

How to plan investments that are accessible to all?

**Minimum standard of accessibility of buildings, roads, sidewalks
and means transport for people with various disabilities.**

Projekt realizowany w ramach programu Obywatele dla Demokracji, finansowanego z Funduszy EOG.



How to plan investments that are accessible to all? Minimum standard of accessibility of buildings, roads, sidewalks and means transport for people with various disabilities.

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Introduction

This document was prepared as a part of the “Investments for all?” project and is a result of a deeper thought on the topic of accessibility of the investments founded by the European Union in 2007-2013. Taking look at those investments allowed us to conclude that vast majority of buildings and other subjects cofounded by public money is not accessible for people with disabilities. Usually the problem was lack of awareness of needs or just ignorance of how to achieve the accessibility. This document is to be a practical advice for those who intend to invest their money in buildings, streets or fleet, it is to show how to ensure the basic availability of facilities and how to meet the investor’s expectations in the field.

“Investments for all?” project was implemented under Citizens for Democracy program, financed by the EOG.

Scope of the Standard

This Standard includes construction projects like buildings, roads, public space, public transport fleet meaning trams, buses and trains. The Standard was prepared to meet the needs of five groups of the Disabled: blind, visually despaired, deaf, hard of hearing and having trouble with moving, including people using wheelchairs. We were also trying to take into account the needs of people with cognitive limitations like e.g intellectual disorder. We can assume that all the solutions that we give will be efficient for other people like parents with small children and strollers, elderly people, those who are in a hurry or simply wearing headphones and listening to the music.

While working on this Standard we established three levels of accessibility, first of which means that the object is accessible with some help from others, the second that it is accessible independently and the third that it is accessible in a comfort way.

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Examples of the investments analysed with the use of those three levels can be found at www.inwestycjedlawszystkich.pl

This Standard includes first two levels directly and the third one was added as an open catalogue of so called Good Practice.

In each section this additional third level is clearly singled out and recommended but it is not required. The requirements that are placed further on are the minimum requirements for accessibility and the contractor may perform wider adjustments using the available materials.

Standard complies with the regulations, extending their records.

Standard includes variety of elements: technical, informational, communicational, procedural.

The Minimum Standard

Definitions

For the purpose of this document the following definitions have been accepted:

Accessible entrance

The kind of entrance that does not require using stairs. The best option is the entry on the ground level, if it is not possible the proper ramp should be provided. Door must be at least 90 cm wide and be deprived of the doorstep. Revolving door are not accepted.

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Braille

An alphabet for blind people, based on six-dot system, read by touch. While using Braille it is recommended to use Magdeburg Medium¹ standard.

Contrast

Colour difference between two coloured areas that is visible for visually impaired. E.g yellow line placed on the safety zones on platforms or black inscriptions on a white board.

Induction loop

A device supporting communication with the person using hearing aids. Loop generates an electromagnetic field which transfers sound from the microphone to the coil in the hearing aid.

Landing

A horizontal section of a width of at least 90 cm and the length of at least 150 cm.

Ramp

A flat surface with the inclination angle no higher than 6%, at least 90 cm wide (width cannot be limited by the barrier, dust bins or any other obstacles). The longest section of the ramp may be 9 m long and further ramps can be combined with landings.

¹ Marburg Medium standard is widely used while using Braille's alphabet e.g on medical packaging

[http://www.ecma.org/uploads/Bestanden/Publications/Brochures/ECMA%20Braille%20on%20Folding%20Cartons%20\(Revised%20Version%20April%202008\).pdf](http://www.ecma.org/uploads/Bestanden/Publications/Brochures/ECMA%20Braille%20on%20Folding%20Cartons%20(Revised%20Version%20April%202008).pdf) (access 02-09-2016).

Manoeuvring space

The space to move around in a wheelchair, making turns and other manoeuvres. It does not apply to a space with one way movement. The minimum dimensions for the manoeuvring space is 150 cm x 150 cm

Texture

Change of the surface perceptible by touch. Texture is to inform blind people. Texture can be sensed with feet (wearing shoes).

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Streets and junctions

Public space, and above all streets and junctions provide accessibility and safety for people with different disabilities. Problems relate mainly to people with walking difficulties, including people using wheelchairs and blind. Streets and junctions meet at least following requirements:

1. Pedestrian crossing do not have obstacles like posts, dust bins, pots etc. Obstacles like that make it difficult to use that crossing for people using wheelchairs and are dangerous for blind people.
2. Pedestrian crossings and driveways that cross sidewalks are marked with contrast and texture.
3. Pedestrian crossings are lowered so that it is easier for people in wheelchairs to use them.



Pic. 1 Lowering the curb at the pedestrian crossing

4. The junction is equipped with acoustic signalling coupled with the traffic lights.

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5. The traffic lights are triggered automatically without the need to push any button.
6. Road signs and other protruding elements are placed at the height of at least 230 cm which prevents people with sight disorders from hitting them. Special attention should be paid to stairs leading e.g to the footbridge over the street. The space below the stairs should be fenced off.



Pic. 2 An example of unprotected footbridge

7. Sidewalk without obstacles like dust bins, posts, pots, boxes etc. The sidewalk is straight and at least 120 cm in width.
8. One can distinguish the sidewalk from the bicycle path thanks to the use of a different texture and contrast or separators.

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Pic 3. The side walk can be easily distinguished from the bicycle path.

Good practice

1. Driveways built in a form of a passable sidewalks.

Platform

Platforms are places where passengers are waiting for the arrival of the vehicle and on which they stand after leaving the vehicle. Requirements apply to all kinds of platforms: train, bus or tram.

1. The platform is designed in a way that it is easily accessible for the person in a wheelchair.

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Pic 4. A platform with a ramp and a manoeuvring space.

2. There is the smallest possible gap between the edge of the platform and the vehicle floor. The edge of the vehicle is the part of the floor that the passenger steps on. The distance apply to both vertical and horizontal gap.

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Pic 5. The distance between the vehicle and the platform should be as small as possible.

3. The manoeuvring space on the platform is big enough for the person in a wheelchair to easily get in and get out of the vehicle².
4. Safety zones are marked with contrast and texture.
5. There is visual information and voice timetables that include arrivals and departures as well as any changes.
6. Timetable placed on a height that allows it to be read by people in wheelchairs or short in stature.

² Minimum dimension of the manoeuvring space is 150cm x 150 cm.

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The fleet

This part of the document covers the requirements for the public transport fleet: trams, buses, trains. The requirements apply only to the passengers' sections.

1. The vehicle can be placed in a way that the entrance is on the platform level.

If it is not possible the vehicle should be equipped with at least 150 cm long moving ramp.



Pic 6. An elevator that enables entering the carriage.

2. The vehicle has accessible entrances.

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3. Ticket validators and other self-service equipment are accessible for people with disabilities³.
4. Structural elements of the vehicle are placed at such a height that people with sight disorders are not exposed to hitting their heads⁴.
5. There is a special place for the wheelchair in the vehicle⁵.



Pic 7. A place for person in a wheelchair.

³ Available device means in that case that blind and partly sighted people are able to operate it themselves. For each type of device proper tests checking the accessibility should be carried out. The devices should be placed at the maximum height of 140 cm (top button) so that people in wheelchairs and short in stature could operate them.

⁴ Safe height means 230 cm, but if it is not technically possible it should be at least 190 cm.

⁵ The manoeuvring space of the given spot in a vehicle is at least 90 cm x 120 cm and should be situated close to the entrance so to reduce the need to manoeuvre among other passengers.

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7. There is visual (writing on a display) and audio (voice) information about the stops and the route.



Pic 8. Visual information in a vehicle.

8. The crew is trained of how to service passengers with disabilities.

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Entrance to the building

The requirements apply to the main entrance to the building, meaning the entrance used the most. This section describes space near the entrance and the entrance itself.

1. The building is marked in a visible way with an information board placed near to the entrance⁶.
2. The entrance to the building is visible and properly lit⁷.
3. Next to the building there are designated parking spaces for the people with disabilities⁸.
4. A person with disability may enter the building with a assistance dog.
5. The intercom is accessible for people with disabilities⁹.
6. Glass doors and ramps are secured and marked with contrast.

⁶ Writings on the information board should be of a big size and contrast and the board itself should be big enough to be seen from a longer distance.

⁷ Visible entrance means that a partially sighted person may easily determine from a greater distance where the entrance is. This may be achieved by using colours or different texture on the sidewalk that leads to the entrance or by any similar technique.

⁸ Parking spaces are marked with a standard pictogram and the building manager ensures that they are not occupied by unauthorised vehicles.

⁹ Accessible intercom means that it has buttons instead of panels or touch screens. Buttons are marked with Braille alphabet. If there is a T9 type keyboard it is enough to mark the number 5. Next to the intercom there is a visual information when the door opens because deaf or hard of hearing person will not hear the buzz. The operating panel of the intercom is placed at the maximum height of 140 cm (the top buttons) and in an accessible place so that a person in a wheelchair can use it.

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7. The entrance to the building is accessible

Good Practice

1. Parking spaces designated for people with disabilities are situated next to the entrance.

Inside the building

This part of the document contains information concerning arranging space inside the building. The requirements apply to the main hall, corridors, staircases and rooms.

1. If next to the entrance there is a service desk like front desk, information, ticket office etc. it should be situated as close to the entrance as possible and should be placed right opposite the entrance. A person working in such place should be visible for the client and it is worth to remember not to place a strong light behind that person.
If there is a counter between the employer and a customer it should be 70-80 cm height and should allow to ride the wheelchair at least 30 cm in depth under the counter.



Pic 9. Marking the induction loop.

2. The service desk is equipped with the induction loop and the information about that is shown by a standard pictogram.

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3. The service desk offers the possibility to service customers in sign language. It is allowed to use online translator. Standard pictogram is used to inform the customers.



Pic 10. Marking the sign language interpreter.

4. There is a visual information system in the building, that supports navigating inside the building and finding particular places¹⁰.
5. Inside doors are accessible in the same way as the entrance door.
6. Fire door are semi-automatic (they opens by pushing the button).
7. Doors have regular handles instead of door knobs.

¹⁰ Visual information system may consist of information boards, pictograms showing information points, toilets, stuff only rooms and others. Only the standard and widely known pictograms and text information should be used.

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Pic 11. The handle allows people with a lower hand efficiency to open the door.

8. If the information about the building or of what is happening inside is presented in a form of video presentation all the films have polish subtitles.
9. Information about the building and about things happening inside in polish sign language are available on the web side or on a display in the front desk.
10. In all the room designed to be used by many people (conference rooms, lobbies, restaurants etc.) there are induction loops installed. Rooms equipped with induction loops are marked with a proper standard pictogram.
11. The alarm notification system is both acoustic (siren, buzz) and visual (flashing lights, glowing captions).
12. Glass doors and walls are marked with contrast.
13. Symbols describing rooms are available for visually impaired¹¹.
14. Stairs are regular¹².

¹¹ It means that the room numbers and information boards have contrast and it is possible to read them by touch. All the markings must be convex, these may be large numbers and letters and descriptions in Braille.

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15. Each first and last stair is marked with texture and contrast.
16. The number of storey is written on the railing. This information is available by touch (Braille alphabet or convex numbers)
17. The stairs are protected so it is impossible to go under the stairs from the other side.

Good Practice

1. The communication paths in the building are straight and intersect each other at the angle of 90 degrees.
2. Rooms are rectangular so that people with sight disorders don't get confused.
3. Voice information about the building and the things happening inside are recorded and shared with blind or partially sighted on request.
4. Information about the building and the things happening inside are recorded in sign language on a portable device and shared with deaf or hard of hearing people on request.
5. There is always a person using sign language available on request.
6. There is a "silent service room" available for hearing impaired so that they can be serviced without any embarrassment.
7. There are technical aids for hearing impaired (sound amplifiers, headphones etc.) available in the building.

¹² Regular stairs are rectangular and each step is similar in shape, height and depth. (spiral staircases or irregular stairs are dangerous for people with sight disabilities and for people with mobility problems).

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Rooms

This section of the document describes requirements concerning sleeping rooms and working places. They therefore apply to hotel rooms, offices, waiting rooms etc.

1. There is an accessible entrance to the room.
2. There is a proper manoeuvring space of at least 150 cm x 150 cm.
3. If there is a bed in the room its height must be in the range of 46 cm – 52 cm.
The space needed to move from the wheelchair to the bed is at least 140 cm x 140 cm (on the left or on the right side of the bed).

Good Practice

1. The space to move from the wheelchair to the bed is 160 cm x 160 cm (on the left or on the right side of the bed).

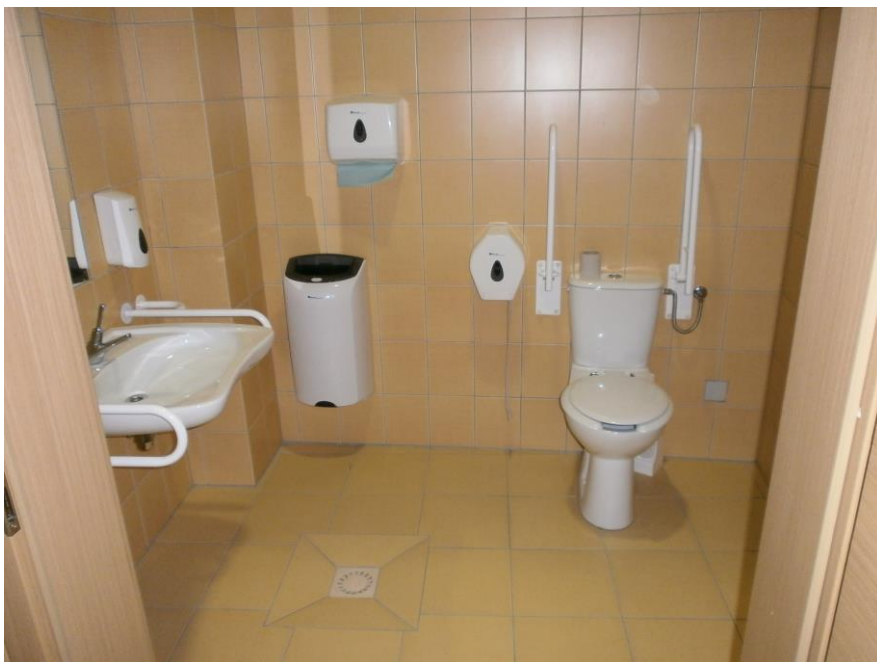
Toilet/Bathroom

This section of the document describes requirement for the accessible toilet. They apply to the standard bathroom equipment like toilet bowl, sink, shower etc.

1. There is an accessible entrance to the room.
2. The manoeuvring space next the toilet bowl is at least 150 cm x 150 cm.
3. There are handles on both sides of the toilet bowl, at least one of the must fold.

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Pic 12. A toilet where it is a possible to ride a wheelchair under the sink.

4. A space needed to move from the wheelchair to the toilet bowl (on the left or on the right side of the toilet bowl) must be at least 80 cm x 70 cm.
5. The height of the toilet bowl is in the range of 46 cm – 52 cm.
6. The space under the sink lets the wheelchair go under the sing for at least 30 cm.
7. There is a shower tray with no doorstep available, dimensions of the shower tray is at least 150 cm x 150 cm.

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Pic 13. Shower tray with no doorstep.

Swimming pool/Sport centre

Due to the nature of the place we included also the requirements regarding swimming pools and their surroundings.

1. There is an accessible entrance to the facility.
2. The changing room dimensions are at least 150 cm x 150 cm.
3. There are benches and grips/handles in the changing room.

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4. Here is a shower without the doorstep available with the dimensions of at least 150 cm x 150 cm.
5. There is a ramp that leads directly to the water (to use with a special wheelchair that is designed to be use underwater or with the private one).

Elevator

This section describes the elevator that is accessible for people with disabilities.

1. All the buttons are in a predictable place, they are clearly visible (contrast) and tactile. They are placed at the maximum height of 140 cm.
2. The arrival of the elevator is announced with a sound.
3. There is an accessible entrance to the elevator.
4. The manoeuvring space inside the elevator is at least 90 cm x 120 cm.
5. Steering buttons are tactile, marked with Braille and clearly visible. Touch screens are not acceptable.
6. There are no buttons in the corners or niches. The maximum height of the highest button is 140 cm.



Pic 14. Proper buttons in the elevator.

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7. Alarm is both acoustic (siren, buzz) and visual (flashing lights).

Good Practice

1. The elevator is at least 120 cm wide.
2. The dimensions of the elevator are at least 120 cm x 150 cm.
3. The elevator is operated by a trained staff or controlled by voice.

This document was prepared as a part of “Investment for everyone?” project, implemented under the citizens for Democracy program, financed by EOG.

More information about the project: <http://inwestycjedlawszystkich.pl>.

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