

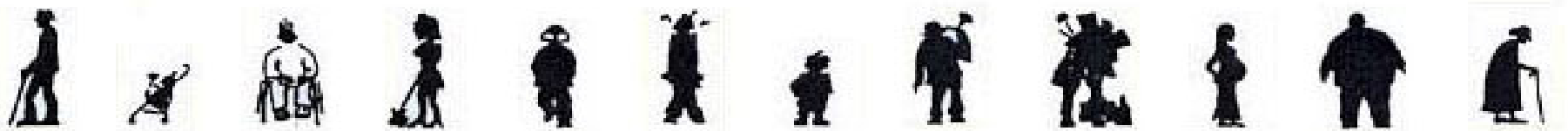
ACCESSIBILITY

in Urban Design and Architecture

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PREAMBULAR

French accessibility rules



INTRODUCTION

From rules to use comfort...



INTRODUCTION / notion of « situation of handicap »

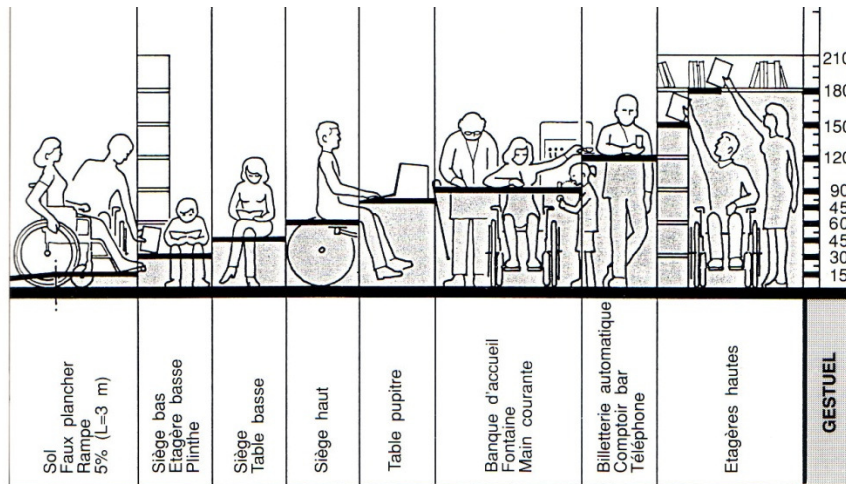
The space creates, limits or deletes the situation of handicap:

- . Every place imposes its constraint: physical, psychological, economic, ...
- . Every individual, every user has his own capacities: physical, psychological, economic, ...

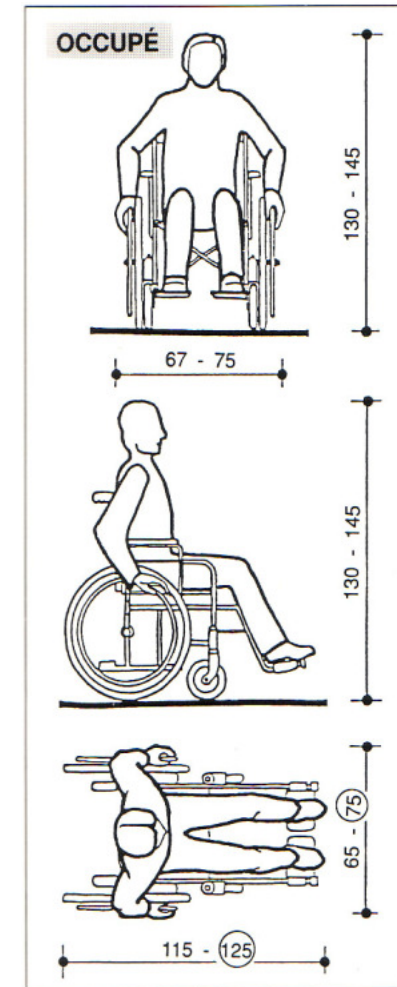
Any gaps between the constraints of a place and the capacities of the user create a " **situation of handicap** " by **hardness or impossibility**.



INTRODUCTION / about motor disability



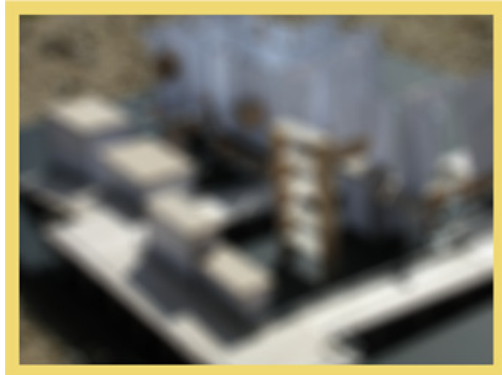
Dimension of a wheel chair : **0,80m x 1,30m**
 Returning area of a wheel chair : **Ø 1,50m**
 highness to catch something : **0,90m to 1,30m**
 Highness under table for wheel chair : **0,70m min**



INTRODUCTION / about sight problems...



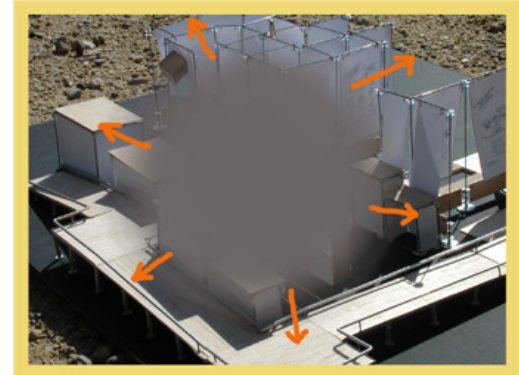
« valid » person sight



Vague vision



Central vision



Peripheral vision



INTRODUCTION / to communicate with a deaf or hearing-impaired person...

- Stand in front of him
- Don't talk to him since an other room
- Minimize the back noises
- Don't dazzle him !
- ...



RECOMMENDATIONS FOR CONCEPTION OF SPACES



GENERALITIES / same access for all

- Everyone should be able to take the same way
- Continuity in the chain of movement :



. If the accessibility is hard to obtain everywhere, a reserved adapted car park must be planned near the equipment and connected with this one by an accessible progress



LOCATION AND GUIDE



LOCATION AND GUIDE / Signalling system

➤ LOCALIZATION OF SIGNALS :

- . Signals adapted **at the enter** of public equipment
- . Signals adapted **near to car parks**
- . Signals adapted **to each intersection**

QuickTime™ et un
décompresseur
sont requis pour visionner cette image.



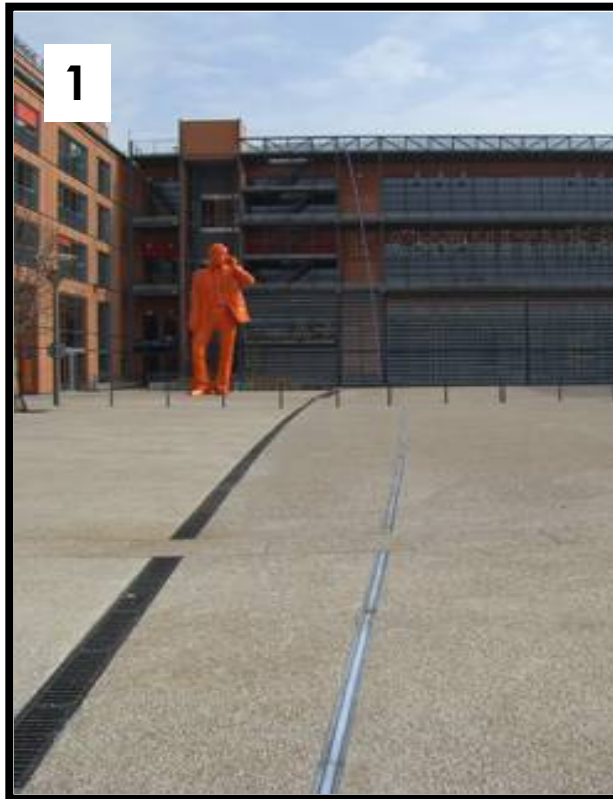
LOCATION AND GUIDE / Signalling system

➤ LEGIBILITY OF INFORMATION :

- . Be strongly contrasted with regard to the bottom of the support
- . Height of the characters of writing:
 - > 15 mm for the Elements of information relative to the orientation
 - > 45 mm otherwise
- . Resort as much as possible to icons or to pictograms (normalized if they exist)



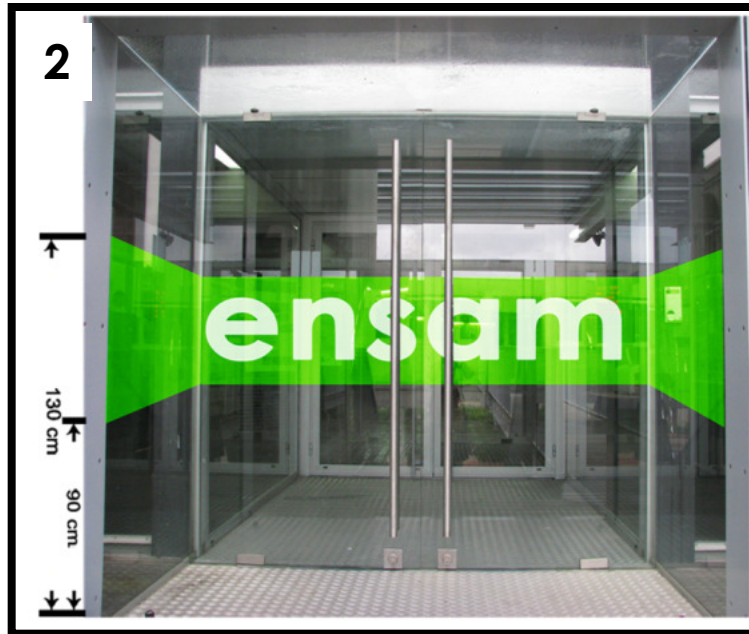
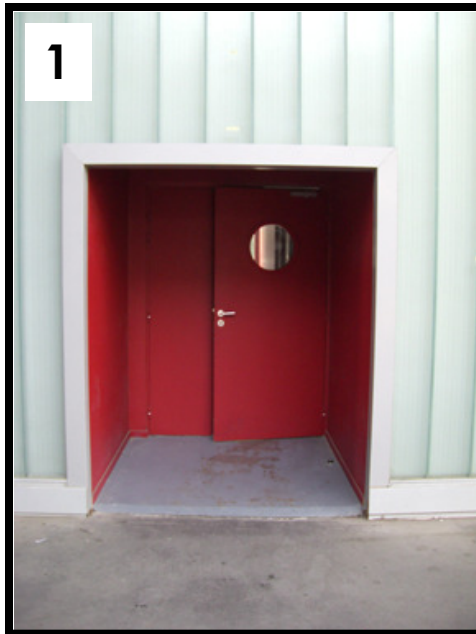
LOCATION AND GUIDE / outside guide strips



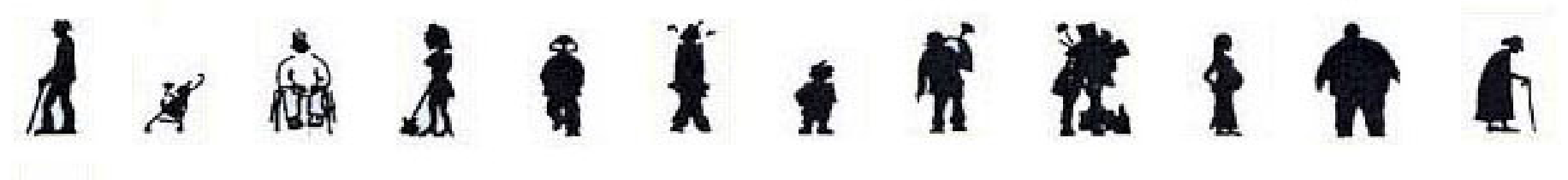
LOCATION AND GUIDE / entrance of equipments

➤ LOCATION :

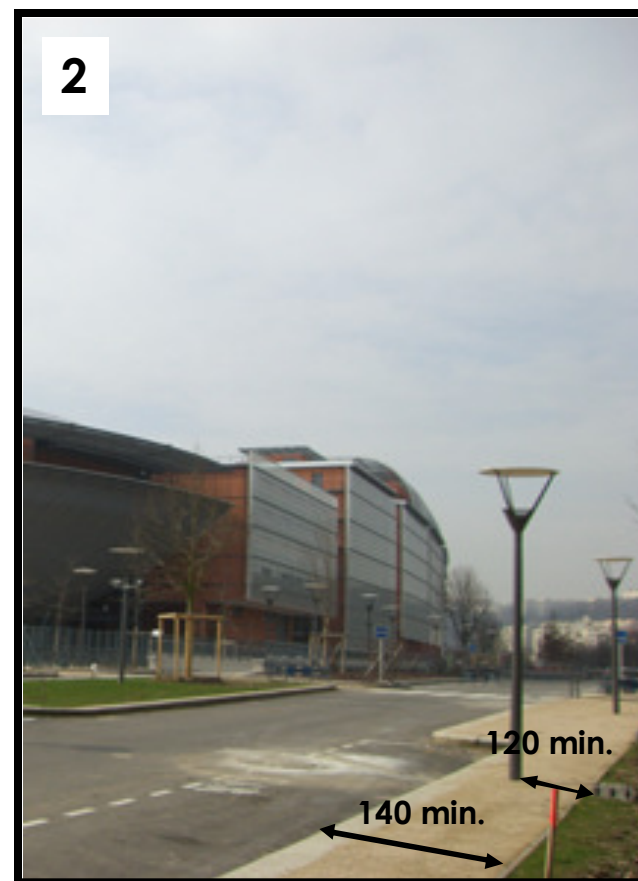
. Main entrances have to be ocatable as **architectural element** or **different materials or visually contrasted**



HORIZONTAL CIRCULATION



HORIZONTAL CIRCULATION / widths



HORIZONTAL CIRCULATION / widths

➤ ROTATION SPACE :

. Area **Ø 1,50m** in every choice of direction as well as in front of entrances by an accessible way which contain a system of access control.

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décompresseur
sont requis pour visionner cette image.



HORIZONTAL CIRCULATION / projections

➤ DIMENSIONS ALLOWED :

- . Projections \leq **2 cm**
round or with chamfer
- . Projections \leq **4 cm**
with chamfer with a
slope \leq 33% (tolerance)

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décompresseur
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HORIZONTAL CIRCULATION / projections

➤ PROJECTIONS :

- . Minimal distance between two projections is **2,50 m.**
- . Successive projections forbidden (tile paths)

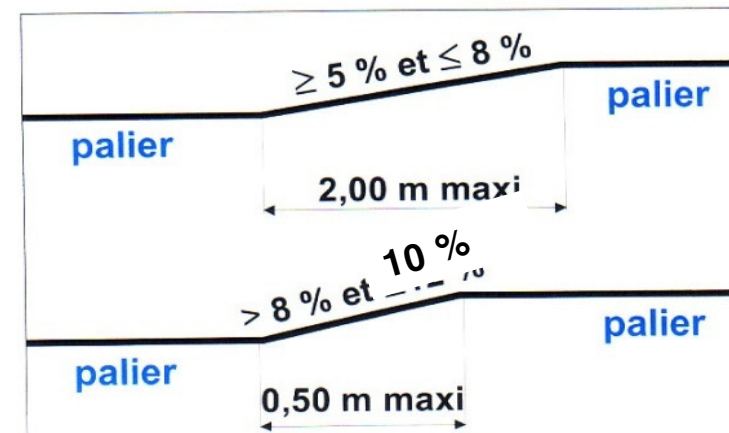
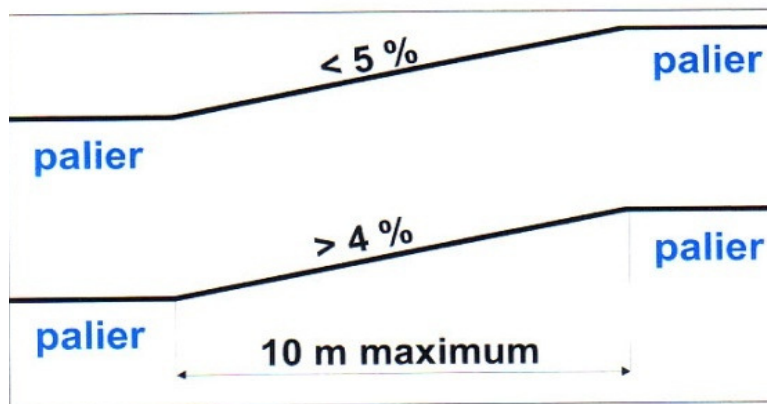
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HORIZONTAL CIRCULATION / slope

➤ PERCENTAGE :

- . Slope $\leq 5\%$
- . Slope $\leq 8\%$ on a length $\leq 2\text{m}$ (tolerance)
- . Slope $\leq 10\%$ on a length $\leq 0,50\text{m}$ (tolerance)
- . Slope $> 12\%$ = danger !!
- . Width of the access ramp **1,20** m minimum
- . Horizontal in the slope near $\leq 2\%$



HORIZONTAL CIRCULATION / slope

➤ HALF LANDINGS :

- . Slope $4\% < x < 5\%$ with half landings **all 10 m**
- . Dimensions **1,40m x 1,20m**
- . Landing at the bottom of the access ramp
- . Landing at the top of the access ramp

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décompresseur
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HORIZONTAL CIRCULATION / slope



SAFETY OF USAGE



SAFETY OF USAGE / dangers

➤ EQUIPMENT IN PROJECTION :

. If obstacle to the ground or in projection furthermore of **15cm** on the way, the element of **visual contrast and tactile reminder** or continuation of the obstacle to the ground is needed

. If suspended obstacle, to leave passage free in at least **2,20m of the ground**

QuickTime™ et un décompresseur sont requis pour visionner cette image.

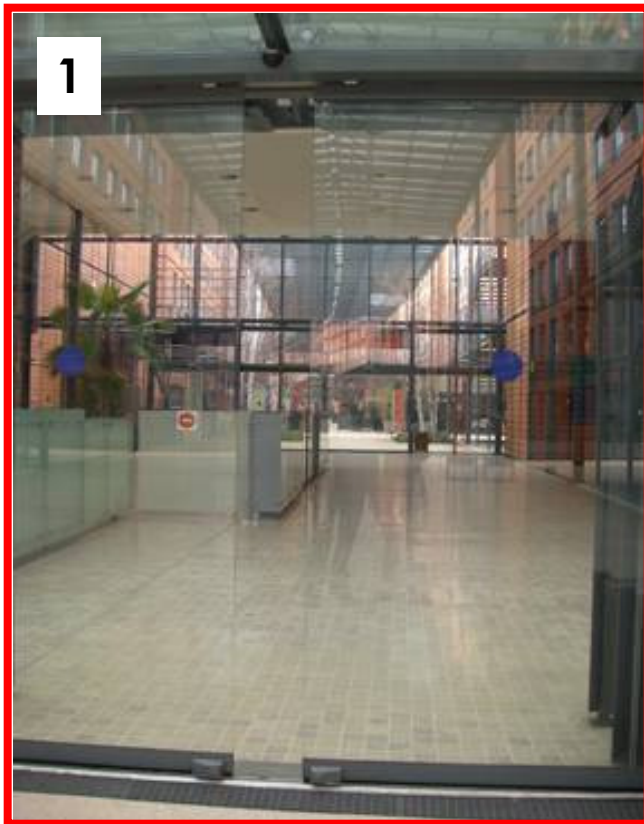
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SAFETY OF USAGE / dangers



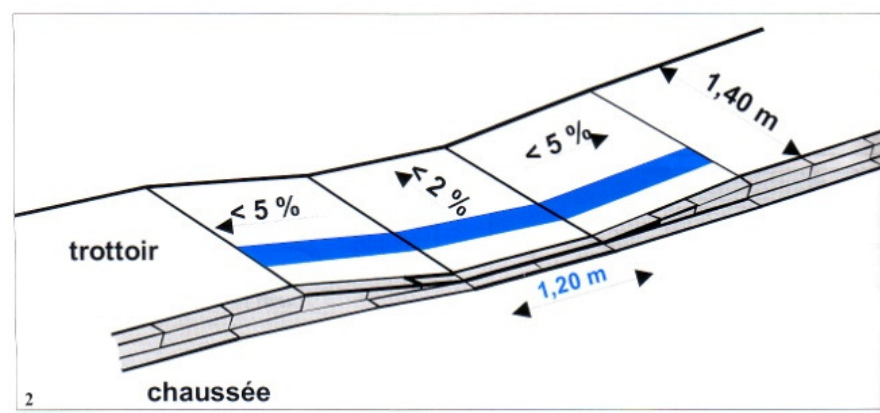
SAFETY OF USAGE / **glazed walls**



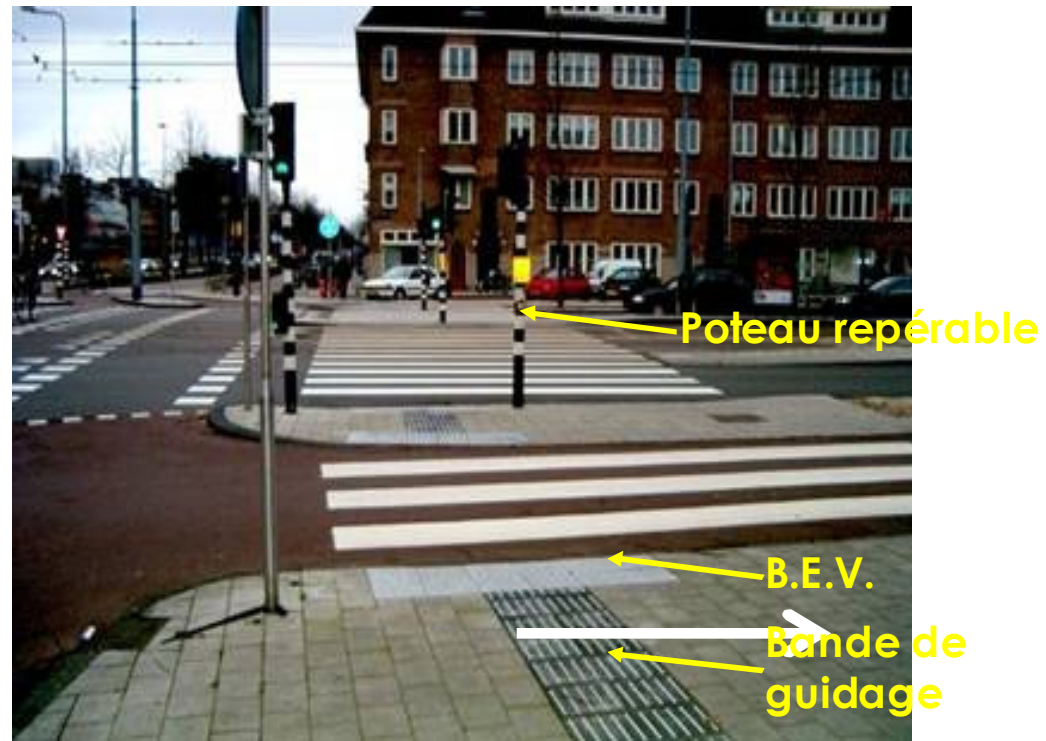
SAFETY OF USAGE / pedestrians and cars

➤ CROSSING PEDESTRIANS / CARS :

- . Strip of awakening of attentiveness for the pedestrians
- . Road marking of pedestrian crossing for cars
- . Marking on the ground



SAFETY OF USAGE / **pedestrians and cars**



AUTOMOBILE CAR PARK



AUTOMOBILE CAR PARK / dimensions

➤ DIMENSIONS :

. Width \geq **3,30m**

. Horizontal to the slope near \leq **2%**

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VERTICAL CIRCULATION



VERTICAL CIRCULATION / outside staircases

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VERTICAL CIRCULATION / **outside staircases**

➤ LOCATION :

- . Floor covering contrasted visually and tactilement (Strip of awakening of attentiveness) **in 50cm of the first step** at the top of the staircase
- . Not slippery contrasted nose of step



VERTICAL CIRCULATION / outside staircases



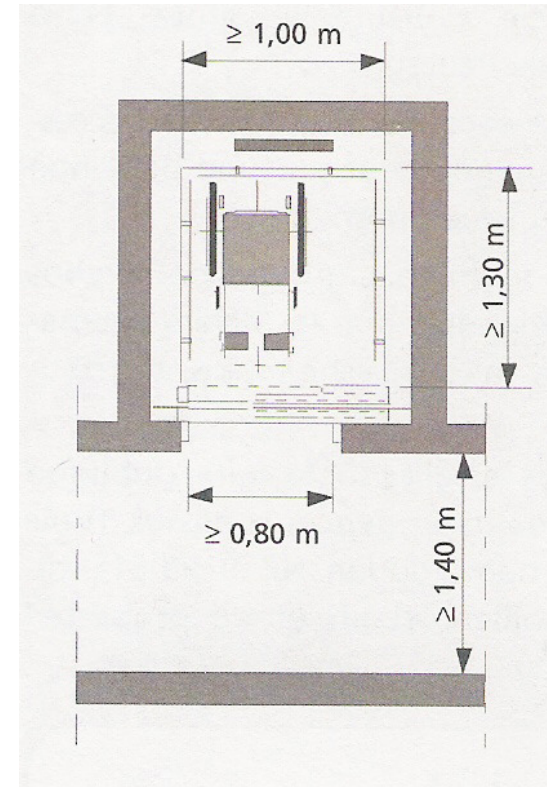
VERTICAL CIRCULATION / lifts

➤ CHARACTERISTICS OF THE ELEVATOR :

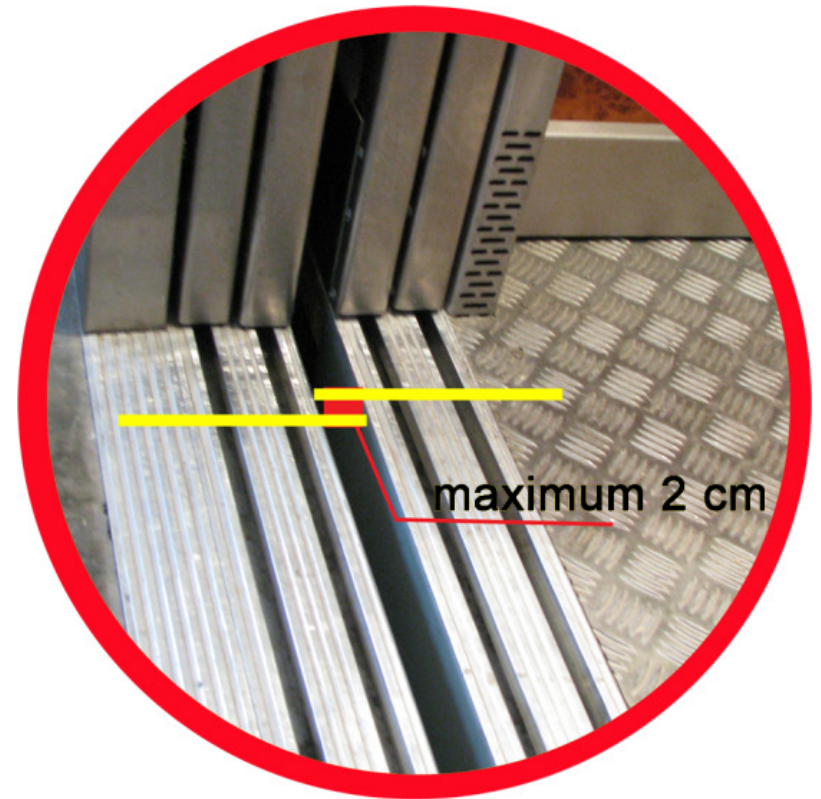
- . Entrance **80 cm**
- . Depth **130 cm**
- . Width **100 cm**
- . Sliding doors needed
- . Commands height between 0.90m and 1.30 m
- . Precision of stop 2cm maximum

➤ LOCATION :

- . Signals easily visible
- . Visual and sound information for the floors and the alarm



VERTICAL CIRCULATION / lifts



COMMAND SYSTEMS AND EQUIPMENTS



COMMANDS AND EQUIPMENTS / **dimensions**

➤ SPACES FOR USE :

- . Space of usage **0,80m x 1,30m** in front of every equipment
- . Height between **0,90m and 1,30m** for manual commands

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décompresseur
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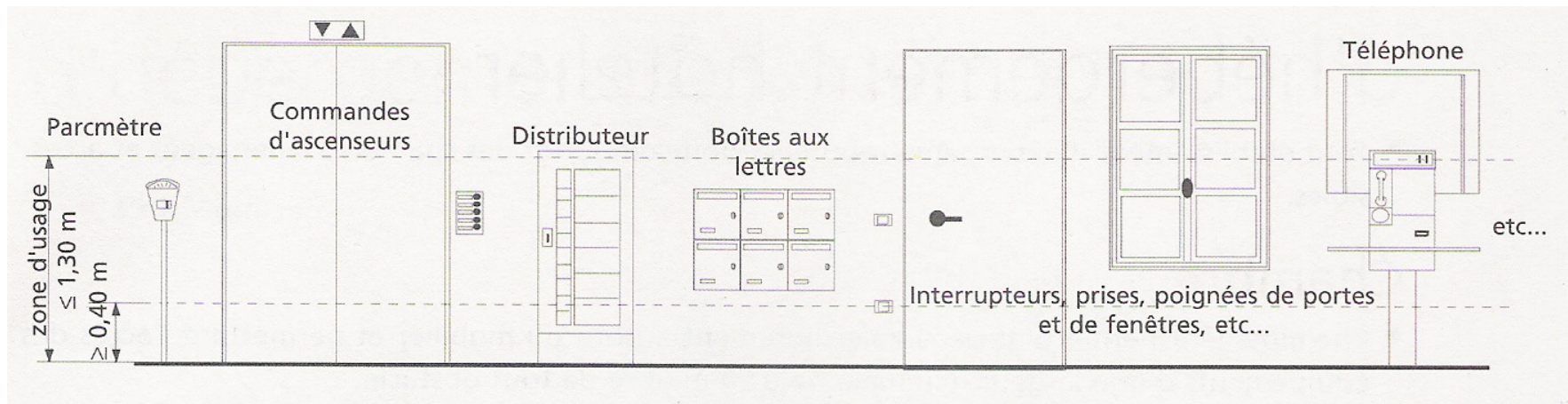
QuickTime™ et un
décompresseur
sont requis pour visionner cette image.



COMMANDS AND EQUIPMENTS / **location**

➤ LOCATION :

- . Locatable equipment and furniture by visual contrast or particular lighting
- . Command of visible lighting in the daytime and at night
- . Sound and visual signal connected to the functioning



LIGHTING



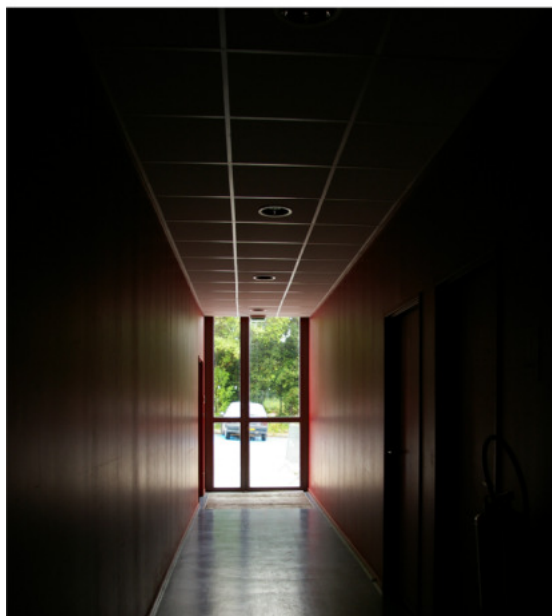
LIGHTNING / intensities

➤ ILLUMINATION MEASURED ON THE GROUND :

- . **20 lux** min on each point of the accessible outside way
- . **100 lux** on each point of the horizontal inside circulations
- . **150 lux** on each point of every staircase
- . **50 lux** on each point of the pedestrian circulations in car parks
- . **20 lux** in quite other point of car parks



REGLEMENTATION / Eclairage



Let's Open Cities for US !

Let's integrate « design for all »
concept ...

