

Barrier Free Access 無障礙設計

#### 3.1 INTRODUCTION

As shown in the Universal Design Pyramid, the elderly and people with disabilities have higher requirements for accessibility. This group of people are increasing in Hong Kong. In Hong Kong, the population is aging due to declining fertility and longer life expectancy. According to the report of the Census and Statistics Department [C&S], the elderly dependency ratio has increased from 124 in 1991 to 154 in 2001. C&S also projected that the proportion of those aged 65 and above will rise from 12% in 2003 to 27% in 2033. Furthermore, the disabled population represents 5% of the total population of Hong Kong, according to C&S' study in 2000. It includes 103,500 persons with physical handicap, 73,900 persons with visual impairments, 69,700 persons with hearing impairments and 18,500 persons with speech impairments. Therefore, more attention shall be paid to increase accessibility for the elderly and people with disabilities throughout the built environment.

The Hong Kong Government has provided statutory documents to guide barrier-free design. They include the Disability Discrimination Ordinance, implemented since 1996, the Residential Care Homes (Elderly Persons) Ordinance and the Design Manual - Barrier Free Access 1997. Based on these statutory documents, this chapter will introduce good practice for residential developments.

#### 3.2 EXTERNAL AREAS AND PATHS FOR **BARRIER-FREE ACCESS**

#### 3.2.1 Dropped Kerbs in External Areas

• It is recommended that dropped kerbs shall be provided at pedestrian crossings, at each end of footpaths and at building entrances, where appropriate.

3.1 引言

正如通用設計金字塔顯示,長者和殘障人士 對暢達設計有更高的要求。在香港,這組別 的人士正不斷增加,香港的人口由於出生率 下降和壽命延長而持續老化。根據政府統計 處的報告,長者的受贍養比率從1991年的 124增至2001年的154。統計處也預計65歲 和以上的人口比例將從2003年的12%增至 2033年的27%。此外,統計處於2000年的統 計研究指出,殘障人口佔香港總人口的5%, 包括103,500位身體殘障人士、73,900位視障 人士、69,700位聽覺障礙人士及18,500語言 障礙人士。因此我們應為長者和殘障人士而

香港特區政府已為無障礙設計提供法定的指 引文件,包括自1996年起實施的《殘疾歧視 條例》、《安老院條例》和《設計手冊:暢 通無阻的通道1997》。本章將在這些法定文 件的基礎,介紹住宅建設中的無障礙設計。

注重提高建築環境的暢達性。

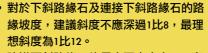
無障礙室外場所和通道

#### 3.2.1 室外下斜路緣石

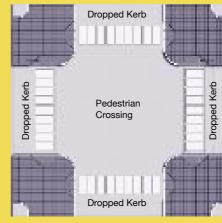
• 建議在行人過路處、行人路末端及樓宇 入口的適當地方設置下斜路緣石。

- It is recommended that dropped kerbs and kerb ramps shall be ramped at a gradient not steeper than 1:8. ideally 1:12.
- It is recommended that dropped kerbs shall be provided with a minimum length of 1200mm and a minimum width of 1300mm.
- It is recommended that a clear space of provided behind the dropped kerbs.
- 對於下斜路緣石及連接下斜路緣石的路
- 建議下斜路緣石的長度至少應有1200毫
- 建議在下斜路緣石後,提供1500毫米 x1500毫米的淨空間,方便上落。
- 建議下斜路緣石表面應防滑,並裝設有

1500mm x 1500mm for landing shall be • It is recommended that the surface of dropped kerbs shall be slip-resistant and be installed with tactile warning strips.

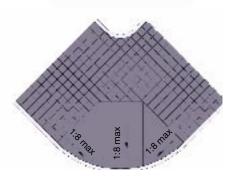


- 米,闊度至少應有1300毫米。
- 警告條紋的引路磚。



Dropped kerb for pedestrian crossings 行人路的下斜路緣

A dropped kerb for a path 通道下斜路線



A dropped kerb at the corner of pavement 行人路角位的下斜路線

A dropped kerb with hazard warning tactile surface

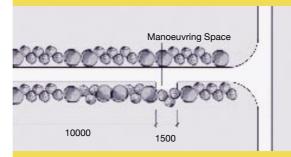


#### 3.2.2 Paths in External Areas

- In order to facilitate access by people in wheelchairs, it is recommended that the width of accessible paths shall be not less than 900mm and ideally 1500mm. If a path is less than 1500mm in width, it is preferable that a space of at least 1500mm x 1500mm shall be provided every 10m to accommodate the passing and the turning of wheelchairs.
- It is recommended that a tactile guide path shall be provided to one side of an accessible path.
- It is recommended that angles at intersections of accessible paths shall be splayed or rounded.
- In order to assist people with visually impairments, it is recommended that corners and edges of paths shall be clearly marked by using colour, brightness, textures or upstand edge.
- It is recommended that the surface of accessible paths shall be slip-resistant. Regular maintenance shall be provided.
- It is recommended that plants or planters beside an accessible path shall be located between 450mm and 600mm away from a tactile guide path.
- Paths should be as levelled as possible. It is recommended that the slope for an accessible path shall not exceed 1:12, and ideally not steeper than 1:25, especially for longer distances.
- It is recommended that lighting and seating shall be provided along accessible paths.

3.2.2 室外通道

- 為方便輪椅的人士,建議通道的淨寬不 應少於900毫米,最理想寬度為1500毫 米。如寬度少於1500毫米,最好在每 10米處提供面積至少1500毫米 x 1500毫 米的空間,以容納輪椅通過和回轉。
- 建議在無障礙通道的一邊提供凹凸紋引
- 為協助視障人士,建議通道邊緣位應以 顏色、光度、質感和豎柱邊顯示。
- 建議無障礙通道的表面應該防滑,並應 定期維修保養。
- 建議無障礙通道旁的植物或花槽,應離 開引路徑450至600毫米。
- 通道應盡量平坦,建議無障礙通道的斜度 不應超越1比12,最理想斜度應少於1比 25,尤其是較長的通道。
- 建議在無障礙通道沿途設置街燈和坐椅。
- 建議在無障礙通道和其沿途座位設置綠 蔭或雨棚。



Guide path on one side of an accessible path 在方便易達通道旁的指引通道



- It is recommended that shading / cover shall be provided to accessible paths and seating areas.
- · It is recommended that an overhead clearance of 2m shall be maintained under tree limbs, signs and lights, over full width of accessible paths.
- Where drainage channel intersects accessible paths, it is recommended that gratings shall be provided. Channel grating slots shall not be parallel to the direction of major traffic. Openings in gratings shall be small enough to avoid trapping of crutches or wheels.
- In order to assist people in wheelchairs, it is recommended that loose gravel and sand shall not be used as the surface to accessible paths.
- Ideally, tactile warning tiles or surfaces shall be provided on the pavements around signposts, streetlights, trees, mailboxes, and other street furniture.
- 建議沿無障礙通道的樹枝、指示牌和路 燈下的淨空高度應有2米。
- 排水渠與無障礙通道交界的地方應設置 格柵。建議渠道格柵的狹槽不應與主要 交通方向平行,格柵的開口應盡量細 小,以免拐仗或輪椅的輪子陷入。
- 為協助輪椅人士,建議無障礙通道的表 面不應鋪蓋鬆散的礫石和砂粒。
- 在行人路上有指示牌、街燈、樹木、郵 箱和其他街道設施的位置,最理想應鋪 設有凹凸紋的危險警告引路磚 。



The openings for the gratings are not small enough and are also in the direction of major traffic

渠道格柵開過大且與主要行走方向平行

Preferred opening size of channel grating slots 渠道格柵的推薦開口尺寸





Overhead clearance for an accessible path 方便易達通道的淨空高度

Manoeuvring space along path 通道旁的輪椅操作空間

## 無障礙設計

#### 3.2.3 Tactile Surface in External Areas

- To facilitate use by people with visual impairments, it is recommended that a tactile surface shall be provided to pavements, dropped kerbs and paths giving access to buildings. Ideally, tactile surface shall also be provided in communal areas of residential buildings.
- It is recommended that hazard warning tiles shall be provided on dropped kerbs, platform edges of walking surfaces, in front of push-out doors and lift doors.
- It is recommended that positional tiles shall be provided where there is a change in walking direction.
- It is recommended that hazard warning tiles and positional tiles shall be provided to indicate locations to stop for action, such as pedestrian crossings, lift call buttons, emergency call buttons and signboards.
- It is recommended that hazard warning tiles shall be provided to indicate level changes.
- It is recommended that hazard warning tiles shall be provided at the position where caution is required, such as swing-out doors and street crossings.

#### 3.2.4 Lighting in External Areas

 It is recommended that the illumination of external areas shall be not less than 50-75 lux. Ideally, it shall be 75-120 lux.

Position tiles in front of a signboard 毕子牌前的文位引擎東京



#### 3.2.3 室外引路徑

- 為方便視障人士使用,行人路、下斜路 緣石及樓宇進出通道應設有引路徑,最 好也在住宅建築內的共用地方設置。
- 建議在下斜路綠石、行人平台邊、推門 及升降機前設置危險警告引路磚。
- 建議在改變步行方向的位置鋪設方位引
- 建議鋪設危險警告和方位引路磚,顯示 應停下來的位置,例如在行人過路處、 升降機呼叫按鈕、緊急事故按鈕及指示 牌的位置。
- 建議應鋪設危險警告引路磚,顯示地面標高的改變。
- 建議在需要提防的位置應設有危險警告引 路磚,例如門開啟方向和街道過路處。

#### 3.2.4 室外照明

• 建議室外光線至少要有50-75勒克斯,最 好有75-120勒克斯。

#### 3.3 CAR PARKS FOR BARRIER-FREE ACCESS

#### 3.3.1 Drop-Off Bays / Pick-Up Bays

 It is recommended that drop-off / pick-up bays shall be provided near building entrances close to the main circulation areas or lift lobbies.

#### 3.3.2 Parking in Car Parks

 It is recommended that accessible parking bays shall be provided, close to accessible entrances. The locations of accessible parking bays shall be clearly signed or indicated at the entrance of a car park. Bays and transfer zones shall be marked in yellow for easy identification.

#### 3.3 無障礙停車設施

#### 3.3.1 落客處/上客處

 建議落客/上客處應靠近緊連主要的室內 交通通道或升降機大堂的樓宇入口。

#### 3.3.2 停車場泊車設施

 建議在無障礙入口附近設置停車位,並 於停車場入口清楚標示無障礙停車位的 位置。停車位和輪椅通道應用黃色圈 畫,容易識別。

A drop-off bay close to the entrance of a residential building 住字建築物入口的该安康



 Allocation of accessible parking space recommended as follows:

Total No. of Car Parking Spaces	Required No. of Accessible Parking Space
1-50	1
5-150	2
151-250	3
251-350	4
351-450	5
Above 450	6

Note: For residential buildings particularly intended for the elderly and people with disabilities, it is recommended that the number of accessible parking bays shall be greater than the above allocations.

#### • 無障礙停車位數目的比例建議如下:

停車場車位總數	應設無障礙停車位數目
1-50	1
5-150	2
151-250	3
251-350	4
351-450	5
450以上	6

註: 為長者和殘障人士而設的住宅樓宇,建議無障礙停車 位的數目應多於以上的配額。

## 無障礙設計

#### 3.3.3 Transfer Zones for Accessible Parking Bays

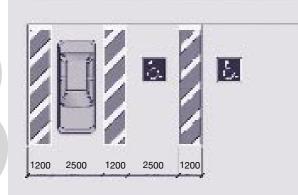
- It is recommended that accessible parking bays shall have a transfer zone of at least 1200mm wide marked at the rear of the space or between two parking bays.
- It is recommended that yellow cross-hatching shall be clearly marked on the ground to indicate the transfer zones.

#### 3.4 RAMPS FOR BARRIER-FREE ACCESS

#### 3.4.1 Dimensions for Ramps

• It is recommended that ramps to building entrances shall be provided in a convenient location so that ramp users are not segregated from stair users.

Transfer zones for accessible parking bays 方便易達停車位的轉移區



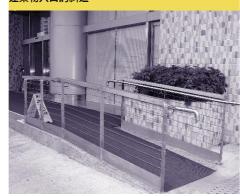
#### 3.3.3 無障礙停車位的輪椅通道

- 在無障礙停車位的最一個車位旁或兩個 停車位之間,建議保留至少寬1200毫米 的空間作為輪椅通道。
- 輪椅通道建議在地面上以黃色交叉線標明。

#### 3.4 無障礙斜道

#### 3.4.1 斜道的尺寸

建議通往樓宇入口的斜道應設於方便使用的地點,不應將斜道使用者和梯級使用者分隔開。



#### It is recommended that a ramp shall be provided where there is a change in level more than 200mm, particularly if lift services are not available.

- It is recommended that ramps shall be provided at a gradient not steeper than 1 in 12.
- The minimum clear width of a ramp should be 1050mm.
- No ramp should be curved.

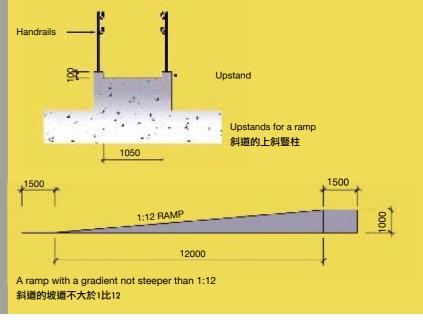
#### 3.4.2 Handrails and Upstands for Ramps

- It is recommended that handrails shall be provided on both sides of all ramps.
- Design of handrails is discussed in Chapter 3.6.
- A raised upstand not less than 100mm high should be provided on any open side of a ramp or a landing.
- Where a ramp with a rise greater than 200mm discharges down to an area where vehicular traffic is possible, it should be provided with a railing or barrier across the full width of its lower end, not less than 1500mm from the lower end.

- 如地面標高度的改變多於200毫米,尤其是如果 沒有電梯服務,則建議設置斜道。
- 斜道的坡度建議不應大於1比12。
- 斜道的淨寬度最少要有1050毫米。
- 斜道不應彎曲。

#### 3.4.2 斜道的扶手及安全擋台

- 建議斜道兩邊應設有扶手。
- 扶手的設計詳見於第3.6章。
- 在任何斜道或斜道平台開放的一端,應設置不 少於100毫米高的安全擋台。
- 如斜道升高多於200毫米,並伸往下方連接馬路, 則須於斜道末端設置與斜道寬度相等的欄杆 或護欄,裝置距離斜道末端不可少於1500毫米。



A ramp close to the building entrance 建築物入口的斜道

#### 3.4.3 Landings for Ramps

- It is recommended that level landings not less than 1500mm x 1500mm shall be provided at the bottom and top of a ramp, in all cases clear of any door swing.
- It is recommended that level landings, not less than 1500mm long and the full width of a ramp shall be provided at every 10m.
- Hazard warning tiles should be provided at landings. It is recommended that hazard warning tiles shall be provided 300mm from the top and bottom edges of

#### 3.4.3 斜道平台

- 斜道頂端及底部建議設有平台,面積不 少於1500毫米×1500毫米,並此空間內 不得有門開入。
- 斜道每隔10米處建議設置長度不少於 150毫米,寬度與斜道寬相同的平台。
- 斜道平台應設置危險警告引路磚。建議 危險警告引路磚應離開每段斜道頂部與 底部均300毫米。

#### 3.4.4 Surfaces for Ramps

- The surface of ramps should be slip-resistant.
- To facilitate use by people with visual impairments, it is recommended that tactile warning strips shall be provided at the top and bottom of a ramp.

#### 3.4.5 Visual Factors for Ramps

- To facilitate use by people with visual impairments, it is recommended that contrasting colours shall be provided for floors and walls along ramps.
- Good illumination shall be provided on ramps. It is recommended that an illumination level shall be provided of at least 120 Lux, and ideally 300 lux, at the ramp level.

#### 3.4.5 斜道的視覺因素

3.4.4 斜道面

• 斜道表面必須防滑。

鋪設危險警告引路磚。

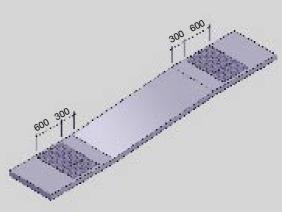
Landings for a ramp 斜道上落處

• 為方便視障人士使用, 建議斜道地面和沿途的牆 壁要選用對比色。

• 為方便視障人士使用,建議在斜道頂部及底部兩端須

• 斜道要有充足照明,建議照明度最少要有120勒 克斯,最理想照度為300勒克斯。

1500



Location of hazard warning tiles at ramps 斜道的危險警告引路磚的位置



Hazard warning tiles for ramps

斜道的危險警告引路磚

Level landings for a ramp at every 10m 每10米處設於斜道上落處

## 無障礙設計

#### 3.5 STEPS AND STAIRCASES FOR BARRIER-FREE ACCESS

#### 3.5.1 Dimensions for Steps and Staircases

- It is recommended that for external steps, the depth of treads shall be not less than 280mm and the height of risers shall be not more than 150mm.
- It is recommended that for internal steps, the depth of treads shall be not less than 240mm (measured at the centre of the flight) from the face of one riser to the face of the next riser, and the height of risers be not more than 175mm.
- It is recommended that risers shall be vertical or with a receding face not exceeding 15mm from the vertical, without a projecting nosing.
- Minimum clear width of steps or staircases should be 1050mm.

#### 3.5.2 Landings for Steps and Staircases

- A single flight of stairs should not have more than 16 steps.
- Level landings should be provided at the top and bottom of each flight, with slip-resistant floor surfaces.

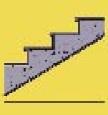
#### 3.5 無障礙梯級和樓梯

#### 3.5.1 梯級和樓梯的尺寸

- 建議戶外梯級面寬度不應少於280毫米,台階高度不 多於150毫米。
- 建議室內梯級面寬度,不應少於240毫米(由梯級中 心點量度),梯級高度不應多於175毫米。
- 建議梯級踢面應垂直,或由垂直面往外傾不超於15 毫米,梯級邊緣不得突出。
- 梯級或樓梯間的淨寬度至少要有1050毫米。

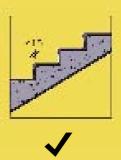
#### 3.5.2 梯級和樓梯的平台

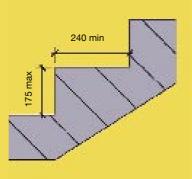
- 每段樓梯不應多於16級梯級。
- 每段樓梯的頂部和底部兩端應有平台,並舗設防滑地面。











Dimension requirements for internal steps 室內梯級尺寸要求

#### 3.5.3 梯級和樓梯的危險警告引路磚

- 為方便視障人士使用,所有平台均應設有危險警告引路磚。
- 危險警告引路磚應離開每段樓梯頂部與 底部均300毫米。

#### 3.5.4 梯級和樓梯的扶手

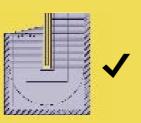
- 建議在梯級和樓梯兩旁,一律設置不中 斷的扶手。
- 扶手的設計詳見於第3.6章。

#### 3.5.5 梯級和樓梯設計的視覺因素

- 為方便視障人士使用,建議樓梯面和牆壁的?色及色調採用對比色或選用有對比質感的物料。
- 為突出每個樓梯面的邊緣,建議舗設有 對比色的防滑突緣條, 寬度最少要有40毫米,離開樓梯 面前邊緣不多於10毫米。
- 所有樓梯面的照明度,建議最少要有 120勒克斯。

#### 3.5.6 梯級和樓梯的其他因素

- 不應設置無踢面梯級。
- 不應設置孤形扇形的梯級。









Winders and splyed steps shall be avoided 不應設置孤形扇形的梯級

#### 3.5.3 Hazard Warning Tiles for Steps and Staircases

- To facilitate use by people with visual impairments, hazard warning tiles should be provided at all landings.
- It is recommended that tactile hazard warning tiles shall be provided 300mm from the first and last nosings of every flight of steps.

Hazard warning

tiles at landings

樓梯平台上的危

檢警告引路磚

#### 3.5.4 Handrails for Steps and Staircases

- It is recommended that all steps and staircases shall have continuous handrails installed on both sides.
- Design of handrails is discussed in Chapter 3.6.

#### 3.5.5 Visual Factors for Steps and Staircases

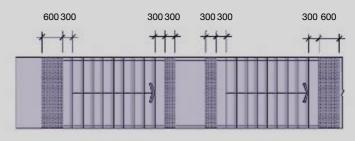
- To facilitate use by people with visual impairments, it is recommended that the treads and walls of a staircase shall be in contrasting colours, tones or materials.
- In order to highlight the edges of individual treads, it is recommended that slip-resistant nosing strips in contrasting colours shall be provided at least 40mm in width and not more than 10mm from the front edge of the tread
- It is recommended that illumination of not less than 120 lux should be provided at all stair treads.

#### 3.5.6 Other Factors for Steps and Staircases

- Open risers should not be provided.
- Winders and splayed steps should not be provided.



#### Open risers can cause fall 無踢面梯級會導致行人跌倒



Location of hazard warning tile for stairs 在樓梯處設置危檢警告引路磚的位置

3

## 無障礙設計

#### 3.6 HANDRAILS

#### 3.6.1 Height for Handrails

 It is recommended that handrails shall be provided with their top surface at a height of not less than 850mm and not more than 950mm above the surface of ramps, nosings, floors or landings.

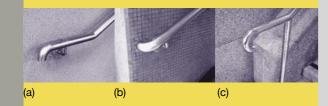
#### 3.6.2 Extension of Handrails

- Handrails should extend horizontally at least 300mm beyond the first and last nosings of every flight of steps, or beyond the end of ramps.
- It is recommended that notes in braille and raised letters shall be provided on the extended parts of handrails to indicate direction or floor level.



Braille on the extension of handrails 扶手延伸部分的凸起盲文

- It is recommended that handrails shall be provided with terminations to prevent injury or catching clothes. There are many ways to achieve this. Options include:
- (a) Turning the end down at least 100mm;
- (b) Returning the end to the wall;
- (c) Returning the end to the last post of a handrail.



#### 3.6.3 Shape of Handrails

- Handrails should be comfortable to use by people with impaired dexterity. To achieve this, it is recommended that tubular handrails shall be provided with external diameter not less than 32mm and not more than 40mm.
- It is recommended that a clear space of between 30mm and 50mm shall be provided between the handrails and the walls. .

#### 3.6.4 Loading for Handrails

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 It is recommended that handrails shall be provided to resist a load of not less than 1.3 KN applied vertically or horizontally.

#### 3.6 扶

#### 3.6.1 扶手高度

• 建議扶手頂部離斜道、梯級邊、地面或平台面,應介乎850毫米至950毫米之間。

#### 3.6.2 扶手延伸部分

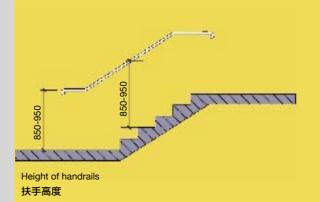
- 扶手末端應有延伸部分,延伸部分的末端離開每段樓梯的第一個和最後一個梯級邊緣至少300毫米。
- 在扶手延伸部分建議設有凸起的盲文和 字母提示方向或層數。
- 建議扶手的末端應有收尾處理以避免引 致傷人或勾到衣物。方法有很多,包括 下列選擇:
- (a) 末端往下轉至少100毫米;
- (b) 末端轉向牆面;
- (c) 末端轉向扶手的最後一根欄杆豎杆。

#### 3.6.3 扶手形狀

- 扶手應能讓肢體有障礙的人士舒適地 使用。建議設置管狀扶手,外圍直徑介 乎32毫米至40毫米之間。
- 扶手與牆壁的淨距離建議應介乎30毫米 至50毫米之間。

#### 3.6.4 扶手承載量

扶手的縱向及橫向的承載量,建議不應 少於1.3 KN。



#### 3.7 無障礙入口

#### 3.7.1 入口通道

- 建議入口通道的最少淨寬度為850毫米, 理想淨寬度為1500毫米,以方便兩部輪 椅同時通過。
- 建議輪椅操作空間平行於門方向的寬度,應為門的總寬度再加上門邊至少500毫米。
- 入口內外兩旁建議提供1500毫米x1500毫 米作為輪椅操作空間。
- 最好可於主要入口及公眾的共用地方設置半自動推拉門。
- 主要入口不應設置旋轉門,除非旋轉門 的每一隔足以讓一部輪椅或手推車通 過。如有旋轉門,應於旁邊設置另一 無障礙的門。
- 門的設計詳見於第3.10章。
- 建議在入口處裝設閉路電視。
- 建議在入口處裝設緊急事故按鈕。
- 建議在入口處設置指示牌顯示樓宇名稱 或門牌,字體大小要切合視障人士的需 要,並用對比色。

#### 3.7.2 入口平台

- 建議在入口處外設置平台,淨深度不少 於1500毫米。
- 建議在入口平台加建雨棚。

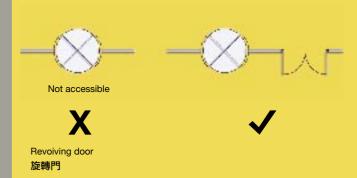
#### 3.7 ENTRANCE FOR BARRIER-FREE ACCESS

#### 3.7.1 Entrance Doorways

- It is recommended that the minimum width of an entrance doorway shall be 850mm, ideally 1500mm to facilitate access of two wheelchairs.
- It is recommended that manoeuvring clearances parallel to an entrance doorway shall include the full width of the doorway plus 500mm minimum.
- It is recommended that a manoeuvring area of 1500mm x 1500mm shall be provided on both sides of an entrance door.
- Ideally, semi-automatic sliding doors can be provided at main entrances and in public communal areas.
- It is recommended that revolving doors should not be provided as a main entrance unless the door compartment is sufficiently large to accommodate a wheelchair or a pushchair. Where there is a revolving door, an accessible alternative doorway should be provided adjacent to it.
- Design of doors is discussed in Chapter 3.10.
- It is recommended that CCTV shall be provided at entrances.
- It is recommended that emergency call buttons be provided at entrances.
- It is recommended that a sign indicating the building name or block number should be provided at the entrance, with letters / characters in sufficient size and in contrasting colours to assist people who have visual impairments.

#### 3.7.2 Entrance Platforms

- It is recommended that a platform shall be provided outside an entrance, with a clear width of not less than 1500mm.
- It is recommended that overhead canopy shall be provided above the entrance platform.



## 無障礙設計



Intercom panel at building entrance 入口處的對講機

#### 3.7.3 Entrance Platform Lifts

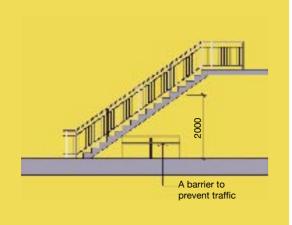
 It is recommended that where an entrance platform is provided and it is impractical to provide a ramp to deal with changes in level, a platform lift or wheelchair stair lifts shall be provided.

#### 3.7.4 Lighting and Communication Equipments for Entrances

- To enable people with visual impairments to locate entrances, sufficient lighting should be provided.
- To facilitate use by people in wheelchairs, it is recommended that security intercom panels, entry phones, door bells or call buttons outside the entrance shall be located close to the entrance door and at a height of between 900mm and 1100mm above floor level, and should be in contrasting colour to facilitate use.
- To assist people with visual impairments, it is recommended that directional and positional tactile surfaces shall be provided to indicate the location of the security intercom panels and entry phones.

#### 3.7.5 Headroom for Entrances

- It is recommended that clear headroom of at least 2000mm shall be provided in all rooms, corridors, passageways, aisles, or other circulation areas.
- To assist people with visual impairments, it is recommended that where vertical clearance of an area adjoining an accessible route is reduced to less than 2000mm, a barrier or warning tiles shall be provided to alert users and prevent traffic.



#### 3.7.3 入口平台升降機

如入口平台無法設置斜道,則建議設置 平台升降機或其他輪椅用樓梯升降機。

#### 3.7.4 入口的照明及通訊設備

- 入口照明度要讓視障人士容易找到。
- 為方便輪椅人士,建議在入口處設置保安內部通訊控制板、大門電話對講系統、門鈴,或者喚叫按鈕,高度離地面900毫米至1100毫米,均採用對比色,方便使用。
- 為協助視障人士,建議設置引路徑,指 示保安內部通訊控制板,以及大門電話 對講系統的方向和位置。

#### 3.7.5 入口的淨空高度

- 房間、走廊、通道、過道或其他交通通道 的淨空高度最少要有2000毫米。
- 為協助視障人士,如某些地方與無障礙 通道相連,而垂直淨空高度又低於 2000毫米,則須設置檔杆或危險警告引 路磚,以警告行人,並避免行人行入此 空間而撞頭。



Entrance platform lifts 入口平台升降機



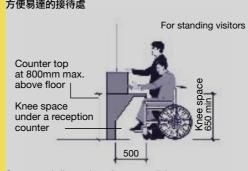
Storage area near building entrance 靠近住宅入口處的貯物區



Accessible mailboxes 方便易達的郵箱



Accessible reception counter 方便易達的接待處



Suggested dimensions for accessible counters 方便易達的接待處的建議尺寸

#### 3.7.6 Reception Counters for Entrances

 To facilitate use by people in wheelchairs, it is recommended that reception desks shall be at least 1000mm long, with a height between 700mm and 800mm above the floor level and with knee space no less than 500mm deep and 650mm high.

#### 3.7.7 Mailboxes for Entrances

- To facilitate use by people in wheelchairs, it is recommended that the top most mailboxes shall be not more than 1200mm, and the bottom most mailbox shall be not less than 400mm above floor level.
- It is recommended that individual mailboxes shall be identified with raised letters / characters and Braille.

#### 3.7.8 Storage Areas near Entrances

 To facilitate safe and convenient use of habitable areas, it is recommended to provide storage in communal areas for residents' personal property.

#### 3.7.6 接待處

為方便輪椅人士,建議接待處櫃面至少應有一段長度大於或等於1000毫米;而櫃面離地面高度介乎700毫米至800毫米之間,並預留膝蓋空間的深度和高度不少於500毫米和650毫米。

#### 3.7.7 郵箱

- 為方便輪椅人士,建議郵箱頂端不應高於1200毫米, 底部離地面不應低於400毫米。
- 建議在每個郵箱設有凸出的盲文和字母/文字。

#### 3.7.8 貯物區

為了安全和使用方便,建議在公眾的共用地方設置貯物區,方便住客存放個人物品。

#### 3.8 LIFTS FOR BARRIER-FREE ACCESS

#### 3.8.1 Performance Requirements for Lifts

• It is recommended that access shall be provided to all floors of a building by at least one accessible lift with universally designed features.

#### 3.8.2 Dimensions for Lifts

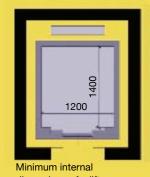
- It is recommended that the minimum internal dimensions of a lift car shall be 1400mm in depth and 1200mm in width, and ideally the internal dimensions shall be more than 1500mm x 1500mm to accommodate a turn of a wheelchair.
- It is recommended that lift door clear width shall be not less than 850mm.
- It is recommended that lift lobby clear depth shall be not less than 1.8m.

#### 3.8.3 Handrails for Lifts

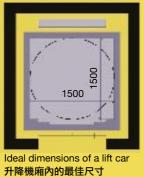
- It is recommended that handrails shall be provided at the rear and at the sides of a lift car.
- Design of handrails is discussed in Chapter 3.6.

#### 3.8.4 Mirrors in Lifts

• To facilitate use by people in wheelchairs, it is recommended that a mirror shall be provided at the rear of a lift car. The bottom of the mirrors should be not higher than 750mm above the floor of the lift car and the top shall reach the lift ceiling.



dimensions of a lift car 升降機廂內的最小尺寸



#### 3.8 無障礙升降機

#### 3.8.1 升降機設置要求

• 建議在樓宇的每一層設置至少一部符合 通用設計設計元素的無障礙升降機。

#### 3.8.2 升降機的尺寸

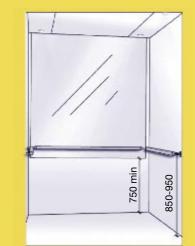
- 建議升降機廂內的尺寸最少要有1400 毫米 (深) x 1200毫米 (闊)。理想的 機廂內尺寸應為1500毫米x1500毫米以 上,以容納輪椅旋轉。
- 建議升降機門的淨寬度不應少於850
- 建議升降機大堂淨深度不應少於1.8米。

#### 3.8.3 升降機的扶手

- 建議升降機廂兩邊及後方應設置扶手。
- 扶手的設計詳見於第3.6章。

#### 3.8.4 升降機鏡

• 為方便輪椅人士, 建議在升降機廂後方 設置鏡子,鏡底離機廂地面不應多於 750毫米,鏡頂則應與升降機頂齊平。



Mirror in a lift 升降機廂內的鏡子

#### 3.8.5 升降機門

- 升降機門建議應採用橫向滑動型。
- 建議升降機門顏色應採用對比色。
- 建議裝設發光二極管組開關眼或其他監 察裝置,不用碰觸便可偵測是否有使用 者在升降機門中間,令升降機門可及時
- 建議使用廣播説明升降機門將要關閉和 機廂上落的方向。
- 升降機廂到達每層時,應廣播層數。
- 如有人按鈕要乘搭升降機,升降機門應 保持開敞最少3秒。
- 升降機關門速度應低於每秒鐘0.5米。
- 建議在電梯大堂設置視聽訊號顯示最先 到達樓層的升降機。

#### 3.8.5 Lift Doors

- It is recommended that lift doors shall be the horizontal sliding type.
- It is recommended that lift doors shall be in contrasting
- It is recommended that a LED array or other detection device shall be provided to prevent doors from closing and initiate re-opening when there is someone in his path, without having to make physical contact.
- It is recommended that an audible announcement shall be set to warn that the door is about to close, and also to indicate the direction of travel of the lift car, e.g. upwards or downwards.
- It is recommended that floor numbers shall be audibly announced on arrival
- It is recommended that lift doors shall remain fully open in response to a car call for at least 3 seconds.
- It is recommended that door closing speed of the car door shall not be faster than 0.5 metre per second.
- It is recommended that visual and audible signals shall be provided in lift lobbies to indicate which lift car will be the first to reach that floor.

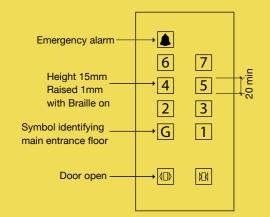
Lift doors in contrasting colours 顏色分明的升降機門



## 無障礙設計

#### 3.8.6 Lift Control Buttons

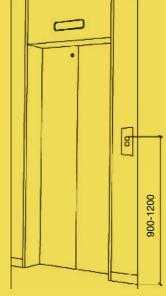
- To facilitate use by people with visual impairments, it is recommended to provide Braille and raised letter labels on all lift car control buttons and lift lobby call buttons. The emergency alarm push buttons should be in tactile bell shape.
- It is recommended that lift buttons shall have a dimension of not less than 20mm.
- To facilitate use by people with visual impairments, it is recommended that lift buttons shall be in contrasting colours.
- To facilitate use by people in wheelchairs, it is recommended that at least one set of lift car control buttons or lift lobby call buttons shall be located at a height not less than 900mm and not more than 1200mm above the floor level.
- It is recommended that accessible lifts shall be provided with emergency communication equipment, which shall be able to alert the building management once it is lifted. To facilitate use by people in wheelchairs, it is recommended that communication equipment shall be located at a height of not more than 1100mm above the lift floor surface. It can be installed either on a lift wall or inside a cabinet. If inside a cabinet, the door to the cabinet should open and be labelled with Braille and raised letters / characters. A visual signal shall indicate when the emergency communication equipment is in operation.



Design of lift control buttons 升降機按鈕的設計

#### 3.8.6 升降機按鈕

- 為方便視障人士使用,升降機廂和升降機大堂內按鈕應設凸起盲文和字母, 緊急警報按鈕應以凸起鐘鈴形狀顯示。
- 建議升降機按鈕的尺寸不少於20毫米。
- 為方便視障人士使用,建議升降機按鈕 應採用對比色。
- 為方便輪椅人士使用,建議最少應有一 組按鈕設於機廂內或大堂升降機的按 鈕,設置在離地板900毫米至1200毫米之 問。
- 建議無障礙升降機必須裝有緊急通訊設備,其裝置啟動,樓宇管理處應即獲得通知。為方便輪椅人士,其安裝高度不得離升降機地面多於1100毫米,位置須在升降機牆上或掣櫃內。如設置在掣櫃內,掣櫃門必須打開,並附有凸起盲文和字母/文字標示。此外,在使用緊急通訊設備時,應有視訊顯示。



Location of lift call buttons 升降機的呼叫按鈕位置

#### 3.8.7 升降機的地面

- 升降機的地面要防滑。
- 為方便視障人士使用,建議通往升降機 門的通道設置引路徑。升降機大堂的按 鈕前建議鋪設方位引路磚,升降機前對 出應鋪設危險警告引路磚。

#### 3.8.8 升降機的座椅

- 為方便長者和體弱人士,升降機內宜設 讓使用者歇息的座位或長椅。
- 為協助長者和體弱人士,升降機大堂宜 設置座椅。

#### 3.8.9 升降機的調平設定

 建議設置自動調平裝置,以確保機廂於 規定承載量至零承載量期間,其與地面 的距離不多於13毫米的公差。

#### 3.8.10 輪椅升降平台

- 建議輪椅升降平台的大小,不應少於 1200毫米×800毫米。
- 輪椅升降平台應設有扶手。扶手設計的 詳情見於第3.6章。
- 為方便視障人士使用,輪椅升降平台的 按鈕上應設有凸起盲文和字母/文字。



A bench at lift lobby 升降機大堂的座椅

A bench inside a lift 升降機內的座椅

#### 3.8.7 Floor Surfaces for Lifts

- Floor surface for lifts should be slip-resistant.
- To facilitate use by people with visual impairments, it is recommended that a tactile surface shall be provided at access to lift doors. Positional tiles should be provided in front of call buttons in lift lobbies. Hazard warning tiles shall be provided across the front of the lift doors.

#### 3.8.8 Benches for Lifts

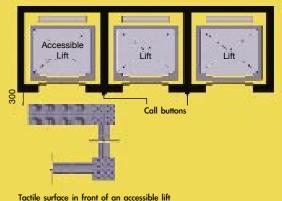
- To facilitate use by the elderly and the weak, it is desirable that a perch seat or bench shall be provided inside the lifts.
- To assist the elderly and the weak, it is desirable that seating shall be provided at lift lobbies.

#### 3.8.9 Lift Car Levelling

 It is recommended that self-levelling equipment shall be provided to bring and maintain lift cars at floor landings within a tolerance of 13mm under-ratedloading to zero-loading condition.

#### 3.8.10 Wheelchair Platform Lifts

- It is recommended that the platform of a wheelchair platform lift shall be not less than 1200mm x 800mm.
- Handrails shall be provided at wheelchair platform lifts. Design of handrails is discussed in Chapter 3.6.
- To facilitate use by people with visual impairments, control buttons for platform wheelchair lifts should be labelled in Braille and raised letters / characters.



Tactile surface in front of an accessible lift 引路磚設於方便易達的升降機機門前

## 無障礙設計

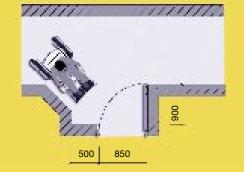
#### 3.9 CORRIDORS FOR BARRIER-FREE ACCESS

#### 3.9.1 Manoeuvring Space in Corridors

- It is recommended that the clear width of a corridor in a residential building shall be at least 1200mm.
- If a dead-end of a corridor is more than 3500mm in length and less than 1500mm in width, it is recommended that a space of more than 1500m x 1500m shall be provided at or within 3500mm of the dead-end.
- Where a door swings out into a corridor, it is recommended that a recessed lobby space shall be introduced. It should be sufficient to contain the door swing and should be not less than 1350mm in width and 900mm in depth.

#### 3.9.2 Floor Surfaces in Corridors

- Slip-resistant floor surface should be provided for corridors.
- Where there is a change in finished floor level of more than 15mm, the joint between the levels shall be splayed.
- To facilitate people with visual impairments to identify the direction and orientation, and also assist in wayfinding, it is preferable that floor patterns be varied at each flat entrance.
- It is recommended that there shall be no projection of more than 100mm from the wall surface and a height of less than 600mm above the floor level.



A recessed lobby for a door to swing out into a corridor 隱藏門廊

#### 3.9 無障礙走廊

#### 3.9.1 走廊的輪椅操作空間

- 住宅樓宇的走廊淨寬度建議最少要 1200毫米。
- 如盡端走廊長度多於3500毫米,寬度少於1500毫米,則建議在離走廊盡端 3500毫米內設置大於1500毫米x1500毫 米的空間。
- 如果門扇推向走廊方向,則建議採用凹門廊,闊度不應少1350毫米闊和深度不少於900毫米。

#### 3.9.2 走廊地面

- 走廊應鋪設防滑地面。
- 地面高差若多於15毫米,高差處則要拓成斜面。
- 建議每個居住單位的入口最好鋪設不同的地面圖案,以幫助視障人士分辨方向 及尋路。
- 建議牆上的突出物不得突出牆面超過 100毫米,其頂端至地面距離應少於 600毫米。

## Manoeuvring space Og V 1500 Dead end 3500

Manoeuvring space in a corridor 走廊上的操作空間

#### 3.10 無障礙門

#### 3.10.1 旋轉門和旋轉柵門

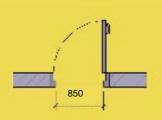
• 建議無障礙通道上不應裝設旋轉門或旋轉柵門。

#### 3.10.2 門的尺寸

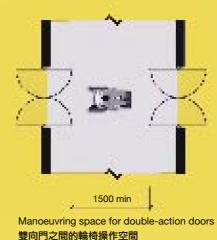
• 建議門的寬度不少於850毫米。

#### 3.10.3 門前輪椅操作空間

- 建議輪椅操作空間平行於門方向的寬度,應為門的總寬度再加上門邊至少 500毫米。
- 如連續有多道單向門,建議門與門之間 的距離最少有1200毫米加門扇寬。
- 如連續有多道雙向門,建議門與門之間 的距離最少有1500毫米加門扇寬。
- 雙向自動關閉的門應設有制動裝置,防止門扇超過關掩的位置,並設置透明的觀望板,底部不得離地面多於1000毫米,頂部離地面不少於1500毫米。



Minimum clear width of a door 門口的最少寬度



#### It is recommended that revolving doors and turnstiles shall not be provided on an accessible route.

3.10 DOORS FOR BARRIER-FREE ACCESS

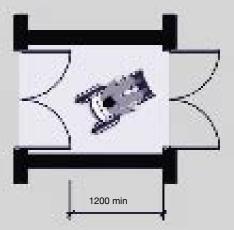
3.10.1 Revolving Doors and Turnstiles

#### 3.10.2 Dimensions for Doors

• It is recommended that the clear opening width of a door shall not be less than 850mm.

#### 3.10.3 Manoeuvring Space at Doors

- It is recommended that manoeuvring clearances parallel to doorway shall include the full width of the doorway plus 500mm minimum.
- It is recommended that for single-action doors, the distance between doors in series shall be at least 1200mm, plus the width of any door swinging into the space.
- It is recommended that for double-action doors, the distance between doors in series shall be at least 1500mm, plus the width of any door swinging into the space.
- It is recommended that double-action self-closing doors shall be provided with a check mechanism to prevent the doors swinging beyond the closed position.
   On double-action self-closing doors, a transparent vision-panel shall be provided with a bottom edge not more than 1000mm and a top edge not less than 1500mm above the floor level.



Manoeuvring space for single-action doors 連續單向門之間的輪椅操作空間

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## 無障礙設計

#### 3.10.4 Ironmongery

#### **Door Handles**

- It is recommended that door handles be located not less than 950mm and not more than 1050mm above the floor level, measured from the top surface of the grip.
- To facilitate access by people with arthritic hands or limited manual dexterity, it is recommended that lever handles be provided to door latches.
- Where vertical pull handles are provided on doors, it is preferable that the bottom end shall be installed at a height of between 800mm and 1000mm above the floor level.

#### Keyholes

 It is recommended that at least one keyhole shall be located at a height of not less than 850mm and not more than 1000mm above floor level.

#### **Kickplates**

 As wheelchair users sometimes use the footrests of their wheelchairs to open doors, it is recommended to provide kickplates with a height of at least 200mm across the full door width, where wheelchair traffic is expected.

#### 3.10.4 五金器具

#### 門把手

- 由把手上端開始量度,門把手離地面的高度應介乎 950毫米至1050毫米之間。
- 建議採用橫向條狀把手,方便手部關節有毛病或不靈活的人士使用。
- 門戶如設有垂直的拉把,底部末端最好安裝在離地面 800毫米至1000毫米高的位置。

#### 匙孔

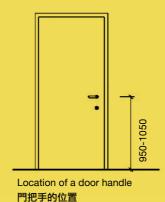
• 建議最少有一個鎖匙孔設於離地面850毫米至1000 毫米的位置。

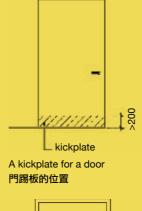
#### 踢板

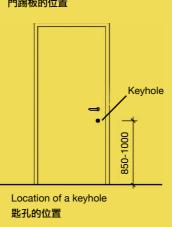
由於輪椅人士有時用輪椅擱腳板開門,建議在門戶兩面可設置至少200毫米高的踢板,長度與門戶寬度相同。



Lever handles are recommended 建議設置損杆式橫向的門把手







#### 門戶開啟裝置

- 為協助輪椅人士通行,建議半自動門戶開啟的裝置按鈕高度應在離開地面
   1200毫米以內,按鈕尺寸最少30毫米x30毫米,並設置凸起的盲文及字母/文字,字體高度不少於10毫米。如遇火警或電力中斷等緊急事故,半自動門戶開啟裝置應會自動返回開門或人工開關門的設定。
- 鍵墊裝置頂端離地面的高度不得超過 1200毫米。
- 建議按鈕板和鍵墊上應有凸起的盲文和字母/文字,鍵墊上「5」字按鈕的中央應有凸出1毫米的凸點。

#### 門鈴

為方便聽覺障礙人士,建議提供有燈光 的視覺門鈴或震動式門鈴。

#### 3.10.5 門檻

• 門檻高度不可超過15毫米,並應切 成斜面。

#### 3.10.6 門拉力

- 門戶不應過重,如使用沉重的物料, 應採用切合門拉力的門戶關閉器和 五全器目。
- 建議門拉力不應大於25牛頓,方便體弱 人士通行。

# Location of a keypad for a door 門戶鍵墊的位置

#### Door Openers

- To assist access by wheelchair users, it is recommended that where a semi-automatic door opener is used, the activating button shall be located at a height of not more than 1200mm above floor level, with a press plate of at least 30mm x 30mm in size, labelled in Braille and raised letters / characters not less than 10mm high. In case of emergency, such as fire or power failure, operation of semi-automatic door openers should revert to door open or close.
- Where there is a keypad, the top surface shall be at a height of not more than 1200mm above floor level.
- It is recommended that the letters / characters on press plates or keypads shall be in Braille and raised letters, and a 1mm raised dot shall be provided at the centre of the figure of "5" button of a keypad.

#### Doorbells

 To facilitate access by people with hearing impairments, it is recommended that visual doorbells with light or vibration indicators shall be provided.

#### 3.10.5 Thresholds

 It is recommended that door thresholds shall not exceed 15mm in height and shall be levelled.

#### 3.10.6 Door Opening Force

- It is preferable that doors shall not be heavier than necessary. Where heavy materials are used, appropriate door closers and ironmongery shall be provided appropriate to the door force.
- To facilitate access by the weak, it is recommended that door opening force shall be not more than 25 newtons.

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#### 3.10.7 Glass Doors

• To facilitate access by people with visual impairments, it is recommended that glass doors and panels shall be provided with clear and colour contrasting markings at a height of between 1200mm and 1500mm to warn people of the presence of the glass.

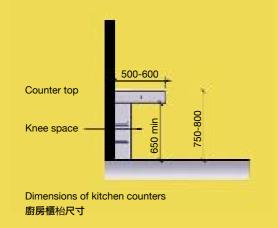
#### 3.11 KITCHENS FOR BARRIER-FREE ACCESS

#### 3.11.1 Dimensions for Kitchens

- It is recommended that the clear width of an accessible path in a kitchen should not be less than 1200mm. Where kitchen counters are located on bothsides of the path, the clear width of the accessible path should not be less than 1500mm.
- To facilitate action by wheelchair users, it is recommended that the top surface of kitchen counters be between 750mm and 800mm above the floor level. The depth of the kitchen counters shall be between 500mm and 600mm.
- It is recommended that the bottom of wall-hung kitchen cabinet should be not more than 1200mm above the finished floor level, and the depth shall be not more than 250mm.

#### 3.11.2 Visual Factors

- To facilitate use by people with visual impairments, it is recommended that stoves, cabinets and walls shall be in contrasting colours.
- It is recommended that task lighting be provided at food preparation tops and countertops.



#### 3.10.7 玻璃門

• 玻璃門和門板應有清晰的標記並採用對 比色,高度介乎1200毫米和1500毫米之 間,讓視障人士知道玻璃的位置。

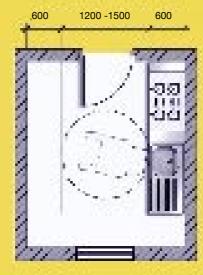
#### 3.11 無障礙廚房

#### 3.11.1 廚房尺寸

- 建議在廚房內無障礙通道淨寬不應少於 1200毫米。如通道兩旁設有櫃枱,無障 礙通道的淨寬度不應少於1500毫米。
- 為方便輪椅人士, 建議廚房櫃枱枱面離 地面的高度應介乎750毫米至800毫米之 間,櫃枱深度應介乎500毫米至600毫米
- 建議懸掛式廚櫃的底部應離地面不少於 1200毫米,其深度不應超過250毫米。

#### 3.11.2 廚房設計的視覺因素

- 為方便視障人士,爐具、廚櫃和牆壁應 採用對比色。
- 預備食物的工作枱和枱面要設置工作 燈。



An accessible path in a kitchen 廚房的方便易達通道

#### 3.11.3 廚房內預留膝蓋空間

- 建議廚房櫃枱以下最少應有650毫米高的 膝蓋空間。
- 為方便輪椅人士,建議在爐具、洗滌盆 和煮食工作枱下面要預留膝蓋空間。煮食 工作枱 應設置鉸鏈或可摺向牆壁,讓廚 房有更多空間進行其他活動。

#### 3.12 無障礙廁所、浴室及淋浴間

#### 3.12.1 廁所、浴室及淋浴間地面

• 建議舗設防滑地面。

#### 3.12.2 廁所、浴室及淋浴間的地面淨空間

#### 抽水馬桶的地面淨空間

• 為方便輪椅人士轉移至抽水馬桶,建 議抽水馬桶地面淨空間寬度至少為 1500毫米,深度由後方牆面計起至少 1750毫米。

#### 3.11.3 Knee Space for Kitchens

- It is recommended that adequate knee space with a height of at least 650mm shall be provided below the kitchen counters.
- To facilitate use by wheelchair users, it is recommended to provide knee spaces under stoves, sink units and food preparation tops. To allow the space to be used for other activities, the food preparation tops could be either hinged or folded on the wall.

#### 3.12 TOILETS, BATHROOMS AND SHOWERS FOR BARRIER-FREE ACCESS

#### 3.12.1 Floor Surfaces in Toilets, Bathrooms, and **Showers**

• It is recommended that slip-resistant floor finishes shall be provided.

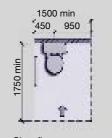
#### 3.12.2 Clear Floor Space in Toilets, Bathrooms, and Showers

#### **Clear Floor Space for Water Closets**

• To facilitate transfer to a water closet by people in wheelchairs, it is recommended that clear floor space shall be provided of not less than 1500mm in width and 1750mm in depth from the rear wall.



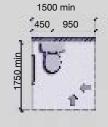
Knee space for the sink and stove 洗滌盆和爐具下的膝部空間



for frontal transfer



Clear floor space for side transfer



Clear floor space for diagonal transfer

Clear floor space for water closets 水廁的地面淨空間

## 無障礙設計

#### **Clear Floor Space for Bathtubs and Showers**

 To facilitate transfer by people in wheelchairs, it is recommended that clear floor space of at least 800mm x 1500mm shall be provided in front of a bathtub or shower.

#### 3.12.3 Wash Basins

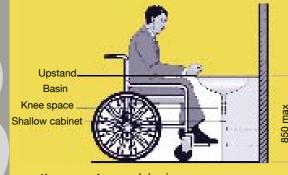
- To facilitate use by people in wheelchairs, it is recommended that the rim of a wash basin counter shall be not higher than 800mm above floor level.
- To facilitate use by people in wheelchairs, it is recommended to provide knee space under the washbasins.

#### 3.12.4 Water Closets

- It is recommended that the seat of a water closet shall be at a height of between 450mm and 480mm above floor level.
- It is recommended that flushing controls shall be at a height of between 600mm and 1100mm above floor level. Preferably, lever flushing controls shall be provided.
- It is recommended that flushing controls shall provide adjustable flushing water volume.
- To facilitate use by the weak and the elderly, it is recommended to provide seat lids at water closets.
   Seats should not be spring-actirated.

#### 3.12.5 Urinals

- Mounting height for urinals may vary with predicted use and model characteristics. Where urinals are installed, it is recommended that the front rim shall be at a height of not more than 400mm above floor level.
- To facilitate use by people with visual impairments, it is recommended to provide positional tiles in front of a urinal.
- To assist use by people with ambulant impairments, it is recommended that vertical support rails be provided to at least one urinal, with bottom ends at a height of not more than 600mm and top ends not less than 1200mm.



Knee space for a wash basins 洗面盆的膝蓋空間

#### 

浴缸或淋浴裝置前方地面的淨空間最少要有800毫米x1500毫米,方便輪椅人士轉移至浴缸或浴椅。

#### 3.12.3 洗面盆

- 為方便輪椅人士,洗面盆枱面的高度應為 從盆邊至地面不超過800毫米。
- 為方便輪椅人士,洗面盆下方應預留膝蓋空間。

#### 3.12.4 抽水馬桶

- 抽水馬桶坐板面離地面的高度應介乎 450毫米至480毫米之間。
- 建議沖水掣離地面的高度應介乎600毫米 至1100毫米之間,最好提供槓杆式沖水 型。
- 建議沖水掣應可調校沖水量。
- 為方便體弱人士和長者,抽水馬桶應設 有座椅蓋,抽水馬桶不應有彈簧裝置。

#### 3.12.5 尿廁

- 尿廁的高度或因預計的使用和模式特點 而不同,安裝尿廁時,建議尿廁前方的 盆邊離地不應高於400毫米。
- 為方便視障人士使用,建議在尿廁前方 鋪設方位引路磚。
- 為方便行動不便人士使用,建議最少在 一個尿廁提供垂直扶手,扶手底部末端 離地面不多於600毫米,頂端離地面不少 於1200毫米。

#### Vertical handrails for a urinal 尿廊的垂直式扶手



#### 3.12.6 淋浴裝置

- 為方便體弱人士和長者,建議設置 淋浴椅。
- 建議浴椅的高度應介乎離地面400毫米至 480毫米之間。
- 建議浴椅表面應該防滑。
- 建議花灑頭的高度應可調較,並且花灑 頭可取下。

#### 3.12.7 浴缸

- 建議浴缸邊離地面的高度不應多於300毫米。如浴缸邊高於300毫米,高度不應超逾450毫米,同時宜使用轉移平台或板子,方便行動不便的人士使用。
- 為方便兒童,建議在浴缸間設置防 滑梯級。
- 浴缸面應防滑。

#### 3.12.8 廁所、浴室和淋浴間的扶手

- 扶手的設計詳見第3.6章。
- 扶手的淨承載量最少應有150公斤。

#### 抽水馬桶扶手

- 為方便體弱人士和長者,建議至少在抽水馬桶的兩邊各設置一個扶手或在一邊設置一個小形扶手。
- 建議最少有一個扶手的安裝位置,其末 端離抽水馬桶中間應有450毫米。
- 建議最少設置一個長度不少於600毫米的 横向扶手,其中一個末端離後方牆面 300毫米,離地面高度不多於750毫米。

# 600 min 300

#### Handrails for a water closet 水廁的扶手

#### 3.12.6 Showers

- To facilitate use by the weak and elderly, it is recommended to provide a sturdy seat inside a shower cubicle
- It is recommended that shower seats shall be at a height of between 400mm and 480mm above floor level.
- It is recommended that shower seats shall be slipresistant.
- It is recommended that the height of shower heads shall be adjustable in height and be detachable.

#### 3.12.7 Bathtubs

- It is recommended that the rim of a bathtub be at a
  height of not more than 300mm above floor level.
   Where the rim of a bathtub is higher than 300mm, the
  height should not exceed 450mm, and a transfer
  platform / board should be used to facilitate access
  by the less agile.
- To facilitate use by children, it is recommended to provide slip-resistant steps at bathtubs.
- Bathtub surfaces should be slip-resistant.

#### 3.12.8 Handrails for Toilets, Bathrooms and Showers

- Design of handrails is discussed in Chapter 3.6.
- Handrails shall be capable of supporting a static load of at least 150kg.

#### Handrails for Water Closets

- To facilitate use by the weak and the elderly, it is recommended to provide at least two handrails to both sides of or one L-shape handrail to one side of a water closet.
- It is recommended that at least one handrail shall be installed with its ends 450mm away from the centre of the water closet.
- It is recommended that at least one horizontal handrail shall have a length of not less than 600mm, with one end 300mm away from the rear wall and at a height of not more than 750mm above floor level.

The rim of the bathtub is low for easy access 浴缸邊緣較低, 容易使用



## 無障礙設計

#### Handrails for Water Closets (continued)

- It is recommended that a vertical handrail shall have a minimum length of 600mm, with its bottom end at a height of not more than 750mm above floor level.
- It is recommended that the vertical part of a L-shape handrail shall have a minimum length of 600mm, with its bottom end and the horizontal part at a height of not more than 750mm above floor level.

#### **Handrails for Showers**

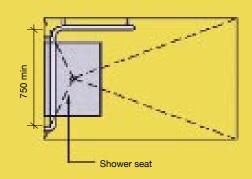
 To facilitate use by the weak and the elderly, it is recommended to provide a horizontal L-shaped handrail, with a length of 750mm on the shower seat wall, from the rear (seat) wall to the adjacent wall, at a height of 750mm from the floor of the shower stall.

#### **Handrails for Bathtubs**

 To facilitate use by the weak and the elderly, it is recommended to provide at least one horizontal handrail on the wall adjacent to a bathtub, with a length of not less than 600mm and at a height of between 150mm and 300mm above the bathtub rim.

#### 3.12.9 Water Temperature

- It is recommended that basin taps shall clearly indicate the hot and cold selections, by using contrasting colours.
- It is recommended that water shall not be delivered hotter than 43°C. Thermostatic devices can be installed to control the water temperature.



Handrails for a shower 淋浴裝置扶手

#### 抽水馬桶扶手 (續上)

- 建議垂直扶手的長度最少要有600毫米 長,底部離地面的高度不應多於750毫 米。
- 建議L形扶手的垂直部分的長度最少要有 600毫米,垂直部分底部和橫向部分離地 面的高度不應多於750毫米。

#### 淋浴間扶手

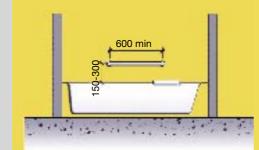
 為方便體弱人士和長者使用,建議在浴 椅靠邊的牆壁設置橫向的心形扶手,位置 由牆壁後方(浴椅)伸展至鄰邊牆壁, 於浴椅後方牆面上的扶手,長度為750毫 米,扶手高度離淋浴間地面750毫米。

#### 浴缸扶手

 為方便體弱人士和長者,建議在浴缸鄰 邊牆壁最少設置一個橫向扶手,長度不 少於600毫米,離浴缸頂邊的高度應介乎 150毫米至300毫米之間。

#### 3.12.9 水溫

- 建議水龍頭應清楚顯示冷、熱水,要用 對比色區分。
- 建議水溫不應高於攝氏43度,並設置控制水溫的趨熱性裝置。



Handrails for a bathtub 浴缸扶手

#### 3.13 無障礙臥室與客/飯廳

#### 3.13.1 臥室與客/飯廳的傢具尺寸

- 為方便輪椅人士,建議臥床的硬床墊頂 離地面的高度應介乎450毫米至500毫米 之間。
- 為方便輪椅人士,建議架子高度不應多 於1200毫米,深度不應多於400毫米。
- 鏡子位置要切合兒童和輪椅人士的需要,底部離地面不應高於750毫米。

#### 3.13.2 臥室與客/飯廳的輪椅操作空間

- 為方便輪椅人士,建議床邊通道寬度應不少於900毫米,最理想有1500毫米, 以便輪椅轉動和其他人士提供協助。
- 為方便輪椅人士,椅桌旁要備有輪椅操作空間,寬度最少有900毫米。
- 為方便輪椅人士,建議通往臥室、客廳、廚房、廁所和貯物房的走廊寬度應不少於1050毫米,理想寬度為1200毫米。
- 為方便輪椅人士,建議每間臥室和客廳 內有1500毫米x1500毫米的輪椅轉動空 問。

#### 3.13.3 臥室與客/飯廳的窗戶

- 為安全計,離地面900毫米內不應設有可 關於的容長。
- 為方便操作,窗戶手柄高度不應離地面多 於1200毫米。
- 如有窗台,窗户的設計應考慮安全性 及方便操作,以顧及輪椅人士的需要。

#### 3.13 BEDROOMS AND LIVING / DINING ROOMS

#### 3.13.1 Furniture Dimensions for Bedrooms and Living / Dining Rooms

- To facilitate use by people in wheelchairs, it is recommended that the height of a bed to the top of the firm mattress shall be between 450mm to 500mm above floor level.
- To facilitate use by people in wheelchairs, it is recommended that shelves shall be provided at a height of not more than 1200mm and with a depth of not more than 400mm
- To facilitate use by children and people in wheelchairs, it is recommended that mirrors shall be provided with their bottom at a height of not more than 750mm above floor level.

#### 3.13.2 Manoeuvring Space in Bedrooms and Living / Dining Rooms

- To facilitate use by people in wheelchairs, it is recommended that bed aisles shall be provided with a width of not less than 900mm, ideally 1500mm to allow assistance and turning.
- To facilitate use by people in wheelchairs, it is recommended to provide manoeuvring space at tables and seating, with a width of not less than 900mm.
- To facilitate use by people in wheelchairs, it is recommended that corridors to bedrooms, living rooms, kitchens, toilets and stores shall have a width of not less than 1050mm, ideally 1200mm.
- To facilitate use by people in wheelchairs, it is recommended that a turning space of 1500mm x 1500mm shall be provided in every bedroom and living room.

#### 3.13.3 Windows for Bedrooms and Living / Dining Rooms

- For safety, it is recommended that where openable windows are provided, their bottom edge shall be not more than 900mm above floor level.
- For easy operation, window handles shall be not more than 1200mm above floor level.
- Where there is a bay window, safe and easy operation of windows by people in wheelchairs shall be considered.



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## 無障礙設計

#### 3.13.4 Switches and Socket Outlets for Bedrooms and Living / Dining Rooms

 For easy operation, it is recommended that switches and socket outlets shall be mounted at a height of between 900mm and 1100mm above floor level.

#### 3.14 BALCONIES AND UTILITY SPACES FOR BARRIER-FREE ACCESS

#### 3.14.1 Dimensions for Balconies and Utility Spaces

- To facilitate use by people in wheelchairs, it is recommended that the depth of a balcony or a utility space shall be not less than 1500mm.
- For safety, the top of a balcony railing shall be at a height of not less than 1100mm.

#### 3.14.2 Manoeuvring Space at Balconies and Utility Spaces

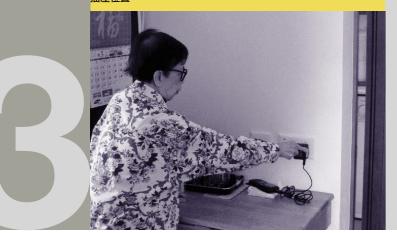
• To facilitate use by people in wheelchairs, it is recommended that a clear manoeuvring space of not less than 1500mm x 1500mm shall be provided.

#### 3.14.3 Laundry at Balconies and Utility Spaces

- It is recommended that an accessible location shall be designated for drying racks, ideally open to the outside air.
- To facilitate use by people in wheelchairs, it is recommended that drying racks shall be installed at a height of not more than 1200mm. Where it is a difficult to install drying racks at a height less than 1200mm, mechanical devices should be provided to lower drying racks for access.

Location of a socket outlet 插座位置

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#### 3.13.4 臥室與客/飯廳的電器開關與插座

 為方便操作,建議開關與插座離地面的 高度應介乎900毫米至1100毫米之間。

#### 3.14 無障礙露台與工作平台

#### 3.14.1 露台與工作平台的尺寸

- 為方便輪椅人士,露台或工作平台的深度建議不少於1500毫米。
- 為安全起見,露台的欄杆頂端離地面至 少1100毫米。

#### 3.14.2 露台與工作平台的操作空間

• 為方便輪椅人士,建議於露台或工作平 台提供不少於1500毫米x1500毫米的輪 椅操作空間。

#### 3.14.3 露台與工作平台曬衣處

- 建議晾衣架應設在暢達的位置,最好設 於室外。
- 為方便輪椅人士,建議晾衣架的高度不超過1200毫米。如實際情況不能把晾衣架安裝在1200毫米以下,則須設置機械裝置,把晾衣架拉低至適當的高度。