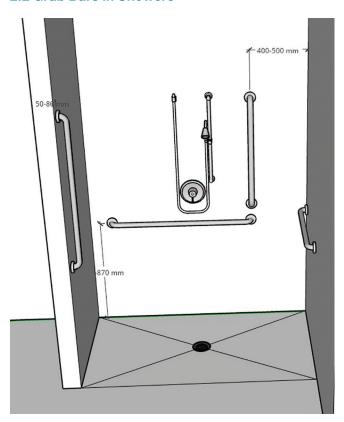
The NBC-AE requires the installation height of the adjacent grab bars (permanent or swing-up) to be measured from the surface of the toilet seat to the centerline of the grab bar. This vertical distance **should** be 315 mm (=/-15 mm). The horizontal distance to each swing-up grab bar should be measured from the edge of the toilet to the centerline of the grab bar. This distance **should** be 255-60 mm.

Note: Persons who use wheelchairs or other mobility devices may find swing-up grab bars unstable, and, therefore, unsafe. Ensure they can lock into position. If residents prefer and/or can independently transfer, or it is more appropriate for safety reasons, a floor mounted grab bar that extends to the back wall (inverted L) on one side of the toilet, is preferred.

Note: Height of toilet needs to comply with barrier-free requirements. Seniors prefer seat height to be at the higher end of the range (430-460 mm).

## **Appendix 2: Grab bars**

#### 2.2 Grab Bars in Showers



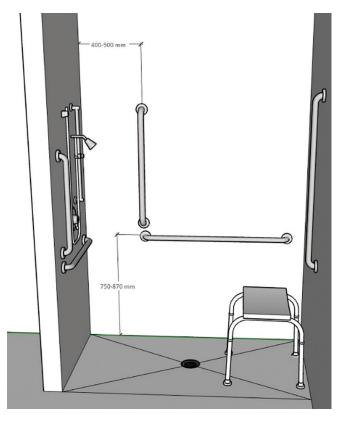


Image shows existing standard for persons in wheelchairs. CSA B651-23 Accessible Design for the Built Environment, 6.5.5 Roll-in shower stalls.

Preferred Grab Bars for Seniors.

### **Grab bars**

Grab bars are designed for the stability and safety of all persons. The Alberta Building Code requires at least two (2) grab bars in every accessible shower:

- 1. At least one (1) vertical grab bar **should** be placed at the front of the shower to assist with stability; the positioning may be dependent on the configuration and size of the shower and/or the designated use of the shower.
- 2. An L-shaped grab bar is also required on the back wall of every accessible shower.

Individuals who prefer to stand during a shower may benefit from the vertical part of the L-shaped grab bar on the back wall to be located nearest the controls and showerhead for safety. Seniors that stand prefer the horizontal part of the L-shaped grab bar to be mounted at the higher end of the range (750-870 mm. aff.) The NBC-AE does not require a horizontal grab bar to be placed below the controls or at the same height of the other horizontal grab bar for continuity, but it is strongly recommended for additional safety.

## **Shower head & controls**

Roll-in showers have the shower head and controls located on the wall opposite the entrance or on the long wall for ease of access and the safety of the independent user.

For residents who may require assistance with showering, it is recommended that the shower head and controls be on the short wall. This minimizes the risk of the assistant being soaked or slipping on a wet shower floor while reaching the controls at the back of the shower.

Note: NBC-AE Subclause 3.8.3.16.(1)(h)(ii) says shower controls **should** be mounted on the wall opposite the entrance to the shower. If the preference is for controls to be on the short wall, ensure you contact Alberta Municipal Affairs to request a change or relaxation from this requirement.

# **Appendix 3: Infection prevention and control requirements**

#### Overview

#### Introduction

These requirements were developed to establish safe environments for residents and staff by reducing the risk of transmission of infections in Continuing Care Homes in Alberta. It is to be used to determine Infection Prevention and Control (IPC) requirements when planning and designing new health care facilities, performing construction and renovations, or functionally changing existing spaces. Links to the Infection Control Risk Assessment (ICRA) and a Preventive Measures toolkit are included in this guideline. They provide standardized tools for establishing levels of risk and the preventive measures required to mitigate these risks during construction, renovation and maintenance activities. See Section II. General design guidelines.

The application of this guideline **shall** take into consideration the level of care and risk to resident populations.

In addition to IPC considerations, other pertinent guidelines, standards and codes shall be included in design, construction and renovation projects. If there is a discrepancy between this document and the CSA Standards, applicable federal, provincial and municipal building codes and regulatory requirements will apply. [CSA: 5.1.1.5]<sup>1</sup>

#### **Reference Citations**

Clauses are directly referenced to a specific standard, guideline or other reference. Each reference is cited in brackets at the end of the clause. When further clarification is required refer to the specific standard identified.

Using the example [CSA: 4.5.1.2]1:

- The first letters, CSA, are the reference source.
- Numbers following the reference source: 4.5.1.2, indicate the exact clause found in the reference document and.
- Number(s) in superscript after the last bracket,]¹ match the numbers found in the Reference List at the end of this guideline and correspond to a specific reference document (e.g., Canadian Standards Association, CSA Z8000-18).

#### Language

In this document "**shall**" is used to express a requirement; "**should**" is used to express a recommendation or that which is advised but not required; "**may**" is used to express an option or that which is permissible within the limits of the guidelines. [CSA: 1.3]¹ When further explanation is required for terms such as, but not limited to, "sufficient", "accessible", "appropriate" or "adequate" etc. consult the specific standard referenced.

#### **Exceptions**

Where an exception to a guideline is perceived to be required (e.g., constraints of an existing footprint or based on engineering or architectural reports) the process **shall** be dependent on the order of magnitude.

Minor deviations from the guidelines can be managed through informal consultation with IPC.

**Major deviations** from the guidelines require consultation between relevant stakeholders and IPC to seek an acceptable compromise. Where compromise cannot be achieved, a risk assessment **shall** be used to form a final decision.

For further clarification to the exception guidelines see Section 5, Alberta Health Services (AHS) <u>Infection Prevention and Control</u> Health Care Facility Design Guidelines, October 2021.

## **Design guidelines**

## I. Hand Hygiene

Proper hand hygiene is the single most important practice to prevent the transmission of microorganisms in seniors care facilities. To ensure compliance with hand hygiene protocols, there **shall** be sufficient hand hygiene stations that are conveniently located, functioning and accessible as close as possible to the point of care for all health care personnel and others.

**Alcohol Based Hand Rub (ABHR) Hand Hygiene Station**: A location that is equipped with a waterless (e.g., alcohol-based) hand sanitizer dispenser.

**Hand Hygiene Sink** [CSA 3.1]<sup>1</sup>: A sink that is designed for effective and efficient cleaning of the hands while restricting splashes and the spread of aerosols, and that is dedicated exclusively for the purposes of hand hygiene.

Hand Washing Station: Includes a Hand Hygiene Sink, soap dispenser, paper towel dispenser and waste receptacle.

#### General

- 1. AHS Hand Hygiene Policy states that hand hygiene **shall** be performed either through the use of ABHR or with soap and water at a Hand Hygiene Sink. Provision **shall** be made to allow the use of both. [AHS, Hand hygiene policy and procedure. 2021]<sup>15</sup>
- 2. ABHR products and/or Hand Hygiene Sinks shall be available as close as possible to the point of care.
- 3. The number and placement of both ABHR dispensers and Hand Hygiene Sinks **shall** be determined by a workflow pattern and risk assessment.

Note: A risk assessment **shall** be done to guide placement of ABHR where access to ABHR constitutes a resident and/or visitor safety risk (e.g., residents who do not have the mental capacity to realize the negative effects of product ingestion or misuse of any kind).

## Alcohol-Based Hand Rub (ABHR) Hand Hygiene Stations

- 4. ABHR **shall** be placed in accordance with provincial and local restrictions/guidelines. [National Fire Code 2019 Alberta Edition]<sup>9</sup>
- 5. ABHR **shall** not be placed at or adjacent to Hand Hygiene Sinks.
- 6. ABHR dispensers **shall** not protrude in a way that could cause injures.
- 7. ABHR dispensers **shall** not leak on surfaces that could cause falls or other injuries.
- 8. ABHR **shall** be dispensed in a non-refillable dispenser (i.e. not refilled from a bulk container).
- 9. ABHR Hand Hygiene Stations shall be provided in each of the following locations: [CSA:7.5.12.3.1]
  - At all entrances and exits to the Continuing Care Home and each resident household. ABHR Hand Hygiene Stations **shall** be placed at the entrance(s) to the facility and each resident household, in a prominent location within the traffic flow, so that visitors and staff stop, take notice, and use them. If wall-mounted hand hygiene stations are used they **shall** be placed at the entrance to health facilities alongside the traffic flow.

- Outside the entrance to resident rooms (for hand hygiene upon entering and leaving the resident's environment).
  - · ABHR must be accessible in hallways unless contraindicated by the risk assessment; this facilitates situations in which care is given in hallways and allows visitors to easily access ABHR.
- Inside the resident room (for hand hygiene before and after providing direct care) in all situations except where resident safety could be put at risk.
  - · ABHR must be accessible without having to leave the room where care or resident contact is taking place.
  - · A risk assessment **should** be done to guide placement of ABHR for residents who do not have the mental capacity to realize the negative effects of ingestion or misuse of any kind.
- Immediately adjacent to the entrances of common areas (e.g., dining room, lounge).
- Public and staff eating areas.
- Common use areas.
- Fitness/wellness areas/rooms.

Please refer to Alcohol Based Hand Rub Recommendations for additional resources.

## **Hand Hygiene Sinks**

- 10. For selection of sinks and fixtures refer to Recommendations for Hand Hygiene Sink Requirements.
- 11. Hand Hygiene Sinks **shall** not be used for equipment cleaning or the disposal of waste fluids (e.g., blood and body fluids, IV fluids). [CSA: 7.5.12.1.3]<sup>1</sup>
- 12. All sink drains **shall** be equipped with P-traps with clean-outs so that sewage will not be spilled when maintenance is performed. [CSA: 8.4.1.1]<sup>7</sup>
- 13. Hand Hygiene Sinks **shall** be installed at least 1 m (3 ft) from sources of extrinsic contamination such as clinical rim flushing sinks or hoppers. If the existing footprint does not allow a 1 m (39 in.) distance, a splash barrier **shall** be used.
- 14. Sink placement **shall** provide convenient access to a wall-mounted non-refillable soap dispenser; a refillable no-touch paper towel dispenser (i.e., only the towel is touched during removal for use) and a receptacle for soiled paper towel disposal.
- 15. Hand soap **shall** be dispensed from a non-refillable soap dispenser (i.e., not refilled from a bulk container). [CSA: Table 11.1, 19 (g) (ii)]<sup>1</sup>

## **Hand Washing Stations**

A Hand Washing Station includes a Hand Hygiene Sink, soap dispenser, paper towel dispenser and waste receptacle.

- 16. Hand Washing Stations **shall** be located: [CSA: 7.5.12.2.1]<sup>1</sup>
- Inside each resident room, adjacent to the entrance based on program requirements [CSA: Table 8.9, 7]. *Note: A dedicated Hand Hygiene Sink in each resident room is considered best practice.*

Before considering any exception to this requirement, a risk assessment **shall** be completed to determine if the dedicated Hand Hygiene Sink in the resident room is not required or if alternately located Hand Hygiene Sink are acceptable. The risk assessment **shall** consider the level of care provided to residents. [CSA: 8.9.3.2]<sup>1</sup>

In the absence of a dedicated Hand Hygiene Sink in the resident room, the sink in the resident's bathroom **may** be used. [FGI: 3.1-2.2.2.5]<sup>2</sup>

- · See Resident Bathroom Sinks section below.

  Note: These requirements are intended to provide a safe environment for residents and staff by providing a convenient Hand Hygiene Station in close proximity to the location of care. It is not implied that hand hygiene is less important in continuing care homes. [CSA: 8.9.3.2]<sup>1</sup>
- Inside each tub room. [CSA: Table 11.1,46 (a)]<sup>1</sup>
- In fitness/wellness rooms (including rooms where treatment is provided or procedures or physical exams are performed). [CSA: Table 11.1, 18 (h)]<sup>1</sup>
- In each room where medication is prepared.
- In any room in which food or resident care items (e.g., tray) are prepared. This includes but is not limited to clean utility rooms used for resident tray preparation, nourishment centres, rooms where tube feeding is prepared, etc.)
- In each soiled utility or holding room (in addition to sinks or hoppers that are used for contaminated materials).
- In housekeeping closets. [CSA: Table 11.1, 21 e (iii)]<sup>1</sup>
- In each room where un-bagged soiled linen is handled (e.g., central laundry room and resident laundry room).
- In areas where hands are likely to become contaminated, such as material goods receiving areas, chemical storage, waste disposal and housekeeping supply area.
- In hair salons [CSA: Table 8.9, 5 (d)]1

#### **Resident Bathroom Sinks**

- 17. The fixtures **should** be easy to clean, low maintenance, and constructed of materials that withstand cleaning with Continuing Care Home approved low level disinfectants.
- 18. When a Hand Hygiene Sink is not provided in the resident room and staff will be using the bathroom sink for hand hygiene:
  - A non-refillable soap dispenser and paper towel dispenser **shall** be provided.
  - The distance between the water discharge point of the faucet to where it touches the basin **shall** be at least 216 mm (8.5 in). [FGI 2.5-2.3.2.3 (1)]<sup>2</sup>
  - Water **shall** not fall from the faucet directly onto the drain. Flow shall be angled away from the drain. [CSA Z8000-18 Table 11.1 19 c) iii)]
  - Sufficient space **shall** be provided between the interior walls of the basin and water discharge point to ensure hand hygiene can be completed without making contact with sink walls.

Note: The above features decrease the risk of recontamination of hands by reducing the likelihood of splash back and eliminating contact between hands and the walls of the sink basin during hand hygiene.

#### **Countertops**

Note: countertop requirements are applicable to all sinks

- In areas where countertops are necessary, an integral or seamless (one piece) unit of sink, backsplash and counter **shall** be used. This will minimize the use of seams and/or caulking.
- Countertops shall be smooth, non-porous, seamless and impervious to moisture particularly around the sink.
- If sink basins are set into plastic laminate countertops the substrate (beneath the laminate) **should** be marine-grade plywood (or equivalent) with an impervious seal. [FGI A2.1-7.2.2.8]<sup>2</sup>
- If a cupboard or closure of the plumbing lines is required under a sink, it **shall** not be used for storage of clean/sterile supplies or equipment.

## II. General design guidelines

- 1. Continuing Care Homes **shall** be planned and designed to be safe for all building occupants. The planning and design process **shall** include participation with IPC. [CSA: 4.5.1.2]<sup>1</sup>
- 2. The IPC Risk Assessment and Preventative Measures Analysis **shall** be conducted as part of the planning process for any new construction, addition, or renovation. [CSA: 4.5.1.3]¹ (See <u>Infection Control Risk Assessment (ICRA) and Preventive Measures Toolkit for Construction, Renovation and Maintenance</u>).
- 3. An infection control risk assessment with consideration of the facility's resident population and programs **shall** be included during the planning phase of a project. Based on the risk assessment, the Continuing Care Homes **shall** be designed to include IPC measures that minimize the potential for acquisition and transmission of infections. [CSA:7.5.1.2]<sup>1</sup>
- 4. The following IPC measures **shall** be incorporated into the planning, design and construction: [CSA: 4.5.1.4]<sup>1</sup>
  - Sufficient space for resident care that prevents the spread of illnesses and provides for the implementation of routine practices.
  - Construction materials that are free of contaminants and excessive moisture and able to withstand regular use and cleaning (See Section III).
  - Areas for localized waste management [CSA: 7.5.7, 7.5.8]<sup>1</sup> .
  - Dedicated areas for storage of supplies and equipment.
  - Adequate and accessible hand hygiene stations designed for health care workers and resident hand hygiene. (See Section I)
  - Mechanical requirements for proper ventilation.
  - Equipment and requirements for proper reprocessing (cleaning and disinfection) of medical devices and equipment.
  - Segregation of soiled and clean items.
  - Planning to facilitate Continuing Care Homes responses to catastrophic events (e.g., pandemic disease).
  - Continuing Care Home entrance areas **shall** be planned to allow screening during catastrophic events. Planning **should** provide for the public display of hand hygiene and masks as well as staff access to PPE. [CSA: 10.6.3.1]<sup>1</sup>
- 5. Resident hair care and grooming facilities **shall** be separate from the resident rooms [FGI: 3.1-2.3.5.1]<sup>3</sup> and **shall** contain a Hand Washing Station [CSA: Table 8.9, 5]<sup>1</sup> and a resident toilet located in close proximity. [FGI: 3.1-2.3.5.3]<sup>2</sup>
- 6. Decorative fountains can present an infection risk. [APIC Text Online 116]11

Note: If decorative fountains are placed in public areas of the Continuing Care Home ensure that appropriate standards are followed for disinfection and maintenance. [CDC: Recommendations Water I E]<sup>14</sup>

The design of indoor water features **should** meet the following criteria: [FGI: A2.4-2.2.13 a]<sup>2</sup>

- Human contact with the water **should** be limited and/or water disinfection systems should be applied.
- Materials used to fabricate the water feature **should** be resistant to chemical corrosion.
- Water features **should** be designed and constructed to minimize water droplet production.
- Exhaust ventilation **should** be provided directly above the water feature.
- Surfaces that mitigate the risk of slipping **should** be used and maintained around a water feature.
- Aquariums should be enclosed to prevent resident or visitor contact with the water. [FGI: A2.4-2.2.13 b]<sup>2</sup>

#### III. Structure

#### **Surfaces**

- 1. Surfaces (general, walls, floors, ceilings, storage shelves, furniture and fixtures) **shall** have the following characteristics: [CSA: 7.2.2.1)<sup>1</sup>
  - Easy to maintain, repair and clean.
  - Resistant to microbial spread and growth.
  - Non-porous and smooth.
  - Durable.
  - Seamless.
  - Constructed in such a way that they do not soak up or harbor moisture.
  - Water impermeable in areas where water or dampness can occur (e.g., Walls in the vicinity of plumbing fixtures, e.g., behind sinks or showers.) [CSA: 12.2.5.3.1]<sup>1</sup>
- 2. Materials and finishes **shall** be moisture impervious and compatible with Continuing Care Home approved low level disinfectants used for environmental cleaning. [CSA: 7.2.1.1]<sup>1</sup>
- 3. Avoid the use of materials that are susceptible to moisture damage, hard to clean or that provide areas where bacteria and mould may grow. Examples of materials to avoid include (but are not restricted to): Refer to [CSA:5.1.2]<sup>10</sup>
  - Carpets, if used, **should** be minimal. Carpets **should** not be used in resident suites, in rooms with plumbing fixtures, treatment rooms, clean storage rooms, dining areas, etc. If carpeting is used, it **shall** be cleanable with Continuing Care Home approved low level disinfectants. (In areas where carpet **may** be considered, investigate the use of innovative materials that do not support microbial contamination). [CSA: 12.2.5.2.4]<sup>1</sup>
  - Wallpaper (paper and vinyl). [APIC: 117]<sup>4</sup>
  - Floor and wall ceramic tile with porous grouting. If tiles are used, epoxy grout that will not support microbial growth **shall** be applied.
- 4. Emergency staff call cords **shall** be non-porous, non-moisture absorbing, and easy to clean with Continuing Care Homes approved low level disinfectants.

#### **Window Coverings and Privacy Curtains**

- 5. Window treatments **shall** be durable and easy to clean. [CSA: 12.2.4.3.1)<sup>1</sup>
- Privacy curtains, if used, **should** be easy to remove and launder or be disposable. [CSA: 4.5.4 (3)]

#### Walls

- Wall finishes **shall** be washable and able to withstand routine cleaning with approved low-level disinfectants. [CSA: 12.2.5.3.1]<sup>1</sup>
- 8. Walls in the vicinity of plumbing fixtures (e.g., behind sinks or showers) shall be smooth and water resistant. [CSA: 12.2.5.3.1]<sup>1</sup>
- 9. The bottom edge of drywall **shall** be set a minimum of 1.2 cm above the finished floor level and the gap sealed. [CSA: 12.2.5.3.2]<sup>1</sup>
- 10. Wall finishes in sterile storage areas **shall** be free of fissures and open joints or crevices that may retain or permit passage of dirt particles. [CSA: 12.2.5.3.4]1
- 11. Protective coving **shall** be used from the floor and up the wall in all areas where there will be frequent or constant moisture (e.g., workrooms where soiled materials are sorted or processed, shower facilities, and change areas). [CSA: 12.2.5.3.7]
- 12. Modular walls **shall** meet the applicable requirements in Section III Surfaces. In addition, modular walls:
  - Shall not be used where protective coving is required.

#### **Floors**

- 13. Floor and wall openings for pipes, ducts and conduits shall be tightly sealed/sleeved to minimize entry of rodents and insects. Joints of structural elements shall be similarly sealed. [CSA: 12.5.2.11]1
- 14. Floors in areas subject to frequent wet cleaning methods **shall** be monolithic and coved, resistant to water penetrations, and compatible with Continuing Care Home approved low level disinfectants (e.g., kitchen, soiled utility rooms, shower rooms, washrooms, tub rooms). [CSA: 12.2.5.2.3]1
- 15. Floors subject to traffic while wet (e.g., shower and bath areas, kitchens, and similar work areas) shall have a cleanable non-slip surface. [CSA: 12.2.5.2.6]1
- 16. When coving is used ensure the sheet goods base is continuous with the floor.
- 17. When using PVC wall covering, weld sheet vinyl flooring integral base to PVC wall covering material.

#### **Ceilings**

- 18. Ceilings in resident households **should** withstand cleaning using Continuing Care Home approved low level disinfectants.
- 19. Monolithic finished ceilings **shall** be installed in three-piece bathrooms, shower rooms, tub rooms, clean and sterile storage areas. [CSA: 12.2.5.4.3, 12.2.5.4.4]1

Note: Monolithic finished ceilings refer to solid, unbroken or seamless surfaces that are not porous and not removable, with a washable surface to allow for the appropriate level of cleaning to occur (e.g., solid surfacing, epoxy, or washable paint). [CSA: 12.2.5.4.3, 12.2.5.4.4]1

All conduits, piping, duct work and open construction systems **shall** be covered by a finished ceiling in locations where dust fallout would present a potential problem. All overhead piping and ductwork in the dining and food handling areas **shall** be concealed behind a solid finished ceiling. [CSA: 12.2.5.4.6]<sup>1</sup>

#### **Toilets**

#### **General Considerations**

- 20. All toilets **shall** follow CSA: Z317.1-16, 8.2.2<sup>5</sup>:
  - Be wall-mounted.
    - · Toilets for bariatric rooms shall be floor-mounted and support 453 kg. [CSA: 7.8.8.2.5]
  - Be made of vitreous china, stainless steel, or a material whose durability and imperviousness are equivalent to vitreous china.
  - Be designed to have a maximum flush volume of 6 L.
  - Have an open front seat with integral check hinges and without a seat cover.
  - Have a quiet action flush.
  - Have a siphon-jet elongated bowl. Note: Most commode chairs are compatible with this shape.
  - Produce minimal aerosolization.
  - Have wall-mounted supports and grab bars.
- 21. Toilets with tanks **shall** not be used due to the risk of condensation. [CSA Z8000-18: Table 11.1 25a (h), 48 (d)]<sup>1</sup> Note: Wall mounted toilets are preferred for accessibility because they provide additional space at toe level. [CSA B651-23: 6.2.6.1]<sup>17</sup> Wall mounted toilets (without tanks) are also preferred for cleaning and maintenance. Tanks can easily get damaged by commode chairs.

Before considering any exception to these IPC requirements, a risk assessment shall be completed.

#### **Resident Toilet**

- 22. Toilet seat covers or back supports **may** be used in resident washrooms, for stability. [CSA: 8.2.2]<sup>7</sup> Note: Environmental Services must ensure the toilet seat cover, back support and hinges are kept clean.
- 23. Automatic flushing **shall** not be installed in resident households. [CSA: 8.2.7]<sup>7</sup>
- 24. If automatic flushing is provided in non-resident areas (e.g., public areas) the activation mechanism **shall** provide consistent and reliable service and **shall** be capable of functioning during loss of normal power. [CSA: 8.2.8]<sup>7</sup>
- 25. Dedicated shelving to accommodate a bedpan and urine bottle shall be provided. [CSA: table 11.1, 25 (a) Advisory (i)]

#### **Showers and Tub Rooms**

- 26. Showers **shall** be built to ensure that:
  - The shower floor is integrally sealed with the shower base so that water cannot penetrate under any section of flooring.
  - Water cannot flow out of the shower area and onto the floor or into the hallway.
  - Wall bases **shall** be integral with the floor, tightly sealed against the wall and constructed without voids. [CSA: Table 11.1,46 (i)]<sup>1</sup>
  - Sufficient exhaust to limit water condensate.
- 27. Tub rooms shall meet the following: [CSA: Table 11.1, 46]<sup>1</sup>
  - There **shall** be a Hand Hygiene Sink within the room. [CSA Table 11.1, 46 a]<sup>1</sup>
  - Each room **shall** have storage space for supplies to clean the tub after each resident use (e.g., PPE and cleaning supplies).
  - There **shall** be a separate toilet within the room [CSA: 8.9.2.3.9]<sup>1</sup> or accessible without entry into the corridor. [FGI: 3.1-4.2.3.4]<sup>2</sup>
  - Tubs with recirculation jets **shall** not be used.
  - Tub/shower rooms **shall** not be used for any other purpose (e.g., equipment storage).
  - Wall bases **shall** be integral with the floor, sealed against the wall and constructed without voids.
  - Flooring material **shall** be slip resistant and **shall** not support growth of mildew or mold.

#### **Soiled Utility Room**

- 28. Soiled utility rooms are required on all resident households and **shall** be located and arranged to provide easy access for staff.
- 29. This **shall** be a separate room with no direct connection to the clean utility room.
- 30. Each soiled utility room shall have:
  - One large sink for cleaning of contaminated equipment and disposal of fluids.
    - · Consider using stainless steel for sink and counter top.
  - A separate dedicated hand washing sink.
- 31. Soiled utility rooms **shall** only be used for temporary storage of supplies and equipment that will be removed for cleaning, reprocessing or destruction.
- 32. Soiled utility rooms **shall** be designed and equipped to minimize/contain the aerosolization of waste.
- 33. Flooring shall be of seamless, impermeable and non-slip material and contain a floor drain.
- 34. Splash protection shall be provided on walls near water supply, sinks, or human waste management systems.
- 35. Counter tops **shall** be of non-porous material, free from seams and tolerant of routine daily cleaning with Continuing Care Home approved low level disinfectants.
- 36. The room shall have a door that is closed with access that is limited to clinical and support staff.

- 37. The room **shall** have the capacity to:
  - Segregate waste into Continuing Care Home approved containers.
  - Hold soiled linen and items for return to designated laundry or equipment cleaning areas.
  - Contain a human waste management system.
  - Contain supplies associated with waste management systems.
  - Provide for cleaning soiled resident equipment if a designated cleaning room is not available (e.g., IV poles, lifts, commode chairs).
    - Note: Clean equipment shall not be stored in the soiled utility room.
- 38. Spray wands **shall** not be installed for rinsing of items. Equipment used for removal of gross soiling shall minimize aerosolization of particulates.
- 39. Space **shall** be provided for separate mobile carts/ containers for soiled linen, general waste, medical/hazardous waste, confidential waste, and recycling, etc.
- 40. The room **shall** provide storage for carts that will be used to move the soiled material from the room.

Reference: [CSA: Table 11.1, 39]1

#### **Human Waste Management**

- 41. Human waste disposal equipment **shall** be provided in accordance with the functional program needs (e.g., macerator, washer disinfector). The number and location of these systems shall be determined based on the need to maintain proximity to the point of care and the risks and acuity of the resident population.
  - If clinical flushing rim sinks (hoppers) are used, they **shall** be designed to contain any splash and the controls **shall** be located so as not to expose staff to contamination. [CSA: 8.4.5.2]<sup>7</sup>
- 42. There **should** be a minimum of one closed waste management system (e.g., enclosed bedpan washer/disinfector, macerator) per neighbourhood (unit), conveniently located close to resident rooms where staff can decant or discard human waste, solid and liquid, and other potentially contaminated fluids. [CSA: 7.5.8.2]<sup>1</sup>.
  - The type of unit purchased **should** be made only after discussion with the end users followed by consultation and discussion with other stakeholders such as Facilities and IPC.
  - The system must not expose the user to contamination.
  - The system **should** have hands free operation, have mechanisms to prevent backflow, and achieve a minimum of low-level disinfection for reusable equipment.

Note: Depending on the system, human waste discard can either be accomplished using disposable containers that are discarded with the waste (macerator) or reusable containers that are emptied and reprocessed (e.g., using a washer-disinfector). [CSA: 7.5.8.3]<sup>1</sup>. Adequate storage for cardboard supplied **should** be taken into consideration with design requirements.

43. Access to PPE for unit-based decontamination and cleaning **should** be available at the room entrance. [CSA: Table 11.1, 39 Advisory: (a)]<sup>1</sup>

- 44. The use of stainless-steel counters and shelves **should** be considered. [CSA: Table 11.1, 39 Advisory (b)]<sup>1</sup>
- 45. Human waste management systems **shall** be designed to prevent aerosolization during the decanting or discarding of waste. [CSA: 7.5.8.3]<sup>1</sup>
- 46. Spray wands shall not be installed or used for rinsing waste receptacles. [CSA: 7.5.8.3]
- 47. Resident bathroom fixtures **shall** not be used to dispose of human waste or body fluids or to clean waste receptacles. [CSA: Table 11.1, 25a, (y)]<sup>1</sup> [CSA: 7.5.12.1.2]<sup>1</sup>

Reference: [CSA: 7.5.8]1

## **Clean Utility Room**

- 48. Refer to sections on Ceilings and Flooring for additional requirements.
- 49. Clean utility rooms are required on all resident households and **shall** be located and arranged to provide easy access for staff.
- 50. Clean utility rooms **shall** be physically distinct from soiled utility rooms.
- 51. Clean utility rooms require a hand washing station if the room is used for preparation of resident items (e.g., preparation of IV equipment) [FGI: 2.3-4.2.5.1]<sup>2</sup>
- 52. The room shall have a door that is closed with access limited to clinical and support staff.
- 53. Decontamination or cleaning of supplies **shall** not be permitted in the clean utility room.
- 54. Shelving units or cart surfaces **shall** have cleanable, smooth, and non-porous surfaces tolerant of Continuing Care Home approved low level disinfectants.
- 55. Storage of equipment and supplies **shall** not be exposed to direct airflow from the HVAC system in accordance with CSA: Z314-238.
- 56. Storage **should** be away from the windows, due to the risk of condensation.
- 57. Shelving for clean and sterile supplies **shall** be at least:
  - 23 cm off the floor.
  - 45 cm from the ceiling.
  - 5 cm from outside walls.
- 58. Wire racks should be used for shelving to prevent dust accumulation, however top and bottom shelves shall be solid.
- 59. The room **shall** have designated locations for the types of items being stored, including clean and sterile supplies, clean linen and crash carts.

Reference: [CSA: Table 11.1, 8]1

## **Central Laundry**

- 60. Each Continuing Care Home shall have provisions for separate storing and processing of clean and soiled linen.
- 61. Areas **shall** be designed to maintain separation between soiled and clean items. Walls **shall** separate functional work areas to control traffic flow and contain contaminants generated during the process. [FGI: 2.1-5.2.2.1]<sup>3</sup>
- 62. The floor, walls, ceiling and work surfaces **should** be constructed of non-porous materials that will withstand frequent cleaning and wet conditions.
- 63. A Hand Hygiene Sink shall be installed in each area where unbagged soiled linen is handled. [CSA Z8000-18: 7.5.12.2.1]
- 64. For laundry area HVAC systems refer to CSA: Table 16, Technical Design Requirements for Alberta Infrastructure Facilities: Table 5.2.2 c<sup>11</sup>.
- 65. If linen is processed within a Continuing Care Home, the following elements shall be provided:
  - Layout of equipment **shall** be arranged to permit an orderly workflow from dirty to clean and minimize cross traffic that might mix clean and soiled operations. [FGI: 3.1-4.6.2.1]<sup>2</sup>
  - A receiving, holding, and sorting room **shall** be provided for control and distribution of soiled linen. Discharge from laundry chutes **shall** be received in this room or in an adjacent separate room [FGI: 3.1-4.6.2.2(1)]<sup>2</sup>
  - Washers/extractors shall be located between the soiled linen receiving and clean processing areas. [FGI: 3.1-4.6.2.2(2)]<sup>2</sup>
  - A clean linen inspection, mending and assembly area **shall** be provided. [FGI: 3.1-4.6.2.2 (5)<sup>2</sup> A space for tables, shelving, and storage for laundry supplies **shall** be provided. [FGI: 2.1-5.2.2.1 (2)]<sup>3</sup>
- 66. If linen is processed off-site or in a separate building on-site, the following shall be provided:
  - A service entrance, protected from inclement weather, for loading and unloading of linen. [FGI: 3.1-4.6.4 (1)]<sup>2</sup>
  - A control station for pick up and receiving. [FGI: 3.1-4.6.4 (2)]<sup>2</sup>

### **Laundry Area for Resident and Family Use**

- 67. In resident personal laundry rooms clearly defined separate areas **should** be provided for handling clean and soiled laundry.
- 68. Layout of equipment **shall** be arranged to permit an orderly workflow and minimize cross traffic that might mix clean and soiled operations. [FGI: 3.1-4.6.2.1]<sup>2</sup>
- 69. Hand washing stations shall be provided in, adjacent to, or directly accessible from the laundry room. [FGI: 2.3-4.2.7.3]<sup>2</sup>

#### **Clean Linen Storage Area**

- 70. Clean linen storage areas are required in all resident households.
- 71. Clean linen **shall** be stored in a clean utility room or closed closet used specifically for clean linen storage. If clean linen is not stored in a clean utility room/closet then storage of a covered linen cart in an alcove **shall** be permitted. [FGI: 3.1-4.2.4.2]<sup>2</sup> [CSA: Table 11.1, (8 e)]<sup>1</sup>
- 72. A central clean linen storage and issuing room(s) **shall** be provided in addition to the linen storage required in individual resident areas. [FGI: 3.1-4.6.3.1]<sup>2</sup>

#### **Linen Carts**

- 73. Cart storage area(s) **shall** be provided for separate parking of clean or soiled linen carts out of traffic. [FGI: 3.1-4.6.3.3(1)]<sup>2</sup>
- 74. Provisions shall be made for cleaning of linen carts on premises (or exchange of carts off premises) [FGI: 3.1-4.6.3.3(2)]<sup>2</sup>

## **Laundry chutes**

- 75. Laundry chutes **should** not be used. If it is necessary to use a chute, standard operating procedures **shall** be established, in consultation with IPC personnel, for its use and periodic cleaning, decontamination, and maintenance.

  Note: Laundry chutes, although convenient, can jeopardize safety because of
  - a. potential IPC hazards caused by leaks or broken bags
  - b. difficulty of cleaning/disinfection and repair
  - c. potential damage to textiles from sharp edges or leaked fluids; and
  - d. access control (e.g., access by children) [CSA Z314-23: 21.9.5.1.2.8
- 76. If laundry chutes are installed, they *must* be properly designed, maintained, cleaned, disinfected and used in a manner that minimizes dispersion of aerosols from contaminated laundry [PIDAC<sup>21</sup>]:
  - Laundry bags are securely bagged and tightly closed before placing the filled bag into the chute.
  - Loose items are not placed in the chute.
  - Laundry chutes are maintained under negative pressure.
  - Laundry chutes discharge in the receiving, holding, and sorting room or in an adjacent separate room. [FGI: 3.1-4.6.2.2 (1b)]<sup>2</sup>
  - Laundry chutes **should** be cleaned on a regular basis.

#### **Housekeeping Service Room**

Note: The sizes and requirements for this room are based on the assumption that major equipment is stored in the service area.

- 77. A housekeeping service room **shall** be centrally located between resident houses and **shall** be able to accommodate large power equipment and have greater inventory for distribution to the smaller housekeeping closets.
- 78. The room **shall** accommodate the following functions: enough space for cleaning products (and dispensers, if used), an eyewash station with tempered water supply, and a floor drain to collect run-off.
- 79. The room **shall** have a door that is kept closed and secured with access restricted to clinical and support staff. Reference: [CSA: Table 11.1, 22]<sup>1</sup>

#### **Housekeeping Closet**

- Note: The sizes and requirements for this room are based on the assumption that major equipment is stored elsewhere.
- 80. A housekeeping closet **shall** be provided in all major care areas (i.e., each neighbourhood).
- 81. Every housekeeping closet **shall** have a 60 cm × 60 cm floor-based sink. This sink shall be protected by an easily cleanable wall surface up to 1.2 m from the finished floor.
- 82. The housekeeping closet shall be large enough to store at least one housekeeping cart.
- 83. Wall protection shall be provided to prevent damage by the carts to a height of 1.2 m.
- 84. Housekeeping closet shall include:
  - Fresh water source (hot and cold) for filling pails, etc.
  - Hand washing station.
  - Non-fixed shelving for storage of supplies (i.e. paper towels, toilet paper)
  - Fixed shelving for storage of small quantities of cleaning products.
- 85. The housekeeping closets **shall** have a door that is kept closed and is secured with access restricted to clinical and support staff.

Reference: [FGI: 2.3-4.9.3.2]<sup>2</sup> [CSA: Table 11.1, 21]<sup>1</sup>

#### **Waste Management**

86. Waste management practices **shall** include segregation of waste into an appropriate dedicated holding area in the unit of care or work environment and **shall** be in compliance with CSA Z317.10<sup>11</sup> [CSA: 7.5.7]<sup>1</sup>

#### **Equipment Storage**

- 87. Adequate equipment storage **shall** be provided in every resident house. [CSA: 7.7.1.7]<sup>1</sup>
- 88. Dirty supplies/equipment shall not be stored in the same room as clean/sterile supplies.
- 89. Circulation areas (e.g., corridors or hallways) shall not be used for storage. [CSA: 7.7.1.7]
- 90. In addition to storage of PPE in the clean utility rooms, secure PPE storage **should** also be located in decentralized areas on the unit (e.g., a recessed cabinet outside resident rooms. Storage cabinets **shall** not obstruct corridors. [CSA: Table 11.1, (24j)]
- 91. Sealed lighting units with cleanable lens covers are required in all clinical/resident and equipment/supply storage areas. U-channel lighting and open sconce lighting **shall** not be used.

## **Cart/Equipment Cleaning**

92. Adequate space for cleaning and disinfection of reusable equipment, carts, wheelchairs, and mechanical lifts **shall** be provided. It **should** provide adequate separation of the decontamination areas from the clean areas.

#### **Main Kitchen Space and Servery**

93. At a minimum, the design of the main kitchen space and the servery **shall** meet all specifications in the Alberta Public Health Food Regulations, Alberta Building Code and all sanitation codes and standards (e.g., water, lighting, ventilation, sewage disposal, food storage, refrigeration, and workflow).

#### **Hydration Stations**

- 94. Water fountains are not allowed. Water bottle refill machines are preferred.
- 95. Plumbed-in water dispensers that use disposable cups **may** be installed.

  Note: Manufacturer's directions for routine and preventive maintenance **shall** be followed.
- 96. A ABHR Hand Hygiene Station or Hand Hygiene Sink with supporting signage shall be provided.

#### **Corridors**

- 97. Hallways **shall** not be used to store equipment or clean supply carts. Equipment and clean supply carts **shall** be stored in a designated space or alcove and covered so clean supplies do not become contaminated. [CSA: 7.7.1.7]<sup>1</sup>
- 98. Coat hooks **may** be mounted in hallways outside resident rooms to allow garments to be hung up prior to donning PPE. Coat hooks are supplied in non-protruding safety release models and **may** be useful for families and visiting health professionals to hang their coats if they need to wear PPE when visiting residents on additional precautions.
- Note: A resident risk assessment **should** be done prior to installing coat hooks.

## Lighting

99. Sealed lighting units with cleanable lens covers **should** be installed in all treatment/examination rooms, storage rooms, washrooms, laundry, housekeeping closets, kitchens, serveries. U-channel lighting and open sconce lighting **should** not be used.

## IV. Water supply

#### **Plumbing**

- 1. All plumbing **shall** meet standards outlined in the most current Technical Design Requirements for Alberta Infrastructure Facilities<sup>19</sup>, local regulations and CSA Z317.1 *Special requirements for plumbing installations in health care facilities*<sup>7</sup>.
- 2. All tap water **shall** meet local potable water standards.

Note: Waterborne bacterial and fungal contamination risks are often subtle and associated with a wide variety of sources and have potential for direct or indirect transmission. Understanding conditions that allow for waterborne pathogen growth and proliferation is critical to prevention and control. [APIC: 116]<sup>5</sup>

Drinking water quality also depends on preventive maintenance and surveillance for healthcare-associated infections (HAIs) including a high index of suspicion for infectious agents associated with moisture and water distribution systems. [APIC: 116]<sup>5</sup>

- 3. Features conducive to stagnation (e.g., long pipe runs and dead ends) **shall** be minimized in the design of Continuing Care Home plumbing systems. [CSA: 6.7.4]<sup>10</sup> [FGI: 2.1-8.4.2.5(3)]<sup>3</sup>
  - Recirculation connections in hot water systems **shall** be located as near as practicable to the fixtures they serve. To reduce the risk of bacterial contamination inside of manual or automatic sensor faucets and showers, the length of pipe from the domestic cold main line to a sink or lavatory faucet or a shower head **shall** be as short as possible. [CSA: 4.4.2.6]<sup>7</sup>
- 4. Hot water distribution systems **shall** be designed to ensure that distribution temperatures are maintained in accordance with CSA Z317.1-16.<sup>7</sup>
- 5. A fail safe high-temperature shutdown device **shall** be installed in the hot water loop between the heating source and the first outlet. The device **shall** have an audible and visual high-water-temperature alarm and **shall** be set to shut down the supply of hot water at water temperatures greater than 65 °C\. [CSA: 6.3.23]<sup>7</sup>
- 6. Drainage **shall** comply with local codes and environmental and health regulations. [Technical Design Requirements for Alberta Infrastructure Facilities: 5.3]<sup>11</sup>

## V. Air handling

1. Air handling **shall** meet standards outlined in the most current Technical Design Requirements for Alberta Infrastructure Facilities<sup>10</sup> and Canadian Standards Association CSA Z317.2-19 *Special requirements for heating, ventilation and air conditioning (HVAC) systems in health care facilities<sup>5</sup>. It is prudent to allow for expansion in order to effectively deal with emerging infectious diseases. For different air handling requirements refer to CSA Z317.2-19, Table 1<sup>6</sup>.* 

## VI. Medical gases

- 1. The medical gas pipelines system supplying a medical support gas **shall** not be used for patient care. [CSA: 4.3]<sup>12</sup>
- 2. Medical gas pipelines supplying medical gases used for powering devices unrelated to human respiration **shall** not be used for resident care. [CSA: 5.8]<sup>12</sup>
- 3. Instrument grade compressed air or compressed dry nitrogen **should** be used to operate air powered equipment according to the manufacturer's written instructions. [CSA: 5.8]<sup>12</sup>

## VII. Reprocessing space for (semi) critical medical devices

Any space used for reprocessing (cleaning and high-level disinfection or sterilization) of reusable critical or semi-critical medical equipment/devices (e.g., reusable foot care equipment) **shall** meet the requirements for a reprocessing space outlined in the Alberta Health document, *Reusable & Single-Use Medical Devices Standards: Standards for the Reprocessing of Reusable Medical Devices*, and in the CSA Z314-23 Canadian Medical Device Reprocessing.

## VIII. IPC risk assessment matrix for artwork

IPC supports the art experience in healthcare facilities. A risk assessment **should** be conducted before art is chosen to ensure the materials and finishes are safe for the healthcare environment and the planned location of the artwork is appropriate. There must be a written plan for regular cleaning and maintenance.

PROPOSED	AHS ENVIRONMENTAL		ART MEDIUM	
INSTALLATION SPACE	SERVICES RISK LEVEL	EASY TO CLEAN AND DISINFECT	CAN BE CLEANED BUT NOT DISINFECTED	DIFFICULT TO CLEAN, DAMP DUST ONLY
Administration and non-clinical offices	Low	<b>✓</b>	✓	✓
Public space (artwork is placed out of reach)	Low	<b>/</b>	<b>√</b>	Consult with FME and ES
Public space (artwork is placed within reach)	Low	/	1	Consult with IPC and ES
Continuing Care – Resident rooms and corridors in resident households	Moderate	/	✓	Consult with IPC and ES

Key: ✓ = Does not require IPC, ES or FME approval

#### **Assumptions:**

- Tapestries and materials that promote growth of bacteria or fungi **shall** not be installed.
- Materials that require regular vacuuming **should** not be installed.
- Cleaning is done with soap and water. Disinfection involves the use of a low-level disinfectant (hospital grade germicide).
- Art that is visibly soiled and cannot be cleaned **shall** be removed.
- Corridors in residential units are often used for therapy and therefore are considered a high touch area.
- Do not use handrails for seasonal decorations. They must be kept clear to enable cleaning.

#### Note:

- For guidance on water features and aquariums, refer to section II IPC General Practice Guidelines for Continuing Care Home Design.
- Refer to AHS Environmental Services "Cleaning Frequency Standard" Practice Support Document for more information on ES Risk Levels, Cleanable Surfaces, etc.
- Decorations, such as photographs, paintings and other art, which are attached directly to the walls, ceiling and non-fire-rated doors are subject to the requirements in the National Fire Code AB Edition, and the Life Safety Code. Depending on the building, decorations may not be able to exceed 20% of the wall, ceiling, and door areas inside any room or space. Decorations on doors must not interfere with the operation or any required latching of the door. Fire rated doors may not exceed 5% of surface area for signage.

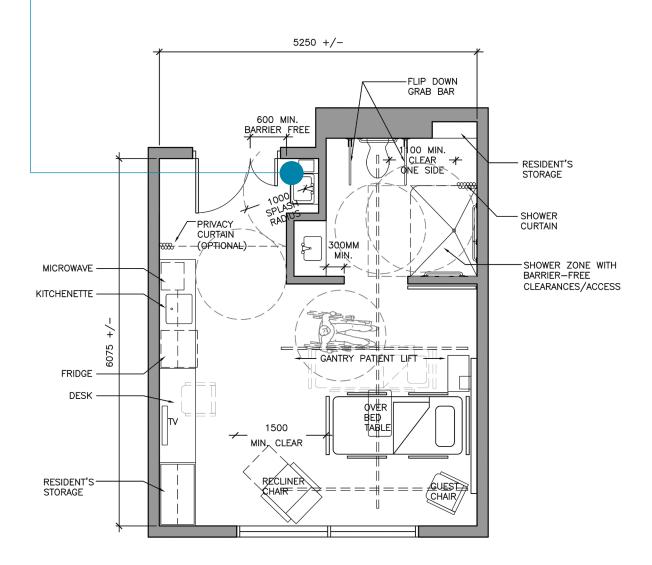
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# **Appendix 4: Room layout example drawings**

Note: The following room diagrams are examples for how the resident room design requirements may be met. Alternative layouts can also achieve the minimum design requirements.

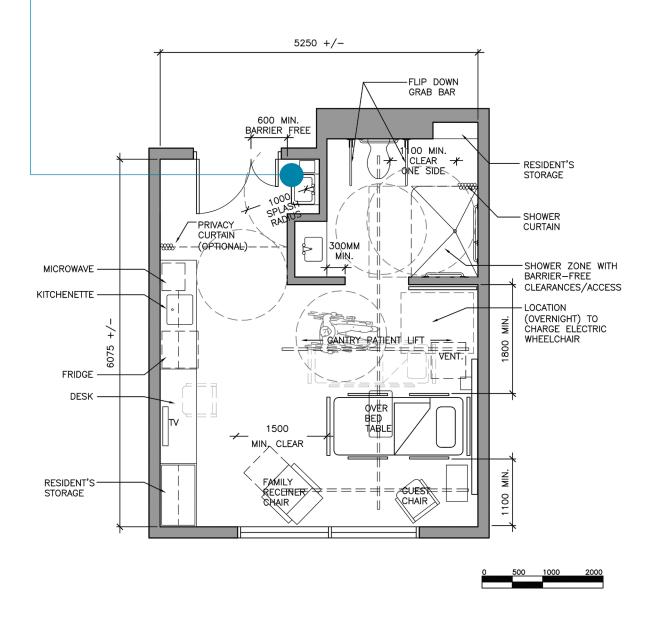
L-1
Continuing & Complex Care
CONTINUING CARE ROOM (incl. WASHROOM)





Note: The hand washing station at the entry to the resident room shall be considered based on resident population and care needs. See Appendix 3 'Resident Bathroom Sinks' section for more detail.

L-2
Continuing & Complex Care
COMPLEX CARE ROOM, (incl. WASHROOM)



# Appendix 5: Architectural design requirements for continuing care checklist

## Architectural design requirements for continuing care checklist

The Architectural Design Requirements for Continuing Care Checklist (Checklist) highlights key design requirements and best practices from the Continuing Care Design Standards and Best Practices in Alberta 2023 (CCDS) and some requirements from applicable legislation. The requirements are intended to support and encourage the configuring of environments that respond positively and appropriately to the diverse physical, psychological, social, cultural, and spiritual needs of individuals who live and work in Continuing Care Homes.

The Checklist is primarily used to outline key design expectations Applicants must meet in the design of their Projects when applying for capital grant funding through the Continuing Care Capital Program or when contracting with Alberta Health Services (AHS) outside of the capital grant process.

Please note, the Checklist is not a comprehensive list of all requirements outlined in the CCDS and is only intended to compliment the use of the CCDS in the design of Continuing Care Homes. Newly developed and renovated Continuing Care Homes in Alberta must meet all required design elements stipulated in the CCDS and should incorporate the best practices in the CCDS to the greatest extent possible.

Alongside the CCDS, the requirements outlined in the <u>Technical Design Requirements for Alberta Infrastructure Facilities</u>, Barrier-Free Design Guide, and the Canadian Standards Association (CSA) Z8000 standards must be used in planning new facilities and renovating existing ones.

In addition, Continuing Care Homes must meet or exceed legislated requirements. Including all provincial (and federal, if applicable) building, fire and life safety codes, as well as requirements from Authority Having Jurisdiction such as local bylaws, land use (e.g., zoning) restrictions, and permit conditions.

Note: The requirements outlined in this document were updated and approved in 2022/2023. In cases of difference between CCDS and National/Provincial Codes, the most restricted and higher requirements shall govern.

The Continuing Care Home will also need to meet additional design requirements specifically stipulated by AHS for specialty populations. Local AHS Zone staff will be involved in the design and development process to provide direction and advice on specific items of concern to AHS in this domain (e.g., location of hand washing stations, grab bars, storage spaces, etc.).

Note: There may be instances in some rural/remote communities where low water pressure may affect the fire suppression systems and may need to be addressed to ensure the Continuing Care Home passes the fire inspection. There is also a need to ensure the power requirements of the Continuing Care Home can be accommodated with the existing power grid in the community. If, for example, the Continuing Care Home will require a three-phase power supply, this will need to be confirmed through the engineer, architect, or Authority Having Jurisdiction, that there is ready access to an appropriate power supply.

#### **Additional Information for Applicants**

- Selected Applicants shall be responsible to acquire all permits, licenses, approvals by authorities, property easements, and lands required to implement the Project. The Applicant's prime consultant and sub-consultants must obtain all applicable permits, including but not limited to, building, foundation, framing, plumbing, gas, and electrical; and before closing in, ensure inspections have occurred and been signed off.
- If the Applicant is proposing a multi-purpose campus of care, for which Continuing Care services are only a part, then these architectural design requirements only apply to those portions of the Project that relate to the provision of Continuing Care services.
- If the Applicant is proposing small detached Continuing Care Homes for four to fourteen residents (Small Care Homes), then the Applicant has the option to meet the minimum design requirements of the Small Care Home Design Requirements Checklist instead of the Architectural Design Requirements for Continuing Care Checklist.

#### **Instructions**

The Applicant must review each item identified in the Checklist and acknowledge having read and understood each requirement by checking the box on the left-hand side of each requirement. At the bottom of the document, the Applicant is also required to provide an authorized signature agreeing to include these design elements in the final Project. A PDF scan of this signed document is a mandatory inclusion of the application submission requirements.

Required - indicated as Shall in CCDS (must be included in design).

Preferred – indicated as Should in CCDS (recommended but not required).

APPLICANT INFORMATION			
Organization Name:			
Project Location (municipality):			
Project Address (street address):			
Contact Information:			
Grant Request Amount (if applicable):			
# of Eligible Units (if applicable):			

SITE P	LANNING AND ACCESS	LEVEL OF IMPORTANCE		
	Site planning shall include features that secure the building perimeter to strictly control ingress and egress.	Required		
	Separate staff entry from main entrance is required. Staff entry shall funnel personnel to an area that is sized and equipped to permit effective screening. Entry shall be adjacent to staff room that includes three-piece bathroom(s) or two-piece washroom(s) and private (single user) shower(s).	Required		
GENERAL REQUIREMENTS		LEVEL OF IMPORTANCE		
	The Continuing Care Home shall be designed and built to a minimum Group B Division 3 (B3)  Occupancy Classification as defined in the NBC-AE. The building shall include infrastructure to support building power requirements and sufficient water supply/pressure for the fire suppression systems.	Required		
	The Continuing Care Home shall incorporate the design requirements outlined in the Continuing Care Design Standards and Best Practices in Alberta 2023. The design demonstrates efforts to incorporate the best practices to the greatest extent possible and maximizes resident privacy, accessibility, personal choice, and resident control over their environment.	Required		
	The Continuing Care Home shall meet the design requirements for specialty populations (when applicable for proposed residents) as per Appendix 1: Guidelines for Speciality Populations in the Continuing Care Design Standards and Best Practices in Alberta 2023.	Required		
	The Continuing Care Home shall meet the Infection Prevention and Control Requirements in Appendix 3 of the Continuing Care Design Standards and Best Practices in Alberta 2023.	Required		
	Resident accessible areas inside and outside of the Continuing Care Home shall be in conformance with the NBC-AE, Barrier-Free Design Guide, and the Technical Design Requirements for Alberta Infrastructure Facilities.	Required		
	One bariatric resident room will be designed for every 50 resident rooms contained within the Continuing Care Home. The design will follow the applicable section within <b>Appendix 1</b> of the <b>Continuing Care Design Standards and Best Practices in Alberta 2023</b> .	Required		
	The Continuing Care Home has infrastructure to support the connection of an emergency generator capable of backup support for heating plant, kitchen, elevators, fire alarm, lighting, communication systems, and medical equipment. Refer to the NBC-AE and the Authority Having Jurisdiction to determine if the building requires a generator installed.	Required		
	Heating, cooling, and ventilation systems are operated at a level that maintains a temperature that supports the comfort and safety of residents. Each resident room and all common areas used by residents have controls for air temperature.	Required		
	Temperature mixing valves are installed on all faucets that residents can access.	Required		

	All Continuing Care Homes must provide a minimum of two fibre lines from the main communication room to the building exterior, whether fibre is available in the community at the time or not. A single, building-wide managed Wi-Fi network with separate service set identifiers (SSIDs) for business and resident use with a minimum download speed of 35 Mbps and minimum upload speed of 20 Mbps will be provided. All associated infrastructure is provided to support the network in all resident rooms for virtual care.	Required
	A resident/staff communication and response system shall be available throughout the building to allow staff and residents to summon assistance.	Required
	All public washrooms are built barrier-free.	Required
	The Continuing Care Home is designed with good sight lines for staff to easily monitor and respond to residents.	Required
	The Continuing Care Home can accommodate mobility aids, such as walkers, wheelchairs (manual and power), and scooters, etc. (concerning turning radius, storage, and charging spaces).	Required
	Floor finishes are non-skid and slip resistant, and easily accommodate wheelchair and walker maneuverability and ongoing cleaning and maintenance. Floors are durable, have low glare, and have zero threshold transitions between differing floor surfaces.	Required
	The Continuing Care Home includes a fitness/wellness area that accommodates space for exercise equipment, tabletop activities, staff workspace, hand washing station, supplies, and barrier-free accessible washroom(s).	Preferred
	Salon Services will have sufficient space to accommodate hairdressing chairs, hair wash sinks and traps, work and storage counters, secured storage space for chemicals, a hair drying area, a hand washing station, and a ventilation system. Consideration should be given for one (1) station without a chair to accommodate a wheelchair. Foot/toenail care space will accommodate a barrier-free foot wash station. Designed in accordance with Alberta's Public Health Act, the Personal Services Regulation and the five related Health Standards and Guidelines.	Required
	A large multi-purpose room is provided within the Continuing Care Home for major events, celebrations, worship, etc.	Required
	Total building gross area should not be less than 81 m2 (871 ft2) per resident. Note, the 81 m2 (871 ft2) includes the 32.5 m2 (350 ft2) for each resident room.	Preferred
	To ensure the integration of Continuing Care Homes into their surrounding communities, it is preferred that the building size will be limited to a maximum of 200 resident units (this includes both government/ AHS funded units and privately funded units). The Project, however, may form part of a campus of care that would include other residential buildings on a conjoining site(s).	Preferred
	Secured residential units (e.g., dementia units) should be located on the ground floor of the Continuing Care Home to maximize access to outdoor space and to facilitate evacuation.	Preferred
	Continuing Care Homes are designed with simple circulation patterns that promote wayfinding, purposeful wandering, and exploring. Circulation routes are interesting (incorporate features and finishes that optimize sensory functions) and include places for resting and maneuverability.	Preferred
	Space for a gift shop and snack area may be provided, with proper visibility.	Preferred
	Mechanically ventilated space is available in the Continuing Care Home to accommodate culturally specific ceremonies (e.g., smudging).	Preferred
OUTD	OOR SPACE	LEVEL OF IMPORTANCE
	Convenient access to the outdoors from each resident household (including every floor) is provided. The space is appropriate to the resident population (2 m2/resident) and in a location that is easily accessible by residents (zero threshold), barrier-free, easily observable by staff, and of sufficient size to accommodate various outdoor resident activities.	Required
	Outdoor balconies on upper floors shall be provided with a barrier of a minimum height of 1.8 m (6 ft). The top of the barrier is designed to prevent residents from climbing over. The barrier shall not visually impede the view from the balcony.	Required
	Outdoor areas for residents living with dementia shall be secured.	Required
	The resident outdoor area is directly accessible from dining room and/or household activity area.	Preferred

MIMIN	ENTRANCE AND RECEPTION AREA	LEVEL OF IMPORTANCE
	There is a passenger drop-off area, in close proximity to the building entry, which offers no incline and provides protection from the elements. The covered entry is large enough to accommodate an ambulance or Handi-Bus and includes a loading and unloading zone.	Required
	The main entrance includes a vestibule. It should be designed to prevent drafts into the seating/reception area.	Required
	Automatic wheelchair accessible door openers are utilized for the main entrance, and all entrances have zero thresholds.	Required
	In environments that do not allow residents to use power mobility devices (e.g., scooters) within the building, space must be available for residents to park their devices upon returning to the site and be equipped with sufficient power outlets for charging of multiple devices.	Required
	A barrier-free two-piece washroom is located in close proximity to the main entrance.	Required
	The main entrance is designed with a recognizable reception point for visitor greeting and for staff to monitor all persons entering and exiting the Continuing Care Home.	Preferred
	Controls are provided at the main entrance so that building ingress and egress can be monitored and managed, as necessary.	Preferred
DOOR	S / ENTRANCES / WALLS	LEVEL OF IMPORTANCE
	The minimum door clearance for all doorways in the Continuing Care Home, including the entrance, common spaces, common bathing room, exercise rooms, dining rooms, etc., must have a minimum clearance (width) of 1117 mm (44 in). All doorways in resident suites (entrance and bathroom) must have a minimum clearance (width) of 1016 mm (40 in). Where wider doors are used, split doors are recommended.	Required
	A self-opening/self-closing (hands-free) system must be provided at all doors that exit from the resident areas of the Continuing Care Home.	Required
CORR	IDORS	LEVEL OF IMPORTANCE
	Corridors in resident households are a minimum of 1.8 m (6 ft) wide, with contiguous handrails on both sides.	Required
	The length of corridors should be minimized and avoid abrupt ends.	Preferred
	Use of colours to improve wayfinding and reduce access to non-resident areas should be considered.	Preferred
ELEVA		Preferred  LEVEL OF IMPORTANCE
ELEVA	TORS  Public elevators are provided in multi-storey Continuing Care Homes. In multi-storey settings, at least two (2) elevators are required such that service can be maintained in the event one (1) elevator becomes inoperable. Elevator car/cab size must accommodate a stretcher or gurney in a horizontal position and	LEVEL OF IMPORTANCE
ELEV	TORS  Public elevators are provided in multi-storey Continuing Care Homes. In multi-storey settings, at least two (2) elevators are required such that service can be maintained in the event one (1) elevator becomes inoperable. Elevator car/cab size must accommodate a stretcher or gurney in a horizontal position and bariatric furniture/equipment.  Elevators that serve areas where resident access is restricted/secured (e.g., dementia) shall integrate a	LEVEL OF IMPORTANCE Required
ELEV	Public elevators are provided in multi-storey Continuing Care Homes. In multi-storey settings, at least two (2) elevators are required such that service can be maintained in the event one (1) elevator becomes inoperable. Elevator car/cab size must accommodate a stretcher or gurney in a horizontal position and bariatric furniture/equipment.  Elevators that serve areas where resident access is restricted/secured (e.g., dementia) shall integrate a numeric code pad or card lock.	Required Required
ELEVA	Public elevators are provided in multi-storey Continuing Care Homes. In multi-storey settings, at least two (2) elevators are required such that service can be maintained in the event one (1) elevator becomes inoperable. Elevator car/cab size must accommodate a stretcher or gurney in a horizontal position and bariatric furniture/equipment.  Elevators that serve areas where resident access is restricted/secured (e.g., dementia) shall integrate a numeric code pad or card lock.  ENT HOUSEHOLD  The expected configuration for offering resident rooms is in resident "households". Individual households have up to a maximum of 14 residents, and in some instances the Applicant may wish to consider semaller configurations (must be in collaboration with AHS). A Continuing Care Home contains	LEVEL OF IMPORTANCE  Required  Required  LEVEL OF IMPORTANCE

	There shall be an activity space in each household.	Required
	Storage space for recreational supplies is located in close proximity to living room(s) and activity space(s).	Required
	Sufficient space is provided within each household to allow for flexibility to provide a wide range of resident activities and allow for resident wheelchair and walker maneuverability.	Preferred
DINING	G AREA AND SERVERY SPACE	LEVEL OF IMPORTANCE
	Resident dining rooms accommodate up to a maximum of 14 residents, including space for the safe storage of resident mobility aids, including walkers and wheelchairs, located in view of the resident seating area. Note: A resident household dining room may be colocated with another resident household dining room with a moveable wall separating them that can be opened, when not in use as dining rooms, to create larger shared spaces (e.g., multi-purpose room).	Required
	The minimum space for dining room(s), excluding serveries, in households should be calculated based on 4 m2 (43 ft2) of floor area per resident.	Required
	Each resident dining room has convenient access to a barrier-free accessible two-piece washroom (toilet and sink). There should be no views into the washroom from the seating area of the dining room or the servery.	Required
	The resident dining room has a hand washing station.	Required
	A housekeeping/janitorial closet must be in close proximity to the resident dining room.	Required
	The functional space for kitchens/serveries accommodates the equipment and storage needed to support the Continuing Care Home meal service program and any therapeutic diets.	Required
	Resident dining room provides a direct view of outdoor space. If this is not possible, the dining room has direct views into other naturally lit spaces to allow for high levels of natural light into the dining room.	Preferred
RESID	ENT ROOMS	LEVEL OF IMPORTANCE
RESID	Resident rooms are studios, accommodating one resident, with a minimum of 32.5 m2 (350 ft2) including an ensuite bathroom.	Required
	Resident rooms are studios, accommodating one resident, with a minimum of 32.5 m2 (350 ft2)	
	Resident rooms are studios, accommodating one resident, with a minimum of 32.5 m2 (350 ft2) including an ensuite bathroom.  A minimum of 8% of resident rooms shall be connected for those wishing to share space (e.g., couples, companions, etc.). These connected rooms shall be created with internal locking doors between	Required
	Resident rooms are studios, accommodating one resident, with a minimum of 32.5 m2 (350 ft2) including an ensuite bathroom.  A minimum of 8% of resident rooms shall be connected for those wishing to share space (e.g., couples, companions, etc.). These connected rooms shall be created with internal locking doors between individual private resident rooms.  Access door into resident room will have a clear width of 1016 mm (40 in) and are lockable, must be	Required  Required
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	The operator of the Continuing Care Home shall make available, at no cost to the resident, an appropriate conventional bed and mattress for supportive living, designated supportive living, or a hospital bed (if prescribed by a health care professional) for long-term care. If the resident is unable to provide their own furnishings, other furniture including chair(s), dresser, and nightstand, shall also be made available by the operator at no cost to the resident.	Required
	Residents can personalize their room, for example, using memory boxes, furniture, and wall art.	Required
	A night light is provided on the wall by the bathroom entrance. A three-way switch is provided for the night light, with one switch at the resident's bed and one at the entrance to the suite for staff use.	Required
	Resident rooms do not have balconies.	Required
	Room configuration has options for bed location.	Preferred
	Each room has cueing features (e.g., familiar objects/pictures) outside of the suite to assist residents in finding their way and identifying their rooms.	Preferred
RESID	ENT BATHROOM	LEVEL OF IMPORTANCE
	Each resident room has an ensuite three-piece bathroom that is accessed from within the suite.  Bathroom includes a wheelchair accessible (barrier-free), zero threshold shower, toilet with two-sided access, and a sink.	Required
	There shall be a line of sight from resident bed to toilet.	Required
	There is a minimum of a 1.5 m (5 ft) turning radius within the bathroom to allow for wheelchair or walker accessibility and for a caregiver/staff to assist a resident, and appropriate space for door swing or sliding door.	Required
	There is no direct view of the shower or the toilet from outside the resident room.	Required
	In accordance with the Barrier-Free Design Guide, bathroom walls are reinforced to allow for appropriate flip-down and wall-mounted grab bar placement to facilitate resident movement in the general bathroom space (e.g., in and out of the shower, up and down from the toilet).	Required
<u> </u>	Bathroom access door shall have a clear width of 1016 mm (40 in). A double action swing hinged door and privacy hardware is required; the lock must be easily operable and readily releasable by residents and staff. Alternatively, a sliding door can be considered.	Required
	Each bathroom has a mirror, located over the sink, which is visible by residents of all heights and those in wheelchairs.	Required
	Each bathroom has counter space for the storage of resident items and a wall-mounted soap dispenser and towel bar located at a wheelchair accessible height, with convenient access to the sink.	Required
	Temperature mixing valves are installed on all faucets accessed by residents.	Required
	Non-skid surfaces on bathroom floor.	Required
	Ensuite shower dimensions are at least 1.5 m x 1.5 m (5 ft x 5 ft), with no lip around the perimeter (zero threshold) and are outfitted with appropriately placed and reinforced wall grab bars. The slope of the floor shall support drainage without negative impact on resident mobility.	Required
	Shower enclosure is equipped with a securely mounted shower bar for an adjustable-height hand-held showerhead.	Required
	Shower stall shall not have pre-molded seating or a fold-down seat.	Required
	Toilets of standard height (seat height 430 mm - 460 mm (16.93 in - 18.11 in)) (no more than 460 mm (18.11 in) above the floor) shall be available; installed raised toilet seats may also be used. Two-sided access to the toilet must be available for staff, with appropriately installed flip-down grab bars on either side.	Required
	Bathroom has a cabinet for storage of resident's toiletry items with a provision to lock a portion of the storage cabinet.	Preferred

	Shower area is distinct from the other fixtures in the bathroom to avoid overspray and significant clean-up times.	Preferred
	When open, a bathroom door does not block the entrance into the suite from the corridor and does not swing into another door in the suite. Alternatively, use a sliding door.	Preferred
RESID	ENT ASSISTED BATHING ROOM	LEVEL OF IMPORTANCE
	Each resident requires access to a barrier-free assisted bathing room. If the Continuing Care Home has only one assisted bathing room, it must be designed to full bariatric standards.	Required
	The assisted bathing room does not open directly onto a main circulation route.	Required
	Each assisted bathing room accommodates a non-jetted bathing tub with unrestricted access on three sides. If a side-entrance bathtub is installed, it must be a quick-filling model. Tub selected must accommodate a lift for use with residents who require lift assistance.	Required
	Each assisted bathing room has a barrier-free shower at least 1.5 m x 1.5 m (5 ft x 5 ft), with no lip around the perimeter (zero threshold), a barrier-free toilet with screening, a hand washing station, dressing area, and lockable storage area for supplies.	Required
	Assisted bathing rooms have separate air temperature controls to maintain a comfortable level for residents while bathing.	Required
	Assisted bathing rooms are equipped with a lift to facilitate the transfer of residents in and out of the tub and on/off the toilet (bariatric requirements if only one assisted bathing room in the Continuing Care Home).	Required
LAUNI	DRY FACILITIES	LEVEL OF IMPORTANCE
	Residents and their families have access to laundry facilities to do personal laundry.	Required
STAFF	AREAS	LEVEL OF IMPORTANCE
	The Continuing Care Home has designated workspace for AHS staff with appropriate storage for records and miscellaneous items.	Required
	AHS staff require internet access, phone, and access to a fax machine.	Required
	Administrative space for managerial and program staff is provided.	Required
	A secure lockable staff room, separate from resident spaces, shall be provided for breaks. The staff room shall include seating area, a kitchenette (with a sink, microwave(s), refrigerator(s), and countertop space), a display/storage area for educational resources, two-piece washroom(s) and separate private shower(s) or three-piece bathroom(s), and full or partial lockers to store personal belongings.	Required
MEDIC	CATION ROOM	LEVEL OF IMPORTANCE
	Lockable medication room, with secure internal storage, a hand washing station, and refrigerator is provided.	Required
	Space is available for storage of oxygen (if oxygen therapy is provided).	Preferred
STOR	AGE SPACE	LEVEL OF IMPORTANCE
	Designated space is available for the storage of supplies and equipment for the care and treatment of residents. Storage space is readily accessible to caregivers and staff, yet does not intrude on the resident's personal space.	Required
	There shall be storage space for emergency equipment, such as suction machines and defibrillators, located in an area easily accessible within the Continuing Care Home.	Required
	Mobile lifts shall be stored in close proximity to point of use. The storage alcove or room should have electrical outlets for recharging equipment.	Required
u	The Continuing Care Home contains a lockable clean storage room for supplies, equipment, and linen.	Required

	The Continuing Care Home must have increas Protective Equipment (PPE) (see Appendix 3).	ed clean storage for emergency stocks of Personal	Required	
	The Continuing Care Home must contain a loc equipment (e.g., carts, wheelchairs, mechanic prevention and control requirements.	Required		
RECEIVING / SERVICES SPACE			LEVEL OF IMPORTANCE	
	The receiving/service space (separate from maservices.	Required		
	A separate area for garbage storage and pick-	up is provided in the receiving/service space.	Required	
ENERG	GY EFFICIENCY AND SUSTAINABILITY		LEVEL OF IMPORTANCE	
		nd severe weather (e.g., hail, wind) and other potential durable, low-maintenance materials (e.g., cementitious,	Required	
	Prioritize building airtightness. Incorporate blow airtightness of building envelope.	wer door testing at commissioning phase to ensure	Required	
	Select efficient systems. Choose high-performance mechanical equipment (e.g., condensing hot water heaters, high-efficiency heating and cooling equipment) for long-term energy and operational cost savings.		Required	
	Building to be equipped with triple-glazed windows. These windows are more energy efficient and improve occupant comfort by reducing drafts and overheating.		Required	
	Prioritize indoor air quality for occupants. Ensure low volatile organic compound (VOC) materials are used.		Required	
DESIG	DESIGN REVIEW		LEVEL OF IMPORTANCE	
	I acknowledge that the building design will be reviewed by the Design Review Committee to ensure compliance with the design requirements of this Architectural Design Requirements for Continuing Care Checklist; feedback will be provided; and deficiencies must be addressed.		Required	
APPLICANT ACKNOWLEDGMENT OF EACH REQUIREMENT IN THIS CHECKLIST				
Name o	of Authorized Official:			
Title of	Title of Authorized Official:			
Date:				

## **Definitions**

- 1. "Alberta Health" means His Majesty the King in Right of Alberta as represented by the Minister of Health.
- 2. "Alberta Health Services" or "AHS" means the regional health authority created pursuant to the Regional Health Authorities Act of Alberta.
- 3. **"Applicant"** means a legal entity that submits a grant application in response to the Grant Application Process for which requirements are determined and communicated by Alberta Health.
- 4. "Architectural Design Requirements for Continuing Care Checklist" means a list of building design elements that are requirements for each Continuing Care capital project funded by the Continuing Care Capital Program, and that each Applicant must acknowledge in writing and comply with as a condition for receiving Continuing Care Capital Program capital grant funding.
- 5. "Authority Having Jurisdiction" means a governmental entity (federal, provincial, municipal, or other entity) incorporated via legislation with authority to approve certain actions, reports, permits, documents, etc. involved in design, planning, and construction of a Continuing Care Home, including and particularly, the upholding of fire and life safety standards.
- 6. "Commercial Capacity" means that portion of the Continuing Care Home allocated to retail and office space, which may include community services space. Commercial Capacity and community services spaces are not eligible for Continuing Care Capital Program capital grant funding.
- 7. "Complementary Capacity" means that portion of the Continuing Care Home allocated to the Ineligible Units and the common space and service area accompanying their development.
- 8. "Continuing Care" means Alberta's Continuing Care system, which provides Albertans with a range of health, personal care, and accommodation services required to support their independence and quality of life. Continuing Care clients are defined by their need for care, not by their age or diagnosis or the length of time they may require service. Continuing Care includes Home Care, Supportive Living, DSL, and LTC. The Continuing Care Capital Grant Program only provides funding to support the development of supportive living, DSL, and LTC spaces.
- 9. "Core Capacity" means that portion of the Continuing Care Home allocated to the provision of Eligible Units and the common space and service area accompanying their development.
- 10. "Design Review Committee" means the Design Review Committee comprising of representatives from Alberta Health, Alberta Infrastructure, and AHS. Once an application is approved, Applicants are required to provide plans of the proposed Continuing Care Home to the Design Review Committee at several stages of the design process. The Design Review Committee will review the designs and provide feedback where the design does not meet the requirements.
- 11. "Designated Supportive Living" or "DSL" means licensed Supportive Living settings where AHS controls access to a specific number of spaces according to an agreement between the operator and AHS for the provision of publicly funded Continuing Care health services. Case management, registered nursing and rehabilitation therapy and other services are provided on-site. Accommodation services in DSL must meet the requirements of the <u>Supportive Living Accommodation Standards</u> and be provided at or below the Established Accommodation Charge. Publicly funded Continuing Care health services must be provided in accordance with the <u>Continuing Care Health Service Standards</u> and any other relevant legislation or standards. DSL settings are a community-based living option where 24-hour on-site (scheduled and unscheduled) personal care and support services are provided by Health Care Aides. In some DSL settings, personal care and support services are provided by Practical Nurses and Health Care Aides.

- 12. "Designated Supportive Living Level 4 Dementia" or "DSL4D" means housing and support for adults with a wide range of health issues including moderate to severe dementia or cognitive impairment. Comprehensive services provided to DSL4D residents include the availability of 24-hour nursing care, purpose-specific safety, security and programming.
- 13. "Eligible Units" means those residential units for Supportive Living, DSL and LTC that meet the requirements specified in the Grant Application Process and for which the Applicant is seeking grant funding. Eligible Units and their accompanying common and service area comprise the Core Capacity of the Continuing Care Home.
- 14. "Continuing Care Home" means the building where publicly funded Continuing Care services are provided. Under the Continuing Care Capital Program grant process, a Continuing Care Home also refers collectively to the Core Capacity, the Complementary Capacity, and the Commercial Capacity.
- 15. "Higher Levels of Care" means, collectively, the equivalent care to that currently provided to residents assessed as requiring DSL4, DSL4D, or LTC and for any specialty capacity in these streams.
- 16. **"Home Care"** means a service to help an individual or their loved one remain safe and independent as long as possible. Home care includes professional and personal care services; for more information visit <a href="https://www.albertahealthservices.ca/assets/info/seniors/if-sen-home-care-brochure.pdf">https://www.albertahealthservices.ca/assets/info/seniors/if-sen-home-care-brochure.pdf</a>.
- 17. "Long-Term Care" or "LTC" means the units in the Core Capacity, which meet the standards, conditions and requirements of both Alberta Health and AHS equivalent to a nursing home. A LTC Continuing Care Home is a purpose-built congregate care option for individuals with complex, unpredictable medical needs who require 24-hour on-site Registered Nurse assessment and/or care. In addition, professional services may be provided by Licensed Practical Nurses and therapists while 24-hour on-site unscheduled and scheduled personal care and support is provided by Health Care Aides. Case management, registered nursing, rehabilitation therapy, and other services are provided on-site. LTC facilities include nursing homes under the Nursing Homes Act and auxiliary hospitals under the Hospitals Act. Accommodation services in LTC must meet the requirements of the Long-Term Care Accommodation Standards and be provided at or below the Established Accommodation Charge. Publicly funded Continuing Care health services must be provided in accordance with the Continuing Care Health Service Standards and any other relevant legislation or standards.
- 18. "Mandatory Requirements" means the evaluation criteria that must be satisfied for an application to be considered successful.
- 19. "**Project**" means the proposed design, planning, acquisition, construction, installation, and commissioning of the proposed Core Capacity.
- 20. "Supportive Living" means licensed facilities (under the <u>Supportive Living Accommodation Licensing Act</u>) where services are delivered in a home-like setting for four or more adults needing some support but without multiple complex or unscheduled health needs. Supportive Living includes a variety of facilities such as lodges, seniors' residences, group homes, and DSL. It promotes resident's independence and aging in place through the provision of services such as 24-hour monitoring, emergency response, security, meals, housekeeping, and life-enrichment activities. Building features include private space and a safe, secure, and barrier-free environment. Publicly-funded personal care and health services are provided to Supportive Living residents based on their assessed unmet needs. Individuals living in Supportive Living may receive publicly-funded Continuing Care health services through Home Care in accordance with the Continuing Care Health Service Standards and any other relevant legislation or standards. Individuals may also obtain privately funded services.

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