



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

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Replacing GB/T 50001-2010

Unified standard for building drawing

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1 General

1.0.1 This standard is formulated in order to unify the drawing rules of building construction, make the drawings clear and concise, adapt to the needs of information development and building construction, and facilitate international exchanges.

1.0.2 This standard is applicable to the following engineering drawings of building general plans, buildings, structures, water supply and drainage, HVAC, electrical and other disciplines.

1 Design drawings and as-built drawings of each stage of new construction, reconstruction and expansion projects;

2 The actual survey drawing of the original buildings (structures) and the general plan;

3 General design drawing, standard design drawing.

1.0.3 This standard applies to drawings drawn by the following drawing methods.

1 computer aided drafting;

2 Manual drawing.

1.0.4 In addition to complying with the provisions of this standard, the building drawing shall also comply with the relevant current national standards and the provisions of various professional drawing standards.

2 terms

2.0.1 drawing format

Drawing composed of drawing width and length.

2.0.2 graph line chart

A geometric figure that is connected in any way between a start point and an end point, and the shape can be straight or curved, continuous or discontinuous.

2.0.3 font

The style of text, also known as calligraphy.

2.0.4 scale

The ratio of the linear dimension of the figure in the figure to the corresponding element of its object.

2.0.5 viewview

The projection obtained when an object is projected onto the projection surface according to the orthographic projection method is called a view.

2.0.6 axonometric drawing

The figure obtained by projecting the object together with the Cartesian coordinate system that determines the object onto a projection surface in a direction that is not parallel to any coordinate plane by the parallel projection method is called an axonometric drawing.

2.0.7 perspective drawing

According to the principle of perspective, the image with the characteristics of near big and far small is drawn to express the architectural design intention.

2.0.8 elevation

Take a certain horizontal plane as the datum, and make the zero point (horizontal origin) to calculate the vertical height from the ground (floor) to the datum.

2.0.9 engineering drawings project sheet

Graphics drawn on paper media according to projection principles or relevant regulations, expressing engineering shape, size, structure and other characteristics through lines, symbols, text descriptions and other graphic elements.

2.0.10 computer aided design CAD, computer aided design

Utilize computer and its graphics equipment to help designers carry out design work, referred to as CAD.

2.0.11 CAD drawing file, CAD file

It is a data file that records and stores various design contents represented by engineering drawings drawn by computer-aided drafting technology.

2.0.12 CAD drawing folder

A logical space for storing computer-aided drawing files on a device such as a disk. Also known as the computer-aided drafting file directory.

2.0.13 library file document file

A CAD file that can be reused in more than one project.

2.0.14 engineering drawing number construction drawing number

The number used to indicate the pattern type and arrangement order of the drawing, also known as the drawing number.

2.0.15 collaborative design synergistic design

Create a collaborative design environment through computer network and computer-aided design technology, so that all members of the design team can complete the design tasks in parallel and interactively according to their respective division of labor around the common design goals and objects, realize the optimal allocation and sharing of design resources, and finally obtain The design process of the design result document that meets the engineering requirements.

2.0.16 Reference of CAD drawing file

A computer-aided drawing technology that refers to and displays part or all of the data content of other computer-aided drawing files (referenced files) in the current computer-aided drawing file.

2.0.17 layer layer

An organizational structure of related graphic element data in a computer-aided drafting file. Entities belonging to the same layer have uniform attributes such as color, line type, line width, and status.

2.0.18 file level collaboration

The primary method of collaborative design, all collaborative design work is carried out based on project work documents, and external references or mutual references between disciplines are used as a means of advancing collaborative work.

2.0.19 layer level collaboration

In the advanced way of collaborative design, all collaborative design work is based on the mutual extraction of files, and the layers are filtered through the layer filter, and the necessary layers are retained, and then the collaborative design is carried out.

2.0.20 data level collaboration

The most advanced method of collaborative design is realized on the basis of all collaborative design work data sharing. By establishing the consistency of the underlying data, the data between various disciplines and terminals can be continuously coordinated.

2.0.21 layer filter layer filter

A function in commonly used computer-aided drafting software, which can filter layers according to attributes such as color, line type, line width, and state, and retain or not retain the information of the primitives on the layer.

3.1 Format of drawings

3.1.1 The format and frame size of the drawings shall comply with the provisions in Table 3.1.1, and shall comply with the formats specified in Figures 3.2.1-1 to 3.2.1-4 of this standard.

Note. b in the table is the size of the short side of the format, l is the size of the long side of the format, c is the width between the frame line and the frame line, and a is the width between the frame line and the binding edge.

3.1.2 For drawings that need to be microcopied, an accurate metric scale should be attached to one side, and centering marks should be attached to all four sides. The total length of the metric scale should be 100mm, and the divisions should be 10mm. The centering mark should be drawn at the midpoint of each side length of the inner frame of the drawing, the line width should be 0.35mm, and should extend into the edge of the inner frame, and should be 5mm outside the frame. The line segment of the centering mark shall be centered within the range of the long side dimension l_1 of the picture frame and the short side dimension b_1 of the picture frame.

3.1.3 The dimension of the short side of the drawing should not be lengthened, and the dimension of the long side of the A0~A3 format can be lengthened, but it should meet the