



*An Online PDH Course
brought to you by
CEDengineering.com*

ADA Accessibility Guidelines: Signs, Elevators, and Platform Lifts

Course No: A04-004
Credit: 4 PDH

Elie Tawil, P.E., LEED AP



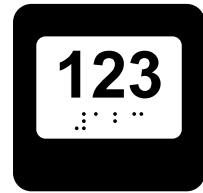
Continuing Education and Development, Inc.

P: (877) 322-5800
info@cedengineering.com

This course was adapted from the “U.S. Access Board Technical Guide”, Chapter 4: Accessible Route - "Elevators and Platform Lifts" and Chapter 7: Communication Elements and Features - "Signs", which is in the public domain.

Signs

This guide explains scoping and technical requirements in the ADA Standards for signs.



Required Compliance [§216]

The Standards require accessible signs that are used to identify certain accessible elements and spaces. Other types of signs, however, including room numbers and room labels, are covered only where they are provided. The Standards address visual and tactile content on signs, where provided.

The following types of signs are exempt and not required to meet visual and tactile requirements:

- temporary (posted for 7 days or less);
- building addresses and directories;
- occupant names and company names and logos;
- menus;
- seat or row designations in assembly areas; and
- signs in non-public areas of detention or correctional facilities.

Signs covered by the Standards must meet specifications for visual requirements so that they are accessible to people with low vision. Several categories of signs also must meet tactile requirements so that they are accessible to people who are blind or have low vision. Tactile requirements primarily apply to signs typically located at doorways because doorways provide a cue for locating signs by touch.

The requirements in this guide apply to certain types of content on signs. There can be multiple types of content provided on a single sign to which different provisions, as described below, may apply. For example, a single sign may provide a room number, which would be required to be visual and tactile, the hours of operation, which is only required to be visual, and the name of the occupant, which does not have to be visual or tactile. Each type of content provided must be evaluated to determine how the content must be made accessible.

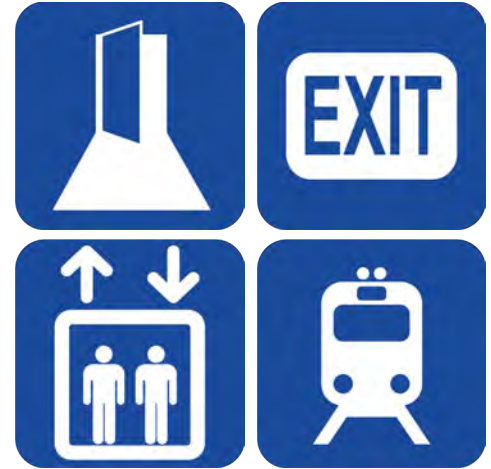


Doorways provide a tactile cue for locating signs.

Tactile Signs

Tactile requirements apply to these types of signs:

- interior and exterior signs identifying permanent rooms and spaces, where provided (§216.2);
- required door labels at exit stairways, exit passageways, and exit discharge (§216.4.1);
- required labels for floor levels, car controls, and emergency communication devices at elevators (§407.2.3.1, §407.2.3.2, §407.4.7.1.1, §407.4.9); and
- rail station identification signs at entrances and platforms or boarding areas (§810.6.1).



Designations of Permanent Rooms and Spaces [§216.2]

Signs that identify permanent rooms and spaces include:

- room and floor numbers or letters;
- room names; and
- labels for restrooms, locker rooms, cafeterias, libraries, conference rooms, mechanical rooms, and other permanent rooms or spaces.

Visual and tactile requirements apply to both interior and exterior signs labeling permanent rooms and spaces. However, exterior signs not located at the door to the space they serve do not have to be tactile but must meet visual requirements (§216.2, Ex. 1).



Directional and Informational Signs [§216.3]

Signs that provide direction to or information about interior spaces and facilities must meet visual requirements but are not required to be tactile. Examples of informational signs include instructions, rules of conduct, hours of operation, and similar content. Directional signs include all types of signs that provide direction to spaces and facilities. These requirements apply only where such signs are provided.



Required Accessibility Symbols [§216.5 - §216.11]

The Standards require certain spaces and elements be identified as accessible by providing signs that include International Symbols of:

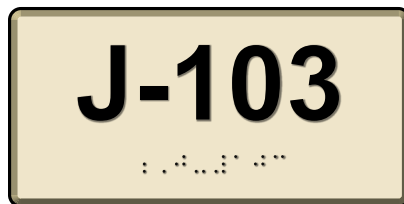
- Accessibility;
- TTY, or Text Telephone which is a phone assistive device for people with hearing or speech impairments; or
- Access for Hearing Loss, which indicates availability of an assistive listening system.



Visual and Tactile Requirements on Single Sign

Tactile signs must have raised characters that are repeated in Grade 2 braille. In addition, they are subject to requirements for non-glare finish and color contrast for visual accessibility. Other information provided in addition to permanent room or space labels is not required to be raised or brailled but must meet visual criteria if informational or directional. Some information on such signs may be exempt, such as occupant names.

The required location of tactile signs is relatively uniform (i.e., beside or, where permitted, on doors) to make them easier to locate without vision. The height is limited to a specific range (48 inches – 60 inches) to facilitate reading by touch.



Braille is located below raised characters, including when text is multi-lined.



This sign includes exempt and informational content in addition to a permanent room label (room number).

**Exempt
(occupant name, title)**

**Visual
(informational)**

**Tactile & Visual
(permanent room label)**

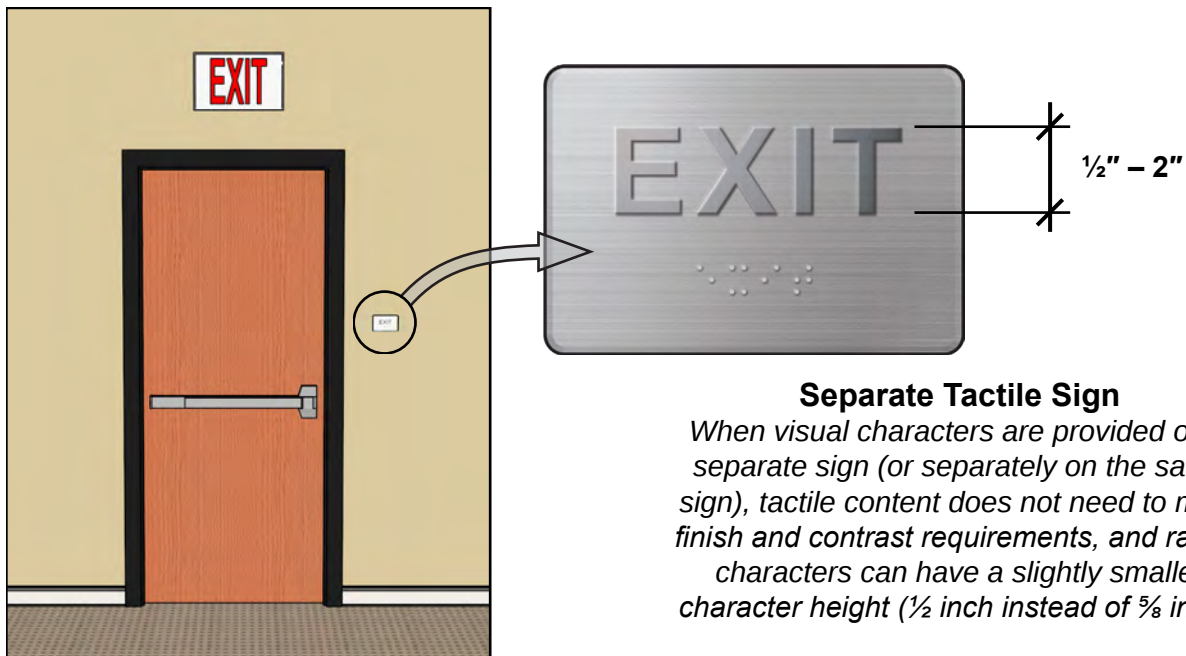


Exterior signs labelling permanent rooms and spaces that are not located at a doorway do not have to be tactile but must meet visual criteria.

Means of Egress Signs [§216.4]

The Standards require that tactile and visual signs be provided to identify doors at exit stairways, exit passageways, and exit discharge. Exit passageways are horizontal fire resistance-rated components that lead to exit discharge or public ways. Exit discharge is the path from an exit to a public way.

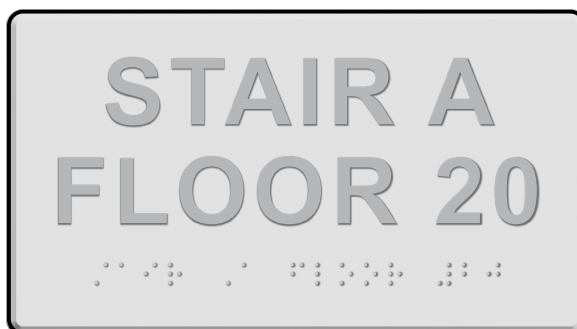
Exit labels at other locations are not required to be tactile but must meet visual requirements. Life safety and building codes address the visibility and illumination of exit signs, which can also satisfy the visual requirements in the ADA Standards. At exit doors, the tactile requirements typically must be met on a separate sign.



Separate Tactile Sign

When visual characters are provided on a separate sign (or separately on the same sign), tactile content does not need to meet finish and contrast requirements, and raised characters can have a slightly smaller character height (1/2 inch instead of 5/8 inch).

This stairway sign includes permanent space labels (stair and floor designations) that must be tactile and visual, as well as content that is required to be visual only (egress-related directions and information).



Tactile content on separate sign



Directional signs, including those for means of egress, required by the applicable life safety code, must comply with the visual requirements for information and directional signs (§703.5). In addition, directions to accessible means of egress required by the International Building Code (IBC) must meet visual criteria (§216.4.3).

Areas of refuge are fire-resistance rated and smoke-protected areas where those persons who are unable to use stairs can register a call for evacuation assistance and await instructions or assistance. Required by the IBC in some buildings, areas of refuge must provide direct access to an exit stairway (or to an elevator equipped with standby power). Signs labeling areas of refuge must be tactile since they designate a permanent space.



Area of refuge signs can be incorporated into required exit signs.



Instructions on using the area of refuge under emergency conditions must be posted under the IBC [§1007.6.4 (2003) or §1003.2.13.5.4 (2000)]. These instructions must meet requirements for visual characters in the ADA Standards (§216.4.2) but are not required to be tactile. The IBC specifies the content for these signs.

Elevator Signs and Labels [§407]

The Standards require tactile signs (and, in some cases, symbols) at elevators, including labels for:

- floor designations at elevator hoistways (§407.2.3.1);
- destination-oriented elevator cars (§407.2.3.2);
- car control buttons (§407.4.7.1.1); and
- emergency communication devices (§407.4.9).

For signs at elevators, most of the criteria for raised and braille characters apply, but there are differences. For example, raised characters can be at least 2 inches high on hoistway floor level signs, and tactile content on control panels can be located outside the standard 48 inches – 60 inches mounting height. See [Elevators and Platform Lifts Guide](#) for more information.



Technical Requirements for Tactile Characters

Raised Characters [§703.2]

Criteria for raised characters address: depth, case, style, character height and proportions, stroke thickness, and line and character spacing.

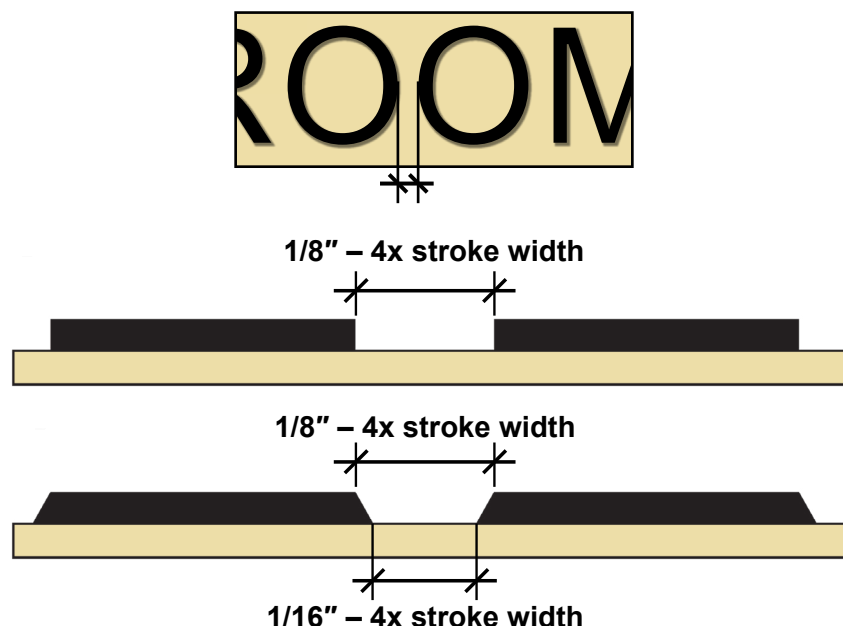
Characters 1/32" min, upper case, sans serif

(prohibited: italic, oblique, script, highly decorative or other unusual forms)

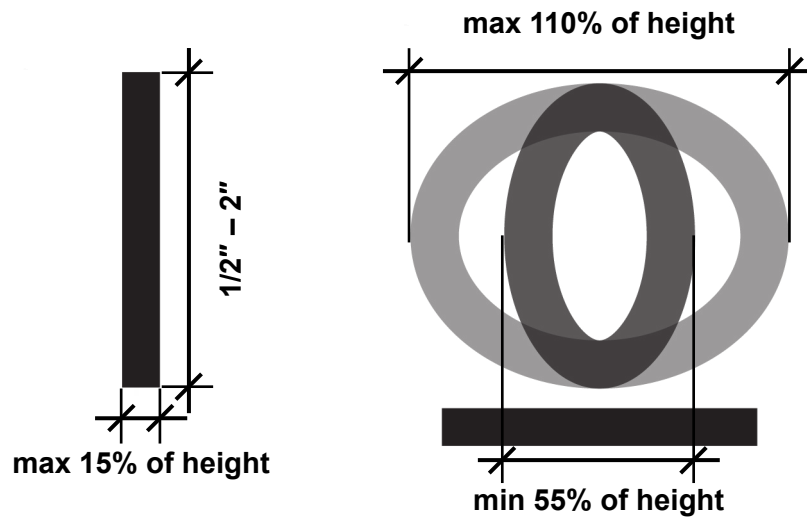


Note: If visual characters are provided on a separate sign, the tactile sign does not have to meet finish and contrast criteria and can have raised characters at 1/2 inch minimum height.

Character spacing, as measured between the two closest points of adjacent characters excluding word spaces, is specified for rectangular and non-rectangular cross sections.



The stroke thickness of the uppercase letter “I” must be 15% maximum of the character height. Characters must be selected from fonts where the width of the uppercase letter “O” is 55% to 110% of the height of the uppercase letter “I.” Raised character height must be from 1/2 inch minimum to 2 inches maximum. Where raised characters also serve as visual characters, the minimum height is 5/8 inch.



Recommendation: Where visual and tactile access is provided on the same sign, provide a stroke thickness no less than 10% of the height based on the uppercase letter “I” so that raised characters are sufficiently legible.

Finish and Contrast [§703.5.1]

When a single set of characters is used to meet requirements for raised and visual characters, the characters and their background must have a non-glare finish. Characters must contrast with their background with either light-on-dark or dark-on-light. A minimum level of color contrast is not specified, but the higher the contrast, the better, especially for people with low vision. Finish and contrast requirements do not apply to braille.



Dark-on-light contrast



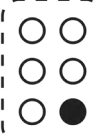
Light-on-dark contrast

Braille [§703.3]

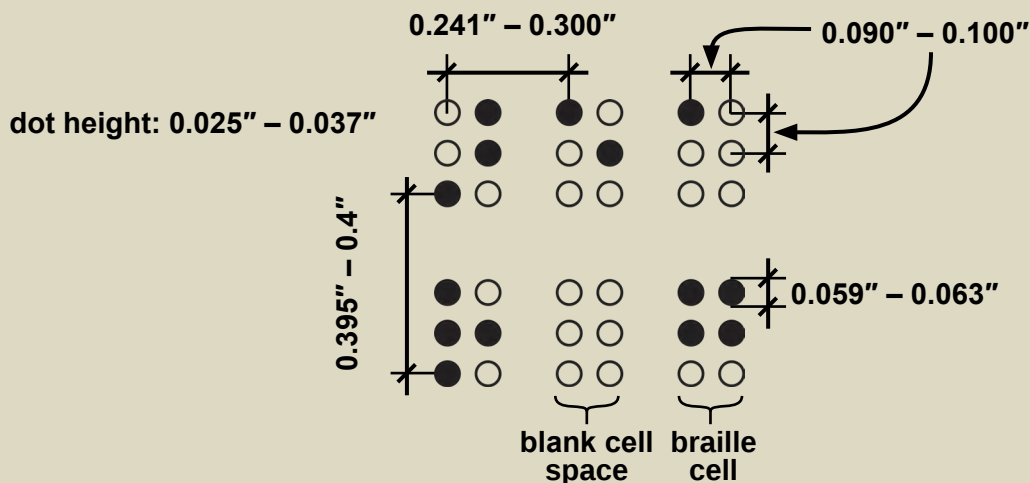
The content of raised characters also must be provided in contracted or “Grade 2” braille. This type of braille uses the same characters as standard braille but also includes characters to represent common words and letter combinations. Braille is read with a light sweeping touch, and braille dots must be domed or rounded. The Standards specify the height and diameter of dots and their spacing within and between cells.



Braille located below entire raised text and separated $\frac{3}{8}$ inch minimum from tactile characters and any raised borders and decorative elements.

 The braille capital symbol precedes each capitalized word; the symbol is repeated to indicate all caps. To ease reading, capitalization in braille is limited to the first word of sentences, proper nouns or names, individual letters, initials, and acronyms (but all raised characters must be uppercase).

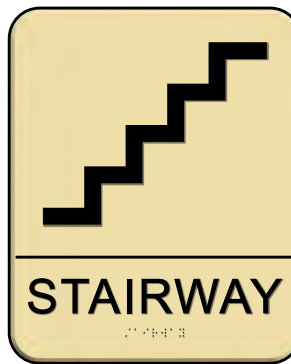
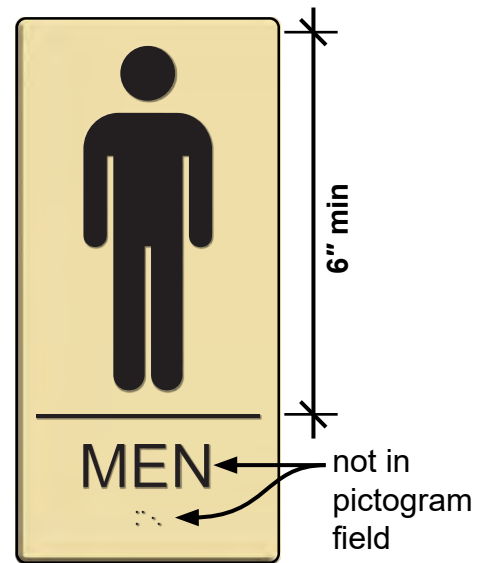
all dot spacing measured center-to-center



Pictograms [§703.6]

The Standards do not mandate the provision of pictograms other than the symbols of accessibility, which are informational pictograms. Where other pictograms are included on a sign to designate a permanent room or space, text descriptors in raised and braille characters are required directly below the pictogram field. The pictogram is not required to be raised. The pictogram field must be at least 6 inches high. (This applies to the field, not the pictogram itself.) The pictograms and fields must have a non-glare finish and a light-on-dark or dark-on-light contrast.

Note that these requirements apply to those pictograms that *label a permanent room or space*, such as a restroom, cafeteria, or stairway.



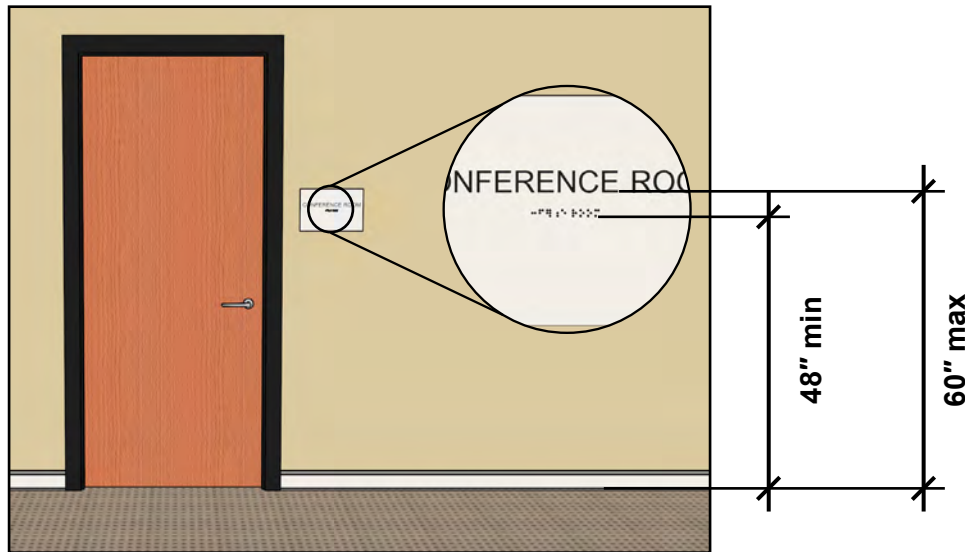
Informational Pictograms

Pictograms that provide information about a room or space or that are on directional signs, including accessibility symbols, are not required to provide tactile text descriptors or to be located on a field at least 6 inches high. Note, however, that specified accessibility symbols must meet finish and contrast criteria, which is discussed in more detail below. Examples of these types of pictograms include the International Symbol of Accessibility, the International Symbol of TTY directional sign, a pictogram indicating a no cellphone use area, and the biohazard symbol.

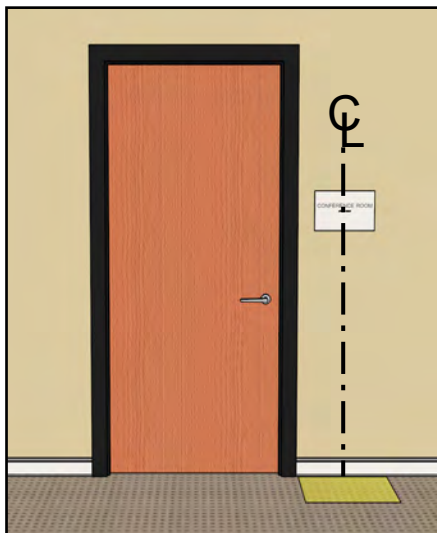


Installation Height and Location [§703.4]

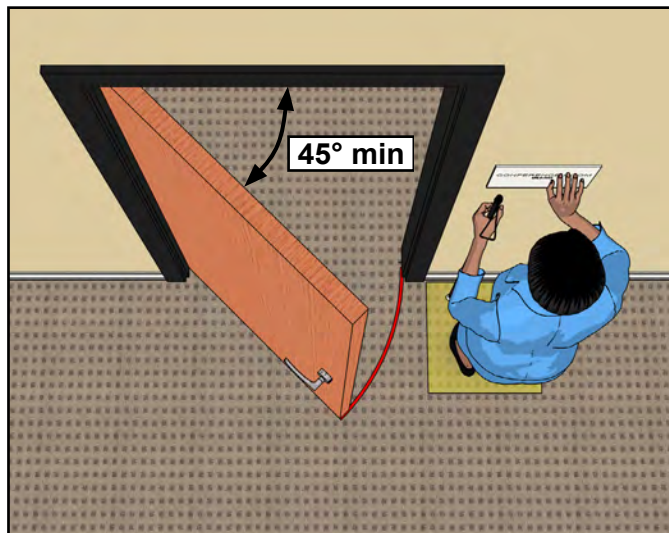
Raised characters and braille on signs must be located 48 inches minimum above the finish floor or ground surface, measured from the baseline of the lowest tactile character, and 60 inches maximum above the finish floor or ground surface, measured from the baseline of the highest tactile character. This location is convenient for tactile reading.



A clear floor space 18 inches minimum by 18 inches minimum must be centered on the tactile characters. This placement of the clear floor space provides unobstructed standing space at the sign for reading by touch. This space must be free of any protrusions to a height of 80 inches. For safety, the space must be located beyond the arc of any door swing to a 45° open position. This effectively sets a minimum, but not an absolute, distance of tactile signs from out-swinging doors. While the clear floor space must be centered on the tactile characters, signs can be located varying distances beyond the door swing.



18" x 18" clear floor space
centered on tactile characters



This clear floor space must be beyond the swing of any
door from a closed position to a 45° open position.

Location at Doors

At single doors, tactile signs must be located alongside the door on the latch side. They are permitted on the push side of doors equipped with closers that do not have devices to keep them open.



Sign on latch side of single door



Sign on push side of a door with a closer

If there is no wall space on the latch side, signs must be located on the nearest adjacent wall.



Recessed door with space for latch side placement



Recessed door with sign on adjacent wall

For double-leaf doors with one active leaf, the sign must be located on the inactive leaf. If each door has an active leaf, the sign must be located to the right of the door.



Sign on inactive leaf at double-door entry



Sign at right-side hinge side of double-door entry with two active leaves

Technical Requirements for Characters [§703.5]

Specifications for visual characters cover finish and contrast, case, style, character proportion and height, stroke thickness, and line and character spacing.

*Upper or lowercase characters (or combination of both), conventional form
(prohibited: italic, oblique, script, highly decorative, or other unusual forms)*

*Line spacing:
135% – 170% of
character height*



*Characters 40"
min. above finish
floor or ground*

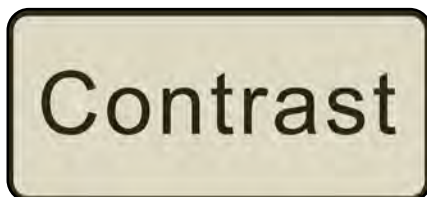
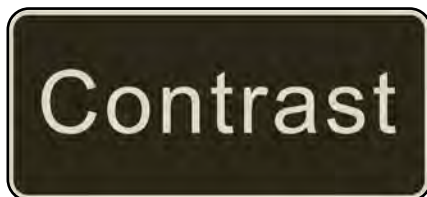
*Character height
(based on viewing
distance)*

Non-glare finish

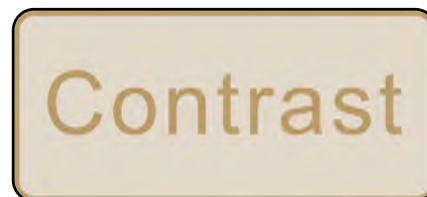
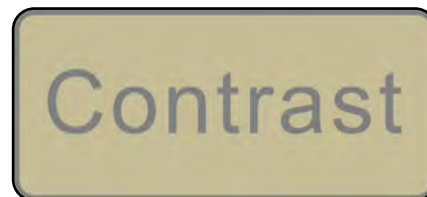
*Light-on-dark or dark-on-light contrast between
characters and the background*

Characters must contrast with their background with either light-on-dark or dark-on-light and have a non-glare finish. A minimum level of contrast is not specified in the Standards. The higher the contrast, the better for legibility, particularly for people with low vision. Varied or textured backgrounds can reduce contrast and compromise readability.

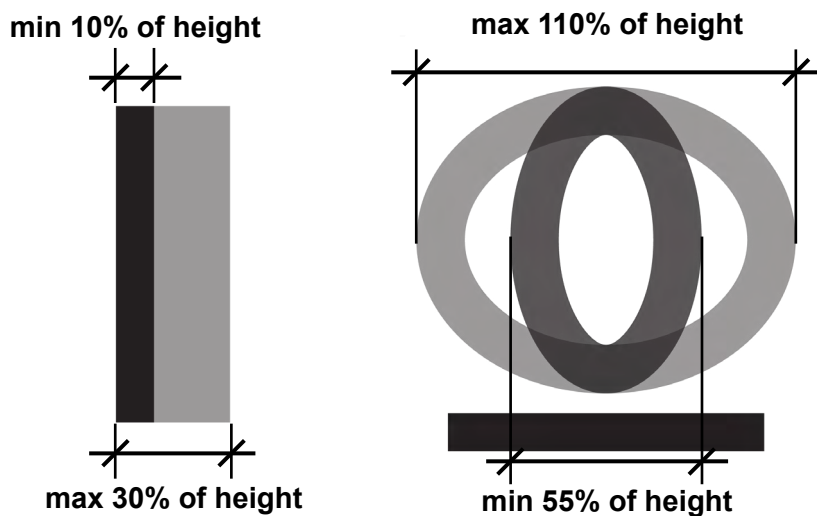
Examples of good contrast



Examples of poor contrast

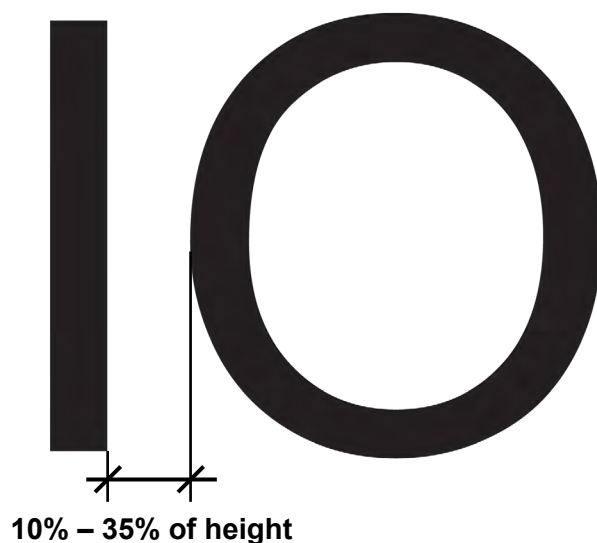


The stroke thickness of the uppercase letter “I” must be from 10% to 30% of the character height. Characters must be selected from fonts where the width of the uppercase letter “O” is 55% to 110% of the height of the uppercase letter “I.”



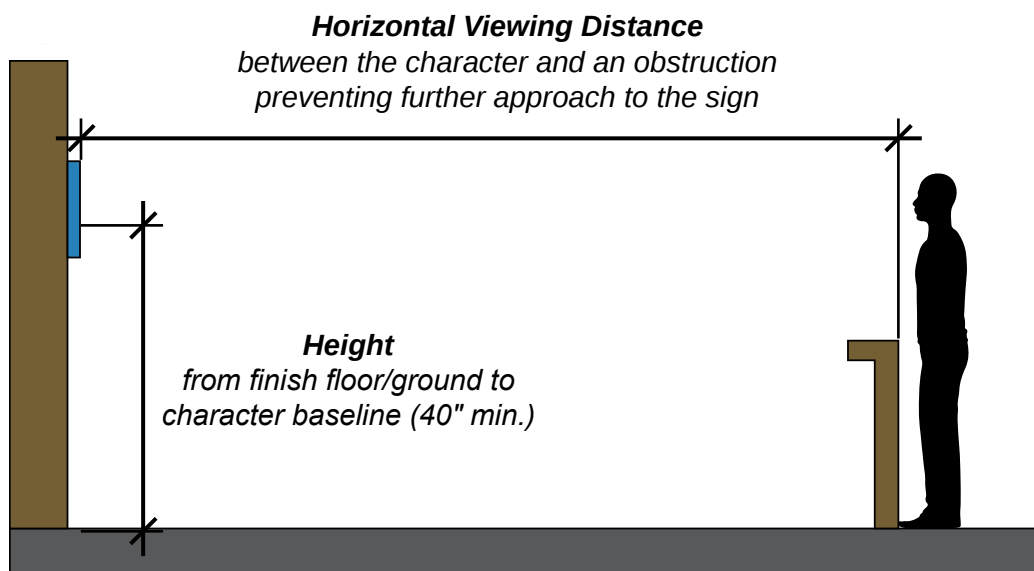
Character Spacing

Character spacing, as measured between the two closest points of adjacent characters excluding word spaces, must be 10% to 35% of the character height.



Character Height

The minimum height of characters is based on their height above the finish floor and the horizontal viewing distance. Horizontal viewing distance is the distance between the character and an obstruction preventing further approach to the sign.



Height	Viewing Distance	Min. Character Height
40" – 70"	under 6'	5/8"
	6' or more	5/8" + 1/8" per foot of viewing distance above 6'
above 70" to 10'	under 15'	2"
	15' or more	2" + 1/8" per foot of viewing distance above 15'
above 10'	under 21'	3"
	21' or more	3" + 1/8" per foot of viewing distance above 21'

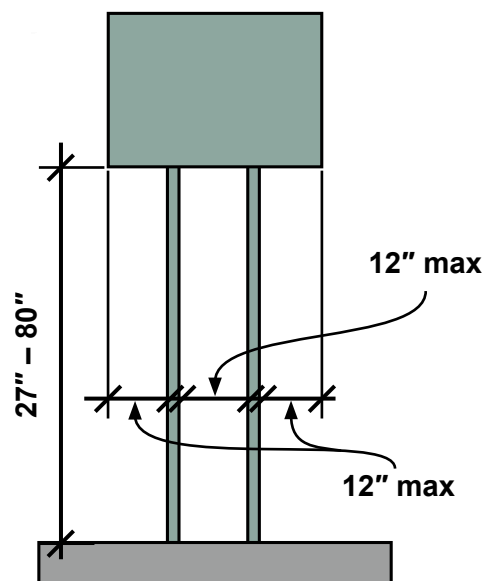
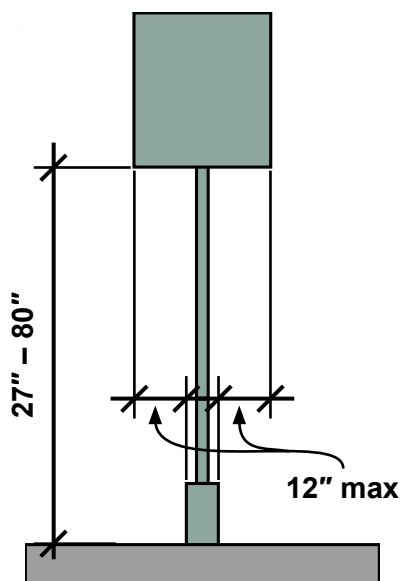
Headroom Clearance at Overhead Signs

Signs above circulation paths must provide the required 80 inches minimum headroom clearance (§307.4).

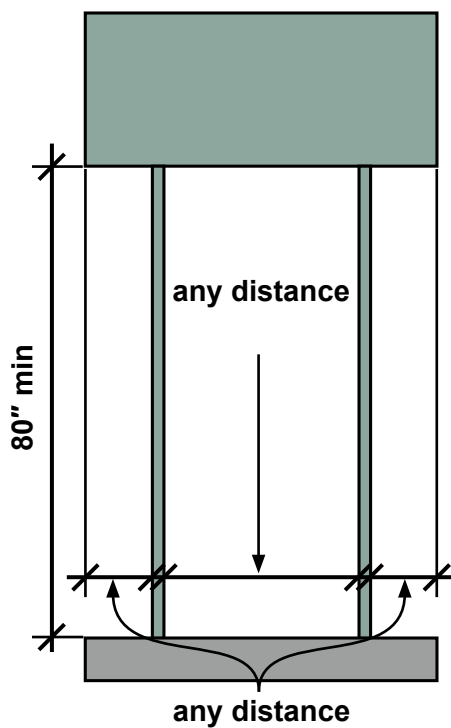
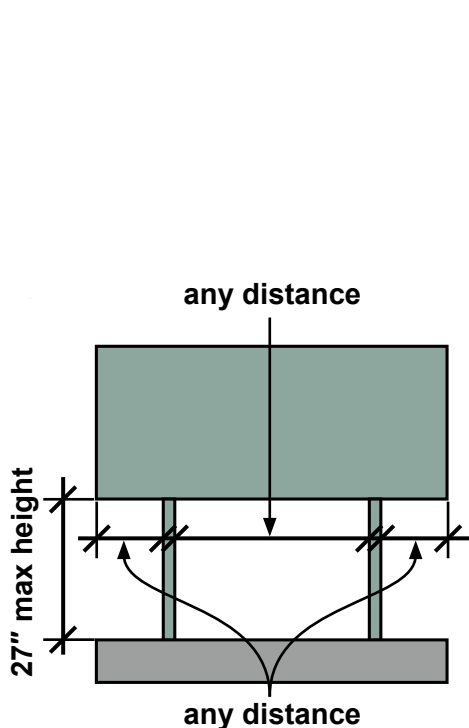


Post-Mounted Signs [§307.3]

Signs and other objects mounted on posts or pylons that have leading edges of 27 inches to 80 inches high cannot protrude more than 12 inches into circulation paths. The 12-inch limit also applies to the clearance between multiple posts, excluding the sloping portions of handrails.



Post-mounted signs with leading edges 27 inches maximum or above 80 inches can protrude any amount from posts or pylons.



Signs at Transportation Facilities [§810.4, §810.6]

The requirements for signs apply fully to all types of transportation facilities subject to the Standards. The Standards also include some exceptions or requirements specific to signs at bus stops and rail stations.

Bus Route Signs [§810.4]

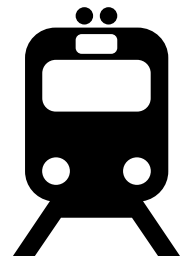
Signs that identify bus routes must comply with requirements for visual characters (§703.5), except those for the minimum location height (40 inches) and line spacing. Additionally, because the size of these signs is often limited, compliance with the minimum character height is required to the maximum extent feasible. Signs providing bus schedules, timetables, or maps are exempt from the sign requirements.



Rail Station Signs [§810.6]

Entrances

If signs are provided to identify the rail stations or station entrances, a tactile sign (§703.2) providing this information is required at each entrance. The tactile signs must be placed in uniform locations to the maximum extent feasible. If a station lacks a defined entrance, at least one tactile sign must be provided in a central location. In other facilities, exterior signs not located at the entrance or door they serve are not required to be tactile.



Platform or Boarding Area Signs

In addition, at least one tactile station identification sign is required on each platform or boarding area. Requirements for visual characters apply to signs at boarding areas, platforms, or mezzanines that list stations, routes, and destinations served by the station, excluding route maps. These types of signs must be uniformly located within the transit system to the maximum extent feasible. Visual characters are not required to exceed 3 inches where sign space is limited.

Station Names

The Standards also require the provision of signs labelling stations that meet the visual requirements (§703.5). These signs must be clearly visible from within vehicles on both sides (when not obstructed by another vehicle) and within passenger sight lines.

Audible Technology as an Alternative to Signs

Audible or “talking” sign systems and technologies that use infrared or other means to transmit information otherwise provided on signs may provide greater accessibility in the transit environments than tactile signs. They also can include wayfinding information not included on posted signs. The Standards generally recognize these technologies and permit them as an alternative to the tactile and visual requirements for entrance signs and platform or boarding area signs (§810.6).

Amusement Ride Signs [§216.12]

The Standards address access to amusement rides and include requirements for signs. Some amusement rides may accommodate wheeled mobility aids while others require transfer to a seat. The Standards require signs at entries to queues and waiting lines to identify the type of access provided by a ride. Signs indicating the location of the accessible load and unload areas must be provided at entries to queues and waiting lines.



Symbols of Accessibility [§703.7]

Symbols required by the Standards to label accessible features and spaces must:

- conform to referenced (and reprinted) international symbols;
- have a non-glare finish (both symbol and background); and
- contrast with the background (either light-on-dark or dark-on-light).

The Standards do not specify particular colors, a minimum color contrast level, nor the size of these symbols. Written content is not required or addressed, except in the case of van accessible parking signs, but can be included.

International Symbol of Accessibility [§216.5 – §216.8, §216.11, §703.7.2.1]

The Standards reference the International Symbol of Accessibility (ISA), a long-standing global icon adopted by the International Organization for Standardization which represents over 160 national standard-setting entities and develops voluntary, consensus-based international standards. Uniform iconography promotes legibility, especially for people with low vision or cognitive disabilities. In addition, various codes and standards in the U.S., including the International Building Code (IBC), also require use of the ISA.

The ISA must be used to label, or provide direction to, these elements and spaces (unless all are accessible):

- entrances
- toilet rooms and bathing rooms
- parking
- check-out aisles
- existing compliant elevators



Use of Alternatives to the ISA

Where the ADA Standards require accessible spaces or elements to be identified by the ISA (or the other designated international symbols), the ISA must be used even if a state or local code or regulation specifies a different symbol. Use of a symbol other than the ISA is permitted under the ADA Standards if it satisfies the equivalent facilitation provision (§103). This provision allows alternatives to prescribed requirements only if they result in “substantially equivalent or greater accessibility and usability.” The burden of proof in demonstrating equivalent facilitation rests with the covered entity in the event of a legal challenge. Accessibility labels not required by the Standards, such as surface decals at parking spaces, are not required to comply or conform to the ISA.

The Access Board provides more information in its [Guidance on the International Symbol of Accessibility](#).

Entrances [§216.6]

If a facility has inaccessible entrances, the ISA must identify compliant entrances. At inaccessible entrances, directional signs meeting the visual requirements (§703.5) must be provided to indicate the nearest compliant entrance. If all entrances are accessible, these labels and directional signs are not required.



Directional signs can be as simple as the ISA with an arrow, but additional content, while not required, can be helpful.



Recommendation:
While the Standards do not specify the location of directional signs at inaccessible entrances, they should be placed to prevent or minimize back-tracking.



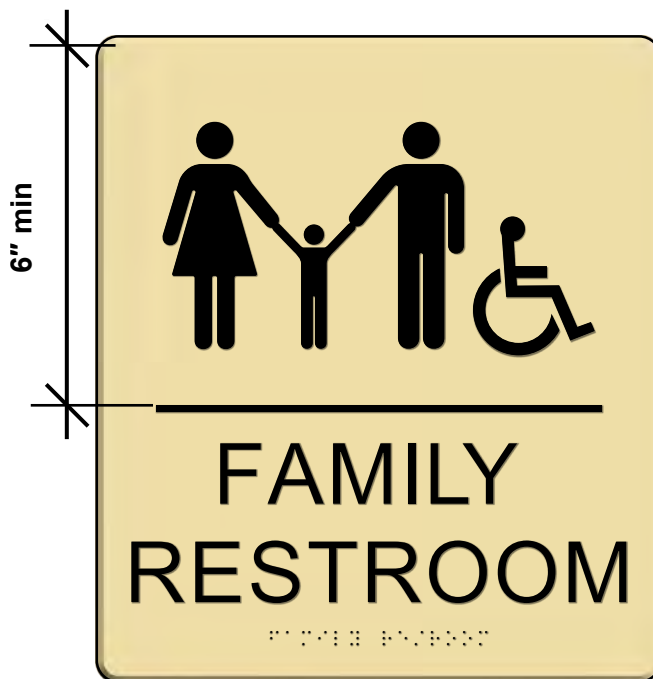
Toilet Rooms and Bathing Rooms [§213.2, §216.8]

Where all toilet rooms and bathing rooms are accessible, which is often the case in new construction, designation by the ISA is not required. However, in areas where not all toilet or bathing rooms are accessible, then the ISA is required. For example, at clustered portable toilets (where at least 5% must comply) and clustered single user toilet rooms of the same type (where at least 50% must comply), the ISA must be used to identify those units and rooms that are accessible.

In alterations to existing facilities where existing toilet or bathing rooms do not comply, the ISA must be provided to:

- identify those rooms that are accessible; and
- provide direction to the nearest compliant toilet or bathing room.

Restroom Sign with ISA



The ISA must meet finish and contrast criteria but not requirements for the field height or text description.

Pictograms that identify restrooms and other permanent rooms or spaces (where provided) must be on a field at least 6" high, meet finish and contrast criteria, and have tactile text descriptors below the field.

Check-out Aisles [§216.11]

Compliant check-out aisles must be labelled by the ISA unless all aisles serving the same function are accessible. The sign indicating accessibility must be in the same location as any other signs that identify check-out aisles by number, letter, or function.



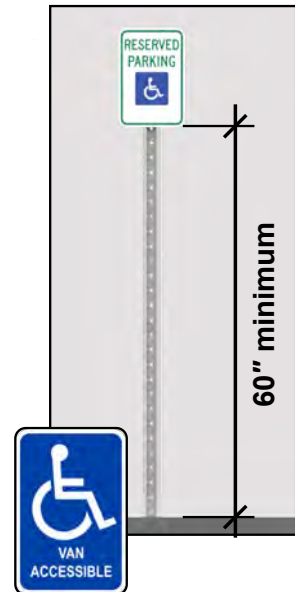
Existing Elevators [§216.7]

If a facility has existing elevators that do not meet the Standards, compliant elevators must be labelled by the ISA.

Parking Signs [§216.5, §502.6]

Accessible parking spaces must be identified by signs with the ISA. The bottom edge of each sign must be at least 60 inches high measured from the ground surface so that they are visible while vehicles are parked in a space. These signs can be on posts, walls, or suspended from ceilings. ISA designations on the parking surface, even if required by a state or local government, cannot substitute for above-ground signs. State or local codes and regulations may address other sign characteristics, including size, color, and additional content, such as “reserved” or violation fines, but the ADA Standards do not require such characteristics.

Signs identifying van spaces must include the term “van accessible.” This designation is informative and not restrictive in identifying spaces suitable for vans since such spaces are not limited to only vans. It can be included on the main designation sign or provided on a separate sign.



Parking Sign Exceptions

Parking Facilities (§216.1, Ex. 2)

Parking facilities are subject only to provisions for parking space signs (§216.5) and means of egress (§216.4). No other sign requirements apply.



Sites with under 5 Spaces Total (§216.5, Ex. 1)

If a total of 4 or fewer (inaccessible and accessible) parking spaces is provided on a site, the required accessible space must comply but does not have to be identified by a sign (i.e., reserved exclusively for use by people with disabilities).

Residential Facilities (§216.5, Ex. 2)

At residential facilities, identification of accessible spaces is not required where spaces are assigned to specific dwelling units.



International Symbol of TTY [§216.9, §703.7.2.2]

Some public payphones, where provided, must be equipped with TTYs to provide communication access for people with hearing or speech impairments. The International Symbol of TTY must be used to identify TTY-equipped phones. Directional signs indicating the location of the nearest TTY must be provided at phonebanks without TTYs. Additionally, where directional signs to public pay phones are provided, signs must also be provided to public TTYs. These directional signs must include the International Symbol of TTY and meet visual criteria in the Standards.



International Symbol of Access for Hearing Loss [§216.10, §703.7.2.4]

Signs with the International Symbol of Access for Hearing Loss and compliant with the visual criteria are required to indicate the availability of assistive listening systems in assembly areas. These systems enhance sound signals for people who are hard of hearing and must be provided in assembly areas equipped with audio amplification and in courtrooms. Signs can be provided at each assembly area or each ticket office or window. Verbiage on signs is not specified, but it is helpful to indicate where assistive listening devices can be acquired.



Information Displays and Technologies

Display Screens

Requirements for fare machines and ATMs address display screens (§707.7) and require:

- screens to be visible from a point 40 inches above the center of the clear floor space;
- sans serif characters at least 3/16 inches high as based on uppercase letter “I”; and
- light-on-dark or dark-on-light contrast between the characters and the background.



Electronic Sign Systems and Audible Sign Technologies

Electronic signs that stream or scroll content, also known as variable message signs (VMS), pose unique accessibility considerations. New “talking sign” technologies, such as remote infrared audible sign (RIAS) systems, provide additional means of making sign content accessible. The ADA Standards do not address these technologies. However, recent editions of the ICC A117.1 accessibility standard, which is referenced by the IBC, provide specifications on VMS and RIAS (§703.7 and §703.8 in the 2009 and 2017 editions).

Summary

Application of Sign Requirements

Sign	Tactile (§703.2 – 703.4)	Visual (§703.5)	Pictogram §703.6	Symbols of Accessibility §703.7
Permanent room or space designations	✓	✓ (703.5.1)*	✓ (if provided)	
Doors at exit stairways/ passageways/ discharge	✓	✓ (703.5.1)*	✓ (if provided)	
Informational and directional signs		✓		
Required access symbols				✓

* if tactile and visual characters provided separately, visual characters must fully meet 703.5

Required Signs

Required Sign	Scoping Provision	Technical Provisions
Door labels at exit stairways/ passageways/ discharge	§216.4.1	Tactile §703.2 and visual §703.5 criteria (can be met on separate signs)
International Symbol of Accessibility* 	§216.5 – §216.8, §216.11	- Finish & Contrast §703.7.1 - Referenced symbol §703.7.2.1 - Any verbiage must comply with visual criteria §703.5
International Symbol of TTY 	§216.9	- Finish & Contrast §703.7.1 - Referenced symbol §703.7.2.2 - Any verbiage must comply with visual criteria §703.5
International Symbol of Access for Hearing Loss 	§216.10	- Finish & Contrast §703.7.1 - Referenced symbol §703.7.2.4 - Any verbiage must comply with visual criteria §703.5
Amusement Ride Signs	§216.12	Must comply with visual criteria §703.5
Rail Station Identification Signs	§810.6.2 §810.6.3	- Tactile criteria §703.2 (sign on each platform or boarding area) - Visual criteria §703.5 (clearly visible from within vehicles on both sides)

* Required at entrances, toilet and bathing rooms, parking spaces, check-out aisles, and existing elevators (unless all are accessible) and on directional signs to accessible entrances and toilet and bathing rooms

Requirements for Visual and Raised Characters

	Visual Characters	Raised Characters
Finish	non-glare	
Contrast	light-on-dark or dark-on-light	
Depth	N/A	1/32" min
Case	upper, lower, or both	upper only
Style	conventional	sans serif
Prohibited Forms	italic, oblique, script, highly decorative, or unusual	italic, oblique, script, highly decorative, or unusual
Character Height	based on height above floor and viewing distance	5/8" – 2" *
Character Proportion	"O" 55% - 110% of "I" height	"O" 55% - 110% of "I" height
Character Spacing	10% - 35% of the character height	1/8" – 4x stroke width **
Stroke Thickness	10% - 30% of "I" height	15% max. of "I" height
Line Spacing	135% – 170% of character height	135% – 170% of character height
Height above finish floor or ground	40" min.	48" – 60"
Accompanied by Grade II Braille	N/A	Yes

* 1/2" min. if visual characters provided on separate sign

** 1/16" min. measured at base of characters with non-rectangular cross sections

Common Questions

General



Are signs labeling rooms and spaces with numbers or names required by the Standards?

No, the ADA Standards do not require signs labeling rooms and spaces. However, if such signs are provided, they must comply with the requirements. The Standards do require some facilities and spaces, such as toilet rooms and bathing rooms, to be identified by the ISA, unless all are accessible. The Standards also specify that certain exit doors be labelled as exits.

Are building names or addresses required to comply?

No, building names and addresses are not required to comply. Signs identifying suite, room, or dwelling unit numbers are required to comply.

Are signs provided in areas not used by the public required to comply?

In general, signs provided in areas not used by the public are required to comply. In detention and correctional facilities, signs not located in public use areas are not required to comply.

If a sign repeats information in another language, must those characters comply as well?

If a sign repeats information in other languages, only the English content must comply with these requirements. If a sign is only written in a language other than English, that sign must comply to the maximum extent feasible. The Standards do not address requirements for character sets or braille for languages other than English.

Can tactile characters and visual characters be provided separately on different signs?

Yes, tactile characters and visual characters can be provided on separate signs (or separately on the same sign). Visual characters provided separately must comply with all applicable criteria (§703.5). Tactile characters on signs where compliant visual characters are also provided must comply with all applicable requirements for raised and braille characters, but they are exempt from finish and contrast requirements and are permitted smaller cap heights (1/2 inch instead of 5/8 inch minimum).

Are redundant signs required to comply if a compliant sign is provided?

No, redundant signs provided in addition to compliant signs are not required to meet the Standards.

Tactile Signs

What types of signs are considered designations of “permanent rooms and spaces?”

Signs identifying permanent rooms and spaces pertain to designations, labels, or names for rooms and spaces that are unlikely to change over time or without significant alteration. Examples include signs labeling restrooms, break rooms, mechanical rooms and other spaces, room and floor numbers or letters, and room names. These types of signs also include exterior signs labelling permanent rooms and spaces, such as motel rooms and park restrooms. However, exterior signs not located at the door to the spaces they serve do not have to be tactile.

Does additional information that is included on a sign intended for custodial staff need to also be tactile?

Secondary room numbers or designations intended for maintenance or custodial staff that are provided in addition to general room numbers or names are not required to be tactile, but they must meet criteria for visual characters (§703.5). Tactile requirements apply to names or numbers that serve as the main or only designation of a room or space.

Are all exit doors required to be labelled by tactile signs?

No, tactile labels are required only at doors at exit stairways, exit passageways, and exit discharge. Exit passageways are horizontal fire-resistance-rated components that lead to exit discharge or public ways. Exit discharge is the path from an exit to a public way, such as a sidewalk. Exit labels at other locations, including those required by life safety and building codes, must meet visual requirements in the Standards, but not those for tactile characters.

Do raised characters need to meet all criteria for visual characters?

To be visually accessible, raised characters only have to meet requirements for finish and contrast (§703.5.1). However, visual characters provided separately from raised characters must fully meet all applicable provisions for visual characters (§703.5).

Can tactile signs be placed on doors?

Tactile signs can be placed only on the push side of those doors that are equipped with closers and do not have a hold-open device.

What constitutes “hold-open devices” in determining whether a tactile sign can be placed on a door?

“Hold-open devices” pertains to devices that are fixed to doors and/or walls to keep the door in an open position. Examples include door stops mounted to doors, wall-mounted hooks, or similar hardware and magnetic products that keep doors in an open position. Non-fixed devices, such as moveable door stops, do not constitute “hold-open devices.”

Where should tactile signs be placed at doorways without doors?

The Standards do not specify the location of tactile signs at doorways without doors. Tactile signs at doorways without doors should be located close to the doorway so that they are easy to locate by touch. In addition, the location should be consistent within a facility. It is advisable to treat doorways without doors in the same way as doors with two active leaves, which also do not have a latch side for reference. Where a door has two active leaves, the sign must be located to the right of the doorway or, if wall space is insufficient at this location, on the nearest adjacent wall.

Where are tactile signs to be mounted at doors with a vision panel or sidelight on the latch side or at doors located in glass partitions?

Tactile signs may be mounted next to, or on, vision panels and sidelights located on the latch side of the door so long as the required 18" by 18" minimum clear floor space centered on the tactile characters is provided and is located outside the swing of the door open 45 degrees. Signs also can be mounted on the push side doors with closers that do not have hold-open devices. If a door is located in a glass partition, then the sign must be mounted on the glass partition, except where it is permitted to be on the door.

Is Unified English Braille acceptable as "Grade 2 Braille"?

Yes, the Braille Authority of North America (BANA) made Unified English Braille (UEB) the official braille of the U.S in 2016. UEB is contracted (Grade 2) braille, although it has some differences from the previous English Braille American Edition. For purposes of the ADA Standards, UEB is acceptable as Grade 2 braille.

Which content on braille signs must be capitalized?

The first word of sentences, proper nouns and names, individual letters of the alphabet, initials, and acronyms are the only items that are to be capitalized on braille signs. No other items are to be capitalized on braille signs, regardless of what may be capitalized on equivalent printed signs.

Can the 18-inch by 18-inch clear floor space required at tactile signs be offset from the wall or sign?

The clear floor space required at tactile signs can be offset from the wall or sign surface to accommodate limited protrusions, such as base molding. Other elements or protrusions that would offset this clear floor space more significantly are not allowed because they may impede a person's ability to read signs tactilely.

Must braille be placed below all raised characters?

Braille must be located below the corresponding text; if the text is multi-lined, then braille must be located below the entire text. If there are multiple blocks of text on a sign, then braille should be placed below logical blocks of raised characters and not necessarily below all the raised characters.

Visual Signs

Are any colors specified for signs?

No, the Standards do not specify any colors for signs. The Standards only require that characters contrast from their background either light-on-dark or dark-on-light.

Why isn't a minimum level of color contrast between characters and the background specified in the Standards?

Color contrast is based on a color's light reflectance value (LFV), which measures the amount of a light a color reflects or absorbs. It is typically measured using a spectrophotometer. Measuring LFV accurately in the field can be difficult and is impacted by a variety of factors, including sign materials and lighting conditions.

For character height, what determines the horizontal viewing distance?

The horizontal viewing distance is the distance from the sign to a fixed obstruction that prevents a closer approach to the sign.

What are the requirements for the content of directional signs indicating the location of the nearest accessible facility (e.g., restroom, entrance, etc.)?

The Standards require that the sign include the ISA but do not specify or require other content. Directional signs can be as simple as the ISA and a directional arrow, but additional content may be helpful.

Can directional signs be located on the ground or floor?

Directional signs, including those required to indicate the location of accessible entrances and other accessible features and spaces, must comply with requirements for visual signs and be located at least 40 inches above the ground or floor. Redundant signs can be located on the floor or ground or in other non-compliant locations.

Can visual characters (e.g., room numbers, "men" and "women," etc.) be arranged vertically in a column instead of horizontally in a line or row?

The Standards do not prohibit arrangement of characters vertically, but this design is not recommended. If visual or raised characters are arranged vertically, they must meet all requirements, including height and line spacing. Braille characters must not be arranged vertically because it would be difficult to decipher some braille words if the braille contractions are stacked instead of arranged horizontally.

Do the Standards address illumination levels at signs?

No, the Standards do not address illumination levels at or of signs. Life safety and building codes address the visibility and illumination of exit signs.

Pictograms

Are alternatives to, or variations of, the International Symbol of Accessibility (ISA) permitted?

The Standards require use of the ISA to label or provide direction to certain accessible spaces and elements, including entrances, toilet and bathing facilities, and check-out aisles (unless all are accessible). A symbol other than the specified ISA will not comply with the Standards unless it satisfies the “equivalent facilitation” provision (§103). This provision allows alternatives to prescribed requirements if they result in “substantially equivalent or greater accessibility and usability.” The burden of proof in demonstrating equivalent facilitation rests with the covered entity in the event of a legal challenge. Under DOT’s ADA Standards, certain entities responsible for transportation facilities and systems, as well as manufacturers of products and vehicles used in transportation systems, can request a determination of equivalent facilitation from DOT as outlined in its ADA regulations (§37.7 and §37.9). This applies only where use of the ISA is required by the Standards. On other signs not mandated by the Standards, compliance with the specified ISA is not required.

Does the ISA include borders around the icon?

No, the specified ISA does not include a border around the image.

Do pictograms labelling permanent rooms and spaces need to be raised?

No, pictograms are not required to be raised. Pictograms that label permanent rooms and spaces must include text descriptors in raised and braille characters below the pictogram field, which must be at least 6 inches high. In addition, pictograms must meet finish and contrast requirements.

Do all pictograms need to be on a field at least 6 inches high and have tactile text descriptors?

No, the specifications for field height and text descriptors apply only to those pictograms that label a permanent room or space, where provided. Examples include pictograms designating restrooms, stairways, cafeterias, and other permanent rooms and spaces. Pictograms that provide information about a room or space, including the ISA, or that are included on directional signs, are not required to meet these requirements (but mandated accessibility symbols must meet finish and contrast criteria).

Parking

Are signs for accessible parking required individually at each accessible parking space?

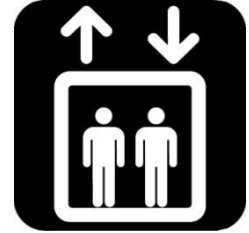
The Standards require parking spaces to be identified by the ISA, but they do not specifically require one sign for each space. Under the Standards, it may be possible to label multiple spaces with a sign so long as it is clear which spaces are designated as accessible.

Other Types of Signs

Are variable message signs or electric signs addressed by the Standards?

The Standards do not address variable message signs or electric signs. However, the ICC A117.1 Standard for Accessible and Usable Buildings and Facilities, which is referenced by the International Building Code, provides technical specifications for variable message signs (§703.7). The A117.1 Standard also covers remote infrared audible sign systems (§703.8).

Elevators and Platform Lifts



This guide explains criteria for elevators and platform lifts in the ADA Standards.

Required Compliance [§206.6]

Elevators are the typical means of providing an accessible route between stories and to mezzanines. In facilities not required to have an accessible route between stories or to mezzanines (see the Accessible Routes guide), a limited-use/ limited-application (LULA) elevator is permitted. LULAs also are allowed as an alternative to platform lifts and private residence elevators.

Facility or Space	Elevator Type Permitted (if provided instead of ramp)
Facilities required to provide an accessible route to stories/mezzanines	Elevator (§407)
Facilities <i>not</i> required to provide an accessible route to stories/mezzanines	Elevator (§407) or LULA (§408)
Residential Dwelling Units	Elevator (§407), LULA (§408), or Private Residence Elevator (§409)
Spaces permitted to be served by a platform lift	Elevator (§407), LULA (§408), or Platform Lift (§410)

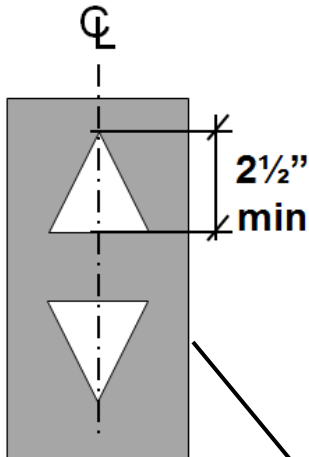
Only passenger elevators as classified by the referenced elevator safety code (ASME A17.1) can be used to meet the ADA Standards. Each passenger elevator provided, whether required or not, must comply with the ADA Standards. This includes those elevators that move both passengers and freight, sometimes loosely referred to as “service elevators.” Examples include elevators in residential or retail facilities that are regularly used by tenants or customers but that are also used to move furniture, merchandise, or other freight.

Freight elevators cannot be used to satisfy the requirement for an accessible route between floors. Freight elevators are defined by the ASME A17.1 code as those elevators “used primarily for carrying freight and on which only the operator and the persons necessary for unloading and loading the freight are permitted to ride.” Where provided, they are not required to meet the ADA Standards. Construction elevators, like other structures directly associated with the actual processes of construction, are exempt (§203.2).

ASME A17.1 Code [§407.1]

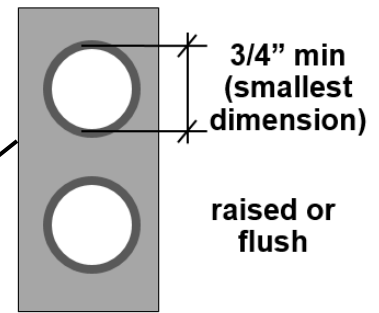
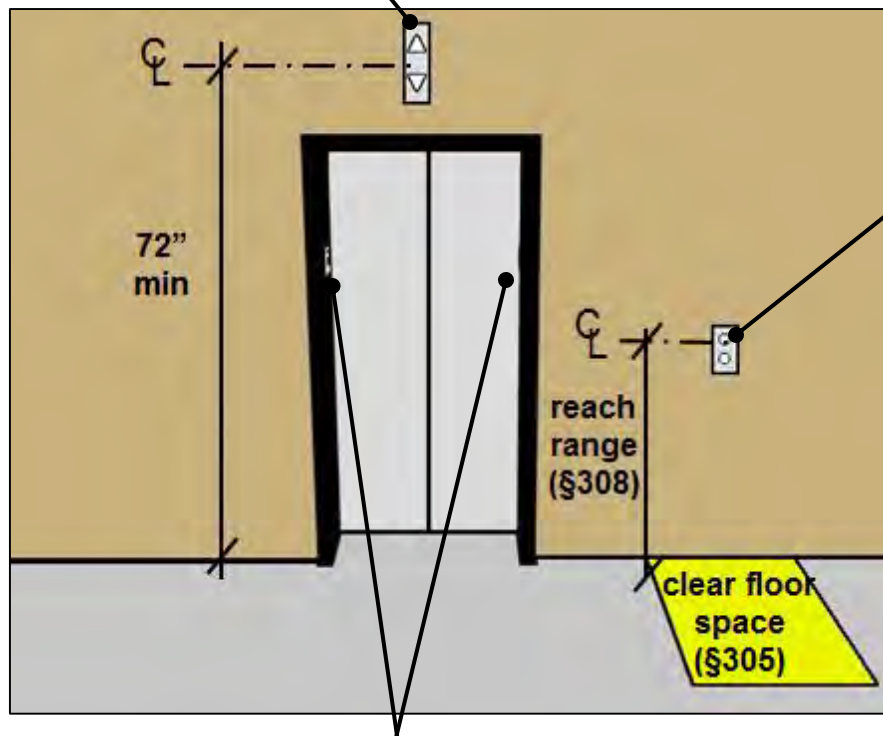
Elevators, including LULA and private residence elevators, must meet the ASME A17.1 Safety Code for Elevators and Escalators. The ADA Standards currently require compliance with the A17.1-2000, including the 2002 and 2003 addenda. This edition must be followed until the Standards are updated to reference a later edition of the ASME A17.1 code. In the interim, compliance with a later edition of the ASME A17.1 (now ASME A17.1/CSA B44) may be possible under the provision for “equivalent facilitation” (§103) only if it is comparable to, or stricter than, the referenced edition. Questions about the ASME A17.1 code should be directed to the American Society of Mechanical Engineers (www.asme.org).

Elevator Landing Requirements [§407.2]



Hall Signals (§407.2.2)

- Required at each hoistway (including elevators with only 2 stops)
- Indicate car arrival and travel direction (separate fixtures are not required to indicate direction)
- Visible indicators can be vertical or side-by-side
- Visible from area of hall call button, including those in cars (1 in-car lantern is acceptable if visible from the hall call button)
- Audible signals: one (up)/ two (down) or annunciator
- Frequency: 1500 Hz max. (300 – 3,000 Hz verbal annunciator)
- Signal level: 10 dB min. above ambient, 80 dB max.



Call Controls (§407.2.1)

- Within reach range, measured to centerline of highest operable part
- Compliant as operable part
- Up button above down button
- Visual indication of call registered and call answered
- Raised from, or flush with, faceplate or, if provided, trim ring or ferrule

Hoistway Signs (§407.2.3)

- Both jambs, 48" – 60" AFF (measured to raised character baseline)
- Characters and symbols raised 1/32" min., sans serif
- Compliance with other requirements in 703.2 for raised characters (upper case, style, character proportion and spacing, stroke thickness, and line spacing)
- Grade II braille complying with 703.3 below raised characters
- Tactile star with braille ("MA'IN") required on both jambs at the main entry level

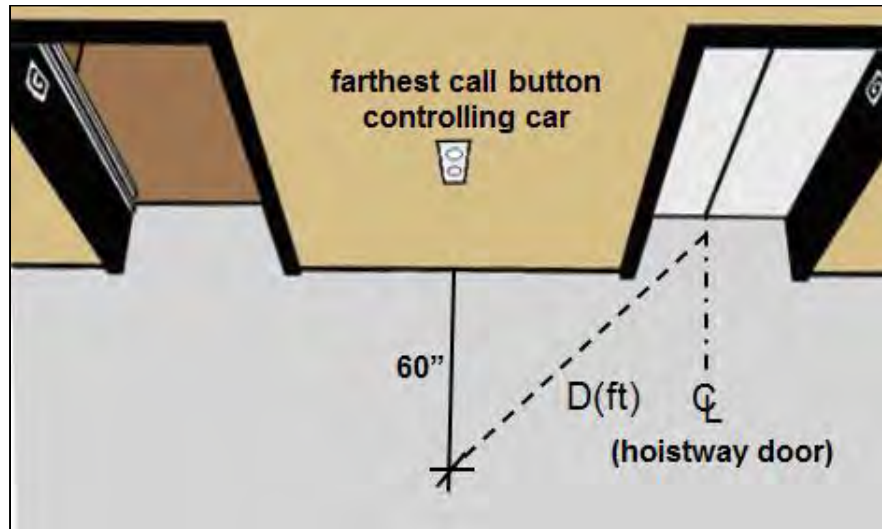


- 2" min raised 1/32" min
- 3/8" min separation
- 3/8" min separation from raised borders

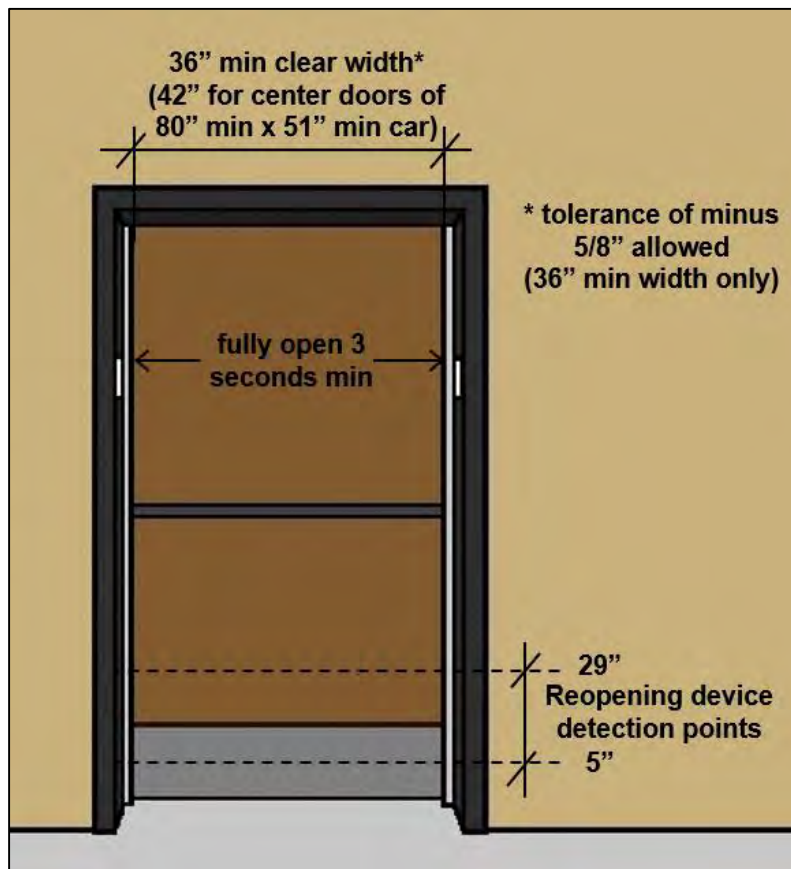
Elevator Door Requirements [§407.3]

Door and Signal Timing (§407.3.4)

Timing begins at audible and visible notification of car arrival based on when the signal becomes visible from the specified location point in front of the call button. At elevators with in-car lanterns, timing begins once doors open wide enough for the signal to be visible from this point.



Minimum timing from car arrival notification to start of door closing: $D / 1.5 \text{ ft/s}$ (no less than 5 sec.)



Door Delay (§407.3.5)

- Doors must remain fully open 3 seconds min. in response to a call

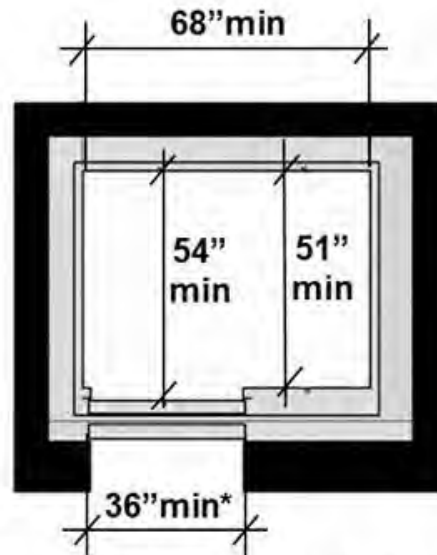
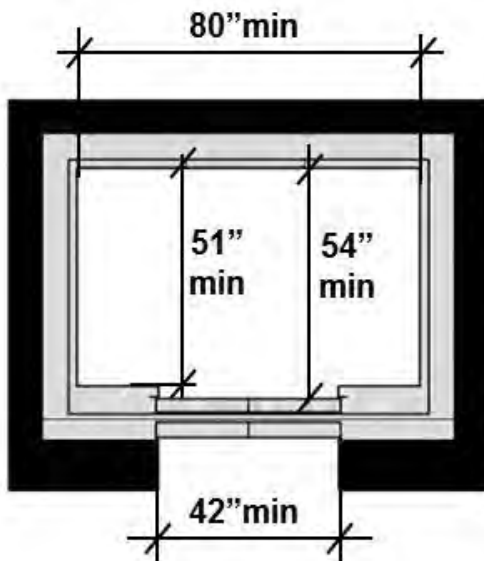
Reopening Device (§407.3.3)

- Cannot require physical contact (but contact can occur before door reverses)
- Doors do not have to fully reopen
- Must be effective for at least 20 seconds while obstructed, but can close sooner if unobstructed or upon user activation of door close. Automatic operation or user activation cannot reduce the minimum open time (3 sec.) or door and signal timing, but can control reopening time.

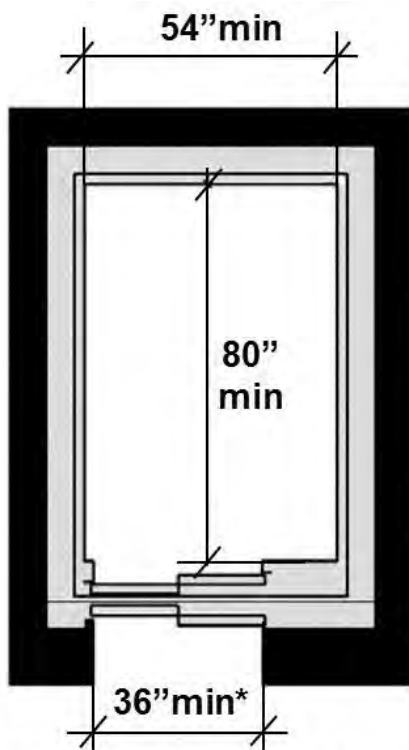
Elevator Car Requirements [§407.4]

The ADA Standards specify the minimum car dimensions. Alternative configurations that provide unobstructed wheelchair turning space (60" diameter circle or T-turn) with the doors closed are permitted.

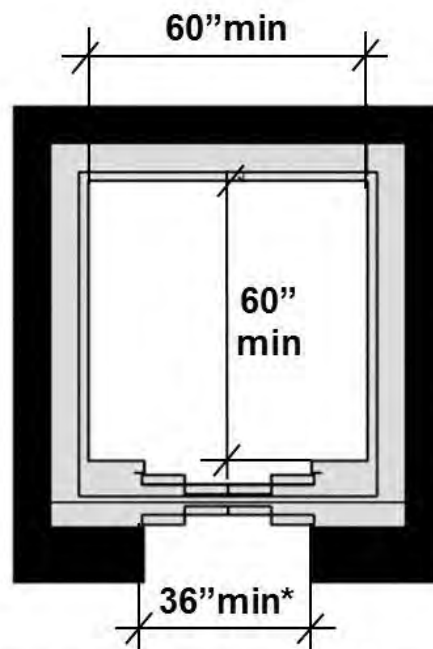
Elevator Car Dimensions (§407.4.1)



*a tolerance of minus 5/8" permitted



*a tolerance of minus 5/8" permitted



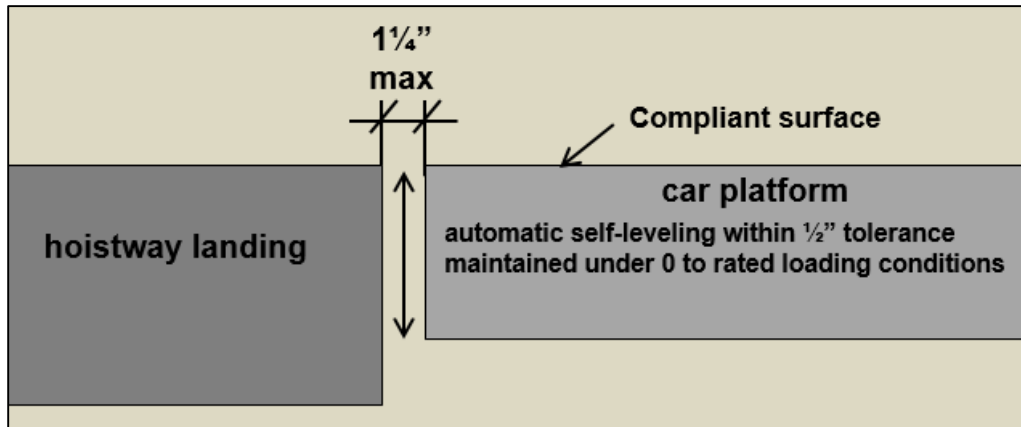
*a tolerance of minus 5/8" permitted

Elevator Car Requirements [§407.4.2 – §407.4.5]

Other requirements for elevator cars include:

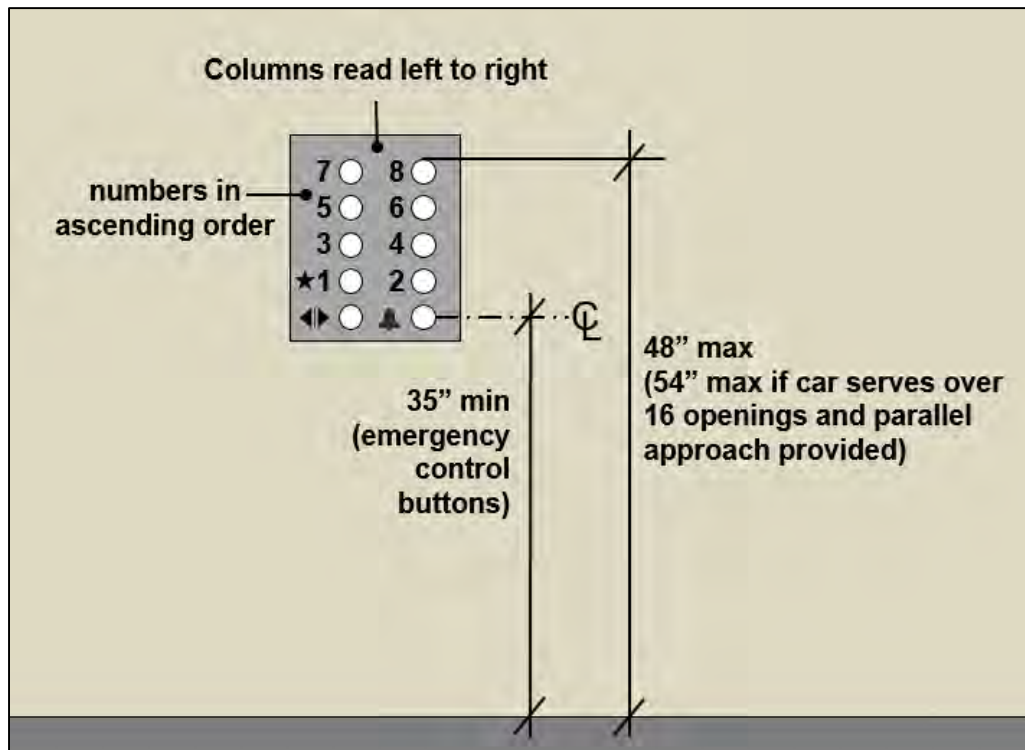
- compliant floor surfaces
- a maximum 1¼" horizontal clearance between car platform sill and hoistway landing
- a self-leveling feature
- 5 ft. candles min. illumination at platform, controls, threshold, and landing sill

Car Leveling and Platform to Hoistway Clearance

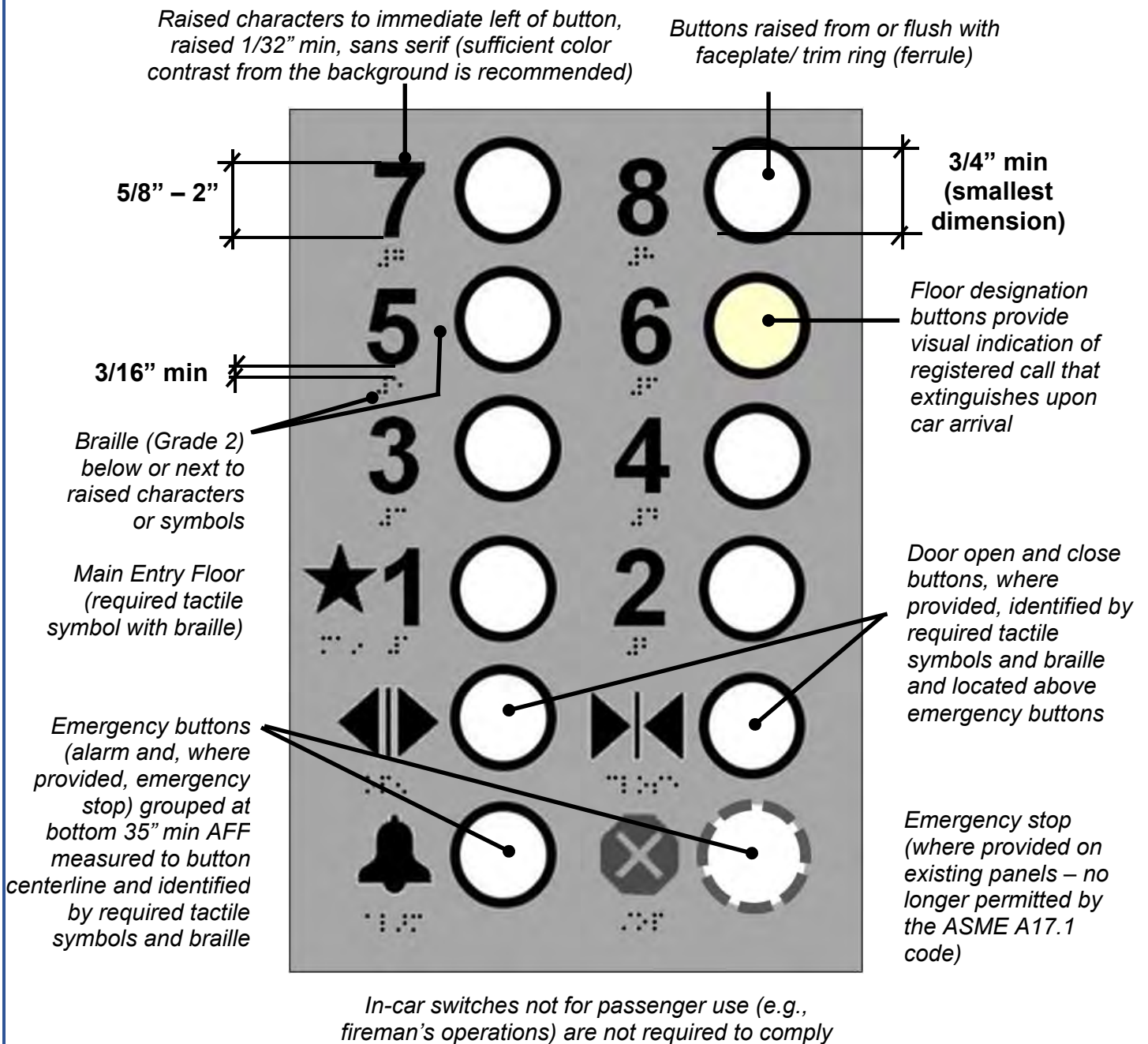


Car Controls [§407.4.6 and §407.4.7]

If more than one car control panel is provided in a car, both must comply (except in existing cars where only 1 panel must comply).



Car Controls (§407.4.6 and §407.4.7)



Keypads (§407.4.6.3 and §407.4.7.2)

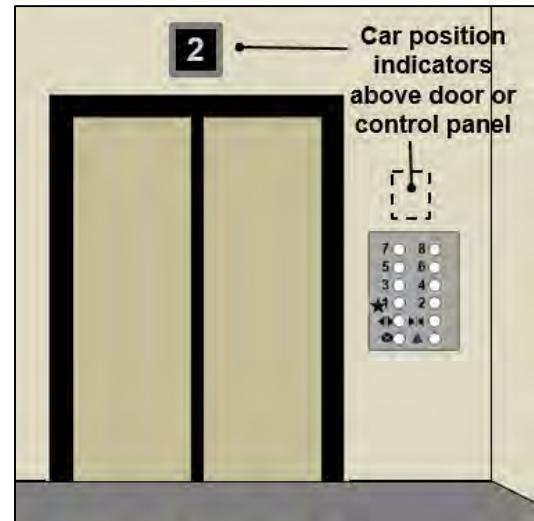
Keypads, if provided in cars, must comply:

- Location within reach range, measured to centerline of highest operable part
- Standard phone keypad arrangement
- Raised or flush buttons, 3/4" min. in smallest dimension
- Raised dot "5" key (0.025"-0.037" high, 0.118" 0.120" base diameter)
- Compliant visual characters (§703.5) centered on button

Car Position Indicators [§407.4.8]

Position indicators are required for all cars, including those of 2-stop elevators. Specifications include:

- ½" min. character height
- Illumination of each floor level passed or stopped at
- Automatic verbal announcement of stop or non-verbal audible signal of passed floors and stops (if elevator not destination-oriented and has a rated speed of 200 ft./ minute max.)
- Frequency: 300 – 3,000 Hz for verbal annunciator, 1500 Hz max. for non-verbal signal
- Signal level: 10 dB min. above ambient to 80 dB max.



Emergency Communication [§407.4.9]

The ASME A17.1 code requires a two-way means of emergency communication in elevator cars. This system establishes direct communication with authorized personnel and must be activated by a push button. Handsets, which are vulnerable to vandalism, and closed compartments are prohibited. The activating button must be permanently identified by a tactile phone symbol and the term “HELP” located either on or adjacent to the button. Operating instructions are also required.

The ASME A17.1 also requires a visual signal, such as a labeled LED light or lighted jewel, to acknowledge that the emergency call has been received. The visual signal is considered a component of the two-way communication, though voice communication may also be established. The visual indication must be on the same panel as the “HELP” push button and extinguish when a communications link is terminated.

In addition to the ASME requirements, the ADA Standards require that the push button and other device controls comply as operable parts (§309). They also require the push button to be labeled with a specified tactile phone symbol and braille. Operating instructions and other information, including the label for the visible signal, must meet criteria for visual characters but are not required to be tactile.



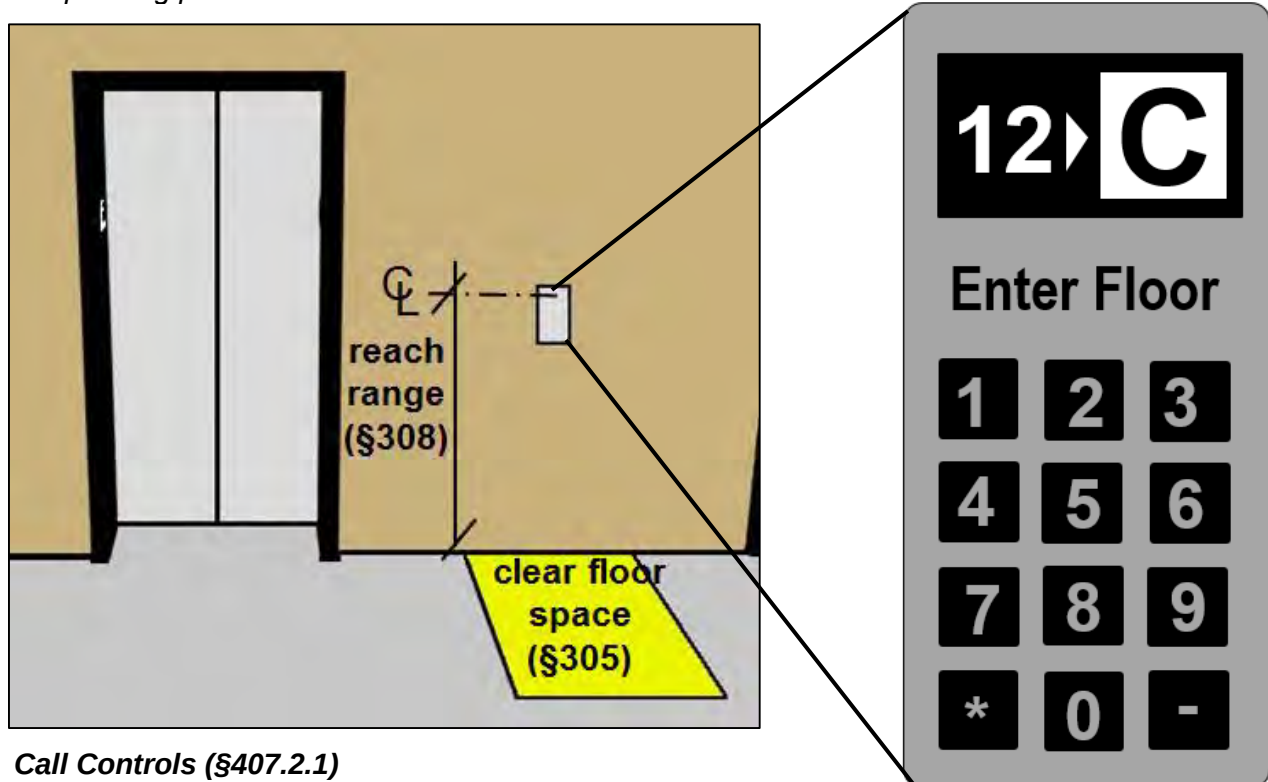
The ASME A17.1 code addresses features of required two-way emergency communication devices, including controls and visual indicators. The ADA Standards apply requirements for operable parts and tactile characters and symbols.

Destination-Oriented Elevators

With destination-oriented elevators, passengers indicate the floor destination when calling an elevator, usually through a keypad. Lobby indicators designate which car to use, which is programmed by the time of arrival. This type of elevator reduces the number of stops per trip. The requirements of §407 apply to destination-oriented elevators, but some provisions or exceptions, which are summarized here, are unique to this type of elevator.

Destination-Oriented Elevators: Call Signals

Passengers indicate floor destination in calling an elevator. A car is designated in response to the call. The assigned car must be indicated both audibly (e.g., “Proceed to Car C”) and visually. The visible and audible signals must operate automatically at all times and not require users to activate through a control when needed. Since the desired destination floor is entered in the lobby, traditional floor buttons are not provided on the car operating panel inside the car.



Call Controls (§407.2.1)

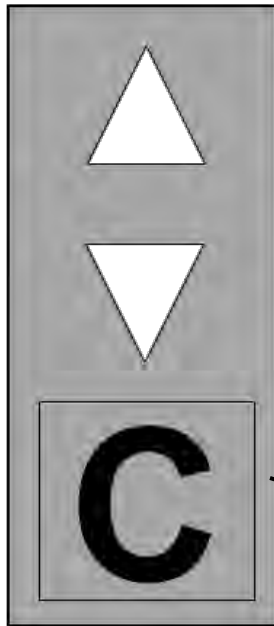
Keypads or call buttons:

- Location within reach range, measured to centerline of highest operable part
- Standard phone keypad arrangement
- Raised or flush buttons, $\frac{3}{4}$ " min. in smallest dimension
- Raised dot "5" key (0.025" - 0.037" high, 0.118" - 0.120" base diameter)
- Compliant visual characters (§703.5) centered on button

Hall Signals (§407.2.2)

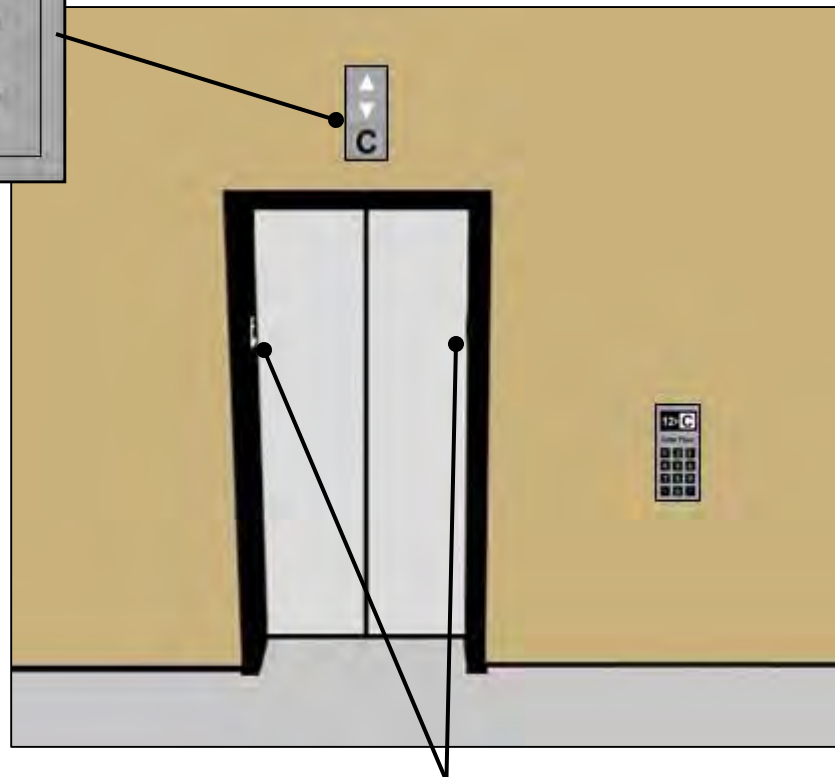
- Frequency: 1500 Hz max. (300 – 3,000 Hz verbal annunciator)
- Signal level: 10dB min. above ambient, 80 dB max.

Destination-Oriented Elevators: Car Arrival



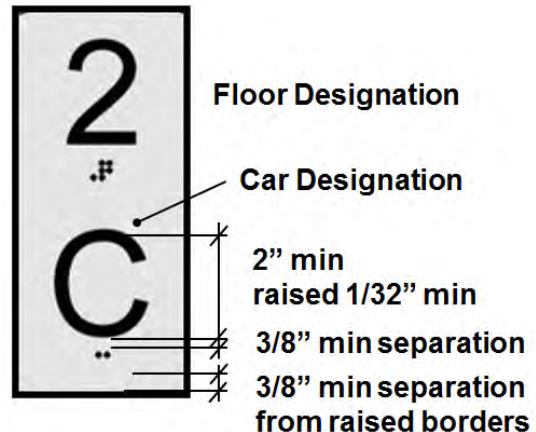
Hall Signals (§407.2.2)

- Visible and audible signals indicating the arrival of designated car (if the same tone/ announcement in calling a car is used to signal car arrival, then compliance with audible specifications, such as the indication of direction, is not required)
- Visible and audible signals are not required at each elevator if they include car designation
- Visible signals centered 72" min AFF and visible from floor area adjacent to hoistway entrance
- Visible signal element 2 ½" min. measured along vertical centerline of element
- Audible and visible differentiation of each elevator in a bank



Hoistway Signs (§407.2.3)

- Both jambs, 48" – 60" AFF (measured to raised character baseline)
- Car designation required below floor designation
- Characters and symbols raised 1/32" min., sans serif
- Compliance with other requirements in 703.2 for raised characters (upper case, style, character proportion and spacing, stroke thickness, and line spacing)
- Grade II braille complying with 703.3 below raised characters



Other provisions unique to destination-oriented elevators:

Elevator Door Requirements (§407.3)

- Specifications for door and signal timing do not apply (§407.3.4, Ex. 2)

Car Position Indicators (§407.4.8)

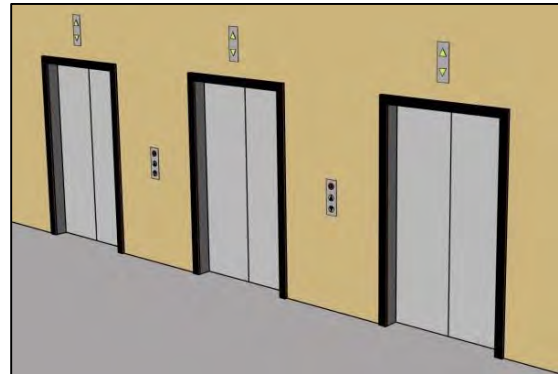
- Visual display of each floor a car has been programmed to stop at and automatic verbal announcement of each car stop are required
- Visual indicators: ½" min. character height, location above control panel/keypad or door, must extinguish when call answered
- Automatic verbal announcement (300 – 3,000 Hz, 10dB min. above ambient to 80 dB max.)



Existing Elevators (Alterations)

Alterations to Existing Elevators

The Standards apply to existing elevators that are altered. Compliance is determined by the scope of the project. For example, if a car operating panel is upgraded, at a minimum the new panel must comply. Other elements of a car that are not altered are not required to comply. Alterations made to an existing car also must be made to each elevator programmed to respond to the same hall call so that a consistent level of accessibility within banks is maintained.



When an alteration is made to an existing car, it also must be made to all other cars that respond to the same hall call.

Requirements for new elevators are also applied to those that are altered, but specific exceptions or alternative specifications are permitted for existing elevators that are altered. These provisions unique to existing elevators are summarized here. In addition, altered elevators must meet applicable sections of the referenced A17.1 code that apply to alterations.

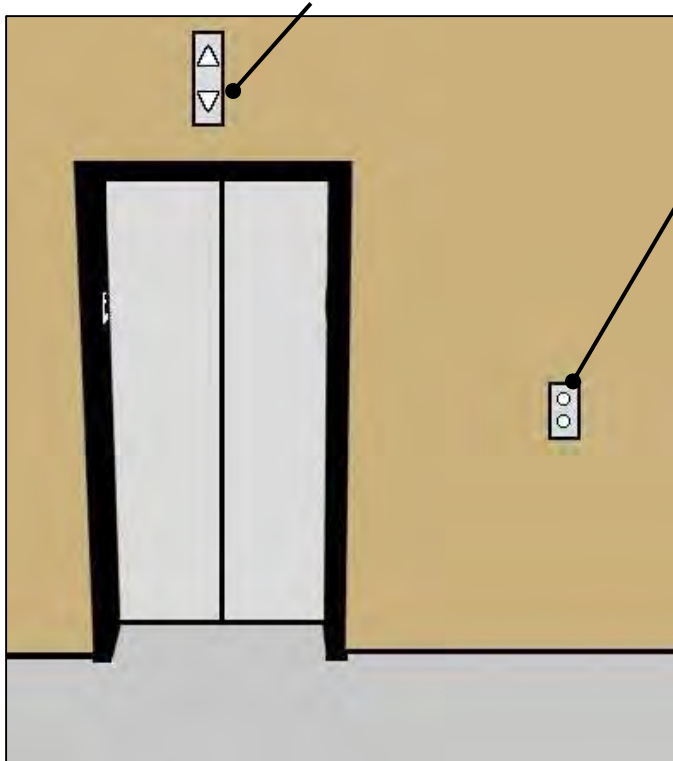
Provisions or exceptions specifically for existing elevators do not apply to elevators that are newly added to an existing facility which must comply with the requirements for new elevators. Certain alterations or additions to a facility may trigger the requirement for an accessible route between floors, including:

- where stairs or escalators are added in an alteration or addition where none existed previously and major structural modifications are necessary, an accessible route must connect each level served by the new stair or escalator (§206.2.3.1);
- as needed to provide an accessible path of travel to a primary function area that is altered or that is part of an addition, unless the cost is more than 20% of the overall cost (§202.4).

Provisions or Exceptions Specific to Existing (Altered) Elevators

Hall Signals (§407.2.2)

- Visible signals are not required to comply and audible signals are exempt from frequency and decibel ranges
- Signals do not have to indicate travel direction

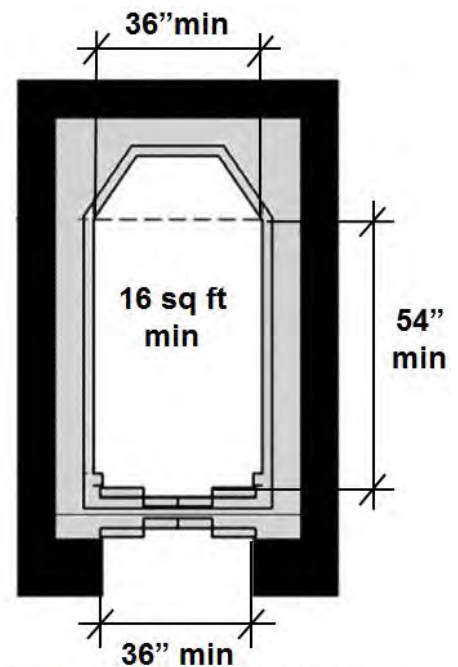


Call Controls (§407.2.1)

- Call buttons can be recessed
- Existing call buttons can be less than $\frac{3}{4}$ " in size and can be located 54" max. (instead of 48") above the floor, measured to the centerline of the highest operable part

Elevator Door Requirements (§407.3)

- Existing manually operated doors without reopening devices that meet door requirements (§404.2) are permitted
- Power-operated doors can have a narrower clear width (32" min. if the hoistway depth is 24" max.)



(32" min if door power operated and door/hoistway depth is 24" max)

Elevator Car Requirements (§407.4)

- Existing cars with a clear depth 54" min., a clear width 36" min., and a clear floor area of 16 sq. ft. are permitted
- When new compliant operating panels are installed, existing panels that remain are not required to comply
- Car control buttons can be recessed and can be 54" max. above the floor if a parallel approach is provided.
- If space does not permit location of tactile markings to the left of control buttons, they can be placed as near to the control as possible

ISA Designation (§216.7)

In facilities with existing non-compliant elevators, the International Symbol of Accessibility (ISA) must clearly identify those elevators that do meet §407.



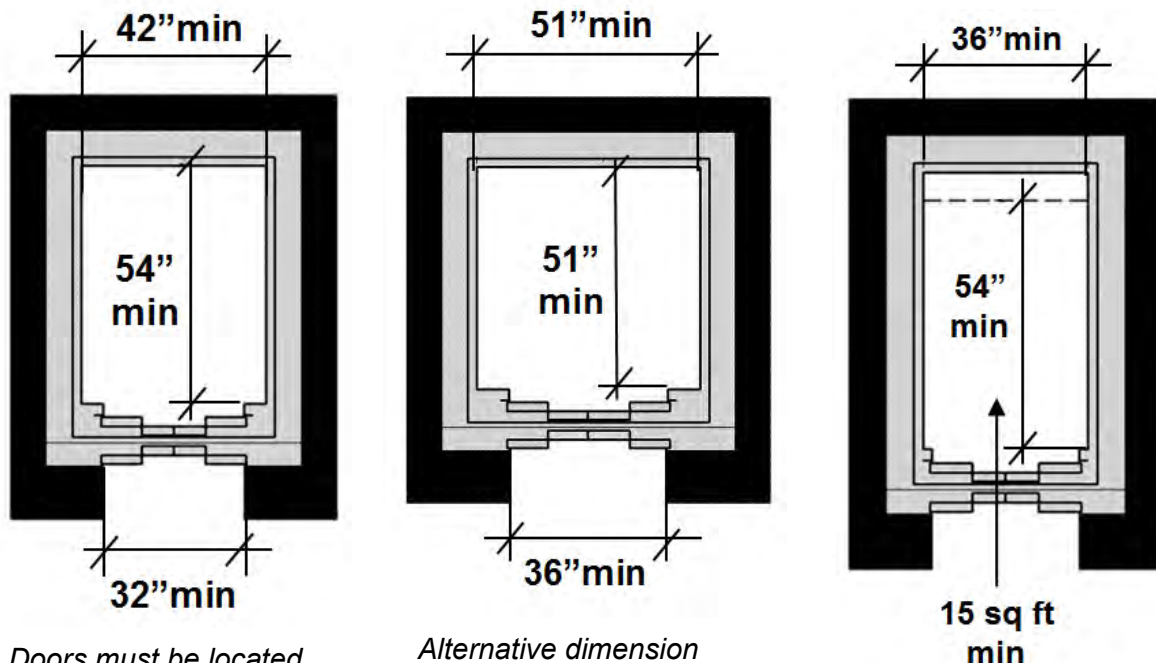
Recommendation: For greater usability, make those altered elements covered by an exception fully comply wherever practicable.

Limited-Use/ Limited-Application Elevators [§408]

LULA elevators are passenger elevators that are permitted in facilities where an accessible route between stories or mezzanines is not required and as an alternative to private residence elevators and platform lifts. They cannot substitute for elevators complying with §407 that are required to meet requirements for accessible routes. For the most part, LULAs are held to the same requirements for elevators in §407 and applicable sections of the ASME safety code. However, LULAs have smaller car sizes, slower speeds, shorter travel distances, and alternative types of doors. Besides car size, provisions for LULAs differ from those of §407 in that:

- Hoistway doors can be swinging type (they must open and close automatically, be power-operated, meet requirements for doors and referenced ANSI/BHMA Standards for low-energy doors, and remain open for at least 20 seconds)
- Requirements are not included for door timing and delay or for car position indicators

LULA Car Dimensions (§408.4)



Doors must be located on narrow end

Alternative dimension permitted if the door has a clear width of 36" min.

Existing LULA Cars
In alterations to existing cars, a narrower size is permitted for cars with at least 15 sq. ft. of net clear floor area.

Private Residence Elevators [§409]

Private residence elevators are permitted only within a residential dwelling unit or in a multiple dwelling unit facility as a means of access to a single private residence. Elevators in residential facilities not located within or serving individual dwelling units must meet requirements in §407.

General (§409.1)

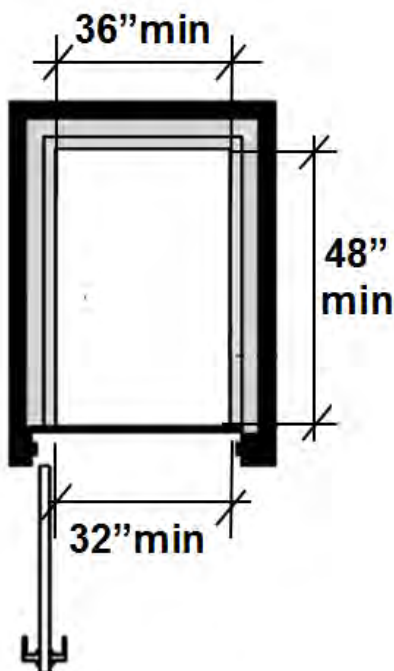
- Automatic operation
- Compliance with the referenced ASME A17.1 standard

Call Buttons (§409.2)

- Compliant as operable parts, including reach range and clear floor space, and $\frac{3}{4}$ " min. in smallest dimension

Elevator Doors (§409.3)

- Car and hoistway doors/gates must be power operated and meet the ANSI/BHMA standard for low-energy doors and other applicable provisions for doors in §404 (compliance with maneuvering clearance on push side of doors not required)
- Manual-open, self-close doors/gates permitted for cars with more than 1 opening
- Required location on narrow end of car
- Must remain open for 20 seconds min.



Elevator Cars (§409.4)

- Inside dimensions: 36" min. by 48" min.
- Compliant floor surfaces
- $1\frac{1}{2}$ " max. clearance between platform and edge of landing sill (later editions of the ASME A17.1 specify $1\frac{1}{4}$ " max).
- Automatic leveling with floor landing within $\frac{1}{2}$ " tolerance under rated to 0 loading conditions
- 5 ft candles min. at platform, controls, threshold, and landing sill
- Car controls must be raised or flush button, $\frac{3}{4}$ " min. in smallest dimension, comply as operable parts, and be located within accessible reach range on side wall 12" min. from any adjacent wall
- Telephone and emergency signal two-way communication device required in car with compliant operable parts, including hardware of closed compartment if provided; telephone cord must be 29" long min.

Platform Lifts

Where Platform Lifts are Permitted [§206.7]

Platform lifts can be part of an accessible route in existing facilities that are altered. In new construction, platform lifts can be used to provide an accessible route to these areas only:

- wheelchair spaces, performance areas, and speakers' platforms
- incidental spaces with a maximum occupancy of 5 that are not for public use
- raised courtroom stations, such as jury boxes, witness stands, judges' benches, clerks stations and depressed areas such as the well of the court
- levels within transient lodging guest rooms and residential dwelling units
- certain recreation facilities: amusement rides, play areas, team/player seating areas in sports facilities, recreational boating facilities, and fishing piers and platforms

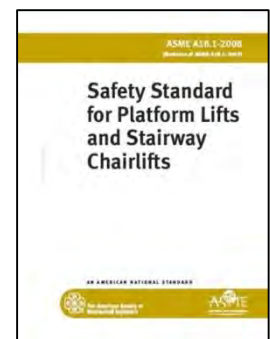
They also are permitted in new construction where topography or other existing exterior site constraints make a ramp or elevator infeasible. While the site constraint must reflect exterior conditions, the lift can be installed in the interior of a building. For example, an exterior or interior platform lift could be used to provide an accessible entrance or to coordinate interior floor levels at a new building constructed between and connected to two existing buildings if there is not sufficient space to coordinate floor levels and also to provide ramped entry from the public way.



Recommendation: In alterations, it is advisable that platforms lifts be used only in instances where a ramp or elevator is technically infeasible or in the locations permitted in new construction.

ASME A18.1 Safety Standard [§410.1]

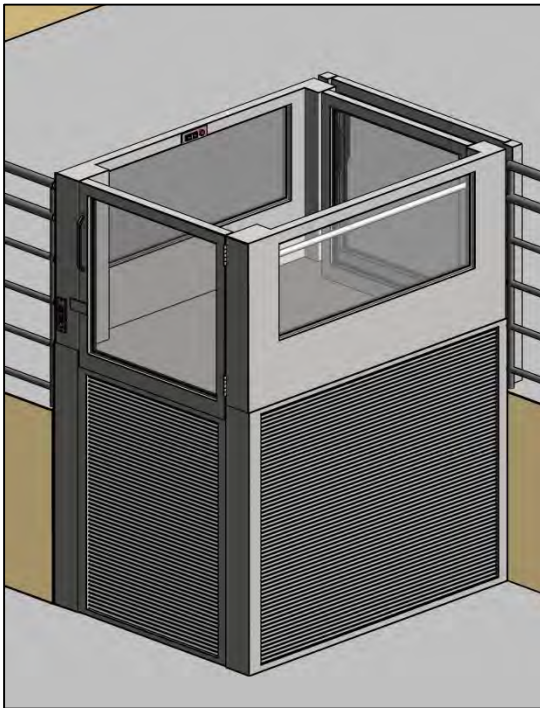
Platform lifts must meet the ASME A18.1 Safety Standard for Platform Lifts and Stairway Chairlifts. The ASME A18.1 covers the design, construction, installation, operation, inspection, testing, maintenance and repair of lifts that are intended for transportation of persons with disabilities. The ADA Standards currently require compliance with the 1999 edition or the 2003 editions of the A18.1 Standard. Either of these editions must be followed until the ADA Standards are updated to reference a later edition of the ASME A18.1 Standard. In the interim, compliance with a later edition of the ASME A18.1 Standard may be possible under the provision for “equivalent facilitation” (§103) only if it is comparable to, or stricter than, the referenced edition. Questions about the ASME A18.1 code should be directed to the American Society of Mechanical Engineers (www.asme.org).



Under the ADA Standards, platform lifts must be independently operable and must allow unassisted entry and exit from the lift. Attendant operation, while allowed by the ASME A18.1 Standard, is prohibited by the ADA Standards. Portable lifts do not satisfy the ADA Standards even when they comply with ASME A18.1.

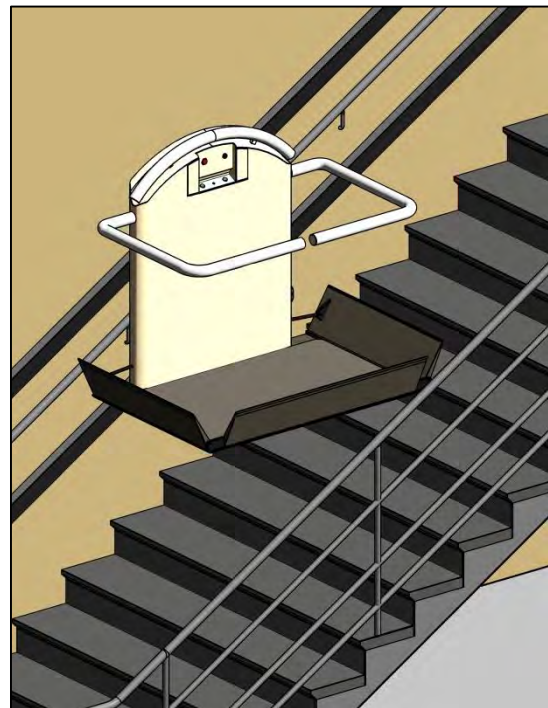
The ASME A18.1 Standard addresses requirements for runway enclosures, electrical equipment and wiring, structural support, headroom clearance (80" minimum), access ramps, pits, and other features. The ASME A18.1 Standard recognizes two types of platform lifts: vertical platform lifts and inclined platform lifts. Lifts without platforms, including stairway chairlifts, are not permitted by the ADA Standards except at swimming pools and spas because they require transfer from wheeled mobility aids. (Specifications for pool lifts include a fixed seat and footrests, but not a platform (§1009.2)).

Vertical Platform Lift



The ASME A18.1 Standard specifies platform and runway enclosures for vertical platform lifts, among other features, and limits the travel distance. The size of platforms cannot exceed 18 sq. ft.

Inclined Platform Lift



Inclined platform lifts can have a folding platform and are typically located at stairways. They must be installed so they do not encroach on required means of egress. Passenger retaining arms are permitted as an alternative to a platform enclosure under the ASME A18.1 Standard.

Requirements for Platform Lifts

Platforms (§410.2 - §410.4)

Platforms must meet requirements for clear floor space and floor surfaces, including changes in level, and the clearance between the platform sill and edge of runway landing cannot exceed 1¼" (ASME A18.1 specifies 3/8" – 3/4").

Doors and Gates §410.6)

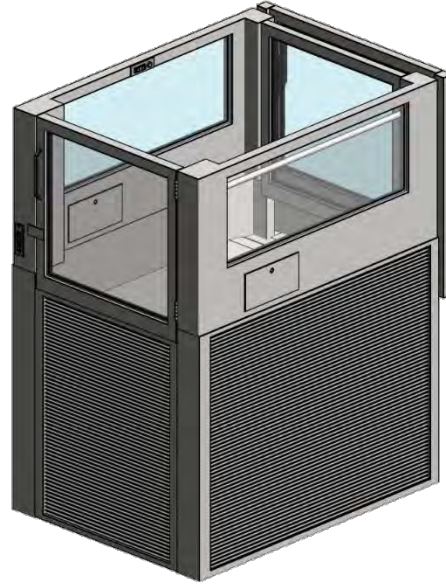
Doors and gates must be power-operated, meet criteria for low-energy doors, including the referenced ANSI/BHMA standard (§404.3), and remain open for at least 20 seconds. (Self-closing manual types are allowed at lifts with no more than 2 stops and doors/ gates on opposite ends.)

Standby Power (§207.2)

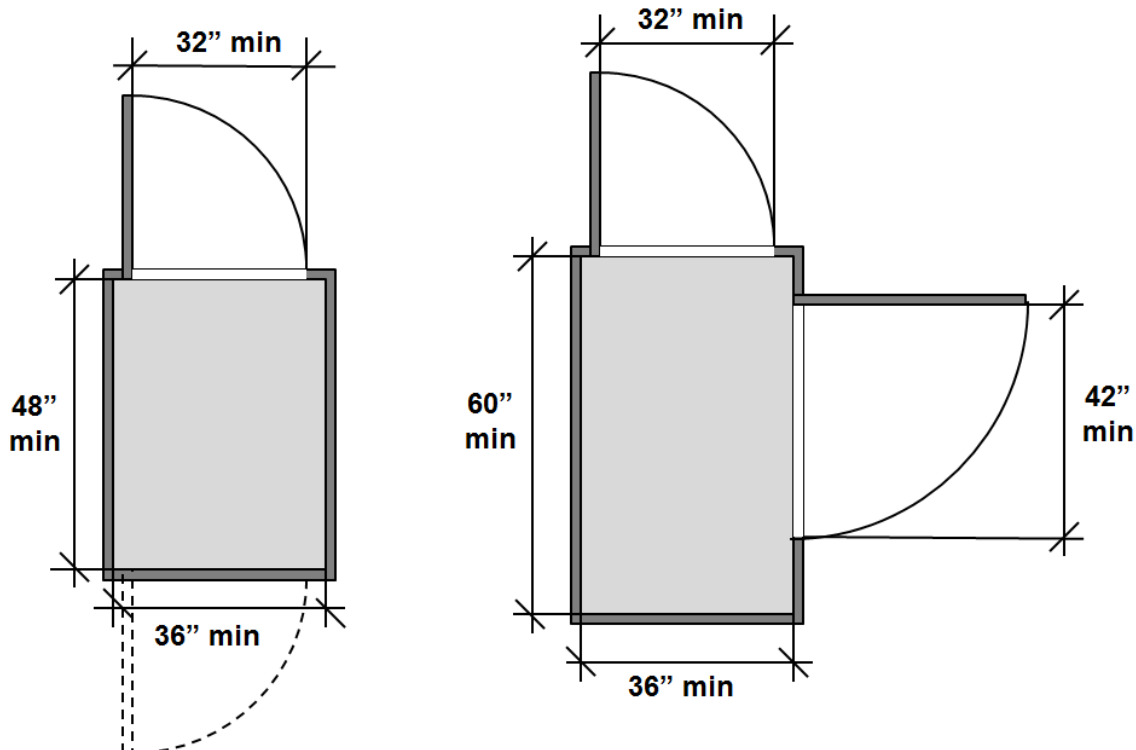
Platform lifts permitted to be part of an accessible means of egress by the referenced editions of the International Building Code must be equipped with standby power.

Operable Parts (§410.5)

Controls must meet requirements for operable parts, including reach ranges.



Platform Lift Clear Floor Space and Doors/ Gates



The clear floor space of platforms must be 36" wide min. If doors/gates are on the narrow end only, the length is 48" min. If a door/gate is on the longer side, the min. length is 60" to accommodate side approach maneuvering.



Common Questions

Elevators

Are freight or service elevators required to comply?

When an elevator is used to provide a required accessible route between stories, it must meet requirements for passenger elevators. Elevators that serve passengers but can also be used to move freight, sometimes referred to as “service elevators,” must meet the ASME requirements for passenger elevators. Examples include elevators in residential or retail facilities that are regularly used by tenants or customers but that are also used to move furniture, merchandise, or other freight. Where provided, they must comply with the Standards.

Freight elevators, on the other hand, are defined by the ASME A17.1 code as those elevators “used primarily for carrying freight and on which only the operator and the persons necessary for unloading and loading the freight are permitted to ride.” Freight elevators cannot be used in lieu of a passenger elevator to provide an accessible route between stories or mezzanines. Where provided, freight elevators are not required to comply with the Standards.

Can elevator doors close sooner than the minimum opening time specified when users activate door close?

User activation of door close (or automatic operation) cannot reduce the initial opening time of doors (3 seconds minimum) or the minimum door signal timing (based on 1.5/ft/s travel speed for the distance from the hall call button to car door centerline). When doors automatically reopen due to a detected obstruction, they can begin to reclose when no longer obstructed. The 20 second minimum pertains to the length of time the sensory reopening device remains effective, not necessarily the length of time doors remain open.

Must elevator doors remain open for 20 seconds?

LULA swing doors, private residence elevator doors, and platform lift gates and doors must remain open for 20 seconds minimum. This does not apply to the doors of passenger elevators complying with §407 which must remain fully open for at least 3 seconds in response to a call (§407.3.5). The opening time is further determined by the travel distance from hall call buttons and signal timing based on a 1.5 ft/s travel speed beginning from audible and visible signalization of car arrival (§407.3.4). Reopening devices must remain effective for 20 seconds minimum, but in reopening, doors do not have to remain open for this length of time if unobstructed.

Are access key, card, or code entry systems permitted in elevators?

Yes, but fixed features of such systems must comply as operable parts. For example, card readers must be located within accessible reach ranges. Non-fixed portions, including keys and access cards issued to users, are not required to comply. (Where use of stairs between levels served by an elevator is unrestricted, use of the elevator should not be restricted to key holders.)

Can audible signals for an elevator operate only when needed by a passenger who needs them through activation of dedicated “accessibility” control?

No, audible (and visible) signals required for elevators must function automatically at all times an elevator is operational. Requiring passengers to manually activate such signals when needed is not permitted by the ADA Standards.

Can hall and in-car signals be displayed horizontally (i.e., side-by-side) instead of vertically (i.e., one above the other)?

Yes, hall signs can be displayed horizontally instead of vertically. However, with call buttons, the button designating the up direction must be located above the one indicating the down direction (§407.2.1.4).

Are handrails required in elevator cars?

The ADA Standards do not require handrails in elevator cars. If they are provided, they are not required to comply with requirements in the ADA Standards for handrails (§403.6, Advisory).

Can a more recent edition of the ASME A17.1 Safety Code for Elevators and Escalators (or the ASME A18.1 Safety Standard for Platform Lifts and Stairway Chairlifts) be used instead of the editions referenced in the Standards?

The specific editions of the ASME A17.1 and ASME A18.1 codes referenced by the ADA Standards are to be followed (although the Access Board intends to update references to keep them current). Compliance with a later edition may be possible under the provision for “equivalent facilitation” (§103) if it is comparable to, or stricter than, the referenced editions.

Platform Lifts

Are stairway chairlifts permitted?

No, stairway chairlifts cannot be used where platform lifts are permitted by the ADA Standards (§206.7) although they are addressed by the ASME A18.1 Standard. Chairlifts require transfer to a fixed seat from wheeled mobility aids and thus are not

independently usable. Platform lifts can be equipped with seats, including those that fold, but they must be located outside the minimum clear area specified for platforms which are sized to accommodate wheeled mobility aids.

Can platform lifts be locked?

The Standards require “unassisted” entry and exit from lifts (§410.1). Situations in which platform lifts are locked and require users to request or retrieve a key for operation will not satisfy this requirement for independent operation. Platform lifts can be locked during those times when the space or facility they serve is closed.

Can lifts be attendant-operated?

Attendant operation, although recognized by the ASME A18.1 Standard, is expressly prohibited by the ADA Standards. Platform lifts must provide “unassisted entry and exit from the lift” (§410.1).

Can platform lifts be portable or provided after construction as an adaptation?

Platform lifts must be permanent and installed at the time of construction or alteration with few exceptions. Platform lifts can be provided after construction only to provide access to raised work stations in courtrooms (sufficient space and electrical service must be provided in design to facilitate installation). Only platform lifts serving temporary structures can be temporary or portable.