NATIONAL STANDARD OF THE

PEOPLE'S REPUBLIC OF CHINA

GB/T 50378-2019

Assessment standard for green building

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1.0.1 In order to implement the concept of green development, promote the

high-quality development of green buildings, save resources, protect the environment, meet the people's growing needs for a better life, this standard is formulated.

1.0.2 This standard applies to the assessment of the green performance of civil

buildings.

1.0.3 The assessment of green buildings shall follow the principle of adapting

measures to local conditions, combining the characteristics of the climate, environment, resources, economy and culture of the area where the building is located, to make comprehensive assessment of such performances as safety, durability, health and comfort, living convenience, resource conservation, and environmental livability.

1.0.4 The site design and architectural layout of green buildings shall be

combined with the topography and geomorphology; the architectural layout shall be adapted to the climatic conditions and geographical environment of the site; the wind environment, light environment, thermal environment, acoustic environment of the site shall be organized and utilized.

1.0.5 In addition to complying with the provisions of this standard, the

assessment of green buildings shall also comply with the provisions of relevant national standards.

2.0.1 Green building

A high-quality building which, during the whole life cycle, saves resources, protects the environment, reduces pollution, provides people with healthy, applicable and efficient use of space, maximizes the realization of harmonious coexistence between man and nature.

2.0.2 Green performance

It involves the comprehensive performance of building safety and durability, health and comfort, living convenience, resource saving (land saving, energy saving, water saving, material saving) and environmental livability.

2.0.5 Green building material

The building materials which, during the whole life cycle, can reduce the consumption of resources and reduce the impact on the ecological environment, has the characteristics of energy saving, emission reduction, safety, health, convenience and recyclability.

3.1.1 The green building assessment shall take a single building or a group of

buildings as the assessment object. The assessment object shall implement and deepen the green development requirements as put forward by the upper-level statutory planning and related special plans; the systematic and holistic indicators shall be evaluated based on the overall situation of the engineering project to which the building belongs.

3.2.1 The green building assessment index system shall be composed of five

types of indicators, including safety and durability, health and comfort, living convenience, resource conservation, environmental livability; each type of index includes prerequisite items and scoring items. The assessment index system also sets bonus item uniformly.

3.2.2 The assessment results of prerequisite items shall be up to standard or

not up to standard; the assessment results of scoring items and bonus items shall be scores.

4.1.1 The site shall avoid geologically dangerous areas such as landslides and

mudslides. The flood-prone areas shall have reliable flood control infrastructure;

the site shall be free from threats of hazardous chemicals, flammable and explosive

sources; it shall be free from hazards of electromagnetic radiation and radon-containing soil.

4.1.6 The floor of the toilet and bathroom shall be provided with a waterproof

layer; the wall and ceiling shall be provided with a moisture-proof layer.

4.1.7 Passage spaces such as corridors and evacuation passages shall meet

the requirements of emergency evacuation and emergency care; it shall be kept unblocked.

4.1.8 There shall be a warning and guidance marking system for safety

protection.

4.2 Scoring items

I Safety

4.2.8 Improve the durability of building structure materials. The total

assessment score is 10 points, which are scored based on the following rules.

4.2.9 Reasonably use durable and easy-to-maintain decoration building

materials. The total assessment score is 9 points, which are respectively scored and accumulated according to the following rules.

5.1 Prerequisite items

5.1.1 The concentration of pollutants such as ammonia, formaldehyde, benzene, total volatile organic compounds and radon in the indoor air shall comply with the relevant requirements of the current national standard "Indoor air quality standard" GB/T 18883.Smoking shall be prohibited inside the building and at the main entrance and exit of the building; no smoking signs shall be set up in prominent locations.

5.1.4 The indoor noise level and sound insulation performance of the main

functional rooms shall meet the following requirements.

5.1.7 The thermal performance of the enclosure structure shall meet the

following requirements.

5.1.8 The main function room shall have a thermal environment adjustment

device independently controlled on site.

5.1.9 The underground garage shall be equipped with a carbon monoxide

concentration monitoring device linked with the exhaust equipment.

5.2 Scoring items

I Indoor air quality

5.2.1 Control the concentration of major indoor air pollutants. The total

assessment score is 12 points, which are scored and accumulated according to the following rules.

5.2.3 The water quality of direct drinking water, centralized domestic hot water, swimming pool water, heating and air-conditioning system water, landscape water meets the requirements of the current national standards. The assessment score is 8 points.

5.2.7 The sound insulation performance of the main functional rooms is good.

The total assessment score is 10 points. They are respectively scored and accumulated according to the following rules.

5.2.10 Optimize the building space and plane layout, improve the natural

ventilation effect. The total assessment score is 8 points. The scoring is made according to the following rules.

5.2.11 Set up adjustable shading facilities to improve indoor thermal comfort.

The total assessment score is 9 points. It is scored according to the ratio of the area of adjustable shading facilities to the transparent part of the outer window, according to the rules in Table 5.2.11.

6.1.1 Buildings, outdoor venues, public green spaces, urban roads shall have

a coherent barrier-free walking system.

6.1.5 The construction equipment management system shall have automatic

monitoring and management functions.

6.2 Scoring items

I Transit and accessibility

6.2.1 The connection between the venue and the public transportation station