



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

GB/T 50104-2010

Replacing GB/T 50104-2001

Standard for architectural drawings

建筑制图标准

(English Translation)

Issued on: August 18, 2010

Implemented on: March 1, 2011

**Issued by: Ministry of Housing and Urban-Rural Development of the
People's Republic of China;
General Administration of Quality Supervision, Inspection and
Quarantine of the People's Republic of China**

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1 General

1.0.1

This standard is formulated in order to make the drawing rules of architecture and interior design majors, ensure the quality of drawing, improve the efficiency of drawing, make the drawing clear and concise, meet the requirements of design, construction and archiving, and meet the needs of engineering construction.

1.0.2

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

- 1 manual drawing;
- 2 Computer graphics.

1.0.3

This standard is applicable to the following engineering drawings of architecture and interior design.

- 1 Design drawings and as-built drawings of each stage of new construction, reconstruction and expansion projects;
- 2 The measured drawings of the original buildings and structures;
- 3 General design drawing, standard design drawing.

1.0.4

Drawings for architectural and interior design majors shall not only comply with this standard, but also comply with the current relevant national standards.

2.1 Graph line

2.1.1

The width b of the drawing line should be selected according to the complexity and proportion of the drawing, and according to the relevant provisions of the current national standard "Unified Standards for Building and Architectural Drawings" GB/T 50001. Drawings (2.1.1-1) to (2.1.1-3). When drawing a relatively simple pattern, a line width group of two line widths can be used, and the line width ratio should be $b:0.25b$.

2.1.2

All kinds of graphs and lines used in the drawing of architectural and interior design majors shall comply with the provisions in Table 2.1.2.

2.2 Scale

2.2.1

The various proportions selected for the drawings of architecture majors and interior design majors should comply with the provisions in Table 2.2.1.

3 Legend

3.0.1

The legend of structure and accessories shall comply with the requirements in Table 3.0.1.

3.0.2

The legend of horizontal and vertical transport devices shall comply with the requirements in Table 3.0.2.

4.3 Sectional view

4.3.1

For the cutting part of the section drawing, according to the purpose of the drawing or the design depth, select a section on the plan that can reflect the overall picture, structural features and representative parts.

4.3.2

All kinds of sectional drawings shall be drawn according to the orthographic projection method.

4.3.3

The building section drawing shall include the building structure, components and necessary dimensions and elevations visible from the section plane and projection direction.

4.3.4

Sectioning symbols can be numbered in Arabic numerals, Roman numerals or Latin letters (Figure 4.3.4).

4.3.5

When drawing interior elevations, the section planes of walls and floors at corresponding parts should be drawn. When necessary, the cut planes of equipment pipelines and lamps that occupy a large space should also be drawn on the drawings.

4.4 Other regulations

4.4.1

The north arrow should be drawn on the plane plan of the building at an elevation of ± 0.000 , and should be placed in an obvious position, and the direction it points should be consistent with the general drawing.

4.4.2

The details of spare parts and structure should be drawn according to the direct orthographic projection method.

4.4.3

The three-dimensional drawing of the shape or partial structure of spare parts should be drawn according to the relevant provisions of the current national standard "Unified Standards for Building and Architectural Drawings" GB/T 50001.

4.4.4

The plan and section drawings of different scales, the omission of plastering layer, floor surface and material legend shall comply with the following regulations.

- 1 For the plan and section drawings with a ratio greater than 1:50, the plaster layer, thermal insulation layer, etc., and the surface layer lines of the floor and roof should be drawn, and material legends should be drawn;
- 2 The plan and section drawing with a ratio equal to 1:50, the section drawing should draw the surface layer line of the floor and roof, and the thermal insulation layer should be drawn, and the surface layer line of the plastering layer should be determined according to the needs;
- 3 For the plan and section drawings with a ratio of less than 1:50, the plastering layer may not be drawn, but the section drawings should draw the surface layer lines of the floor and roof;
- 4 For the plan and sectional drawings with a ratio of 1:100 to 1:200, simplified material legends can be drawn, but the sectional drawings should draw the surface layer lines of the

floor and roof;

5 For the plan and section drawings with a ratio of less than 1:200, the material legend may not be drawn, and the floor and roof surface lines of the section drawings may not be drawn.

4.4.5

Adjacent elevations or sections should be drawn on the same horizontal line, and the dimensions and elevations related to each other in the drawings should be marked on the same vertical line (Figure 4.4.5).

4.5 Dimensioning

4.5.1

Dimensions can be divided into overall dimensions, positioning dimensions and detail dimensions. When drawing, the size to be noted should be determined according to the design depth and the purpose of the drawing.

4.5.2

For the plan, elevation and section drawing of the building, it is advisable to mark the elevations of indoor and outdoor floors, floor floors, basement floors, balconies, platforms, cornices, storey ridges, parapets, canopies, doors, windows, steps, etc.. Where it is not easy to mark the building elevation, such as the flat roof, the structural elevation may be marked and shall be explained. For flat roofs with slope finding, the roof elevation can be marked at the lowest point of the structural slab, and the slope of the slope should be indicated. For roofs with trusses, the resting point of the lower chord of the truss or the height of the column top shall be marked. The section drawing of the factory building with a crane should indicate the elevation of the rail top, the lower edge of the lower chord member of the roof truss or the elevation of the bottom of the roof beam and the bottom of the slab. For beam suspension cranes, the gauge size should be marked, and it should be measured in meters (m).

4.5.3

The height dimensions and elevations of floors, basement floors, balconies, platforms, cornices, roof ridges, parapets, steps, etc. should be noted in accordance with the following regulations.

- 1 The elevation of the finished surface shall be noted on the plan and its details;
2. The elevation of the finished surface and the dimensions in the height direction shall be noted in the elevation, section and detail drawings;
- 3 The rest of the parts should be marked with the rough surface size and elevation;
- 4 When marking the positioning dimensions of each part of the building plan, the size