**1028.10.1 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 seats, but the minimum clear width is not required to exceed 22 inches (559 mm).

**Exception:** For *smoke-protected 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 1028.10.1.

TABLE 1028.10.1 SMOKE-PROTECTED ASSEMBLY AISLE ACCESSWAYS

| TOTAL NUMBER OF<br>SEATS IN THE SMOKE- | MAXIMUM NUMBER OF SEATS PER ROW<br>PERMITTED TO HAVE A MINIMUM 12-<br>INCH CLEAR AISLE ACCESSWAY |   |
|--|--|---|
| PROTECTED ASSEMBLY OCCUPANCY           | Aisle or doorway at both ends of row   | Aisle or doorway at one end of row only |
| Less than 4,000                        | 14   | 7                                       |
| 4,000                                  | 15   | 7                                       |
| 7,000                                  | 16   | 8                                       |
| 10,000                                 | 17   | 8                                       |
| 13,000                                 | 18   | 9                                       |
| 16,000                                 | 19   | 9                                       |
| 19,000                                 | 20   | 10                                      |
| 22,000 and greater                     | 21   | 11                                      |

For SI: 1 inch = 25.4 mm.

**1028.10.2 Single access.** For rows of seating served by an *aisle* or doorway 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, but the minimum clear width is not required to exceed 22 inches (559 mm).

**Exception:** For *smoke-protected 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 1028.10.1.

**1028.11 Assembly aisle walking surfaces.** *Aisles* with a slope not exceeding one unit vertical in eight units horizontal (12.5-percent slope) shall consist of a *ramp* having a slipresistant walking surface. *Aisles* with a slope exceeding one unit vertical in eight units horizontal (12.5-percent slope) shall consist of a series of risers and treads that extends across the full width of *aisles* and complies with Sections 1028.11.1 through 1028.11.3.

**1028.11.1 Treads.** Tread depths shall be a minimum of 11 inches (279 mm) and shall have dimensional uniformity.

**Exception:** The tolerance between adjacent treads shall not exceed  $^{3}/_{16}$  inch (4.8 mm).