5.1.2 MANDATORY DESIGN OBJECTIVES

GENERAL

1. The provision of passenger lifts serving all floor levels is the most effective way of providing comprehensive access to all areas, services and facilities within a building.
2. The minimum lift car size should be exceeded wherever space allows. A lift car with internal dimensions of 2000mm wide by 1400mm deep will accommodate most wheelchair types and provide space to turn around.
   If appropriate for the building layout the use of lift cars with doors on opposite sides of the lift will make entry and exit easier for wheelchair users where the lift car is the minimum size.
3. Lifts that are designated for emergency evacuation should be located within a fire-protected shaft and be provided with an independent power supply.
4. For existing buildings and in exceptional circumstances for new developments, where a passenger lift cannot be accommodated a vertical lifting platform (platform lift) may be considered as an alternative.
5. In exceptional circumstances in an existing building a wheelchair platform stair lift could be considered provided that it would not conflict with means of escape requirements.
6. The design of the lift lobby area should provide a calm environment free from any glare and acoustically neutral.
7. Where different lifts are programmed to serve certain floors either during standard or peak periods, at least one lift designated for wheelchair users should be programmed to serve all floors.

LIFT CAR DESIGN AND CONTROLS

1. All users should be given adequate time to enter and leave a lift car without coming into contact with closing doors.
2. Lift car controls should meet the requirements of BS EN 81-70. The provision of extra large controls as detailed in Annex G of BS EN 81-70 should be considered. Call buttons should provide visual and audible feedback when pressed. The lift manufacturer to confirm whether their products are compliant with the BS standard or equivalent.
3. Being trapped in a lift can be very stressful and therefore the emergency communication system should provide the means for clear two way communication between the occupants and a 24 hour staffed area or emergency service provider.
4. Consideration should be given to the provision of additional emergency communication facilities at floor level accessible to someone who has fallen.

LIFTING PLATFORMS

1. Due to their limited capacity and low speed lifting platforms are not a substitute for a standard lift and should only be considered where they are the only means of improving the accessibility of an existing building.
2. A lifting platform should only be provided to facilitate the movement between levels or storeys of people with impaired mobility and their companions. Lifting platforms travel slowly and may not be suitable for lone users.
3. Access to the platform lift should be clear and unobstructed. The platform lift should be located adjacent to the stair with which it is associated.
4. Platform controls should meet the needs of users with varying degrees of dexterity.
5. Where lifting platforms are to be located in an unsupervised environment particular care should be paid to the product's designed duty cycle.
6. Where planning allows, lifting platforms should be provided with opposing doors, when used for access between no more than two levels, to allow a wheelchair user to leave without reversing. Where doors are positioned 90 degrees to each other a larger platform should be provided.
7. The use of visually and acoustically reflective materials should be minimised within the lifting platform.

WHEELCHAIR PLATFORM STAIR LIFTS

1. The installation of a wheelchair platform lift should only be considered for conversions and alterations where it is not possible to install a conventional passenger lift or a lifting platform. They are intended for use only by wheelchair users seated in their wheelchair. They should not be installed if their operation would restrict the safe use of the stair by other people.
2. Platform controls should meet the needs of users with varying degrees of dexterity.
3. Wheelchair platform stair lifts should not be used unless management supervision can be ensured and appropriate instructions given to users.

5.2 INTERNAL RAMPS, STEPS, STAIRS AND HANDRAILS

THIS SECTION DEALS WITH THE DESIGN AND PROVISION OF INTERNAL RAMPS, STEPS, STAIRS AND HANDRAILS.

PERFORMANCE OBJECTIVES

A ramped access shall be designed, constructed and installed so that it provides safe unobstructed access for all users moving between different levels. Steps and stairs shall be designed to ensure the safety and comfort of all users (see figure 42). Handrails shall be provided in locations where users require support (physical and visual) to negotiate changes in level via ramps, steps or stairs. Handrails shall be positioned at heights that are appropriate for the users and shall have profiles that are easy to grip and comfortable to use. Balustrades or guarding shall be provided in all locations where falling from ramps, steps or stairs is a hazard and shall be sufficiently robust to withstand both static and dynamic loads.

5.2.1 MANDATORY PROVISIONS

The design and provision of the internal ramps, steps, stairs and handrails will satisfy the performance objectives if:

RAMPS

1. Are only provided where changes in level within existing buildings is unavoidable or are required to accommodate a level change between an existing building and an extension.
2. Where provided they comply with Section 3.2 excepting any requirements that relate specifically to the external environment.

STEPS AND STAIRS

1. They comply with Section 3.3 excepting any requirements that relate specifically to the external environment plus the items listed below.
   a) There is no requirement for tactile hazard warning surfaces.
   b) The maximum number of steps between landings is 12.
   c) Spiral stairs and tapered treads are not be provided for use by the general public.
   d) The minimum headroom above the stair pitch line is 2000mm.
   e) There are no single steps.
   f) Where stairs have more than 36 risers in consecutive flights there is at least one change in direction between flights.

HANDRAILS

1. They comply with Section 3.4 excepting any requirements that relate specifically to the external environment.

5.2.2 MANDATORY DESIGN OBJECTIVES

GENERAL

SEE SECTIONS:

- 3.2 External ramps
- 3.3 External steps
- 3.4 Handrails and guarding

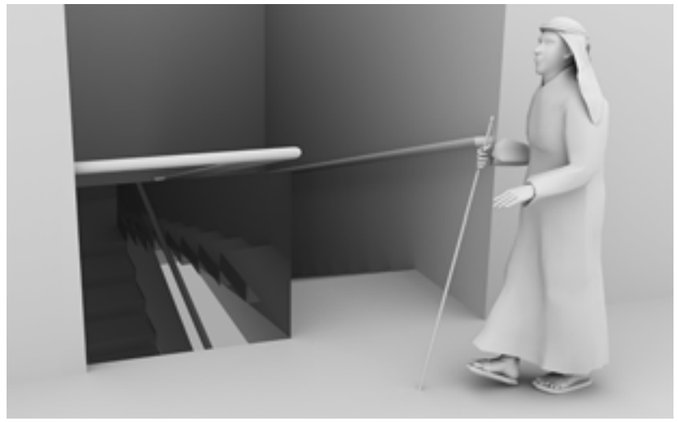

Figure 42 / Stair positioning in relation to a principal circulation route