International Standard 4157/1

INTERNATIONAL ORGANIZATION FOR STANDARDIZATION•МЕЖДУНАРОДНАЯ ОРГАНИЗАЦИЯ ПО СТАНДАРТИЗАЦИИ•ORGANISATION INTERNATIONALE DE NORMALISATION

Building drawings — Part 1 : Designation of buildings and parts of buildings

Dessins de bâtiment —
Partie 1 : Désignation des bâtiments et parties de bâtiments

First edition — 1980-03-15

UDC 744.4 : 69/72 **Ref. No. ISO 4157/1-1980 (E)**

Descriptors : engineering drawings, buildings, components, designation.

Price based on 3 pages

Foreword

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Draft International Standards adopted by the technical committees are circulated to the member bodies for approval before their acceptance as International Standards by the ISO Council.

International Standard ISO 4157/1 was developed by Technical Committee ISO/TC 10, *Technical drawings*, and was circulated to the member bodies in July 1978.

It has been approved by the member bodies of the following countries :

Australia	Italy	Spain
Austria	Japan	Sweden
Belgium	Korea, Rep. of	Switzerland
Bulgaria	Mexico	USA
Canada	Netherlands	USSR
Chile	Norway	Yugoslavia
Finland	Poland	
India	South Africa, Rep. of	

The member bodies of the following countries expressed disapproval of the document on technical grounds :

France
United Kingdom

Printed in Switzerland

Building drawings — Part 1 : Designation of buildings and parts of buildings

1 Scope and field of application

This part of ISO 4157 lays down requirements for designation systems and a designation code for buildings, including spaces, building elements (for example walls and floors) and components (for example, wall units and windows).

The designations are used for identification and reference in the documentation of a project.

This part of ISO 4157 is primarily intended to be applied at the design and construction stages.

2 Designation systems

The designations for different parts of a project should be chosen according to the same principles.

All drawings and parts of drawings should be executed in such a way that the drawing alone is sufficient to describe the item without the addition of words or initials.

However, when a drawing depicts a number of similar items (for example a plan of a building with many windows), one may, if necessary, identify them separately (for example by a sequence of numbers). This also applies in the case where similar items, such as windows, can be confused with other elements of similar appearance such as doors. For this identification the principles outlined in this International Standard should be adhered to.

3 Type designations

Different objects are classified according to the type, for example the kind or design of the object. (See figure 1.)

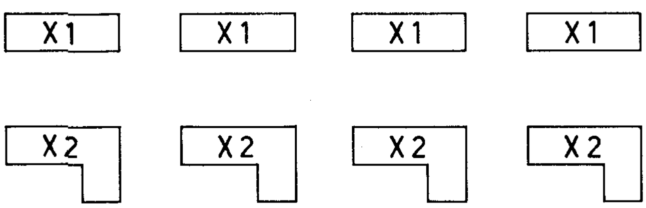


Figure 1 — Examples of type designation

4 Individual designations

Each separate object is identified. The individual designation is often an indication of position. (See figure 2.)

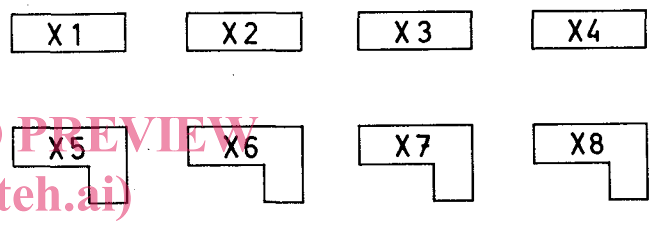


Figure 2 — Examples of individual designation

5 Designation code

The complete designation consists of a principal and an additional designation.

5.1 Principal designation

The principal designation indicates the category of objects at different levels in the documentation. It should consist of

a) text in full, for example HOUSE, ROOM, WINDOW, DOOR, FENCE, CUT-OFF VALVE;

b) abbreviation, for example H, R, W, D, F, COV;

c) other systematical designation, for example :

doors : 1, windows : 2, parts : 3, etc.

playground equipment : A, outdoor furniture : B, other equipment : C, etc.

d) designation according to a general classification and coding system.

The principal designation may be omitted when the rest of the documentation shows the intention.

5.2 Additional designations

The additional designations indicate a further specification within the category. They should consist of

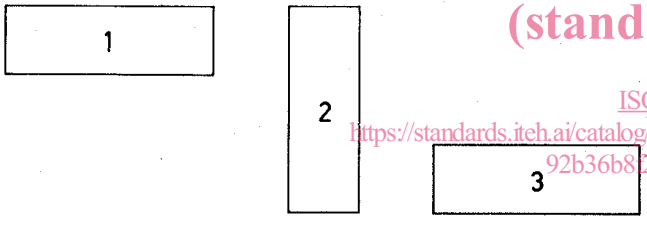
a) for type designations, numeral and letters, for example W 12 b, where W is the principal designation for window, 12 is the additional designation for type, material, dimensions, etc., and b is the additional designation for variant, for example notch for a window sill; and

b) for individual designations, numerals or letters in running order, for example P 1, P 2, P 3, etc., where P is the principal designation for pillar, and 1, 2, 3, etc. each pillar individually designated. The individual designation may also consist of coordinates.

6 Designation application

6.1 Buildings

Buildings belonging to the same project are indicated with a principal and an additional designation, for example HOUSE 1, HOUSE 2, etc. (See figure 3.)



(The principal designation HOUSE has been omitted.)

Figure 3 — Designation of buildings

The designation for a part of a building consists of a principal designation, completed with a systematical letter or numeric designation, for example HOUSE 2 PART A, HOUSE 2 PART B etc. (See figure 4.)

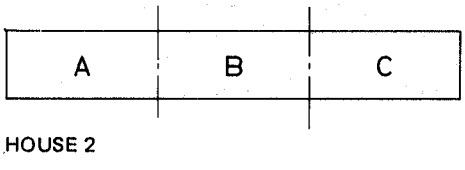


Figure 4 — Designation of parts of a building

6.2 Storeys

A "storey" means a space between two levels, bounded by physical limits (floors, ceiling and walls), including these limits.

The concepts of "storey" and "level" are complementary but the one should not be confused with the other.

Each storey should be designated by numerals following a logical sequence.

The numbering from bottom to top starts with 1 at the lowest level usable for any purpose. (See figure 5.)

Zero designates the space which is situated immediately below the lowest level usable for any purpose.

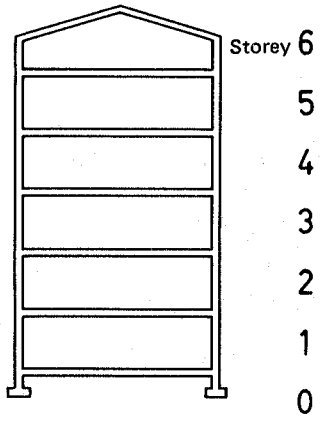


Figure 5 — Numbering of storeys

The numbering applies not only to the usable space of a given storey but also to the physical limits bounding this space.

To express the transition from one number to another, it is recommended that the level is indicated at the upper face level of the load-bearing floor element. (See figure 6.)

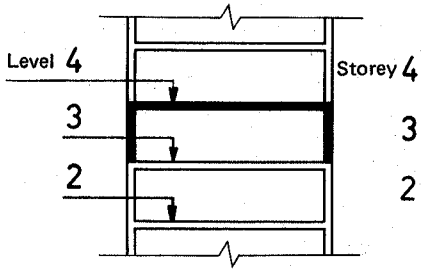


Figure 6 — Indication of the level

When there are differences in level inside a building, for example mezzanine, offset levels, landings, ramps, etc., every necessary indication should be given in order to avoid errors. These indications should be in the form of levels or listed abbreviations and placed beside the numbering of the storey concerned.

Staircases should have the same numbering as the storey in which they are situated, whether or not they have half-landings.

6.3 Parts of storeys

The designation for a part of a storey when the documentation is divided into several drawings consists of the designation of the storey, completed by a systematical letter or numeric designation, for example STOREY 3 PART A, STOREY 3 PART B, etc. (See figure 7.)

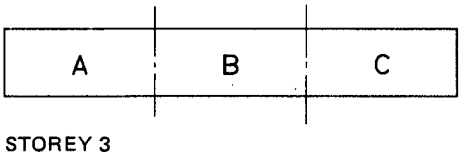


Figure 7 — Designation of parts of a storey

6.4 Floors

The floors (floor structures) are numbered in running order from the bottom to the top of the building, in accordance with the number of the storey of which they form part. (See figure 8.)

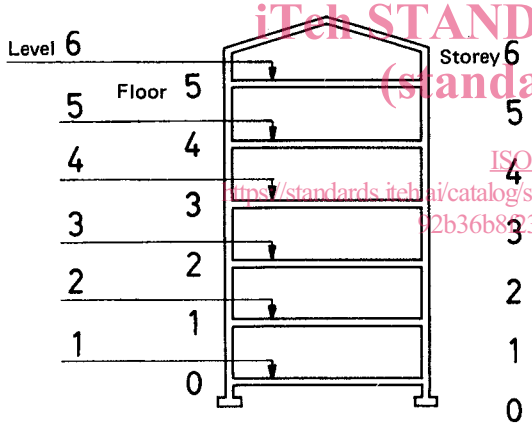


Figure 8 — Floor numbering

6.5 Columns, floors, walls, beams, etc.

Columns, slabs, walls, beams, etc. are designated with a principal designation (abbreviation) and an additional designation (numerals) according to figure 9.

The first numeral in the additional designation indicates the storey number and the two last running numbers according to the following example :

Columns = C 201, C 202

Slabs = S 201, S 202

Walls = W 201, W 202

Beams = B 201, B 202

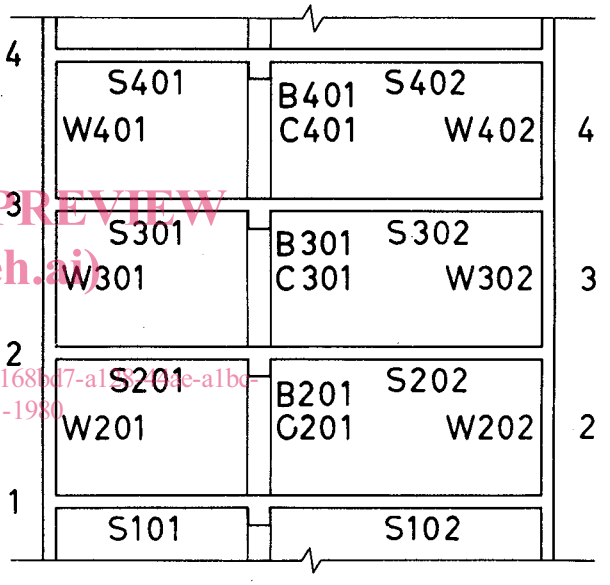


Figure 9 — Examples of designation for columns, floors, walls and beams