

ICS 97.200.40
CCS Y 57



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

GB/T 47728-2026

**Amusement parks - Construction and maintenance
specification for indoor playgrounds**

游乐园 室内游乐场馆建设与维护规范

Issued on: May 25, 2026

Implemented on: September 1, 2026

**Issued by: State Administration for Market Regulation;
Standardization Administration of the PRC**

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6.1 General Requirements

6.1.1 In addition to complying with GB 50352 and the general standards for special design of buildings (structures), the design of indoor amusement parks shall also comply with... The provisions of GB/T 47726-2026, GB/T 42103, GB/T 47727, GB/T 47718, GB/T 42101 and the relevant clauses of this document shall apply. Special requirements. When amusement parks have special industry standards, they must also comply with those regulations.

6.1.2 The design should be based on the risk identification results of 4.9, and should address potential risks to the building body, secondary structure, building attachments and decorations, and other related aspects. For potential risks such as collapse, falling, explosion, or impact to facilities and other equipment, conduct specialized analysis, demonstration, and design calculations, and take targeted measures. Prevention and control measures.

6.1.3 For amusement facilities and large-scale performance equipment embedded or installed in indoor amusement parks, the design documents should clearly specify the equipment and facilities. Interface conditions with building structure and electromechanical systems, including but not limited to. load, embedded parts, vibration control, energy supply points and capacity, and maintenance. Space and passageways, etc.

6.1.4 The environmental design of indoor amusement venues shall comply with the relevant provisions of GB 55016.

6.1.5 The acoustic environment design of indoor amusement parks shall comply with the relevant provisions of GB 50118. The architectural acoustics of audiovisual exhibits in indoor amusement parks... The design should refer to GB/T 50356, and sound insulation should be done between different areas.

6.2 Design Management

6.2.1 For large indoor amusement parks or indoor amusement parks with complex functions, the drawings should undergo a professional and detailed safety review to ensure safety. It can potentially eliminate errors, omissions, clashes, and missing parts in the drawings, and meet the following requirements.

- a) Ensure that the design deliverables comply with current relevant laws, standards, and specifications, and meet the personalized operational needs of indoor amusement venues. Security requirements;
- b) At all stages of the design of indoor amusement parks, especially after the completion of the construction drawings and before the project construction, the design unit and the construction unit should be organized to... Design review meetings should be held between construction and operation units;
- c) The relevant design documents have passed the review by the relevant government departments or their designated review agencies in accordance with relevant laws and regulations;
- d) Ensure the completeness of design documents, including safety risk identification reports, design schemes, design calculation sheets, design drawings and construction drawings. Consistent use and maintenance manuals;
- e) Major design changes that affect safety or operational effectiveness must undergo multi-disciplinary review and approval to avoid safety hazards caused by single-disciplinary changes. Suffering and risks.

6.2.2 Design firms should establish a designer responsibility system for indoor amusement parks, especially large-scale ones, and hold designers accountable for design quality for life. The design firm is responsible for ensuring the quality and consistency of the indoor amusement park design, including preliminary designs and design changes. Safety requirements must always be met. The chief designer and specialized personnel should follow up on safety supervision and inspection, and review all aspects of the design drawings throughout the entire process. And assessments to ensure that safety requirements are implemented and enforced.

6.2.3 The design unit shall use information technology to manage design process

documents and deliverables, ensuring that all drawings, calculation sheets, and change orders are properly managed. The versions of documents, audit records, etc., are clear, complete, and traceable.

6.3 Foundation Design

6.3.1 The foundation should possess the bearing capacity and stiffness to withstand various loads from the superstructure, and should not exhibit instability, landslides, or other similar phenomena. The design of building foundations shall meet the requirements of GB 50007 and GB 55003. Deformation of the building foundation shall not affect the function and design of the superstructure. It should be ready for normal use and should not cause damage to various pipelines, cables, or underground buried facilities, while simultaneously meeting the following requirements.

- a) For equipment that is sensitive to vibration or has special stability requirements (such as precision performance equipment, observation platforms, etc.), a foundation should be constructed. Special design;
- b) For indoor playgrounds with different types of foundations, foundation deformation design should be implemented.
- c) Indoor amusement parks built on slopes, near slopes, or in backfilled areas should undergo stability calculations and specialized geotechnical engineering investigations. Observe and take reliable engineering measures;
- d) All structures that may be at risk of buoyancy should undergo buoyancy calculations.

6.3.2 Indoor equipment should preferably utilize the building's structural foundation, but independent foundations may also be installed. When an independent foundation is installed, its design must meet the requirements of the equipment. In addition to usage requirements, the impact on the underlying infrastructure should also be assessed.

6.3.3 For special foundations such as collapsible loess, expansive soil, saline soil, frozen soil, deep fill, and soft soil, the provisions of GB 50021 shall apply. Based on a detailed geotechnical engineering investigation, the professional design unit shall adopt rigorously validated and safe engineering treatment measures to ensure the safety of the ground. The stability, bearing capacity and structural safety of the foundation shall meet the requirements of GB 55003 and GB 50007, and settlement monitoring devices should be added.

6.3.4 For buildings where a high level of user experience is required, a vibration comfort analysis should be conducted based on the impact of human activity and equipment operation. If necessary, isolation measures can be implemented. Vibration control and vibration reduction measures.

6.4 Structural Design

6.4.1 The main structural design of indoor amusement parks should meet the requirements of relevant standards, ensuring structural safety, functional suitability, aesthetic appeal, durability, and inspectability. It is repairable and maintainable, and simultaneously meets the following requirements.

- a) The main structure should be able to withstand all expected loads and actions;
- b) The main structure should have a reliable and reasonable force transmission path;
- c) Structural components should be protected against corrosion and fire according to the influence of the service environment;
- d) The structure may be made of concrete, steel, masonry, wood, or other structural forms;
- e) The structural construction drawings should clearly define the building's usage and maintenance requirements.

6.4.2 The deformation of the main structure under horizontal forces should meet the safety requirements of the operating equipment, and the structure should be selected to resist natural disasters such as earthquakes and winds. A structural scheme with advantages.

6.4.3 The main structure of indoor amusement parks shall meet the durability requirements and comply with GB 50068, GB/T 50476, and the corresponding materials of the main structure. Design standards stipulate that, when necessary, special studies should be conducted on the durability requirements of components for special operating environments such as underwater, humid, salt spray, corrosion, and high temperature. Research.

6.5.1 Fire prevention

6.5.1.1 The fire resistance rating, fire compartmentation, safe evacuation, and fire protection facilities of indoor amusement venues shall comply with GB 50016. The requirements of GB 55037 and sections

6.5.2 shall apply. The fire protection design of large indoor amusement parks shall also comply with XF/T 3019. The relevant requirements.

6.5.1.2 Fire compartmentation design should prioritize coordination with building functional zoning. Visitor forecourt areas and high-fire-risk logistical areas should avoid [further fire hazards]. Place them within the same fire compartment; avoid having a single large amusement ride or related facilities span two fire compartments; if the functional layout truly cannot avoid this... At the same time, the design should ensure that fireproof roller shutters, fire doors and other fire-resistant partitions are installed in reasonable locations and selected appropriately, and that their lowering or closing is not affected by... The fire resistance rating of any fixed facility or structure that can effectively form a complete fire compartment shall not be lower than that of the fire compartment in which it is located. Fire