

HOSPITAL
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PLANNING

MULTILEVEL CARE DESIGN GUIDELINES

Facilities Planning and Construction Division
Care Services
Ministry of Health and
Ministry Responsible for Seniors

December 18, 1998

To: Multilevel Care Guidelines Users

Re: Interim Issuance of Guidelines

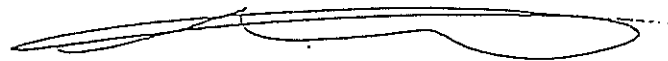
The Multilevel Care Guidelines are currently being revised and as a result, no formal reprinting of the "old" guidelines will occur until revisions are complete. As an interim measure, the enclosed copy of the existing guidelines has been photocopied for you at no charge.

The key areas where changes are proposed in the new guidelines are:

- The Pod/House concept for residential bedroom clusters (recommend 18-22 beds) in order to create a "home-like" environment.
- Walking/wandering loops incorporated into the circulation of the pods/houses.
- Additional space is required for wheelchair accessibility in resident dining areas (increase from 2.0 m² per resident to 3.0 m² per resident).
- Increase the single bedroom size from 20.0 m² to 21.0 m².
- Recommend 6 foot wide corridors for single-loaded bedroom corridors, where possible.
- Double rooms not to exceed 10% of resident population.
- Allow flexibility to accommodate increasing numbers of Special Care residents.

Once the guidelines have been revised, you will be notified of their availability. Please contact KL (Kerry) Magnus at (250) 356-3083 or Rudi van den Broek at (250) 356-2413, if you have any questions.

Sincerely,



Rudi van den Broek
Manager, Technical and Cost Analysis
Implementation Branch

Enclosure

Multilevel Care Design Guidelines Review

Final Report December 1994

Volume 1: MLC Design Guideline Revisions

Volume 2: Commentary

the Jensen Group architecture inc.

111 - 1034 Johnson Street

Victoria, B.C. V8V 3N7

PH: (604) 360-9009 FAX: (604) 360-9026

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Multilevel Care Design Guidelines Review

Executive Summary

Final Report December 1994

the Jensen Group architecture inc.
111 - 1034 Johnson Street
Victoria, B.C. V8V 3N7
PH: (604) 360-9009 FAX: (604) 360-9026

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the Jensen Group architecture inc.
111 - 1034 Johnson Street
Victoria, B.C. V8V 3N7
PH: (604) 360-9009 FAX: (604) 360-9026

DRAFT

EXECUTIVE SUMMARY

1.0 Introduction

This revision of the Multilevel Care Design Guidelines has focused on four (4) existing sections of the current guidelines, titled:

- Section 1. Introduction
- Section 3. Resident Unit
- Section 4. Resident Group Activities
- Section 6. Special Care

Revisions of the other sections (2,5,7-14) of the current guidelines will take place under a subsequent review.

These revisions are intended to incorporate the recommendations of the Review Committee and the Consultant for a care facility design capable of supporting suitable care of residents with complex and comprehensive, physical and mental needs including severe cognitive impairments.

2.0 Future Care Population

The average population for care facilities in the next five to ten years is projected to be 10% IC2, 45% IC3, and 45% EC. This reflects the trend in our health care system which is resulting in long term facility care becoming increasingly limited to the highest levels of care, for residents with severe cognitive impairment and/or behaviour dysfunctions and for extremely physically frail residents assessed at the highest levels of intermediate care or extended care.

3.0 Operational and Capital Costs

This review of the Multilevel Care Guidelines assumes that current multilevel care staffing formulas will not be increased in the foreseeable future. Health care costs and the pressure to control costs is expected to increase with the aging of our overall population. Effective design can, however, enhance an efficient use of staffing.

The population of the very elderly (85+) who are the primary users of long term facility care is projected to increase by 64% between 1994 and the year 2004. The population of 75+ is expected to increase by 44% over the same period. This dramatic ten year increase in the elderly population will increase health care costs at a time when there are fewer working taxpayers to support increased costs.

Effective cost management for the capital cost and operating cost has been a major concern in these recommended Multilevel Care Design Guidelines. More than 80% of the operating costs of a care facility are staffing costs. The operating cost of the average care facility equals the capital cost of construction within 2 to 3 years. The useful life of a new care facility is estimated by the Ministry to be 30 to 40 years during which time the operating costs will continue to rise.

This document emphasises the need for effective use of staff time and the need to produce a residential care configuration and environment which is proven effective in reducing the care workload. Residents are encouraged to maintain as much independent functioning as possible.

4.0 The Care Unit and Care Group Concept

The recommended care unit consists of a number of resident rooms which have the dining area, lounge, resident kitchen and activities areas for daily living within the care unit or in close proximity to provide the environment of a large family home. For effective staffing some of these areas (e.g. dining), could be shared between two care units. A care group will be formed where two or more care units are combined for staffing efficiencies.

5.0 Facility Size and Staffing

The care unit should have the smallest number of beds that is operationally feasible with available staffing.

The revised design guidelines which follow are based on a 75 to 110 bed multilevel care facility which is stand-alone (rather than being interdependent with an adjacent health care facility). The current Guidelines are based on a prototype of 75 beds. To provide staffing and support efficiencies in the future, larger care facilities of 100-110 beds may be recommended. As an example, this would correlate approximately with three (3) care groups of thirty-six (36) beds each group composed of two care units of eighteen (18) beds.

6.0 Creating a Home Environment

The guidelines describe a flexible basic care unit concept which has a "home-like" care environment within its institutional setting. The care units have been kept as small as possible to produce the atmosphere of a large family home and to provide the opportunity to house small numbers of residents with similar impairments in one care unit where they can be provided with more appropriate care.

7.0 Resident Rooms

All resident rooms are to be wheelchair accessible with single occupancy room having their own ensuite bathroom. Up to 10% of the beds can be in double occupancy rooms sharing a bathroom.

8.0 Walking Loops

For many residents in the early to moderate stages of dementia, the need to wander and pace is very strong. These guidelines recommend that each care unit contain internal walking loop and that where adjacent care units form a care group, they be linked to provide a more extensive walking loop.

By providing a clearly defined and attractive circulation path within the residential care unit and care group, all residents can be given a chance to enjoy exercise (by walking or by wheelchair) within their own home. This is an important substitute for more active forms of exercise for the very physically frail elderly.

9.0 Outdoor Access

The guidelines also recommend that each care unit have direct access to an outdoor area with exit control capability. Systems of exit control must be considered which maximize safety while allowing individual freedom. (The ability to secure the outdoor area is required when a care unit houses cognitively impaired residents.)

The outdoor area should contain an external walking loop which connects strategic areas within a garden environment.

10.0 Direct Care Support

Where two or more adjacent care units are designated as a Care Group they can be served by one professional care team. The revised guidelines recommend that a care station be provided to serve each Care Group allowing staff to carry out administrative duties without leaving the Care Group.

The care station should be located with good views into the care units and if possible, views to the exterior walking loops. If additional control is needed, particularly at the entry of each care unit, the guidelines recommend that a simple table or care desk be located near the entry.

As an alternate to a central medication room serving the whole facility, the Guidelines propose separate medications rooms located adjacent to each Care Station, again making it unnecessary for staff to leave the care group.

Overall care planning and professional supervision during the night hours will be shared among the groups from a care control centre. The care centre will provide central monitoring of the nurse call systems and other sensors and security systems within the care facility.

11.0 Resident Common Areas

The primary resident common areas for daily activities consisting of dining, kitchen, lounge and activity space are located within the care unit or the care group. Some additional common areas including a multi-purpose room can be provided for use by all residents of the facility.

The multi-purpose room will provide space for larger scale resident activities including choirs, sing-alongs and seasonal special events and can also be used for staff in-service training.

Multilevel Care Design Guidelines Review

Volume 1
MLC Design Guidelines Revisions

Final Report December 1994

the Jensen Group architecture inc.

111 - 1034 Johnson Street

Victoria, B.C. V8V 3N7

PH: (604) 360-9009 FAX: (604) 360-9026

DRAFT

1. INTRODUCTION

1.1 DEFINITIONS OF MULTILEVEL CARE

A person is eligible for multilevel care benefits when there is a demonstrated need for daily care by nursing staff but the person does not immediately need the resources of an acute, rehabilitation, or psychiatric health facility. In addition, they may require the services of a physician, pharmacist, occupational and physiotherapists, social worker, dietician, and other health care professionals as available. This need is not related to specific disease classifications, but rather to a continuing physical and/or mental disability whereby the person may be unable to function in an independent manner. Although the majority of persons may reach this degree of functional dependence as a result of diseases associated with aging, a care facility may also be concerned with the provision of multilevel care to eligible young adults.

The introduction of multilevel care facilities permits the integration of the various levels of chronic care in one setting, enabling residents with deteriorating health to remain in the facility of their choice.

1.2 PROGRAM AND OBJECTIVES IN CARE OF MULTILEVEL FACILITY RESIDENTS

Realization of resident's individual potential for activities of daily living is a primary goal of a multilevel care facility. It has been clearly demonstrated that putting elderly or disabled persons to bed, or locating them in an institution where they are the passive recipients of complete care, will very quickly lead to further physical and mental deterioration. Conversely, a program that provides training and practice in activities of daily living and mobility, makes available a variety of social, recreational and other types of activities providing stimulation and pleasure which can arrest or reverse such deterioration.

The staff of multilevel facilities are required to assess an individual's needs, and develop a program of activities that will assist in maintaining or improving the functional ability of each person, thereby permitting a more useful and fulfilling life.

The standards outlined hereinafter are intended to provide appropriate space to ensure the program will fulfil the stated objectives.

1.3 FUTURE FACILITY CARE NEEDS

1.3.1 Multi-level care facilities must be prepared, and able to provide care for any chronic care need, although there may be more specialized facilities in some centres.

1.3.2 Providing that the Provincial policies of the last five years for home care continue, facility care will become increasingly limited to the highest levels of care for cognitively-impaired and/or extremely physically frail residents.

1.3.3 The average resident population in facility care in the next five to ten years is estimated as 10% Intermediate Care 2 (IC2), 45% Intermediate Care 3 (IC3) and 45% Extended Care (E.C) although each facility will need to develop a "residents needs assessment" in order to determine the proportion of IC2, IC3 and EC residents. A great variety of resident needs exists within those broad intermediate care and extended care assessment levels. However summary descriptions can be provided to assist in planning and design of care facilities.

Most IC2 residents in facility care will be in very frail physical condition. Many IC2 residents will also be in the early stages of dementia while others will be cognitively alert. The majority of IC3 residents will be moderately to severely cognitively impaired with severe behaviour dysfunctions requiring high levels of care. A minority of the IC3 residents will still be cognitively alert but will be in very frail physical condition requiring very high levels of care.

Residents assessed at Extended Care are no longer independently ambulant. Extended care residents need assistance to walk a few steps (if they can still walk) and/or they need assistance to transfer between their beds and their wheelchairs, crutches or other devices for mobility. A number of residents may be admitted in the last stages of illness and thereby require palliative care.

At least half of these extended care frail residents will be in some stage of mild to severe dementia. An increasing proportion will be moderately to severely cognitively impaired with behaviour dysfunctions.

Resident needs within these broad categories are diverse. The census of residents within particular functional groups shifts unpredictably.

1.3.4 To respond to future care needs, a residential care unit designed today for long-term care will need to have the flexibility in the future to support the basic requirements of care for very cognitively impaired residents with behaviour dysfunctions and for extended care residents. All portions of a facility to be used by residents are to be designed for wheelchair manoeuvrability.

1.3.5 To respond to diverse care needs, a facility will need to be composed of smaller residential units that allow the grouping of residents by functional category as necessary for more appropriate care.

1.4 THE CARE UNIT CONCEPT - SUPPORTIVE CARE ENVIRONMENT

1.4.1 A familiar and home-like care environment encourages long-term care residents to maintain as much independence as possible and avoid excess disability. A supportive care environment is essential to keep the care workload manageable as care levels increase.

1.4.2 To provide a familiar home-like setting, resident rooms should be clustered in care units which have the dining, bathing, activity and lounge areas needed for daily living. The care unit should have the smallest number of beds that is feasible with available staffing.

- 1.4.3 Small residential care units can provide supportive care environments for the many types of residents in facility care.

1.5 FLOOR AREA CALCULATIONS

Net space requirements are listed in each section of the guidelines.

- Apply a factor of 1.6 to obtain building gross areas from the total net areas of the following:

Section 3.0: Resident Unit
Section 4.0: Direct Care Support Areas
Section 5.0: Resident Activity Areas.

- Multiply by a factor of 1.4 to obtain building gross areas from the total net areas in the remaining sections.

1.6 SPACE SUMMARY

As a total building area guide, new facilities will not exceed the following allowances:

- ___ m² building gross per bed when the facility is freestanding and self-sufficient.
- ___ m² building gross per bed when the facility is serviced by a parent health facility.

Note: These allowances do not include mechanical penthouse space.

Recommendation:

The gross square metre allowances per bed need to be increased from current levels to reflect the concept of all care beds in a facility being in flexible residential care units rather than some beds being standard Multilevel Care and some being in a special care unit.

Establishing the actual total gross area allowances per bed is premature at this stage, given that the Ministry may also be revising the guidelines for the common support areas of the care facility in a subsequent review project. (Office allowances, kitchen space and other issues have been identified for future review.)

2.0 BUILDING SITE CONSIDERATIONS (to be future review project)



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3.0 THE RESIDENT CARE UNIT

3.1 INTEGRATED CARE PROGRAM

See Commentary

3.2 DIVERSE CARE NEEDS OF RESIDENT

See Commentary

3.3 THE BASIC CARE UNIT CONCEPT

3.3.1 The Care Unit and Care Group Concept

The recommended care unit consists of a number of residential rooms which have their dining area, lounge, resident kitchen, bathing area and activities areas for daily living within the care unit or in close proximity to provide the environment of a family home. For effective staffing some of these areas (e.g. dining and bathing), could be shared between two care units. A care group will be formed where two or more care units are combined for staffing efficiencies.

3.3.2 Facility Size and Staffing

The care unit should have the smallest number of beds that is operationally feasible with available staffing.

The space standards of this guideline are based on a 75 to 110 bed multilevel care facility which is stand-alone (rather than being interdependent with an adjacent health care facility). Design team planning stand-alone facilities of lesser or greater number of beds will be reduced or increased as required. Design teams planning MLC facilities as additions or adjacent facilities to existing buildings will need to adapt these concepts appropriately.

3.3.3 Creating a Home Environment

The guidelines describe a flexible basic care unit concept which has a "home-like" care environment within its institutional setting. The care units have been kept as small as possible to produce the atmosphere of a large family home to provide the opportunity to house small numbers of residents with similar impairments in one care unit where they can be provided with more appropriate care.

3.3.4 Strategically Stimulating Care Environment

The care unit should provide positive meaningful stimuli to residents. Examples of positive stimuli are outdoor views, views of active functions, food aromas that whet appetite, birdsong that signals morning and hushed sound that signals the end of day.

Negative stimuli includes particularly distracting noises, glare and too many unfamiliar faces. Staff and service delivery personnel and material movement should not create through traffic in a care unit.

3.4 DESIGN PRINCIPLES FOR CARE UNIT

3.4.1 Internal Walking Loop

3.4.1.1 Each care unit should have an interior walking loop.

3.4.1.2 Consider linking the internal walking loops in adjacent care units that form a care group.

3.4.1.3 It is effective therapeutically to create this internal walking loop from "normal" circulation that links strategic areas of the care unit (dining, activities, lounge, etc.). This gives points of interest along the route that can give the resident the sense of meaningful journey and arrival that can encourage stops for rest rather than the purposeless endless walking (with the corresponding dangers of continuing weight loss). Because the internal walking loop is created from "normal circulation", the circulation space is increased only as needed to create a continuous loop and avoid dead ends.

3.4.1.4 The walking loop needs to be independent and internal to the care unit to maintain the unit's security. The capability for exit control is needed if every care unit is to have the flexibility to care for residents with "severe behaviour dysfunctions".

3.4.2 Corridor Dimensions and Details

3.4.2.1 Corridor Widths

Single-loaded corridors in the care units of 1830 mm minimum width will be considered for approval by the Ministry if an equivalency has been obtained from the local authorities having jurisdiction. Double-loaded corridors in the care units and all corridors in the main facility will have a minimum of 2400 mm corridor width.

3.4.2.2 Corridor Lengths

Corridor lengths should be minimized in consideration of the need for home-like environment and efficient staff circulation. At the same time the corridors in the care unit need to form continuous walking loops for residents.

3.4.2.3 Open Central Areas Inside Corridor Loop

Care unit schemes which contain occupancies adjacent but not separated from the egress corridor require an equivalency under the B.C. Building Code.

3.4.2.4 Handrails

Handrails must be provided on both sides of the care unit corridors mounted at a recommended height of 840 mm.

3.2.2.5 Finishes

Corridor detailing should be developed to protect the walls from wheelchair damage.

3.4.3 Exit Control from Care Unit

3.4.3.1 Each care unit should have the capability for exit control (when needed) from the care unit to the rest of the facility, and from the care unit to outdoor areas.

3.4.3.2 Exit control, when needed, should be unobtrusive and immediate.

3.4.3.3 For the safety of residents a flexible exit control is needed to provide control particularly from the care unit to the secure outdoor area.

3.4.3.4 Overall security and separation of the unit is an important factor in creating peace of mind in resident, staff and family members. Technology should be used to control exits and to ensure residents do not access service areas.

3.4.4 Outdoor Areas

3.4.4.1 Access and Security

Each care unit should have direct access to its own independent outdoor area where site conditions allow. This outdoor access should have the capacity for exit control when conditions are unsuitable (bad weather, cold nights). The outdoor area which serves a care unit should have the capability for exit control when needed to control access into other outdoor areas.

3.4.4.2 External Walking Loop

The outdoor area should have a clear continuous walking loop located so as to allow observation by staff from inside the unit. When staff are able to check easily for resident safety on the outdoor walking loop, staff feel more secure about allowing residents to use the outdoor areas unaccompanied. Free open access to a secure outdoor area is preferred for dementia care. See Section 5.8 for detail.

3.4.5 Resident Shared Common Areas

3.4.5.1 Provide separate dedicated space for dining, lounge and a space for activities. Common areas used by residents of the care units, care group and the facility common areas used by all residents are detailed in Section 5.

3.4.5.2 The dining areas for two adjacent care units can be located together, as long as there are flexible ways of dividing the space into smaller areas.

3.4.5.3 Activity areas from two adjacent units could also be co-located to provide flexibility for larger special activities. However for normal use, the activity space would be divided by movable walls into an activity area for each care unit. Sound control will need to be considered (see Section 5).

3.4.6 Views from Care Unit

3.4.6.1 Views to the outside should be available from common areas and resident rooms in a care unit.

3.4.6.2 Active views (traffic moving, children playing, etc.) are more desirable than passive views from the common areas.

3.4.6.3 Views from the care unit common areas in a courtyard scheme should be a mix of views out to the care facility grounds and views into the courtyard.

3.4.7 Front Porch Concept

Consider using some of the common areas of the care unit to create a "front porch" or entry for the care unit. Residents in the "front porch" area would have views of higher activity spaces of the overall care facility. This area can help to satisfy the residents' urge to gather where they can watch people coming and going.

3.4.8 Transition from Public to Private Areas

Functions in the care unit should be located to provide a transition from the common spaces such as the lounge, dining and activity areas to the most private spaces like the resident bedrooms. Traffic through the private spaces should be minimized consistent with a home-like setting.

3.4.9 Finishes

3.4.9.1 All finishes and colours in a care facility should be selected to give meaning to the care environment emphasizing landmarks and other features which make it easier for residents and visitors to find their way.

3.4.9.2 Consider using finishes and colours in the care unit to emphasize the room clusters that form smaller social groups. This can also aid with wayfinding.

3.4.9.3 Selection of colours and finishes should pay careful attention to the visual impairment which is characteristic of increasing age. It is essential that there be sufficient contrast between a door frame and a door, for example, to help the resident see the door. The same applies to door handles, cabinet pulls, etc.

In the inverse, when a doorway is intended for use only by staff by having the door and frame in the same finish and colour as the wall and having the locking or handle mechanism unobtrusive will make it relatively likely that the cognitively impaired resident will not be as aware of its existence.

3.4.9.4 Residents with visual impairment will have perceptual difficulty with a reflective finish. Flooring materials should be low glare easily maintainable surfaces which also cushion falls and absorb sound. It is also helpful to avoid bright white walls for the same reasons.

3.4.9.5 Adequate contrast of finishes and colours is particularly important in the bathing area of the care facility.

3.4.9.6 **Flooring**

Avoid use of materials that will increase the walking difficulty of residents with gait disturbance or impede easy movement of residents in wheelchairs.

3.4.9.7 **Carpeting**

Carpet absorbs sound, avoids glare, cushions falls and contributes to a residential character. Carpets are now available which meet the concerns for stain control and movement of wheelchairs. Only direct glue-down carpet installations are recommended (no carpet under layment).

Consider carpeting as a floor material for the corridor and other common areas of the care facility, with the exception of those areas where the need for a particularly cleanable surface or water resistance is an issue. For example, carpet should not be used in the dining area, resident kitchen or bathing area.

Carpeting should not be used as a standard floor material for resident rooms, however it can be considered for particular resident rooms with justification made for its use.

3.4.9.8 **Ceramic Tile**

Consider ceramic tile in those areas subject to high humidity and moisture. Use a non-slip tile finish in the bathing rooms and resident washrooms that are used as showers.

3.2.9.9 **Heat Welded Seamed Flooring with a Low-Glare/No Wax Finish**

Heat Welded Seamed flooring with a no wax non-glare finish provides a warm floor finish and is an appropriate flooring for areas where cleanability and water resistance is an issue. Examples include the dining area and resident kitchen areas.

It is important to minimize changes in floor finishes. Junctions between floor finishes changes in colour and strong pattern can be difficult for residents due to gait disturbances and perceptual problems.

3.4.10 Engineering Considerations

Most engineering systems and equipment should meet the guidelines established by existing Multilevel Care Design Guidelines Section 11 with further considerations as listed below:

3.4.10.1 Electrical Design

1. All receptacles in resident care areas should be tamper-proof type.
2. Fire alarm pull stations should be of the guarded type.
3. Security systems can be utilized but should have the emphasis placed on exit door locking in conjunction with alarms rather than monitoring.

There are several types of wandering resident alarm systems available but the total function and reliability of these systems need to be carefully examined. The design of the physical space should try to maximize control and supervision of residents and discourage any walking away from the facility, thereby reducing the requirement for electric type controls. Code regulations must be complied with. Motion sensors in residents rooms connected to nurse call alarm system may be appropriate during the time when residents are sleeping.

4. Nurse call system resident bedside stations should have geriatric cord sets.
5. Soothing background music systems can have a calming influence on residents. Intercom and paging systems are not recommended.
6. Lighting systems should be capable of offering a range of different lighting levels to make use of available daylight and also take into consideration the different activities of the residents. Supplemental incandescent lighting could be provided in order to make use of any dimming requirements and halogen lighting can help achieve a homelike appearance.

Generally illumination levels should be higher than recommended minimums prescribed in Section 11. Lighting levels should provide an even distribution throughout different areas to help reduce shadows and glare. The use of indirect and/or louvred fluorescent fixtures installed out of the normal field of view is also recommended for overall illumination. Supplementary lighting in the form of table or stand lamps may be utilized for task (reading) lighting. Fluorescent lamps should be warm white or daylight type.

7. Light switches for corridor lighting should be located at the care centre; night light switches in resident rooms may be of the illuminated type and should be located at the bed head and the entrance door.
8. Radiant heating panels (ceiling mounted) should be used in lieu of baseboard heaters.

3.4.10.2 Mechanical Design

1. Sprinkler heads should be the concealed or recessed type.
2. Thermostats and/or temperature sensor controls in resident areas should be tamper proof.

3.5 RESIDENT ROOM

3.5.1 Room Occupancy

Nearly all beds in a care facility should be single-occupancy rooms with the percentage of total beds allowable in double-occupancy rooms to be determined by the Ministry of Health (currently 10% see Volume 2).

3.5.2 Interconnecting Rooms

Consider providing interconnecting doors between two single rooms to allow the flexibility for a married couple or two roommates to share those rooms as a suite. Using the concept of connecting two single rooms as a suite does not preclude providing double-occupancy rooms, if the care provider so desires.

3.5.3 Bed Location

The desired bed location should be determined early in design. Consider the proposed bed location in the placement of the nurse call system, reading lights, switches, other room controls and bed-head bumper rails to protect wall against damage from bed movement. To reduce incontinency in some residents it is useful to have views from the bed location to the toilet.

3.5.4 Ensuite Locations

The ensuite washroom location which is preferred is one that provides privacy for the resident when the door to the resident room is opened and is visible from the bed location.

3.5.5 Clearances

All equipment, ergonomics and furniture in the residents room is to be laid out in accordance with currently accepted ergonomic guidelines and the recommendations of the WCB.

Without moving adjacent beds or furniture, except chairs, it should be possible to move any bed into or out of the room. A minimum 1200 mm wide passage for such movement shall be provided within all bedrooms.

At least 1200 mm clear space between beds is required for nursing care, to assist people into wheelchairs, and for operating person lifting devices and stretchers. This space shall be unobstructed by tables, etc. Wall-mounted cupboards between the beds cannot be accepted as they interfere both with management of the person and the person's freedom to manoeuvre into and from a wheelchair. The other side of the beds shall have a minimum of 900 mm clearance for manoeuvring room.

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3.5.6 Views

It is desirable that every resident in a multiple bed room have a direct view out of an adjacent window from their bed position.

Certain architectural features can unnecessarily restrict the views of those confined to bed. Consideration of resident views must take priority over architectural aesthetics.

3.5.7 Doors

Door openings into bedrooms from corridors shall have a clear minimum width of 1150 mm to allow for the movement of beds and, if designed with two opening leaves, should have a minimum opening width of 900 mm for normal usage. Locking hardware on resident bedrooms will generally not be allowed but, depending on the level of care and acuity of the resident, the flexibility should be available to install locks if required.

Door openings from resident bedrooms to the resident en suites shall be no less than 900 mm wide.

Sliding or folding doors are not generally considered suitable for use by residents.

3.5.8 Windows

An openable window is desirable (and required if mechanical ventilation is not provided). The opening location and size of opening needs to be safe for the cognitively-impaired. The window needs to be operable by the physically-frail. Window sills should be low enough to permit a view out and down from a low bed or wheelchair position.

Window openings must be strong enough to withstand abuse by residents and restricted to prevent egress. Window drapes need to be installed with quick-release fastenings so that they cannot be ripped. Use of draw cords must be avoided.

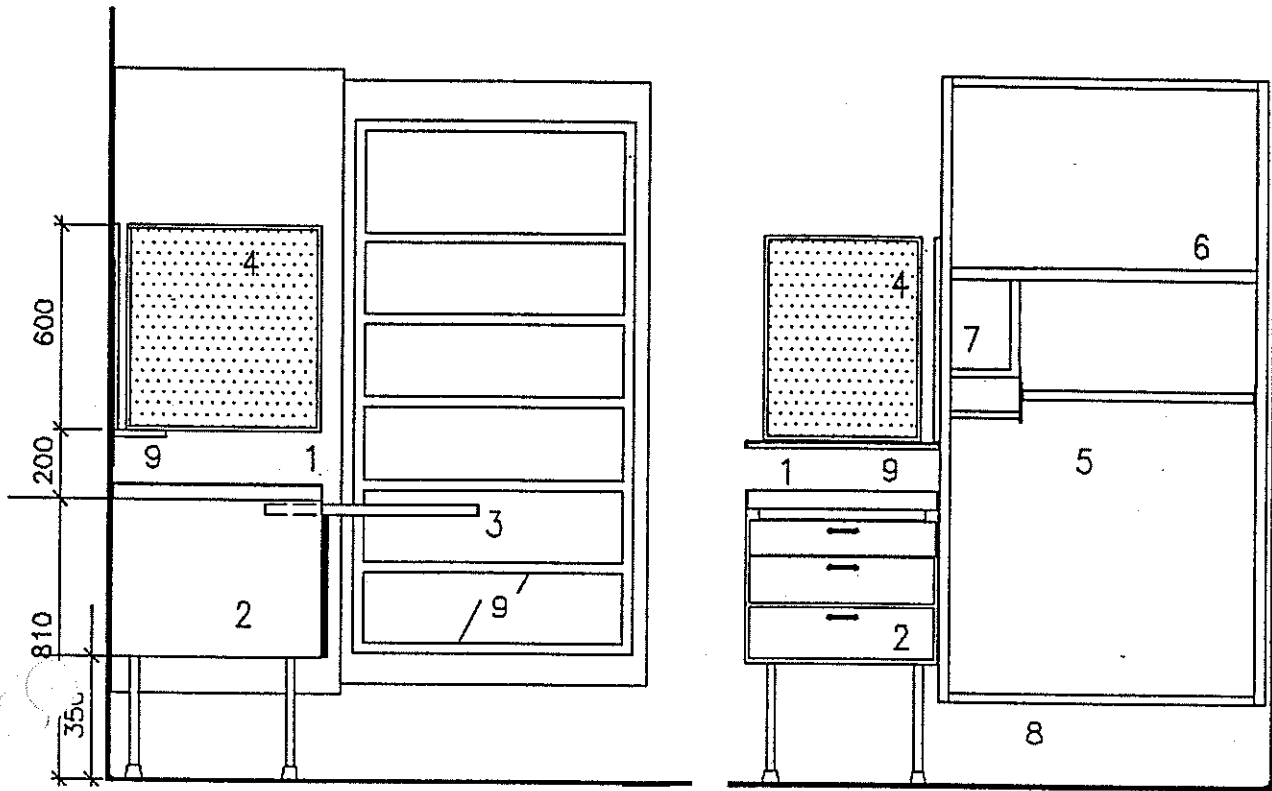
3.5.9 Privacy Curtain Tracks

In multiple bed rooms mounted curtain tracks shall be provided for privacy screening of beds. The curtains, if full height, shall be fitted with mesh at the top for air circulation. A clear space of at least 300 mm should be provided between the foot of the bed and the privacy curtain, and the track must provide for the resident nearest the door to be screened from view from the corridor.

3.5.10 Furniture

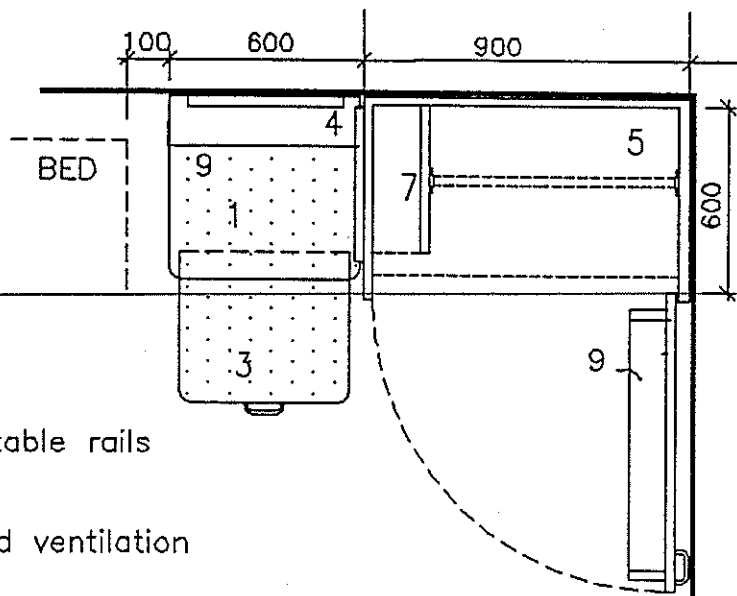
3.5.10.1 Beds

The space allowance for residents beds shall be 2200 x 1000 mm. Bed heads should be constructed to allow for clamping on self-help devices such as a trapeze. Safety aides should be the sliding type, with clamp fasteners fastened to the bed frame, but some beds may be fitted with half sides for assisted



SIDE ELEVATIONS

FRONT ELEVATIONS



PLAN

1. Bureau top
2. Drawers (one lockable)
3. Pull-out writing top
4. Pinboards
5. Hanging space with adjustable rails
6. Slatted shelf
7. Adjustable shelf space
8. Toe room for cleaning and ventilation
9. Fixed shelf



FIG 2. BEDROOM FURNITURE

transfers. All beds in a facility should be of the high-low type.

3.5.10.2 Resident Wardrobe

In each bedroom provide individual resident wardrobe. Provide a minimum space of 0.5 m². Consider designing the wardrobe with two sections, a small unlocked section for one day use clothes and a larger locked section for general clothing storage.

3.5.10.3 Bedside Bureau

Provide a free-standing bedside bureau for each resident's personal belongings. May also be designed to contain a washbasin and bedpan. Alternative arrangements may be made for storage of the washbasin and bedpan in the bedroom or bathroom areas. Provide space 600 x 600 mm.

3.5.10.4 Other Furnishings

Refer to Figs. 3-16 to 3-18. Area to be provided for armchair and space for a personal item of the resident's own furniture.

3.5.11 Medical Gases

Piped gas is not necessary but may be permitted in some multilevel care facilities. Oxygen which may be required can be satisfactorily administered from portable equipment including concentrators. When not in use by residents the equipment must be stored in rooms approved for the purpose.

Suction equipment of the portable electrically operated type is considered to be satisfactory.

3.5.12 Nurse Call System

Provide a nurse call system in the resident room.

3.5.13 Personalization

Design features that provide the opportunity for residents to personalize the room are highly desirable.

3.5.14 Single Occupancy Room Area

See Figs. 3-16 and 3-17 which show the recommended bed location for privacy and two alternate bed locations.

Space allowance 21.0 sq.m.

For two interconnecting: space allowance 42.0 sq.m.

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3.5.15 Double Occupancy Room Area

See Fig. 3-18 for suggested layout of double occupancy room.

Space allowance 33.0 sq.m.

3.6 ENSUITE WASHROOM

3.6.1 Washroom Layout

Fig. 3-19 illustrates an ensuite washroom arrangement. Note wheelchair turning radius requirement. An ensuite washroom containing a toilet and vanity with washbasin is required in every resident room.

All ensuite washrooms should be wheelchair-accessible and be provided with swing-up grab bars beside the toilet.

Consider removing the ensuite washroom door in certain circumstances to ensure the resident has a clear view of the toilet from the bed location. See 3.5.3.

Space allowance included in resident room allowance.

3.6.2 Double Occupancy Rooms

The ensuite washroom for a double-occupancy room will have one toilet and one vanity with washbasin plus a lockable storage unit for each resident. A second washbasin in the resident room is not required.

3.6.3 Securing of Fixtures

Provide suitable anchorage for all wall mounted fixtures.

3.6.4 Toilets

3.6.4.1 The following toilets will be acceptable in the ensuite washrooms:

1. Floor-mounted tank toilet.
2. Wall-mounted tank toilet.
3. Wall-mounted flush valve toilet:

Flush valve fixture shall have a backrest mounted in front of the flush valve to support the resident. This should not interfere with the proper functioning of the hinged toilet seat.

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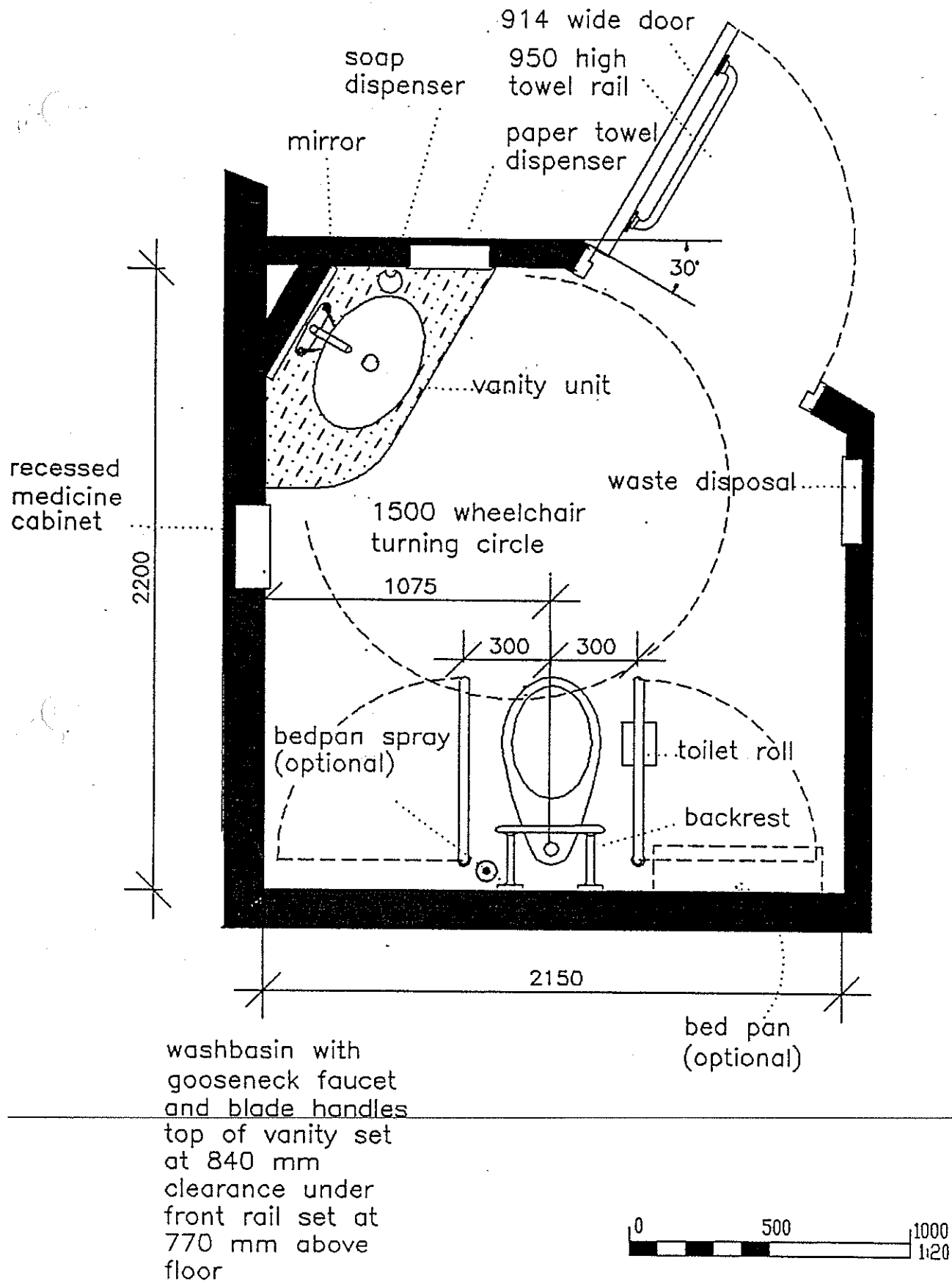


FIG 5. WHEELCHAIR WASHROOM

A simple and domestic environment is the objective and for this reason the familiar tank-back toilet is recommended instead of the flush-valve alternative. Where tank-back toilets are used, the tank lid must be tightly secured to prevent violent residents causing damage and injury. The floor-mounted toilet is preferred over the wall-mounted toilet because of the advantages of cost and familiarity. The wall-mounted toilet has the advantage of making the floor easier to clean (see Volume 2 for Commentary).

- 3.3.4.2 Toilets for resident use require a floor-to-rim height of 460 mm. The alternative of using a special toilet seat to raise the height of the toilet to wheelchair height can be discussed with Continuing Care. Any seat used to adjust toilet height must be fixed tightly enough to ensure safety and be easy to clean.
- 3.6.4.3 The toilet flush handle shall, if possible, be close enough to be reached by a person in a wheelchair (approximately 600 mm reach).
- 3.6.4.4 Provision of toilet seat restraint belts will be approved.

3.6.5 Washbasins

Washbasins shall be provided for the occupants use and for the control procedures required of the health facility personnel. Each basin should be equipped with a gooseneck faucet with aerator head, 100 mm blade handles and pop-up waste.

Adjacent to each basin, for staff use provide space for a paper towel, soap and protective glove dispenser and waste container. Confirm extent of this requirement with each facility.

The washbasin shall be installed in a vanity (avoid sharp corners); otherwise, a shelf shall be provided adjacent to the basin. Behind each washbasin there shall be an adjustable tilt mirror mounted for use by both wheelchair and standing users.

3.6.6 Shower

Consider utilizing the ensuite washroom as a shower room particularly useful for severely incontinent residents. The room finishes would need to be impervious to water and easily cleanable. The floor of the ensuite would slope to a faecal drain and be of non-slip impervious material. Controls for the shower should automatically maintain water temperature. A low pressure telephone type hand shower spray should be provided.

3.6.7 Bed Pan Flushing

The ensuite washrooms may have, if required, approved bedpan flushing facilities comprised of a flexible hose connected to the adjacent washbasin via a diverter valve.

Bedpan lugs may be provided on toilets where applicable.