

International Code Council

Standard for Bleachers, Folding and Telescopic Seating, and Grandstands

ICC 300-2017 edition Public Comment Draft – October 2017

The ICC Consensus Committee on Bleachers, Folding and Telescopic Seating, and Grandstands has held 1 public meeting over several conference calls to develop this Public Comment Draft of the ICC 300-2017 Standard for Bleachers, Folding and Telescopic Seating, and Grandstands. Public comment is requested on this Public Comment Draft on the strike out/underline portions only. Please show the proposed NEW or REVISED or DELETED TEXT in legislative format: Line through text to be deleted. Underline text to be added.

The public comment deadline is December 4, 2017.

Go to https://www.iccsafe.org/codes-tech-support/standards/is-ble/ for more information. To purchase a copy of ICC 300-2012 go to ICC 300-2012 ICC Store. To view a read only version of ICC 300-2012 go to ICC 300-2012 ICC Store. To view a read only version of ICC 300-2012 go to ICC 300-2012 ICC Store. To view a read only version of ICC 300-2012 go to ICC 300-2012 ICC Store.

CHAPTER 2 **DEFINITIONS**

SECTION 202 DEFINED TERMS

<u>OPEN-AIR ASSEMBLY SEATING.</u> Seating served by *means of egress* that is not subject to smoke accumulation within or under a structure and is open to the atmosphere.

SMOKE-PROTECTED ASSEMBLY SEATING. Seating served by a means of egress that is not subject to smoke accumulation within or under a structure <u>for a specified design time by means of passive design or by mechanical ventilation</u>.

CHAPTER 3 CONSTRUCTION

SECTION 303 STRUCTURAL DESIGN

TABLE 303.2 DESIGN LOADS

TIERED SEATING ELEMENT	LOAD TYPE	LOAD		
Seats (vertical)	L	120 pounds per linear foot.		
Treads	L	Stair treads and aisle stair stepped aisle treads shall be designed to resist a minimum concentrated load of 300 pounds on an area of 4 square inches.		
Handrails and guards, uniform load	Rr	Handrail assemblies and guards shall be designed to resist a load of 50 pounds per linear foot (pound per foot) applied in any direction point at the top. The supporting elements shall transfer this load to the structure.		
Handrails and guards, concentrated load	Rr	Handrail assemblies and guards shall be able to resist a single concentrated load of 200 pounds, applied in any direction at any direction along the top. Attachment devices and supporting elements shall transfer this load to the structure.		
Guards, infill components	Rr	Intermediate rails (all those except the handrail), balusters, and panel fillers (including flexible infill components) shall be designed to withstand a horizontally applied normal load of 50 pounds on an area equal to 1 square foot, including openings and space between rails. Application of the loads shall not allow guard openings greater than that permitted by Sections 408.2 and 503.2.		

For SI: 1 square inch = 645.46 mm^2 , 1 square foot = 0.0929 m^2 , 1 pound = 4.448 N, 1 pound per linear foot = 14.594 N/m.

303.5 Load Combinations. In addition to the load combinations required to be considered for design in accordance with the building code, the additional load combinations in Section 303.5.1 or in Section 303.5.2 shall be considered. Parallel and perpendicular sway loads need not be considered simultaneously. Also uniform, concentrated and infill loads need not be considered simultaneously. Partial loading shall be addressed to account for the full intensity of the appropriately reduced live load applied only to a portion of a structure or member if it produces a more unfavorable load effect than the same intensity applied over the full structure or member.

303.5.1 Load combinations using strength design or load and resistance factor design. When using strength design or load and resistance factor the following additional load combination must be considered.

1.2D + 1.0L + 1.6Z	(Equation 3-1)
0.9D + 0.4L + 1.6Z	(Equation 3-2)
1.2D + 1.2 1.6R _r	(Equation 3-2 3-3)
1.2D + 1.6L + 1.2R _r	(Equation 3-4)

303.5.2 Load combinations using allowable stress design. When using allowable stress design the following additional load combination must be considered.

D + 0.75L + 0.75Z	(Equation 3-3 <u>3-5</u>)
0.6D + 0.3L + 1.0Z	(Equation 3-6)
D + 0.75 <u>1.0</u> R _r	(Equation 3-4 <u>3-7</u>)
$D + L + 0.75R_r$	(Equation 3-8)

303.6 Deflections. Live load deflection of structural members shall be limited to $\frac{1/200}{1/180}$ of the span. **Exception:** Deflection of members in folding and telescopic seating shall not be limited.

303.8 <u>Lateral restraint</u>. <u>Outdoor bleachers shall be anchored or ballasted to resist uplift and horizontal sliding forces in accordance with the building code.</u>

SECTION 307 ROOF HEIGHT

307.1 Roof height. A smoke-protected assembly seating area with a roof shall have the lowest portion of the roof deck not less than 15 feet (4572 mm) above the highest aisle or aisle accessway.

Exception: A roof canopy above an outdoor open-air assembly seating installation shall be permitted to be less than 15 feet (4572 mm) above the highest aisle or aisle accessway provided that there are no objects less than 80 inches (2032 mm) above the highest aisle or aisle accessway.

SECTION 309 FIRE PROTECTION

309.1 Fire protection. Fire protection systems shall be provided where required by the building code.

Exceptions:

- 1. An emergency voice/alarm system is not required for outdoor bleacher-type seating provided all of the following are met:
 - 1.1. The bleacher-type seating has an occupant load of less than 15,000;
 - 1.2. A public address system with standby power is provided;
 - 1.3. Enclosed spaces attached or immediately adjacent to the bleacher-type seating comprise, in the aggregate, 10% or less of the overall area of the bleacher-type seating or 1,000 square feet (92.9 square meters), whichever is less.
 - 1.4. Spaces under the bleacher-type seating shall be separated from the bleacher-type seating in accordance with Section 1028.1.1.1 1029.8.1.1.1 of the International Building Code.
 - 1.5. All means of egress from the bleacher-type seating are open to the outside.
- 2. An emergency voice/alarm system is not required for outdoor bleacher-type seating with an occupant load of 300 or less.
- 3. An emergency voice/alarm system is not required for temporary outdoor bleacher-type seating providing all of the following are met:
 - 3.1. There are no enclosed spaces under or attached to the bleacher-type seating;
 - 3.2. The bleacher-type seating is erected for a period of less than 180 days;
 - 3.2. Evacuation of the bleacher-type seating is included in an approved fire safety plan

CHAPTER 4 EGRESS

SECTION 404 GENERAL MEANS OF EGRESS

404.1 Minimum number of exits. The minimum number of exits shall be provided from the seating area based on the following occupant loads in Table 404.1 and in accordance with the calculated width requirement for egress capacity in Section 404.5. Accessible means of egress shall be provided as required by Section 1009 of the International Building Code.

Exception: For open air assembly seating installations where the means of egress converge, a minimum of two egress paths shall be provided, sized to accommodate the occupant load served.

Table 404.1 Minimum Number of exits

OCCUPANT LOAD	REQUIRED MEANS OF EGRESS
0–250	1
251–750	2
751–2,500	3
Over 2,500	4

404.3 Exterior installations. For exterior installations where the means of egress converge, a minimum of two egress paths shall be provided, sized to accommodate the occupant load served. Where For exterior installations, the exit discharge does not lead directly shall provide a direct and unobstructed access to a street or public way.

Exception: Where access to a *public way* cannot be provided, a safe dispersal area shall be provided where all of the following are met:

- 1. The area shall be of a size to accommodate not less than 5 square feet (0.46 m²) for each person.
- 2. The area shall be located on the same lot not less than, it shall lead to an area of refuge sized to contain the full capacity and located a minimum of 50 feet (15 240 mm) from the structure requiring egress.
- 3. The area shall be permanently maintained and identified as a safe dispersal area.
- 4. The area shall be provided with a safe and unobstructed path of travel from the structure.

404.5 Required width. The clear width of aisles and other means of egress for indoor smoke-protected assembly seating shall not be less than the occupant load served by the egress elements multiplied by the appropriate factor in Table 404.5(1). The clear width of aisles and other means of egress for indoor assembly seating that is not smoke protected shall not be less than the occupant load served by the egress elements multiplied by the appropriate factor in Table 404.5(2). The clear width of aisles and other means of egress for outdoor smoke-protected open-air assembly seating shall not be less than the occupant load served by the egress elements multiplied by the appropriate factor in Table 404.5(3). The total number of seats specified shall be those within the space exposed to the same environment. Aisles shall also comply with Section 405.

Where the width of the stair and stepped aisle exceeds 30 inches (762 mm) from a handrail, the capacity of the stair and stepped aisle shall be determined by adding the capacity of the aisle within 30 inches (762 mm) of the handrail and the capacity of the stair or stepped aisle beyond 30 inches (762 mm) of the handrail.

TABLE 404.5(1)

WIDTH OF AISLES AND MEANS OF EGRESS FOR INDOOR SMOKE-PROTECTED ASSEMBLY SEATING

TOTAL NUMBER OF	INCHES OF CLEAR WIDTH PER SEAT SERVED
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SEATS IN THE SMOKE-PROTECTED ASSEMBLY OCCUPANCY	Stairs and aislesteps stepped aisles with handrails within 30 inches	Stairs and aislesteps stepped aisles without handrails within 30 inches	Passageways, doorways and ramps not steeper than in 1:10 slope	Ramps steeper than in 1:10 slope
Equal to or less than 5,000	0.200	0.250	0.150	0.165
10,000	0.130	0.163	0.100	0.110
15,000	0.096	0.120	0.070	0.077
20,000	0.076	0.095	0.056	0.062
Equal to or greater than 25,000	0.060	0.075	0.044	0.048

For SI: 1 inch = 25.4 mm.

Note: Interpolation is permitted between specific values shown.

TABLE 404.5(2) WIDTH OF AISLES AND MEANS OF EGRESS FOR INDOOR NON-ASSEMBLY SEATING-WITHOUTSMOKE-PROTECTED PROTECTION ASSEMBLY SEATING

TOTAL NUMBER OF	INCHES OF CLEAR WIDTH PER SEAT SERVED			
SEATS IN THE NONSMOKE-PROTECTED ASSEMBLY OCCUPANCY OCCUPANCIES WITHOUT SMOKE PROTECTION	Stairs and aisle steps stepped aisles with handrails within 30 inches	Stairs aisle steps stepped aisles without handrails within 30 inches	Passageways, doorways and ramps not steeper than in 1:10 slope	Ramps steeper than in 1:10 slope
All seating configurations	0.3	0.375	0.2	0.22

For SI: 1 inch = 25.4 mm.

Note: The values in the table are applicable to steps with riser heights of 7 inches and below. Add 0.005 inch of additional stair and stepped aisle width for each occupant for each additional 0.10 inch of riser height above 7 inches.

TABLE 404.5(3) WIDTH OF AISLES AND MEANS OF EGRESS FOR OUTDOOR SMOKE-PROTECTED OPEN-AIR ASSEMBLY SEATING

TOTAL NUMBER OF	INCHES OF CLEAR WIDTH PER SEAT SERVED			
TOTAL NUMBER OF SEATS IN THE SMOKE-PROTECTED OPEN-AIR ASSEMBLY OCCUPANCY	Stairs and aislesteps stepped aisles with handrails within 30 inches	Stairs and aislesteps stepped aisles without handrails within 30 inches	Passageways, doorways and ramps not steeper than in 1:10 slope	Ramps steeper than in 1:10 slope
Equal to or less than 15,000	0.080	0.080	0.060	0.066
20,000	0.076	0.095	0.056	0.062
Equal to or greater than 25,000	0.060	0.075	0.044	0.048

For SI: 1 inch = 25.4 mm.

Note: Interpolation is permitted between specific values shown.

404.6 Clear height. Clear height shall comply with Section 306.1.

SECTION 405 AISLES

405.2 Minimum aisle width. The minimum clear width of aisles shall be as follows.

1. Forty-eight inches (1219 mm) for aisle stairs stepped aisles having seating on each side.

Exception: Thirty-six inches (914 mm) where the aisle serves less than 50 seats.

2. Thirty-six inches (914 mm) for aisle stairs stepped aisles having seating on only one side.

Exception: Twenty-three inches (584 mm) between an aisle stairs stepped aisles handrail and seating where an aisle does not serve more than five rows on one side.

- 3. Twenty-three inches (584 mm) between an aisle stair stepped aisle handrail or guard and seating where the aisle has a mid-aisle handrail.
- 4. Forty-two inches (1067 mm) for level or ramped aisles having seating on both sides.

Exceptions:

- 1. Thirty-six inches (914 mm) where the aisle serves less than 50 seats.
- 2. Thirty inches (762 mm) where the aisle does not serve more than 14 seats.
- 5. Thirty-six inches (914 mm) for level or ramped aisles having seating on only one side.

Exception: Thirty inches (762 mm) where the aisle does not serve more than 14 seats.

405.6 Dead ends. The length of a dead-end aisle shall not exceed 16 rows in nonsmoke-protected assembly seating and 21 rows in smoke-protected assembly seating.

Exceptions: Dead-end aisles terminating at a cross aisle or vomitory providing access to an exit at only one end and complying with any one of the following shall be permitted.

- 1. In nonsmoke-protected assembly seating without smoke protection, dead-end aisles exceeding 16 rows are permitted where seats beyond the 16th row are no more than 24 seats from another aisle, measured along a row of seats having an aisle accessway with a minimum clear width of 12 inches (305 mm) plus 0.6 inch (15.2 mm) for every additional seat beyond seven where seats have backrests or beyond ten where seats are without backrests in the row.
- 2. For smoke-protected <u>or open-air assembly</u> seating, dead-end aisles exceeding 21 rows are permitted where seats beyond the 21st row are no more than 40 seats from another aisle, measured along a row of seats having an aisle accessway with a minimum clear width of 12 inches (305 mm) plus 0.3 inch (7.6 mm) for each additional seat beyond seven where seats have backrests or beyond ten where seats are without backrests in the row.

SECTION 406 AISLE STAIRS AND STEPPED AISLES

406.1 Stairs. Stair treads and risers shall be as required by the building code. Stepped aisles shall comply with Section 406.2 through 406.7.

Exception: A stair that connects a stepped aisle to a cross aisle shall be permitted to comply with the stepped aisle requirements of Sections 406.2 through 406.7.

406.1 <u>406.2</u> <u>Treads and risers. Aisle stairs stepped aisles</u> shall consist of a series of treads and risers that extend across the full width of the aisle. <u>Aisle stairs stepped aisles</u> shall be constructed in accordance with the requirements of this section.

406.3 406.4 Tread construction. Treads constructed of more than two elements shall not have a gap of more than 0.25 inch (6.4 mm) 0.50 inch (12.8 mm) between adjacent tread surfaces. Treads constructed of grating shall not permit a sphere of 0.25 inch (6.4 mm) 0.50 inch (12.8 mm) in diameter to pass through.

406.5 Tread Marking Stripe. A contrasting marking stripe shall be provided on each tread at the nosing or leading edge such that the location of each tread is readily apparent when viewed in descent. Such stripe shall be not less than 1 inch (25mm), and not more than 2 inches (51mm), wide.

Exception: The contrasting stripe is permitted to be omitted where the tread surfaces are such that the location of each tread is readily apparent when viewed in descent.

406.6 <u>406.8</u> <u>Dimensional uniformity. Stair Stepped aisle</u> treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser or between the largest and smallest tread shall not exceed 0.375 inch (9.5 mm) in any flight of <u>stairs the stepped aisle</u>.

Exception: Treads and risers in transition areas and parabolic seating configurations in accordance with Section 406.6.1 406.8.1.

406.6.1 406.8.1 Tread and riser nonuniformity permitted. Treads and risers located in transition areas between adjacent tiered seating elements, parabolic seating configurations or onto or off of tiered seating are not required to be of uniform depth or height where a mid-aisle handrail is provided. The handrail shall meet the requirements of Section 409. Mid-aisle handrails in transition areas shall extend the full length of the transition and a minimum of one tread depth, parallel to the run of the aisle stairs stepped aisles, above and below the uppermost and lowermost riser in the transition. Where extensions of the aisle handrail interfere with adjacent means of egress, the handrail extension shall terminate at the riser.

406.6.2 406.8.2 Tread marking stripe at non uniformity. Where tread or riser nonuniformity exceeds 0.188 inch (4.8 mm), a distinctive marking stripe shall be provided on each tread adjacent to the non uniform tread or riser. The marking shall be provided on each tread at the nosing or leading edge such that the location of each tread is readily apparent when viewed in descent. Such stripe shall be a minimum of 1 inch (25 mm) wide and a maximum of 2 inches (51 mm) wide. The edge marking stripe shall be distinctively different from the stepped aisle contrasting marking stripe of Section 406.5.

Exception: The contrasting stripe is permitted to be omitted where the tread surfaces are such that the location of each tread is readily apparent when viewed in descent.

406.9 Transitions. Transitions between *stairways* and stepped *aisles* shall comply with either Section 406.9.1 or 406.9.2.

<u>406.9.1 Transitions to stairways that maintain stepped aisle riser and tread dimensions.</u> Stepped <u>aisles</u>, transitions and <u>stairways</u> that maintain the stepped aisle riser and tread dimensions shall comply with Section 406 <u>as one exit access component.</u>

406.9.2 Transitions to stairways that do not maintain stepped aisle riser and tread dimensions. Transitions between *stairways* and stepped *aisles*-having different riser and tread shall comply with Sections 406.9.2.1 through 406.9.3.

406.9.2.1 Stairways and stepped aisles in a straight run. Where *stairways* and stepped aisle are in a straight run-the transition shall have one of the following:

- 1. A minimum depth of 22 inches (559 mm) where the treads on the descending side of the transition have greater depth.
- 2. A minimum depth of 30 inches (762 mm) where the treads on the descending side of the transition have lesser depth.

406.9.2.2 Stairways that change direction from stepped aisles. Transitions where the stairway changes direction from the stepped aisle shall have a minimum depth of 11 inches (280 mm) or the stepped aisle tread depth, whichever is greater, between the stepped aisle and stairway.

406.9.3 Transition marking. A distinctive marking stripe shall be provided at each *nosing* or leading edge adjacent to the transition. Such stripe shall be a minimum of 1 inch (25 mm), and a maximum of 2 inches (51 mm), wide. The edge marking stripe shall be distinctively different from the stepped *aisle* contrasting marking stripe.

406.10 Stepped aisles at vomitories. Stepped aisles that change direction at vomitories shall comply with 406.10.1. Transitions between a stepped aisle above a vomitory and stepped aisle to the side of vomitory shall comply with 406.10.2.

406.10.1 Stepped aisles that change direction at vomitories. Stepped aisle treads where the stepped aisle changes direction at a vomitory shall have a minimum depth of 11 inches (280 mm) or the stepped aisle tread depth, whichever is greater. The height of a stepped aisle tread above a transition at a vomitory shall comply with Section 406.4.

<u>406.10.2 Stepped aisle transitions at the top of vomitories.</u> Transitions between the stepped aisle above a vomitory and stepped aisles to the side of a vomitory shall have a minimum depth of 11 inches (280mm) or the stepped aisle tread depth, whichever is greater.

SECTION 407 AISLE ACCESSWAYS

407.1 Required aisle accessways. Aisle accessways shall be provided above the first row of seating. Aisle accessways located more than 30 inches (762 mm) above the floor or ground below shall be constructed such that openings shall not allow the passage of a sphere greater than 4 inches (102 mm) in diameter. Where bleacher-type seating is utilized, such seats shall be a minimum depth of 9 inches (229 mm).). Row-to-row spacing shall be a minimum of 22 inches (559 mm).

407.2 Minimum width. Where seating rows have 14 or fewer seats, The minimum clear aisle accessway width shall not be less than 12 inches (305 mm) measured as the clear horizontal distance from the back of the row ahead and the nearest projection of the row behind. Where chairs have automatic or self-rising seats, the measurement shall be made with seats in the raised position. Where any seat in a row does not have an automatic or self-rising seat, the measurements shall be made with the seat in the down position. For seats with folding tablet arms, row spacing shall be determined with the tablet arm in the use position.

Exception: For seats with folding tablet arms, row spacing is permitted to be determined with the tablet arm in the stored position where the tablet arm when raised manually to a vertical position in one motion automatically returns to the stored position by force of gravity.

407.3 Dual access. For rows of seating served by aisles or doorways at both ends, there shall not be more than 100 seats per row. The minimum clear width of 12 inches (305 mm) between rows shall be increased by 0.3 inch (7.6 mm) for every additional seat beyond 14 where seats have backrests or beyond 21 where seats are without backrests. The minimum clear width is not required to exceed 22 inches (559 mm).

Exception: For smoke-protected <u>or open-air</u> assembly seating, the row length limits for a 12-inch-wide (305 mm) aisle accessway, beyond which the aisle accessway minimum clear width shall be increased in accordance with Section 407.5.

407.4 Single access. For rows of seating served by aisles or doorways at only one end of the row, the minimum clear width of 12 inches (305 mm) between rows shall be increased by 0.6 inch (15.2 mm) for every additional seat beyond seven seats where seats have backrests or beyond ten where seats are without backrests. The minimum clear width is not required to exceed 22 inches (559 mm).

Exception: For smoke-protected <u>or open-air</u> assembly seating, the row length limits for a 12-inch-wide (305 mm) aisle accessway, beyond which the aisle accessway minimum clear width shall be increased, are in Table 407.5.

407.4.1 Path of egress travel. For rows of seating served by only one path of egress travel, the common path of egress travel shall not exceed 30 feet (9144 mm) from any seat to a point where a person has a choice of two paths of egress travel to two exits.

Exceptions:

- 1. In smoke-protected <u>or open-air</u> assembly seating, the common path of egress travel shall not exceed 50 feet (15 240 mm) from any seat to a point where a person has a choice of two paths of egress travel to two exits.
- 2. For areas serving less than 50 occupants, the common path of egress travel shall not exceed 75 feet (22 860 mm) from any seat to a point where a person has a choice of two paths of egress travel to two exits.
- 3. Where bench-type seating without backrests is utilized and the top of the bench is no more than 7 inches (178 mm) above the footrest immediately behind, the common path of egress travel shall not exceed 75 feet (22 860 mm) from any seat to a point where a person has a choice of two paths of egress travel to two exits.
- **407.4.2 Path through adjacent rows.** Where one of the two paths of travel is across the aisle through a row of seats to another aisle, there shall not be more than 24 seats between the two aisles; and the minimum clear width

between rows for the row between the two aisles shall be 12 inches (305 mm) plus 0.6 inch (15.2 mm) for each additional seat beyond seven where seats have backrests or beyond ten where seats are without backrests in the row between aisles.

Exception: For smoke-protected <u>or open-air</u> assembly seating there shall not be more than 40 seats between the two aisles and the minimum clear width shall be 12 inches (305 mm) plus 0.3 inch (7.6 mm) for each additional seat beyond seven where seats have backrests or beyond ten where seats are without backrests in the row between aisles.

407.5 Smoke-protected Aisle accessways. The design of smoke-protected aisle accessways in smoke-protected or open- air assembly seating shall comply with Table 407.5.

TABLE 407.5

SMOKE-PROTECTED AISLE ACCESSWAYS IN SMOKE-PROTECTED OR OPEN-AIR ASSEMBLY SEATING

TOTAL NUMBER OF SEATS	MAXIMUM NUMBER OF SEATS PER ROW PERMITTED TO HAVE A MINIMUM 12-INCH CLEAR WIDTH AISLE ACCESSWAY				
IN THE SMOKE-PROTECTED OR OPEN-AIR ASSEMBLY OCCUPANCY	Aisle or doorway at both ends of row		Aisle or doorway at one end of row only		
	Seats with backrests	Seats without backrests	Seats with backrests	Seats without backrests	
Less than 4,000	14	21	7	10	
4,000	15	22	7	10	
7,000	16	23	8	11	
10,000	17	24	8	11	
13,000	18	25	9	12	
16,000	19	26	9	12	
19,000	20	27	10	13	
22,000 and greater	21	28	11	14	

For SI: 1 inch = 25.4 mm.

SECTION 408 GUARDS

408.2 Opening limitations. Open guards shall be constructed of materials such that a 4-inch-diameter (102 mm) sphere cannot pass through any opening up to a height of 34 inches (864 mm). From a height of 34 inches (864 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, a sphere 8 inches (203 mm) in diameter shall not pass. **Exceptions:**

- 1. The triangular opening formed by the riser, tread and bottom rail at the open side of an aisle stair stepped aisle or tiered seating shall be of a maximum size such that a sphere of 6 inches (152 mm) in diameter cannot pass through the opening.
- 2. Guards at the end of aisles where they terminate at a fascia of boxes, balconies and galleries shall have balusters or ornamental patterns such that a 4-inchdiameter (102 mm) sphere cannot pass through any opening up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) or greater above the adjacent walking surfaces, a sphere 8 inches (203 mm) in diameter shall not pass.

SECTION 409 HANDRAILS

409.1 Required handrails. Where seats are located on both sides of an aisle stair a stepped aisle, a minimum of one mid-aisle handrail shall be provided. Where seats are located on one side of an aisle stair a stepped aisle, a minimum of one handrail shall be provided on the side of the stair stepped aisle where there are no seats.

Exceptions:

- 1. A handrail is not required for an aisle stair a stepped aisle serving a single row of seating.
- 2. The mid-aisle handrail is permitted to be on one side of the aisle when the an aisle stair stepped aisle serve less than 50 seats.
- **409.2 Height.** Handrail height, measured above aisle stair stepped aisle nosings, shall be uniform, not less than 34 inches (864 mm) and not more than 38 inches (965 mm).
- **409.5 Handrail termination.** Handrails located on the side of an aisle stair stepped aisle shall return to a wall, guard or the walking surface or shall be continuous to the handrail of an adjacent aisle stair stepped aisle flight.

CHAPTER 5

EXISTING BLEACHERS, FOLDING AND TELESCOPIC SEATING, AND GRANDSTANDS

SECTION 501 APPLICATION AND ADMINISTRATION

501.2 Inspection. All existing tiered seating shall be inspected and evaluated at least once a year by a qualified person for compliance with the provisions of this chapter. All folding and telescopic seating shall be inspected to evaluate compliance with the manufacturer's installation and operational instructions, including an inspection during the opening and closing of such seating.

501.2.1 Inspection and Identification tag. A permanent tag or plaque, shall be installed in a visible location-to document annual compliance inspections. The tag or plaque shall include the following:

- 1. manufacturer,
- 2. date of installation of the tiered seating,
- 3. seating capacity,
- 4. the name of the inspector, and
- 5. the date of the inspection.

This tag or plaque is required on tiered seating with a capacity of 75 or more. A record of the inspections shall be maintained by the owner or the owner's representative.

SECTION 503 GUARDS

503.1 Required guards. Guards shall be provided in the following areas.

 Along open-sided walking surfaces, cross aisles, stepped aisles, ramps and landings of tiered seating areas which are located more than 30 inches (762 mm) above the floor or grade below. Such Existing guards shall be not less than 36 inches (1067 914 mm) high, measured vertically above the leading edge of the tread, adjacent walking surface or center of adjacent bench seat.

Exceptions:

- 1. Where the uppermost seat is located less than or equal to 55 inches (1397 mm) above the floor or ground below.
- 2. Where located adjacent to a wall and the space between the wall and the tiered seating is less than 4 inches (102 mm).
- 2. Unless subject to the requirements of Item 3, a guard with a minimum height of 26 inches (660 mm) shall be provided where the floor or footboard elevation is more than 30 inches (762 mm) above the floor or grade below and the guard would otherwise interfere with the sightlines of immediately adjacent seating.
- 3. A guard shall be provided for the full width of the aisle where the foot of the aisle is more than 30 inches (762 mm) above the floor or ground below. The guard shall be a minimum of 36 inches (914 mm) high.

503.2 Opening limitations. Open guards shall be constructed of materials such that a 4-inch-diameter (102 mm) sphere cannot pass through any opening.

Exception: The triangular opening formed by the riser, tread and bottom rail at the open side of an aisle stair a stepped aisle or tiered seating shall be of a maximum size such that a sphere of 6 inches (152 mm) in diameter cannot pass through the opening.

CHAPTER 35 6

REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section 106.1.

ICC

International Code Council, Inc. 500 New Jersey Avenue, NW 6th Floor Washington, D.C. 20001

Standard		Referenced
reference		in code
number	Title	section number
IBC— 12 <u>18</u>	International Building Code®	309.1 <u>,404.1</u>
IMPC— 12 <u>18</u>	International Property Maintenance Code®	502.2.2