
**Construction drawings — Designation
systems —**

**Part 1:
Buildings and parts of buildings**

*Dessins de bâtiment — Systèmes de désignation —
Partie 1: Bâtiments et parties de bâtiments*



Foreword

ISO (the International Organization for Standardization) is a worldwide federation of national standards bodies (ISO member bodies). The work of preparing International Standards is normally carried out through ISO technical committees. Each member body interested in a subject for which a technical committee has been established has the right to be represented on that committee. International organizations, governmental and non-governmental, in liaison with ISO, also take part in the work. ISO collaborates closely with the International Electrotechnical Commission (IEC) on all matters of electrotechnical standardization.

Draft International Standards adopted by the technical committees are circulated to the member bodies for voting. Publication as an International Standard requires approval by at least 75 % of the member bodies casting a vote.

International Standard ISO 4157-1 was prepared by Technical Committee ISO/TC 10, *Technical drawings, product definition and related documentation*, Subcommittee SC 8, *Construction documentation*.

This second edition cancels and replaces the first edition (ISO 4157-1:1980), which has been technically revised.

ISO 4157 consists of the following parts, under the general title *Construction drawings — Designation systems*:

- Part 1: *Buildings and parts of buildings*
- Part 2: *Room names and numbers*
- Part 3: *Room identifiers*

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Construction drawings — Designation systems —

Part 1: Buildings and parts of buildings

1 Scope

This part of ISO 4157 specifies requirements for designation systems and a designation code for buildings, including spaces, building elements and components.

2 Normative references

The following standards contain provisions, which through reference in this text, constitute provisions of this part of ISO 4157. At the time of publication, the editions indicated were valid. All standards are subject to revision, and parties to agreements based on this part of ISO 4157 are encouraged to investigate the possibility of applying the most recent editions of the standards indicated below. Members of IEC and ISO maintain registers of currently valid International Standards.

ISO 4157-2:1998, *Construction drawings — Designation systems — Part 2: Room names and numbers.*

ISO 4157-3:1998, *Construction drawings — Designation systems — Part 3: Room identifiers.*

3 Definitions

For the purposes of this part of ISO 4157, the following definitions apply.

3.1 room

area or volume, space or void bounded actually or theoretically, even though it is not traditionally thought of as a room

EXAMPLES

- Balcony in a movie theatre
- Staircase (considered to be a separate room in each floor)
- Auditorium with folding doors
- Partly covered terrace
- Atrium (even without a roof)
- Ventilation shafts (considered to be a separate room on each floor)
- Elevator shafts (considered to be a separate room on each floor)
- Void in ceiling

NOTE A room in the numbering context may or may not be completely enclosed by walls, ceiling, and floor. However, for a room to be allocated a room number, it should have some of these physical limitations.

**3.2
room name**

common or given name which represents the intended use or function of the room

NOTES

- 1 Rooms in the same building may have identical room names, e.g. CLASSROOM. It is not necessary to differentiate them, e.g. CLASSROOM A, CLASSROOM B, etc.
- 2 Additions to room names such as B and 3, as in CLASSROOM B, BEDROOM 3, should only be assigned to room names if they are so called in the practical use of the building. Given names like CHOPIN or TAYLOR should in such instances be preferred, e.g. CHOPIN AUDITORIUM, TAYLOR SUITE, etc., for their mnemonic value.

**3.3
room number**

number allocated to a room

NOTES

- 1 See 3.1.
- 2 Room number in the traditional sense is reserved for the practical use of a building, i.e. the interface between building and human beings. Room numbers may be revised by thorough reallocation when important changes are made, such as remodelling, extensions, or new ownership. The time for the changeover and its implications should be documented.

**3.4
room identifier**

positive integer number allocated to a room, preceded by the prefix I#

NOTE See ISO 4157-3.

4 Type designations

Different objects shall be classified according to type, e.g. the kind or design of the object (see figure 1).

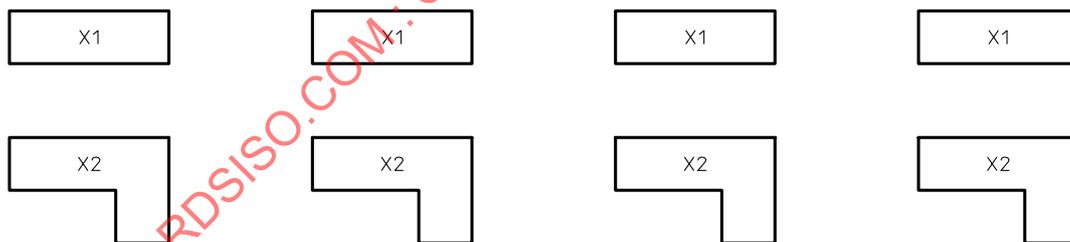


Figure 1 — Example of type designations

5 Individual designations

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

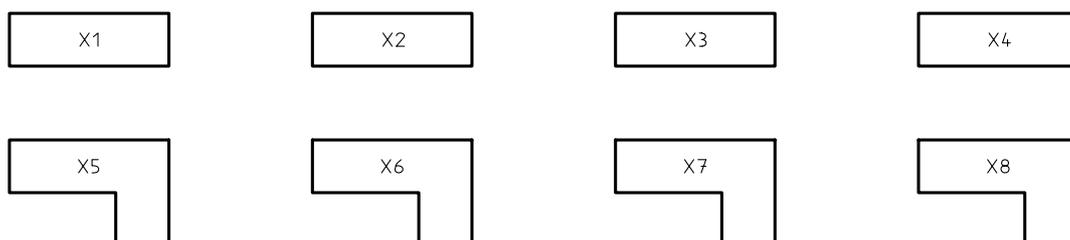


Figure 2 — Example of individual designations

6 Designation code

The complete designation shall consist of a principal and an additional designation.

6.1 Principal designation

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

- a) text in full, e.g. HOUSE, ROOM, WINDOW, DOOR, FENCE, CUT-OFF VALVE;
- b) abbreviation, e.g. H, R, W, D, F, COV respectively;
- c) systematic numeric or letter designation, e.g.:
 - 1 for doors, 2 for windows, 3 for parts, etc.,
 - A for playground equipment, B for outdoor furniture, C for other equipment, 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.

6.2 Additional designations

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

- a) letters and numerals for type designations;

EXAMPLE

W12b, 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, e.g. notch for a window sill.

- b) letters or numerals in running order.

EXAMPLE

P1, P2, P3, etc., where P is the principal designation for pillar, and 1, 2, 3 etc. the individual designation of each pillar. The individual designation may also consist of coordinates.

7 Designation application

7.1 Buildings

Buildings belonging to the same project shall be indicated with a principal and an individual designation, for example HOUSE 1, HOUSE 2, etc. (see figure 3).



NOTE The principal designation HOUSE may be omitted.

Figure 3 — Example of designation of buildings

The designation for a part of a building shall consist of a principal designation, completed with a systematic letter or numeric designation, for example HOUSE 2 PART 1, HOUSE 2 PART 2, HOUSE 2 PART 3, etc. (see figure 4).



Figure 4 — Example of designation of parts of buildings

7.2 Storeys

A storey is the space between two consecutive floor planes or the space between a floor plane and a roof, bounded by physical limits (floors, ceiling and walls), including its exterior walls and other relevant parts of the building (see figure 6).

Each storey shall be consecutively numbered from the bottom to the top, starting with 1 at the lowest level usable for any purpose (see figure 5).

Zero shall designate 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, for example the load-bearing floor and ceilings above the storey, the walls and the ceilings in the storey, etc.

The upper face level of the load-bearing building part indicates the transition level from one storey to the next storey (see figure 6).

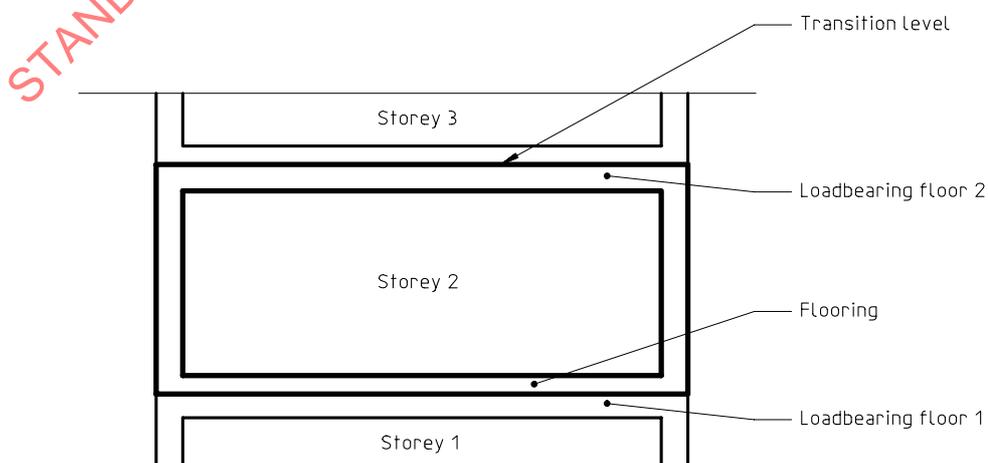


Figure 6 — Transition between storeys

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

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

7.3 Parts of storeys

The designation for the part of a storey, when the documentation is divided into several drawings, shall consist of the designation of the storey, completed by a systematic numeric or letter designation, for example STOREY 3 PART 1, STOREY 3 PART 2, STOREY 3 PART 3, etc. (see figure 7).



Figure 7 — Designation of parts of a storey

7.4 Floors

7.4.1 General

For the purposes of this part of ISO 4157, the term "floor" corresponds to the concept of the English term "floor" as the logically numbered floor relative to ground level: i.e. first floor, second floor, etc.

The floors shall be numbered in running order according to the nationally accepted practice in the country where the building is located. In countries where the numbering rule given in ISO 4157-1:1980 has been widely implemented, this shall be taken for the nationally accepted practice.

7.4.2 Room numbers

Nationally accepted practice for numbering of ground floor, mezzanines, and floors below ground level using letters shall be the basis for room numbering in accordance with ISO 4157-2.

7.4.3 Room identifiers

Storey numbering using digits only, as specified in 7.2, shall be the basis for room identifiers in accordance with ISO 4157-3.

7.5 Load-bearing structure elements

Columns, slabs, walls, beams, etc., should normally be designated using four alphanumeric characters, unless the number of storeys or elements exceeds such a limit.

The first numeral(s) in the additional designation indicates the storey number (see 7.2 and ISO 4157-2) and the two last numerals are running numbers (see figure 8).

EXAMPLES

Columns = C201, C202

Slabs = S201, S202

Walls = W201, W202

Beams = B201, B202

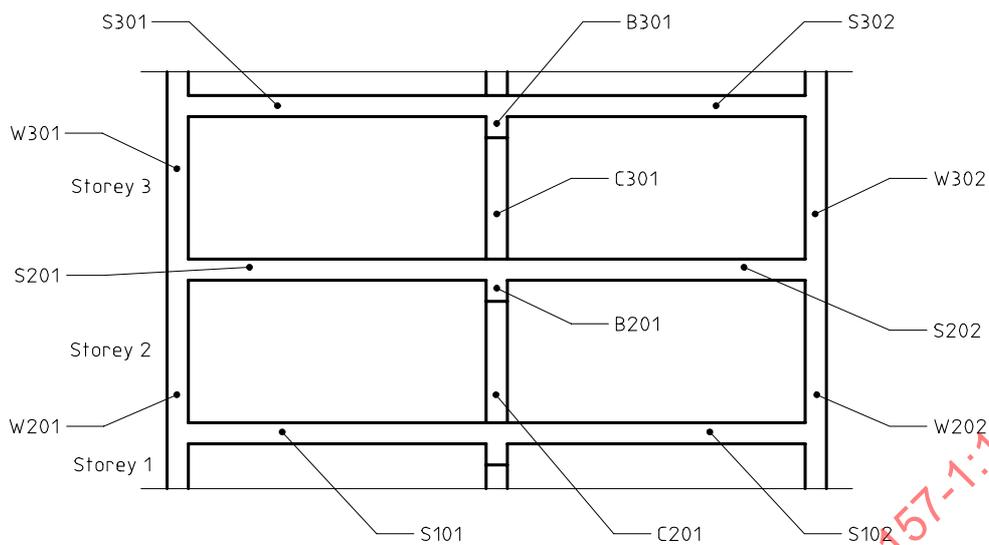


Figure 8 — Example of designating columns, slabs, walls and beams in the second storey

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