

# **F1 THE FINNISH BUILDING REGULATIONS**

## **Barrier-free Building**

### **Regulations and Guidelines 2005**

#### **Ministry of the Environment Decree on accessible building**

adopted in Helsinki on the 1<sup>st</sup> of October 2004

In accordance with the Ministry of the Environment decision, the following regulations and guidelines on barrier-free building, applicable to construction, shall be enacted under Section 13 of the Land Use and Building Act (132/1999) adopted on the 5<sup>th</sup> of February 1999.

The regulations and guidelines have been notified in accordance with Directive 98/34/EC, amended 98/48/EC.

This Decree shall enter into force on the 1<sup>st</sup> of March 2005 and it shall reverse the Ministry of the Environment decision of the 16<sup>th</sup> of April 1997 on accessible building (F1). However, previous regulations and instructions may be applied to permit applications initiated before this Decree entered into force.

In Helsinki on the 1<sup>st</sup> of October 2004

Minister Jan-Erik Enestam

Chief Architect Marttiina Fränti-Pitkäranta

# **F1** MINISTRY OF THE ENVIRONMENT, Department of Housing and Building

THE NATIONAL BUILDING CODE OF FINLAND

## **Barrier-free Building**

**REGULATIONS AND GUIDELINES 2005**

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### **LEGEND**

Regulations in this column in this large font size are binding.

Guidelines in the right column in a small font size contain approved solutions.

*Explanations in the right column in italics provide further information and contain references to provisions, regulations and instructions.*

# 1

## GENERAL

### **Section 117(3) of the Land Use and Building Act**

**A building must conform with its purpose and be capable of being repaired, maintained and altered, and, in so far as its use requires, also be suitable for people whose capacity to move or function is limited.**

### **Section 53(1-3) of the Land Use and Building Decree**

**Administrative and service buildings, commercial and service premises in other buildings to which everyone must have access for reasons of equality, and their building sites shall also be suitable for use by persons with restricted ability to move around or function otherwise.**

**Taking into account its design and the number of storeys and other circumstances, a residential building and associated spaces shall meet the requirements for accessibility in building.**

**For purposes of equality, buildings with work space shall be designed and built so that they provide the persons referred to in paragraph 1 with sufficient opportunity to work, taking into account the nature of the work.**

## 1.1 Objectives of application

### 1.1.1 Regulation

Regulations and guidelines concern administrative and service buildings as well as business and service premises in other buildings. Regulations and guidelines concern other buildings containing work premises, respective of the nature of the work. These regulations and instructions concern residential buildings and facilities connected with living insofar as the Decree on housing design (RakMk G1) requires that they are suitable for disabled people.

#### *Explanation*

*The EU workplace directive (89/391/EEC) shall provide for having regard to disabled workers.*

*In these regulations and guidelines, a walking frame with wheels shall refer to a walking aid with four or three wheels (also the terms rollater and wheeled walker are used).*

*In these regulations and guidelines toilet and washing facilities shall concern an earth closet and a closet based on a chemical or similar system.*

*The Decree on the Safety of Buildings in (RakMk F2) provides, for instance, for ramps, stairs, railings and hand-rails to prevent falling and missing a step and to reduce other safety risks.*

*Guidelines in the RT standards file are provided for the basis of an accessible environment for walking and performing tasks and for the suitability of different facilities for the use of disabled and elderly people.*

## **1.2 Mutual recognition**

### 1.2.1

When these guidelines or explanations give information on the available SFS Standards, the EN or any other Standards with a corresponding level of safety valid also elsewhere within the European Economic Area or in Turkey, may be used instead, pursuant to the principle of mutual recognition.

## 2

### ACCESSIBILITY

#### 2.1 Access routes

##### 2.1.1 Regulation

Parts of the parking spaces for a building must be suitable for wheelchair users. These spaces must be located appropriately in respect of the entrance to the building and they must be marked with a disabled sign.

##### Guidelines

The minimum width of a parking space suitable for disabled use is 3600 mm and the minimum length is 5000 mm.

There must be a route suitable for users of wheelchairs or walking frames with wheels from these parking spaces as well as from the site or building plot boundary to the building and facilities referred to in the regulation.

Within the building, levels and landings functionally connected with each other, must be linked by an internal route suitable for users of wheelchairs or walking frames with wheels.

##### Guidelines

A turning circle of a wheelchair with a diameter of 1500 mm suitable for both external and internal use provides the dimensions for the turning space on the routes and circulation in the facilities. A minimum dimension of 1300 mm may also be used in apartments. A space for a turning circle of 1500 mm is needed in the toilet and washroom of a dwelling to assist users of wheelchairs and walking frames with wheels.

A route suitable for disabled people is easy to see, with a level, non-slip and sufficiently hard surface. The doors are easy to open.

##### 2.1.2 Regulation

Except for residential buildings, the minimum clear width of doors of entrances and porches suitable for users of wheelchairs and walking frames with wheels, of doors and openings located in corridors and of doors in sanitary facilities suitable for disabled people must be 850 mm. The minimum clear width of doors leading to administrative, service, business and work facilities from a route must be 800 mm. The maximum height of thresholds may be 20 mm.

##### Explanation

*The Decree on housing design (RakMk GI) provides for the minimum clear width of doors and passages in residential buildings to be 800 mm.*

No unprotected ledges less than the minimum passage height of 2100 mm or any other building parts causing a risk of collision or differences in level causing a risk of falling may be on or border to a route.

##### Guidelines

Sound and light signals and audio-visual communication systems are used to make written signs more effective.

The methods of making observation more effective include spotlighting and the use of colour, material and texture contrasts.

## 2.2 Differences in level

### 2.2.1 Regulation

Between the storeys, functionally connected with each other, there must be a lift suitable for users of wheelchairs and walking frames with wheels, or some other fixed equipment suitable for users of wheelchairs and walking frames with wheels, designed to lift people, unless it is possible to arrange a route with ramps connected with each other and with any necessary half landings on ramps. When a difference in level is of a floor height or greater and the route is arranged with a stair, a lift must be arranged for the accessible route.

#### *Explanation*

*The EU Directive on lifts (95/16/EC) shall be complied with in the design and construction of passenger and goods/passenger lifts intended to carry people. The directive also provides for the design of lifts taking into account disabled users.*

*The Decree on housing design (RakMk G1) provides for lift requirements in multi-storey buildings.*

*When an existing building has no lift or it cannot be built later, it may be appropriate to build a narrow or mini-lift or a vertically lifting installation with a car specifically suited and designed for users of wheelchairs and walking frames with wheels pursuant to the EU Directive on machinery (98/37/EC). In addition, there are installations lifting along the flank of the stairs designed for wheelchair users. The use of these installations to carry users of walking frames with wheels requires a platform suitable for the purpose and a sufficiently protective railing structure. A passenger elevator fitted with a seat, installed on a stair, is generally suitable for internal use in an apartment or in some other space as a solution in accordance with a user's requirements.*

*In respect of safety and accessibility, the Standard EN 81-70:2003 concerns lift construction and installation. The RT standards file provides instructions on the selection of lifts and on the dimensions of lift shafts and machine rooms in buildings.*

### 2.2.2 Regulation

A lift car designed for a wheelchair, walking frame with wheels and an assistant must be at least 1100 mm wide on the door side and 1400 mm deep.

#### *Guidelines*

The minimum width of a lift car designed to facilitate turning of wheelchairs and walking frames with wheels is 1340 mm and the minimum depth is 1400 mm. If the access openings are on the adjacent sides, the minimum dimensions of a car are 1400 mm x 1400 mm. Access openings of a lift on opposite sides enable stopping, for instance, on levels between the floors (a so-called through lift).

The dimensions of lift cars in service centres for disabled and elderly people, in blocks of service flats, nursing and care institutions must be suitable for carrying simultaneously walking frames with

wheels, wheelchairs and assistants. Dimensions of some lifts must be suitable for carrying stretchers.

The recommended minimum width of a doorway in a lift is 900 mm to facilitate turning of wheelchairs and walking frames with wheels in front of the lift.

Controls of a lift or any other elevator suitable for wheelchair users are located 900-1100 mm above the car or platform floor.

### 2.2.3 Regulation

The maximum slope of ramps may be 8 % (1:12.5) and the maximum continuous length six metres after which routes require a horizontal half landing of at least 2000 mm long. The maximum slope of continuous ramps without half landings may be 5 % (1:20). If outside ramps cannot be maintained in condition comparable to internal ramps, the slope must be correspondingly more gentle.

#### Guidelines

Ramps with a maximum slope of 8 % leading to the entrance of a building or intended for internal traffic in a building are generally only suitable for a difference in level of under one metre due to the need for space required by the total length. A rise of 960 mm corresponds to a ramp of 14 metres with their horizontal half landings.

The minimum going of steps must be 300 mm and the maximum rise of steps may be 160 mm in foyers of buildings containing administrative, service and business facilities and in any other facilities of internal traffic.

Easy-to-use and secure handrails must be fitted on both sides of ramps and stairs in foyers, in any other internal traffic areas and in outside locations. The handrails must also continue uninterrupted on half landings.

#### Guidelines

Suitable heights for two handrails one on top of the other are approximately 900 mm and 700 mm. It is necessary for the rails to extend approximately 300 mm over the starting and finishing points of ramps and stairs and to be formed and fixed so as to prevent entanglement.

# 3

## FACILITIES

### 3.1 General

#### 3.1.1 Regulation

The facilities in accordance with the main use of the building as well as their fixtures, fittings and equipment should also be suitable for the use of disabled and impaired people.

*Explanation*

*The Decree on housing design (RakMk G1) shall provide for the suitability of the facilities in a residential building for disabled and impaired people.*

### 3.2 Sanitary facilities

#### 3.2.1 Regulation

A sufficient number of toilet and washroom facilities, dimensioned and equipped for both independent and assisted disabled persons, should be available to those using wheelchairs and walking frames with wheels. The facilities must have a disabled sign and their location should be independent of the gender of users or helpers. Access to these facilities should be direct from a foyer, corridor or any other corresponding space.

*Guidelines*

When a building has groups of separate toilet and washroom facilities for both genders, it is appropriate to also provide disabled toilet and washroom facilities for each of these.

When there is no functional route from an individual business, service or work space in a building to the toilet and washroom facilities intended for the disabled, the toilet and washroom facilities suitable for users of wheelchairs and walking frames with wheels are provided in connection with the said space.

In buildings with a real estate surveillance system, a security alarm connection is installed from the disabled toilet and washroom facilities to the control.

*Guidelines*

*The Decree on housing design (RakMk G1) shall provide for the requirement for toilet and washroom facilities suitable for disabled people in an apartment.*

#### 3.2.2 Regulation

If the toilet and washroom facilities are intended to be used for transfer from a wheelchair onto the toilet seat from both sides, they must be designed so that there is a minimum clear space of 800 mm on both sides of the toilet seat for a wheelchair and for a walking frame with wheels. This means that the minimum internal dimension of the wall with a basin should be 2500 mm and the minimum internal dimension of the wall with a toilet seat 2200 mm. The toilet seat is located 300 mm from the wall at the back. The seat is provided with hinged hand supports.



#### Guidelines

When the clear space on one side of a toilet seat in toilet and washroom facilities used from both sides is a minimum of 900 mm, a shower may also be installed without a shower tray. In this case, the minimum internal dimension of the wall with a toilet seat is 2300 mm. Instead of and in addition to toilet and washroom facilities suitable for transfer onto the toilet seat from either side, the adjacent toilet and washroom facilities used from one side may be located in pairs as mirror images. Then the minimum internal dimensions of the facilities are 2700 x 1500 mm. The basin and the toilet seat are located opposite each other on the short sides; a clear space of 800 mm is needed for the side of the toilet seat. When the minimum internal dimensions of the space are 2200 x 1900 mm, the basin is located on the long side and the toilet seat on the short side so that the basin taps may be reached from the seat. In both the aforementioned toilet and washroom facilities and in those used from both sides of the toilet seat, the back of the basin is located, depending on the dimensions of the space and of the basin and the location of the drain, approximately 200 mm from the wall to ensure sufficient leg room.

In apartments, a toilet and washroom facility is suitable for users of wheelchairs and walking frames with wheels, for instance, when the basin and the toilet seat are located in such a way that there is a clear space of 800 mm on one side of the toilet seat where a shower may be installed without a shower tray; and a clear space of at least the turning circle of a wheelchair remains in front of the toilet seat, basin and other fittings.

### 3.2.3 Regulation

Access to a swimming pool in indoor swimming pools, spa buildings, rehabilitation centres and nursing and care institutions, service flats and service centres should be arranged for disabled and handi-capped people. In these buildings, sauna, washroom and changing facilities must also be designed to suit disabled and impaired people.

#### Guidelines

Sauna, washroom and changing facilities as well as swimming pool facilities common to the residents in multi-storey blocks are designed to suit disabled and impaired people.

In buildings with a real estate surveillance system, a security alarm connection is installed from the disabled sauna, washroom and changing facilities to the control.

#### Explanation

*A lowering/lifting transfer platform, with minimum dimensions of 900 x 1400 mm operating on water pressure, is suitable for transfer to the swimming pool, for instance, independently with a shower wheelchair.*

### **3.3 Assembly facilities**

#### **3.3.1 Regulation**

Spectator stands, auditoria, festival halls, assembly halls and restaurants, educational halls and classrooms and any corresponding assembly facilities must also be suitable for the use of disabled and impaired people. Audio systems installed in these facilities should also have a telecommunications/induction loop or any other sound transfer system.

When assembly facilities have fixed seats, there must be spaces for wheelchairs in different rows of seats in accordance with disabled entry routes.

### **3.4 Accommodation facilities**

#### **3.4.1 Regulation**

Hotel buildings and any other corresponding accommodation buildings as well as buildings with accommodation facilities besides nursing and care services should have accommodation facilities dimensioned in accordance with the space requirements for wheelchairs and walking frames with wheels as well as for assistants.