Area of Rescue Assistance Communication System

ADA Code Applicable excerpts:

Guidelines that apply to Area of Rescue Assistance communication equipment are covered under a number of sections spread throughout the Code. To leaf through the legislative text and discover the pertinent sections can involve considerable research time. We are providing the following information as a quick reference to help specifiers in evaluating and specifying equipment for Area of Rescue Assistance communications.

The following sections are reprinted for the reader’s convenience from the Americans with Disabilities Act (ADA), Accessibility Guidelines for Buildings and Facilities, Federal Register Volume 56, No. 144, July 26, 1991. Please note that this is not a complete reprint of all sections concerning this equipment, and that we do not make any such claim. We are not responsible for any errors or omissions.

For further reference, the Federal Judiciary has set up a Technical Assistance Board which may be reached at 1-800-949-4232.

3.5 Definitions

Area of Rescue Assistance: An area, which has direct access to an exit, where people who are unable to use stairs may remain temporarily in safety to await further instructions or assistance during emergency evacuation.

4.1.3 Accessible Buildings: New Construction

Accessible buildings and facilities shall meet the following minimum requirements:

(9)* In buildings or facilities, or portions of buildings or facilities, required to be accessible, accessible means of egress shall be provided in the same number as required for exits by local building/life safety regulations. Where a required exit from an occupiable level above or below a level of accessible exit discharge is not accessible, an area of rescue assistance shall be provided on each such level (in a number equal to that of inaccessible required exits). Areas of rescue assistance shall comply with 4.3.11. A horizontal exit, meeting the requirements of local building/life safety regulations, shall satisfy the requirements for an area of rescue.

EXCEPTION: Areas of rescue assistance are not required for buildings or facilities having a supervised automatic sprinkler system.
AREAS OF RESCUE ASSISTANCE (4.3.11)

4.3.11.1 Location and Construction

An area of rescue shall be one of the following:

1. A portion of a stairway landing within a smoke-proof enclosure (complying with local requirements).
2. A portion of an exterior balcony located immediately adjacent to an exit stairway when the balcony complies with local requirements for exterior exit balconies. Openings to the interior of the building located within 20 feet (6m) of the area of rescue assistance shall be protected with fire assemblies having a three-fourths hour fire protection rating.
3. A portion of a one-hour fire-resistive corridor (complying with local requirements for fire resistive construction and for openings) located immediately adjacent to an exit enclosure.
4. A vestibule located immediately adjacent to an exit enclosure and constructed to the same fire resistive standards as required for corridors and openings.
5. A portion of a stairway landing within an exit enclosure which is vented to the exterior and separated from the interior of the building with not less than one-hour fire-resistive doors.
6. When approved by the appropriate local authority, an area or a room which is separated from other portions of the building by a smoke barrier. Smoke barriers shall have a fire-resistive rating of not less than one hour and shall completely enclose the area or room. Doors in the smoke barrier shall be tight-fitting smoke- and draft-control assemblies, have a fire-protection rating of not less than 20 minutes and shall be self-closing or automatic closing. The area or room shall be provided with an exit directly to an exit enclosure. Where the room or area exits into an exit enclosure which is required to be of more than one-hour fire-resistive construction, the room or area shall have the same fire-resistive construction, including the same opening protection, as required for the adjacent exit enclosure.
7. An elevator lobby with elevator shafts and adjacent lobbies are pressurized as required for smoke-proof enclosures by local regulations and when complying with requirements herein for size, communication, and signage. Such pressurization system shall be activated by smoke detectors on each floor located in a manner approved by the appropriate local authority. Pressurization equipment and its ductwork within the building shall be separated from other portions of the building by a minimum two-hour fire-resistive construction.

4.3.11.2 Size

Each area of rescue assistance shall provide at least two accessible areas each being not less than 30 inches by 48 inches (760 mm by 1220 mm). The area of rescue assistance shall not encroach on any required exit width. The total number of such 30-inch by 48-inch (760 mm by 1220 mm) areas per story shall not be less than one for every 200 persons of calculated occupant load served by the area of rescue assistance.

EXCEPTION: The appropriate local authority may reduce the minimum number of 30-inch by 48-inch (760 mm by 1220 mm) areas to one for each area of rescue assistance on floors where the occupant load is less than 200.

4.3.11.3 Stairway Width

Each stairway adjacent to an area of rescue assistance shall have a minimum clear width of 48 inches between handrails.

4.3.11.5 Identification

Each area of rescue assistance shall be identified by a sign which states "AREA OF RESCUE ASSISTANCE" and displays the international symbol of accessibility. The sign shall be illuminated when exit sign illumination is required. Signage shall also be installed at all inaccessible exits and where otherwise necessary to clearly indicate the direction to areas of rescue assistance. In each area of rescue assistance, instruction on the use of the area under emergency conditions shall be posted adjoining the two-way communication system.
COMMUNICATIONS EQUIPMENT

4.3.11.4 Two-Way Communication
A method of two-way communication, with both visible and audible signals, shall be provided between each area of rescue assistance and the primary entry. The fire department or appropriate local authority may approve a location other than the primary entry.

A4.3.11.4 Two-way Communication
It is essential that emergency communication not be dependent on voice communications alone because the safety of people with hearing or speech impairments could be jeopardized. The visible signal requirement could be satisfied with something as simple as a button in the area of rescue assistance that lights, indicating that help is on the way, when the message is answered at the point of entry.

A4.10.14 Emergency Communications
A device that requires no handset is easier to use by people who have difficulty reaching. Also, small handles on handset compartment doors are not usable by people who have difficulty grasping.

Ideally, emergency two-way communication systems should provide both voice and visual display intercommunication so that persons with hearing impairments and persons with vision impairments can receive information regarding the status of a rescue. A voice inter-communication system cannot be the only means of communication because it is not accessible to people with speech and hearing impairments. While a voice intercommunication system is not required, at minimum, the system should provide both an audio and visual indication that a rescue is on the way.

SIGNAGE (4.30)

4.30.1 General
Signage required to be accessible by 4.1 shall comply with the applicable provisions of 4.30.

4.30.2 Character Proportion
Letters and numbers on signs shall have a width-to-height ration between 3:5 and 1:1 and a stroke-width-to-height ration between 1:5 and 1:10.

4.30.3.1 Character Height
Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. The minimum height is measured using an upper case X. Lower case characters are permitted.

<table>
<thead>
<tr>
<th>Height Above Finished Floor</th>
<th>Minimum Character Height</th>
</tr>
</thead>
<tbody>
<tr>
<td>Suspended or Projected</td>
<td>3” (75mm)</td>
</tr>
<tr>
<td>Overhead in compliance with 4.4.2</td>
<td>minimum</td>
</tr>
</tbody>
</table>

4.30.4 Raised and Brailled Characters and Pictorial Symbol Signs (Pictograms)
Letters and numerals shall be raised 1/32 in. upper case, sans serif or simple serif type and shall be accompanied with Grade 2 Braille. Raised characters shall be at least 5/8 in. (16mm) high, but no higher than 2 in. (50 mm). Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram. The border dimension of the pictogram shall be 6 in. (152 mm) minimum in height.
PHYSICAL LOCATION OF THE EQUIPMENT:
Clear Floor or Ground Space for Wheelchairs (4.2.4)

4.2.5  **Forward Reach**
If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be 48 in. (1220 mm) (see Fig. 5(a)). The minimum, low forward reach is 15 in. (380 mm). If the high forward reach is over an obstruction, reach and clearances shall be as shown in Fig. 5(b).

4.2.6.1.1  **Side Reach**
If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall be 54 in. (1370 mm) and the low side reach shall be no less than 9 in. (230 mm) above the floor (Fig. 6(a) and (b)). If the side reach is over an obstruction, the reach and clearances shall be as shown in Fig. 6(c).

4.4  **PROTRUDING OBJECTS**

4.4.1  **General Objects**
Projecting from walls (for example, telephones) with their leading edges between 27 in. and 80 in. (685 mm and 2030 mm) above the finished floor shall protrude no more than 4 in. (100 mm) into walks, halls, corridors, passageways, or aisles (see Fig. 8(a)). Objects mounted with their leading edges at or below 27 in. (685 mm) above the finished floor may protrude any amount (see Fig. 8(a) and (b)). Freestanding objects mounted on posts or pylons may overhang 12 in. (305 mm) maximum from 27 in. to 80 in. (685 mm to 2030 mm) above the ground or finished floor (see Fig. 8(c) and (d)). Protruding objects shall not reduce the clear width of an accessible route or maneuvering space (see Fig. 8(e)).

4.4.2.  **Head Room**
Walks, halls, corridors, passageways, aisles or other circulation spaces shall have 80 in. (2030mm) minimum clear head room (see Fig. 8(a)). If vertical clearance of an area adjoining an accessible route is reduced to less than 80 in. (nominal dimension), a barrier to warn blind or visually impaired persons shall be provided (see Fig. 8(c-1)).
ELEVATORS (From the elevator section, to illustrate typical requirement for emergency communication and call buttons).

4.10.14 Emergency Communications
If provided, emergency two-way communication systems between the elevator and a point outside the hoistway shall comply with ASME A17.1-1990. The highest operable part of a two-way communication system shall be a maximum of 48 in. (1220 mm) from the floor of the car. It shall be identified by a raised symbol and lettering complying with 4.30 and located adjacent to the device. If the system uses a handset then the length of the cord from the panel to the handset shall be at least 29 in. (735 mm). If the system is located in a closed compartment the compartment door hardware shall conform to 4.27. Controls and hardware shall conform to 4.27.

Controls and Operating Mechanisms. The emergency intercommunication system shall require both voice communication and visual indicators.

4.10.3 Hall Call Buttons (Elevator Lobbies and Halls)
Call buttons in elevator lobbies and halls shall be centered at 42 in. (1065 mm) above the floor. Such call buttons shall have visual signals to indicate when each call is registered and when each call is answered. Call buttons shall be a minimum of ¾ in. (19 mm) in the smallest dimension. The button designating the up direction shall be on top. (See Fig. 20) Buttons shall be raised or flush. Objects mounted beneath hall call buttons shall not project into the elevator lobby by more than 4 in. (100mm).

4.10.12 Car Controls
Elevator control panels shall have the following features:

(1) Buttons. All control buttons shall be at least 3/4 in. (19mm) in their smallest dimension. They shall be raised or flush

(2) Tactile, Braille, and Visual Control Indicators. All control buttons shall be designated by Braille and by raised standard alphabet characters for letters, Arabic characters for numerals, or standard symbols as shown in Fig. 23 (a), and as required in ASME A17.1-1990. Raised and Braille characters and symbols shall comply with 4.30. The call button for the main entry floor shall be designated by a raised star at the left of the floor designation (See Fig. 23(a)). All raised designations for call buttons shall be placed immediately to the left of the button to which they apply. Applied plates, permanently attached, are an acceptable means to provide raised control designations. Floor buttons shall be provided with visual indicators to show when each call is registered. The visual indicators shall be extinguished when each call is answered.

(3) Height. All floor buttons shall be no higher than 54 in. (1370 mm) above the finish floor for side approach and 48 in. (1220 mm) for front approach. Emergency controls, including the emergency alarm and emergency stop, shall be grouped at the bottom of the panel and shall have their centerlines no less than 35 in. (890 mm) above the finish floor (See Fig. 23(a) and (b)).