



Archived Content

Information identified as archived is provided for reference, research or recordkeeping purposes. It is not subject to the Government of Canada Web Standards and has not been altered or updated since it was archived. Some of this archived content is available only in one official language. Translation by CMHC can be requested and will be provided if demand is sufficient.

Contenu archivé

Le contenu identifié comme archivé est fourni à des fins de référence, de recherche ou de tenue des dossiers; il n'est pas assujéti aux normes Web du gouvernement du Canada. Aucune modification ou mise à jour n'y a été apportée depuis son archivage. Une partie du contenu archivé n'existe que dans une seule des langues officielles. La SCHL en fera la traduction dans l'autre langue officielle si la demande est suffisante.

Cal
MH
95F43
v. 2
c. 1

CMHC  SCHL
Helping to house Canadians

FLEX

HOUSING

Design Competition • Entry Guide

**HOMES THAT
ADAPT TO
LIFE'S CHANGES**



ca1
MH
95743
v.2
c.1

FlexHousing Design Competition Entry Guide

PE 0187

CONTENTS **PAGE**

Part A - Descriptions of Entry Kit Documents **1**

Part B - Competition Guidelines **2**

Part C - Submission Brief **7**

Canada Mortgage and Housing Corporation
Société canadienne de financement et de logement
Canada Housing Information Centre
Centre canadien d'information sur le logement



FlexHousing Design Competition Entry Guide

Part A - Descriptions of Entry Kit Documents

The following documents are included in the kit that is supplied to prospective competitors in the FlexHousing Design Competition. The short title used in referring to these documents is shown in brackets () after the full title.

- ***FlexHousing Design Competition Entry Guide (Entry Guide)*** This guide, of which this list is the first part, provides information to help participants develop their designs and compile the information required for their entries.
- ***FlexHousing Design Competition Information Booklet (Information Booklet)*** This booklet provides an overview of the competition.
- Report on ***Focus Groups to Examine Barrier-Free and Adaptable Housing Design (Focus Group Report)*** This report presents the views of 238 participants in a series of 17 focus group sessions that were held across Canada. These participants included seniors, older adults and people with disabilities. They were asked to identify features that would be important to them in barrier-free and adaptable housing, and to indicate whether these features would have a "high priority" or "lower priority". The participants also identified many "custom features" that could be provided, if required, for people with special needs.
- Draft report on ***Design Options for Barrier-Free and Adaptable Housing (Design Options Report)*** This report describes and illustrates ways of providing the barrier-free and adaptable features that were identified by participants in the focus group studies. The report includes a section that presents estimates of the incremental construction costs associated with some of these features when compared to more usual design practices. Competitors will appreciate that costs do vary between projects, between different regions of Canada, and over time.
- Draft report on ***Home Technology to Support Independent Living (Home Technology Report)*** This report describes a wide range of technologies, including home automation systems, that can help to improve the safety, security, convenience and comfort of people in their homes. These technologies can be particularly helpful to seniors and people with disabilities who want to live as independently as possible in their own homes. They can, however, benefit all segments of segments of the population, and are likely to find increasing uses in improving the indoor environment and operating efficiency of homes; in supporting home-based employment; and in providing a greater choice of entertainment.
- Pamphlet on ***Healthy Housing: Practical Tips (Healthy Housing Pamphlet)*** This pamphlet describes the objectives of CMHC's "Healthy Housing" initiative and provides practical tips on how to meet these objectives. While this competition is primarily focused on designs that incorporate FlexHousing features, up to 10 percent of the marks in judging entries will be allotted to features that support the ideas of "Healthy Housing".

FlexHousing Design Competition Entry Guide

Part B - Competition Guidelines

COMPETITION OBJECTIVES

The FlexHousing Design Competition aims to encourage the development of housing that can be easily adapted to meet the present and future needs of the occupants, and to promote its benefits to consumers and the housing industry. This adaptability will become increasingly important as our population ages, as lifestyles change, and as we witness an increase in home based activities and new technologies.

This competition is seeking designs for the following three categories of housing:

- Single-detached housing
- Horizontal-multiple housing, such as semi-detached, row, and duplex
- Low-rise apartment buildings, that is, up to four stories (Note: High-rise apartment buildings are not included in this competition as they were the subject of the recent CMHC IDEAS Challenge Competition)

THE FLEXHOUSING CONCEPT

The key to FlexHousing is that it is easily adapted to meet specific needs rather than relying on custom designs. Housing should continue to provide the initial occupants and subsequent occupants with accessibility, safety, security, ease-of-operation, convenience, comfort, and access to in-home services, as their needs and preferences change over time.

So that a dwelling will be flexible enough to meet a broad range of individual needs, over time, certain features should be incorporated at the time of construction. These would include features that would be difficult to retrofit, such as barrier-free access, space for maneuverability, and wide doorways. Provisions should also be made during construction to simplify the later introduction of additional features that may be required. For example, reinforcing bathroom walls to support grab bars, and wiring the home to be compatible with home automation systems.

The *Focus Group Report*, the *Design Options Report* and the *Home Technology Report* describe and illustrate a wide variety of features that can make FlexHousing easily adaptable for occupants with a broad range of needs and preferences. The overwhelming majority of focus group participants believed that many of the features could benefit all segments of the population.

The marketability of the housing will be an important criteria in selecting winning designs. In developing designs and choosing features to include in their housing, competitors should seek to demonstrate how FlexHousing objectives can be achieved cost-effectively, and be appealing and marketable to a broad range of consumers.

COMPETITION STRUCTURE

The competition will be held in two stages:

Stage 1

Housing designs submitted for this competition should be economically viable for the intended market. CMHC plans to invite some of the winning competitors to open up parts of their completed projects, for short periods, as open-house demonstrations to the public. Stage 1 is, therefore, only open to developers, builders, non-profit housing agencies and cooperative housing agencies who intend to build the designs that they submit. Submissions must comply with the regulations and requirements described later in this guide.

In Stage 1, a winning design will be selected for each of the three housing categories (single-detached; horizontal-multiple; and low-rise apartment) in five regions of Canada: Atlantic Region; Quebec; Ontario; Prairies and Northwest Territories; and British Columbia and Yukon. It is also expected that several designs in each region will receive honourable mentions.

Stage 2

The 15 winning entrants in Stage 1 will be invited to proceed to Stage 2. In this stage they will be required to develop their designs to an advanced stage of completion, and they will each be awarded \$5,000 to help to defray some of the design costs. From the final Stage 2 designs, a national winner will be chosen in each of the three housing categories.

Promotion of Winning Designs

All Stage 1 and 2 winners, as well as those who receive honourable mentions, will be featured in regional and national media campaigns promoting FlexHousing to the general public. The competition results will also be publicized through a CMHC publication.

Selection of Winning Designs

Winning designs will be chosen by regional selection committees in Stage 1, and by a national selection committee in Stage 2. Both the regional and national committees will include representatives from the housing industry, the design professions and consumer groups. In making their selections, the committees will be guided by the following criteria:

- The degree to which designs meet the objectives of FlexHousing
- The cost-effectiveness of design solutions
- The extent to which the designs will appeal to consumers in their target markets
- The potential effectiveness of plans to market the proposed housing
- The transferability of the designs
- The potential of the designs to increase acceptability of the FlexHousing concept in broad-based markets.

ENTRY REGULATIONS

Submission Delivery

Stage 1 submissions will be accepted until **5.00 p.m. on May 31, 1996**, at the following address:

FlexHousing Design Competition
CMHC National Office
700 Montreal Road
Ottawa, Ontario
K1A 0P7

Language

Submissions will be accepted in English or French.

Questions and Answers

All communication concerning the competition process, requirements and submissions shall be restricted to written inquiries, in English or French, sent by mail to FlexHousing Design Competition at the above address, or faxed to:

FlexHousing Design Competition
Fax: (613) 748-2402

Only questions received prior to May 15, 1996 will be answered. The text of all questions and responses will be circulated to all competitors by mail or fax.

Return of Submissions

No provision shall be made for the return of submissions to the competitors.

Design Protection

CMHC reserves the right to display and publish drawings, photographs and descriptions of the entries, with full and proper credit to the competitors and designers. All entries become the property of CMHC. It is understood that the copyright of the designs will rest with the competitors.

Exclusions

Employees of CMHC are not eligible to participate in the FlexHousing Design Competition.

SUBMISSION REQUIREMENTS

The following section, entitled *SUBMISSION BRIEF*, describes the types of information to be included in a submission. It also highlights some of the more important design features and facilities that competitors should consider including in FlexHousing. These, together with other possible features and facilities, are described and illustrated in greater detail in the reports and pamphlet provided in the entry kit.

The *SUBMISSION BRIEF* is designed so that it can be used by competitors to record and submit general and descriptive information on the housing included in their submissions. It also identifies the types of graphic information that should be provided by way of drawings, or sketches, and makes provision to record the relevant drawing/sketch numbers. Those competitors who choose to use the *SUBMISSION BRIEF* form for their submissions can obtain additional copies of the form, if necessary. Those competitors who choose to present their submission in their own format should follow the same order as the *SUBMISSION BRIEF*.

It is recognized that projects submitted to the competition may be at different stages in the design process. Competitors may, therefore, provide graphic information in the following ways for their Stage 1 submissions:

- through final drawings
- through drawings which have been marked up to illustrate modifications that will be introduced to meet FlexHousing objectives
- through sketch plans and drawings.

Regardless of the types of drawings/sketches that are provided, they must be of sufficient scale and detail to clearly illustrate the features identified in the *SUBMISSION BRIEF*.

In the case of multi-unit projects, such as apartment buildings or row housing, it is only necessary to provide drawings/sketches of a representative sample of dwelling units to illustrate the layout and features of the various rooms and areas.

FlexHousing Design Competition Entry Guide

Part C - Submission Brief

TABLE OF CONTENTS	PAGES
SECTION 1 - PROJECT INFORMATION	
1.1 Competitor - Company/Organization	7
1.2 Site	7
1.3 Project	8
1.4 Development Plan	8
1.5 Financing/Marketing Plan	9
SECTION 2 - DESIGN CONSIDERATIONS	
<i>Relating to rooms and facilities within dwelling units:</i>	
2.1 Entry to Dwelling	11
2.2 Circulation Within Dwelling	12
2.3 Kitchen	13
2.4 Bathrooms/Washrooms	15
2.5 Living and Dining Areas	17
2.6 Bedrooms	18
2.7 Storage Space	19
2.8 Laundry	20
2.9 Balcony	21
<i>Relating to common elements:</i>	
2.10 Doors	22
2.11 Windows	24
2.12 Electric Outlets and Controls	25
2.13 Heating and Air Conditioning	26
<i>Relating to houses:</i>	
2.14 Parking and Access to Houses	27
<i>Relating to multi-unit projects:</i>	
2.15 Public Areas/Communal Facilities in Low-rise Apartment Buildings	28
2.16 Site Development/Parking for Multi-unit Projects	31
<i>Relating to:</i>	
2.17 Home Automation and Technologies	33
2.18 "Healthy Housing" Features	35

SUBMISSION BRIEF

SECTION 1 - PROJECT INFORMATION

1.1 COMPETITOR - COMPANY / ORGANIZATION

Provide the name and address of your company; the name, telephone number and fax number of the contact person for your competition submission; a brief description of the housing development activities of your company/organization; the names of any firms or individuals who should be recognized as the housing designers.

1.2 SITE

Describe, or illustrate, the location of the intended site for the housing (preferably through a site plan); indicate if the site is currently zoned for the housing or if variances would be required; indicate if the site is currently serviced, and if not, when it is likely to be serviced; indicate if the site is owned, or under option, to your company/organization.

1.3 PROJECT DESCRIPTION

Describe, or illustrate, the scope and characteristics of the housing project, or projects, for which the FlexHousing designs included in this submission will be used. In the case of row housing projects and low-rise apartment buildings, indicate the number of dwellings that will incorporate the FlexHousing design features. In the case of single-detached, semi-detached and duplex housing, indicate the number of units that will incorporate the FlexHousing design features that it is planned to build during 1997. Drawings, or sketches, of building elevations should be provided to enable the selection committee to judge the appearance of the housing.

1.4 DEVELOPMENT PLAN

Provide an outline of the development plan for the project, or projects, for which the FlexHousing designs will be used. Indicate the anticipated dates for key events such as obtaining development approvals; start of construction; and completion of construction.

1.5 FINANCING / MARKETING PLANS

Provide information on the following:

- The type of project and tenure (for example, is it home ownership or rental; is it market housing or non-profit housing; is it tract housing or custom designed housing; is it freehold, condominium, or coop).
- The intended sources of financing.
- The target market(s) (for example, the general population, young adults, older adults, seniors, people-with-disabilities).
- The anticipated selling prices or rents.
- How the FlexHousing concept will be used in marketing the housing.

SUBMISSION BRIEF

SECTION 2 - DESIGN CONSIDERATIONS

This section identifies the types of information to be provided on the various features of the FlexHousing designs. Spaces have been provided to allow competitors to insert brief descriptions of the design solutions and features that they intend to include in their housing. In some cases they are asked to describe how they intend to respond to a "Design Consideration" that was identified as having high priority by participants in the focus group sessions. Spaces have also been provided to allow competitors to identify other features of their designs that they believe will support the objectives of FlexHousing.

This section also identifies the type of graphic information to be provided. In the case of multi-unit projects, such as apartment buildings or row housing, it is only necessary to provide drawings/sketches of a representative sample of dwelling units to illustrate the layout and features of the various rooms and areas.

Competitors may choose to use their own format to submit the foregoing types of information, in which case it would be helpful if they present the material in the same order used in this document.

2.1 ENTRY TO DWELLING

GENERAL CONSIDERATIONS

There must be adequate maneuvering space in the entrance lobby or vestibule of a dwelling to allow for clear access to closets and ease of opening and closing exterior and interior doors
 Thresholds to exterior doors should be beveled and not exceed 19 mm in height

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • Layout of entrance lobby or vestibule to illustrate the arrangement of closets and space for manoeuvrability both inside and outside the entrance door • Cross section through the entrance door to illustrate threshold arrangement and level maneuvering space inside and outside the door 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Easy to operate door lock	
2. Two peepholes at different heights	
3. Easy to read and feel numbers	
4. Good lighting both inside and outside the entrance	

Other Design Features That Support FlexHousing Objectives:

2.2 CIRCULATION WITHIN DWELLING

GENERAL CONSIDERATIONS

Corridors should be sufficiently wide to allow ease of circulation, and access to rooms and closets, by a person using a wheelchair. There should be no changes in floor level. In multi-level houses, provision should be made for the future installation of either an inclined stair lift, or a vertical lift. (See section 17 of the *Design Options Report* for information on these options).

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • Layout of corridors and stairs to illustrate widths and setbacks at doorways and changes of direction to facilitate maneuverability and access. • Arrangement of vertically-aligned storage areas to form lift-way for future vertical lift (if this option is chosen) 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Easy to grasp continuous stair handrails	
2. Extensive use of three-way switches in circulation areas to avoid moving in unlit areas	
3. Reinforcing stairway walls to allow future installation of a stair lift; or Provide vertically aligned closets and appropriate framing to allow future installation of a vertical lift	

Other Design Features That Support Flexhousing Objectives:

2.3 KITCHEN

GENERAL CONSIDERATIONS

The wide range of activities carried out in the kitchen make it important to consider accessibility, safety, convenience, efficiency and ease-of-use by all family members, including those with disabilities.

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • The location of the kitchen within the dwelling and in particular its relationship with any eating area or dining room • The layout of the kitchen to illustrate: <ul style="list-style-type: none"> - entries and exits - the arrangement of counters, sink, stove/oven, microwave oven built-in) refrigerator, dishwasher (if any) and space for maneuverability and access - the arrangement of any eating area in the kitchen - the provision of pantry, storage closet (if any) 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Non-slip flooring	
2. Task lighting at sink, stove and work surfaces	
3. Pull-out work boards	
4. Some electric switches and outlets at front of counters	
5. Water temperature regulation	
6. Easy to use faucets (e.g. lever type.)	
7. Adjustable height counters / sink	

8. Open space under sink: - Initial provisions (if any), or - Provisions for adaptation	
9. Open space under cook-top: - Initial provisions (if any), or - Provisions for adaptation	
10. Reachable shelves in upper cabinets (e.g., through adjustable height cabinets or pull-down shelving)	
11. Provision for installation of wall oven	
12. Colour contrasts	
13. Tactile and colour contrasted controls	

Other Design Features That Support Flexhousing Objectives:	

2.4. BATHROOMS / WASHROOMS

GENERAL CONSIDERATIONS

At least one bathroom should be accessible and usable by a person in a wheelchair. This requires sufficient maneuvering space to provide easy access to the toilet, sink, bathtub or shower. If an accessible bathroom is not located on the main living level in a dwelling, an accessible washroom should be provided on this level.

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • The location of any accessible bathrooms or washrooms within the dwelling unit relative to other rooms and areas. • The layout of any accessible bathroom or washroom to illustrate: <ul style="list-style-type: none"> - the position, type and size of doors; - the arrangement of fixtures, and space for maneuverability and access to the fixtures; - the provision of storage closets (if any). 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Non-slip flooring	
2. Wall reinforcement for grab bars	
3. Water temperature regulation	
4. Easy to use faucets (e.g. lever type)	
5. Standard height toilet	
6. Mirror usable when standing or sitting	
7. Bathtub or shower accessible to wheelchair user: <ul style="list-style-type: none"> - Initial provisions (if any), or - Provisions for future adaptation 	
8. Adjustable height shower head	

9. Adjustable height vanity / washbasin	
10. Open space under basin: - Initial provisions (if any), or - Provisions for future adaptation	
11. Colour contrasts	

Other Design Features That Support Flexhousing Objectives:

2.5. LIVING AND DINING AREAS

GENERAL CONSIDERATIONS

Living and dining areas should provide sufficient space to accommodate normal furnishings and provide adequate manoeuvring space for a person in a wheelchair. If space is limited, consideration should be given to combining living room and dining areas to improve manoeuvring space. There should be no changes in floor level. Windows should be located to permit seated occupants to enjoy views.

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • The layout of living and dining areas to illustrate: <ul style="list-style-type: none"> - entries and exits - potential furniture arrangements and space for maneuverability. - the location of windows 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Extra electrical outlets	
2. Switched outlets for light control	
3. Pass-through from kitchen to dining area	

Other Design Features That Support Flexhousing Objectives:

2.6 BEDROOMS

GENERAL CONSIDERATIONS

At least one bedroom should have sufficient space to accommodate a double bed and normal furnishings, and provide maneuvering space for a person using a wheelchair. This bedroom should also be located to provide direct, or convenient access to the accessible bathroom described in Section 1.

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • The layout of the accessible bedroom to illustrate: <ul style="list-style-type: none"> - potential furniture arrangements and space for maneuverability - the path of travel between the bedroom and the bathroom - the location and size of closets - the location of windows 	

DESCRIPTIVE/INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Ceiling light fixture	
2. Switched outlets for light control	
3. Telephone jack	

Other Design Features That Support Flexhousing Objectives:

2.7 STORAGE SPACE

GENERAL CONSIDERATIONS

Dwellings in apartment buildings should include some in-unit general storage space. It is preferable to have storage space outside the unit for seasonal articles. Storage spaces and closets must be easily accessible

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> The location and layout of in-unit general storage in apartment dwellings, to illustrate storage space size, space for maneuverability and type of door 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Light in general storage	
2. Electrical outlet in general storage	
3. Adjustable height shelving	

Other Design Features That Support Flexhousing Objectives:

2.8 **LAUNDRY FACILITIES**

GENERAL CONSIDERATIONS

In a house with more than one level, it is preferable that the laundry be located on the main floor of the unit. If the laundry is to be initially located in the basement, provision should be made for its future relocation to the main floor by providing easily adaptable space and the necessary electrical and plumbing connections.

In apartment buildings, it is desirable to provide laundry facilities in each dwelling unit. Laundry facilities that are located to be accessible to a person using a wheelchair must have sufficient maneuvering space in front of the appliances.

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> The location and layout of main floor laundry facilities in houses, or in-unit laundry facilities in apartment dwellings, to illustrate the arrangement of appliances and laundry sink (if any), space for maneuverability, and the type of doors (if any). 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Appropriate task lighting	
2. Front loading washer	
3. Controls easy to reach and operate	
4. Provision for relocating laundry facilities to main floor	

Other Design Features That Support Flexhousing Objectives :

2.9 BALCONY

GENERAL CONSIDERATIONS

In most apartment dwellings the balcony is the only outdoor living area that is directly available for private use. It is therefore important that it be useable by persons using wheelchairs. This requires that the balcony floor and the floor of the adjoining room be at about the same level and that any threshold be sloped and no higher than 19 mm. (3/4 in.).

To provide for maneuverability, a balcony should have a minimum clear depth of 1.4 m (5') and be at least 2.5 m (8') long.

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
• Layout to illustrate balcony dimensions and the location, type and size of door	
• Cross-section to illustrate internal and external floor levels and threshold type and height	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Balcony enclosure should not unduly restrict view from seated position	
2. Adequate lighting	
3. Electrical outlet	

Other Design Features That Support Flexhousing Objectives:

2.10 DOORS

GENERAL CONSIDERATIONS

All doors must provide a minimum clear opening of 810 mm, which can be achieved with a swing door 865 mm wide. Exterior sliding doors must usually be at least 1800 mm wide to provide the 810 mm opening. Thresholds should be avoided where possible, but where required, should be beveled and have a maximum height of 19 mm at exterior doors, and 13 mm at interior doors. Hardware should be easy to grasp and use (e.g. lever handles, D-shaped pull handles).

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
<i>Dwelling unit doors:</i>	Door type Door width Hardware type
1. House entrance	
2. Apartment entrance	
3. Doors in living areas	
4. Balconies / Patios	
<i>Common area doors in apartment buildings:</i>	
1. Main entrance	
2. Secondary entrance	
3. Corridors and vestibules	
4. Communal facilities	
5. In apartment buildings automatic door openers on: - entrance doors - vestibule doors	

Other Design Features That Support Flexhousing Objectives:

2.11 WINDOWS

GENERAL CONSIDERATIONS

Windows should generally be located to allow occupants to enjoy outdoor views from a seated position. This requires that sills be not more than 750 mm above floor level.

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Type of windows	
2. Opening mechanisms should be easy to grasp and operate	
3. Locking mechanisms should be easy to operate	

Other Design Features That Support Flexhousing Objectives:

2.12 ELECTRIC OUTLETS AND CONTROLS

GENERAL CONSIDERATIONS

Generally electric outlets and mechanical system controls should be in easily accessible locations and reachable from both sitting and standing positions. Switches and controls should be easy-to-operate.

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Light switches	Type Height above floor (except where over counter)
2. Electric outlets 3. Telephone jacks 4. Cable outlets	Height above floor (except where over counter)
Other Design Features That Support Flexhousing Objectives:	

2.13 HEATING AND AIR CONDITIONING

GENERAL CONSIDERATIONS

The ability to control the quality of indoor air in terms of temperature, humidity, movement and freshness is important for the comfort and health of the occupants. It can be particularly important for older people and people who are environmentally hypersensitive.

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Type of heating system	
2. Type of air-conditioning system (if any)	
3. Type of ventilating system (e.g. in houses, is there an air to air heat exchanger?)	
4. Type of air filtering system	
5. Control of temperature by room or zone, within houses and apartment buildings	
Other Design Features That Support Flexhousing Objectives:	

2.14 PARKING AND ACCESS TO HOUSES
(e.g. Single-detached, semi-detached, row)

GENERAL CONSIDERATIONS

The ground floor entrance to a house should preferably be barrier-free, or alternatively, it should be easily adaptable to be made barrier-free. A desirable arrangement would be to position the house to minimize any differences in level between the ground floor, parking and sidewalk, to enable pathways to have gentle slopes (not more than 1 in 20.) Where this is not possible, the siting of the house should allow for the future installation of an access ramp or lift.

Parking spaces, garages and carports should allow for a 1500 mm turning space at one side of the vehicle and preferably have clearance of 900 mm on the other three sides. There should be direct access between a garage (if any) and a dwelling. Parking spaces should be located close to the house entrance.

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • Site plan to illustrate the relationship between the house, garage, carport or parking spaces; driveway; paths; and the street or common laneways. Finished levels should be shown to indicate what provisions are being made to facilitate wheelchair accessibility. • If wheelchair accessibility is dependent on the future installation of an access ramp or lift, the drawing should indicate how the ramp or lift will be incorporated into the site or dwelling. • Plan of garage (if any) to illustrate clearances, door width, and access between garage and dwelling. 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Remote controlled overhead garage door opener: or Electric outlet for door opener	
Other Design Features That Support Flexhousing Objectives:	

2.15 **PUBLIC AREAS AND COMMUNAL FACILITIES**
IN LOW-RISE APARTMENT BUILDINGS

GENERAL CONSIDERATIONS

Public areas, communal facilities and equipment in low-rise apartment buildings should generally be accessible and usable by people with disabilities or should be easily adaptable to meet their needs.

Participants in the focus group sessions identified design features that they considered to be important in meeting the foregoing needs and these are described in the *Focus Group Report*. The *Design Options Report* describes alternate design solutions and products.

The following are the relevant sections in both reports:

Sections in the <i>Design Options Report</i>	Sections in the <i>Focus Group Report</i>
2. Vestibule and Entrance Hall	17. Public Entrance, Vestibule and Lobby
3. Public Corridors 5. Public Stairs	18. Public Circulation and Stairs
4. Elevator	19. Elevators
6. Fire Safety Measures	7. Security and Alarms 20. Exits, Refuge Areas and Emergency Alarms
7. Garbage Chute	21. Garbage Disposal
8. Community Room 9. Semi-Public Toilet	22. Recreation, Pool and Other
10. Laundry Room	13. Laundry
11. Communal Storage	12. Storage

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • Building lay out to show relationship between public communication areas, stairs, elevators (if any), areas of refuge, communal facilities and dwelling units. Provision for accessibility should be illustrated by providing dimensions for widths of corridors, stairs, small spaces such as vestibules, and maneuvering space to provide access to facilities such as mail boxes, garbage chutes, and laundry equipment. • Floor plan of elevator (if any) showing size and door opening. 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
1. Non-slip flooring in vestibule	
2. Intercom between entrance and dwelling	
3. Accessible mailboxes	
4. Power door openers, or provision for power openers on: <ul style="list-style-type: none"> - main entrance door - secondary entrance door - communication area doors - Communal facility doors 	
5. Easy to use locks and door handles	
6. Handrails on both sides of stairs and continuous around landings	

<p>7. Does elevator (if any) have the following features:</p> <ul style="list-style-type: none"> - qualify as a fire fighter elevator - controls located and designed to meet the needs of people with disabilities - audible and visible signals 	
<p>8. Will the provisions for alarm systems comply with the 1995 version of the National Building Code?</p>	
<p>Other Design Features That Support Flexhousing Objectives:</p>	

2.16 **SITE DEVELOPMENT AND PARKING**
FOR MULTI-UNIT RESIDENTIAL PROJECTS

GENERAL CONSIDERATIONS

The main entrance of a multi-unit residential building, and any secondary entrances that provide access from parking areas, should be accessible. The main entrance should communicate directly with a passenger loading area close to a main street.

There should be at least one barrier-free pathway, with a gentle slope (not more than 1 in 20), from the main street, and from any accessible parking area to an accessible entrance. Some accessible parking spaces should be provided for people with disabilities.

The *Design Options Report* describes alternative design solutions in the following sections:

1. Access to multi-family buildings
12. Exterior Pathways
13. Parking area for multi-family buildings

GRAPHIC INFORMATION (Drawings or sketches)

Design Features To Be Illustrated	Drawing / Sketch Number
<ul style="list-style-type: none"> • Site plan to illustrate relationships between building entrances, passenger loading areas, parking, driveways, outdoor recreation areas, landscaped areas, paths and the main streets. Finished levels should be shown to indicate what provisions are being made to facilitate wheelchair accessibility. • Plan should also show location number and size of accessible parking spaces. 	

DESCRIPTIVE INFORMATION

Design Consideration	Descriptions of Design Solutions / Features
Paving material used for surfaces of: <ul style="list-style-type: none"> - parking and driveways - sidewalks - paths - recreational areas 	

Other Design Features That Support Flexhousing Objectives:

2.17 HOME AUTOMATION AND TECHNOLOGIES

GENERAL CONSIDERATIONS

Many current and emerging technologies, including home automation; can make it possible for residents to exercise greater control over their home environment and access a wide range of services. This will allow occupants to improve their safety, security, convenience and comfort; to operate their homes more efficiently; to access in-home services such as shopping, banking, information and entertainment; and to take advantage of home-based employment opportunities.

These technologies are likely to become increasingly important to seniors and people with disabilities, to assist them to live independently in their own homes. Because of their wide range of uses they are also likely to be attractive to all segments of the population.

The *Home Technology Report* describes many different types of technology and their benefits. It also identifies potential markets and discusses ways in which the housing industry can respond to these market opportunities. Builders could be particularly interested in the section in chapter 6 which describes the benefits of wiring new homes, at modest cost, to enable occupants to take full advantage of the many home automation features, now and in the future.

DESCRIPTIVE INFORMATION

Briefly describe provisions, if any, for home automation technologies that will be included in the dwelling units.

Provisions	Description
1. Special wiring for home automation	
2. Controls and outlets for home automation	
Systems / equipment relating to:	
3. Safety	
4. Security	

5. Convenience	
6. Efficient home operation	
7. Access to in-home services	
8. Home-based employment	

2.18 HEALTHY HOUSING FEATURES

GENERAL CONSIDERATIONS

Through the "Healthy Housing" initiative CMHC is promoting the development of housing that responds to the following five key objectives which are described in the *Healthy Housing Pamphlet* included in this entry kit.

1. Occupant Health
2. Energy Efficiency
3. Resource Efficiency
4. Environmental Responsibility
5. Affordability

This competition is primarily focused on housing designs that incorporate FlexHousing design features. However, in judging entries, up to 10 percent of the marks will be allotted to features that support the ideas of "Healthy Housing".

DESCRIPTIVE INFORMATION

Briefly describe any features of your housing design that you believe will support the "Healthy Housing" objectives (Note: It is not necessary to repeat information on features already described in previous sections).

Objective	Feature
1. Occupant Health	
2. Energy Efficiency	
3. Resource Efficiency	
4. Environmental Responsibility	
5. Affordability	