APPLICATION AND INFORMATION GUIDE

FIRE ALARMS AND THE AMERICANS WITH DISABILITIES ACT

- NOW INCLUDING THE EXPECTED REVISIONS TO ADAAG -

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INTRODUCTION
Understanding and complying with the various fire alarm requirements and the Americans with Disabilities Act is a never-ending chore.

We hope that the information contained in this latest revised guide provides you with a better understanding of the requirements, both past and present.

Perhaps the key to understanding the ADA is in the two definitions below: **commercial facilities** and **public accommodations**.

- **Commercial Facilities (Section 36.104)**
  Those facilities that are intended for nonresidential use by a private entity and whose operations affect commerce. As explained under 36.401 “New Construction,” the new construction and alterations requirements of Subpart D of Title III apply to all commercial facilities. Those commercial facilities that are not places of public accommodation are not subject to the requirements of Subpart B and C. (Example: Auxiliary aids and general nondiscrimination provisions)

  Included in this category “Commercial Facilities” would be factories, warehouses, office buildings, and other buildings where employment may occur.

  The commercial facilities addition to the Subpart D requirements for new construction and alterations was added by Congress as a means to eliminate inaccessibility in new construction. It is easier to design for accommodations than it is to make reasonable accommodations under Title I.

  In summary, a commercial facility...
  - operation effects commerce.
  - is intended for nonresidential use by a private entity.
  - is that which is not a facility covered or expressly exempted from coverage under the Fair Housing Act, aircraft, or railroad cars.
Basically, the only difference between a commercial facility and a place of public accommodation is the requirement of “readily achievable.”

- **Existing Commercial Facility**
  For ADA purposes, a “commercial facility” is intended for use by a private business and its employees, not the general public (even non-employees who visit).

  Take for example, an office building which is occupied by a single company and contains no places of public accommodations. This building would not be subject to Title III requirements; however, if it was a new construction project Subpart D of Title III would apply.

  The responsibility for removing barriers and providing auxiliary alarms does not apply to commercial facilities. However, “reasonable accommodations” under the provisions of Title I must be made for job applicants and employees with a disability. Therefore, entrance ramps will be provided for job applicants and the necessary provisions for the disabled employee to include alarm systems if the employee is hearing impaired.

- **Place of Public Accommodation**
  A facility operated by a private entity whose operation affects commerce and falls within at least one of the following categories:

  1. An inn, hotel, motel, or other place of lodging except for an establishment located within a building that contains not more than five rooms for rent or hire and that is actually occupied by the proprietor of the establishment as the residence of the proprietor;
  2. A restaurant, bar, or other establishment serving food or drink;
  3. A motion picture house, theater, concert hall, stadium, or other place of exhibition or entertainment;
  4. An auditorium, convention center, lecture hall, or other place of public gathering;
  5. A bakery, grocery store, clothing store, hardware store, shopping center, or other sales or rental establishment;
  6. A laundromat, dry-cleaner, bank, barber shop, beauty shop, travel service, shoe repair service, funeral parlor, gas station, office of an accountant or lawyer, pharmacy, insurance office, professional office of a health care provider, hospital, or other service establishment;
  7. A terminal, depot, or other station used for specified public transportation;
8. A museum, library, gallery, or other place of public display or collection;
9. A park, zoo, amusement park, or other place of recreation;
10. A nursery, elementary, secondary, undergraduate, or postgraduate private school, or other place of education;
11. A daycare center, senior citizen center, homeless shelter, food bank, adoption agency, or other social service center establishment;
12. A gymnasium, health spa, bowling alley, golf course, or other place of exercise or recreation.

Private club means a private club or establishment exempted from coverage under Title II of the Civil Rights Act of 1964 [2 U.S.C. 2000a(e)].

Private entity means a person or entity other than a public entity.

Public accommodation means a private entity that owns, leases (or leases to), or operates a place of public accommodation.

- Place of Public Accommodation
This facility differs from a commercial facility as it is designed for use by the general public. For example, a bank, a grocery store, daycare centers, libraries, doctor’s and lawyer’s offices, and movie theaters would be a few examples of a place of public accommodation. These occupancies would be required to meet the requirements as outlined in Title III.

There are basically two types of barriers in a public accommodation:
- an architectural barrier
  and
- a communication barrier
Fire alarm visual signals would be considered a communication barrier.

We receive numerous calls regarding specific occupancies. One, for example, is an existing warehouse. A warehouse by definition is a commercial facility and not subjected to the requirements under Title III. They are required, however, to meet the requirements of Title I “reasonable accommodations.” Another note on the warehouse example would be “tours” (see section on Tours). If the company which owns the warehouse provides public tours of the facility, then the tour route would be a place of public accommodation and subject to the requirements of Title III.
Readily achievable by definition [Section 36.104(1)-(5)] affects places of public accommodations, means easily accomplished and able to be carried out without much difficulty or expense. In determining whether an action is readily achievable, factors to be considered include (paraphrased):

1. nature and cost
2. overall financial resources
3. geographical separateness
4. any financial resources of parent corporation
5. type of operation or operations of parent corporation

Note, however, that commercial facilities are not required to comply with “readily achievable” factors. The ADA kicks in when alterations are undertaken.

Alterations by definition applies to both commercial facilities and places of public accommodations [(36.402 (a) (1) - (2) (c)].

An alteration is a change to a place of public accommodation or commercial facility that affects or could affect the usability of the building or facility or any part thereof.

Alterations include but are not limited to: remodeling, renovations, rehabilitation, reconstruction, historical preservation, changes or rearrangement in structural parts or elements, and changes or rearrangement in the plan configuration of walls and full height partitions. Normal maintenance, reroofing, painting and wallpapering, asbestos removal, or changes to mechanical or electrical systems are not alterations unless they affect the usability or accessibility of the building or facility.

So where does this leave us? Following are a few examples.
COMMERCIAL FACILITY OR PUBLIC ACCOMMODATION

WHOLESALE ESTABLISHMENTS
This occupancy has been determined to be in the category of sales or rental establishments by the Department of Justice. The exception to their coverage under the ADA is when the wholesale establishment sells exclusively to other businesses (commercial facility). For example, a company that grows food produce and supplies its crops exclusively to food processing corporations on a wholesale basis does not become a public accommodation, therefore exempt from Subparts B and C (readily achievable) and Subpart D until such time that alterations are undertaken.

LARGE HOTEL WITH SEPARATE APARTMENT WING
The residential apartment wing (commercial facility) would not be covered by the ADA because of the nature of the occupancy. The residential wing would, however, be covered by the Fair Housing Act.

The hotel (public accommodation), however, would be defined as a place of lodging and thus a public accommodation and subject to Subparts B and C of the Act, as well as Subpart D (alteration). If a hotel allows both residential and short-term stays but does not allocate space for these different uses in separate, discrete units, both the ADA requirements and those of the Fair Housing Act may apply.

Any place of lodging as described in the definition of “place of public accommodation” and that the establishment is located within a building that contains not more than five rooms for rent and is occupied by the proprietor as his or her residence is not covered under the ADA.

FACTORIES OR OTHER COMMERCIAL FACILITIES AND “TOURS”
Remember to review the definition of a commercial facility when applying the “tour” specifications to your jobs.

If a tour of a commercial facility that is not otherwise a place of public accommodation is open to the general public, the route followed by the tour is then defined as a place of public accommodation. The place of public accommodation defined by the tour does not include those portions of the commercial facility that are merely viewed from the tour route. Therefore, barrier removal requirements found in 36.304 of the Act apply only to the physical route followed by the tour participants and not to work stations or other areas that are merely adjacent to or within view of the tour route. These areas would be subject to the provisions
found in Title I. If the tour route is not open to the general public but rather is conducted for selected business colleagues, partners, customers, or consultants the tour route is not a place of public accommodation.

WHO’S RESPONSIBLE?

LANDLORD AND TENANT RESPONSIBILITIES Section 36.201(b)
Both the landlord who owns the building that houses a place of public accommodation and the tenant who owns or operates the place of public accommodation are required to comply with ADA. As between the parties, allocation of responsibility for complying with the obligations may be determined by lease or contract.

Furthermore, Section 36.201(b)(2) provides that the burden of making readily achievable modification within the tenant’s place of public accommodation would shift to the landlord when the modifications were not readily achievable for the tenant or when the landlord denied a tenant’s request for permission to make such modifications.

Furthermore, the time remaining on a “lease” shall not be considered when making modifications to comply with the Act.

PATH OF TRAVEL “LANDLORD/TENANT” Section 36.403(d)
If the tenant is making alterations in areas that only the tenant occupies, these alterations do not trigger a path of travel obligation upon the landlord with respect to areas of the facility under the landlord’s authority, if those areas are not otherwise being altered.

MAINTENANCE OF ACCESSIBLE FEATURES Section 36.211(a)
A public accommodation shall maintain in operable working condition those features of the facilities and equipment required to be readily accessible to and usable by persons with disabilities. (For fire alarm maintenance see Chapter 7 of NFPA 72 for Test/Maintenance Requirements.)
PATH OF TRAVEL

PATH OF TRAVEL DEFINED  Section 36.402(e)

“Path of travel” includes a continuous, unobstructed way of pedestrian passage by means of which the altered area may be approached, entered and exited, and which connects the altered area with an exterior approach—an entrance to the facility and other parts of the facility.

36.403(2) defines an accessible path of travel as consisting of walks and sidewalks, curb ramps and other interior or exterior pedestrian ramps, clear floor paths through lobbies, corridors, rooms and other improved areas, or a combination of these elements.

ALTERATIONS: PATH OF TRAVEL  36.403(c)(2)

Alterations to windows, hardware, controls, electrical outlets, and signage shall not be deemed to be alterations that affect the usability of or access to the area containing a primary function and therefore cannot trigger a path of travel obligation.

If the alteration is to an area such as an employee lounge or locker room that is not an area of the facility that contains a primary function, that area must comply with ADAAG. It is only when an alteration affects access to or usability of an area containing a primary function as opposed to other areas or the elements listed above, that the path of travel to the altered area must be made accessible.

PRIMARY FUNCTION AREA DEFINED

By definition a “primary function area” [36.403(b)] is a major activity for which the facility is intended. Areas that contain a primary function include but are not limited to: customer service area of a bank, the dining area of a cafeteria, meeting rooms in a conference center, as well as offices and other work areas in which the activities of the public accommodation using the facility are carried out.

ALTERATIONS  36.402(c) - Maximum Extent Feasible

To the maximum extent feasible, as used in this section, applies to the occasional case where the nature of the facility makes it virtually impossible to comply fully with the applicable accessibility standards through a planned alteration. Remember, now both commercial facilities and places of public accommodations are being discussed. In these circumstances, the alteration shall provide the maximum physical accessibility feasible. Any altered features of the facility that can be made accessible shall be made accessible. If providing accessibility
in conformance with 36.402 to individuals with certain disabilities, e.g., those in wheelchairs, would not be feasible the facility shall be made accessible to persons with other types of disabilities, e.g., those who have vision or hearing impairments.

**When does the cost to alter the path of travel become disproportionate to the overall cost of the alteration?**

Section 36.403(3)(f): Alterations made to provide an accessible path of travel to the altered area will be deemed disproportionate to the overall alteration when the costs exceed 20 percent of the cost of the alteration to the primary function area.

**SECTION 4.1.6 (ALTERATIONS)**

Alteration is defined as any change to a building or facility that affects or could affect the usability of or the access to the building or facility or any part thereof. There are three general principles for alterations:

1. If any existing element or space is altered, the altered element or space must meet the new construction requirements [4.1.6(1)(b)].

2. If the alteration to the elements as a space when considered together amounts to an alteration of the space, the entire space must meet the new construction requirements [4.1.6(1)(c)].

3. If the alteration affects or could affect the usability of or access to an area containing a primary function, the path of travel to the altered area and the restrooms, drinking fountains, and the telephones serving the altered area must be made accessible unless it is disproportionate to the overall alterations in the terms of cost and scope as determined under criteria established by the Attorney General [4.1.6(2)].

In Section 36.104 of the Act “facility” is defined as: “All or any portion of buildings, structures, sites, complexes, equipment, rolling stock or other conveyances, roads, walks, passageways, parking lots, or other real or personal property including the site where the building, property, structure, or equipment is located.” This definition would encompass “campus” style occupancies.
**IMPORTANT NOTE:** ADAAG is expected to adopt the following changes:

**Alarms**

4.1.6(3)(i) Visual alarms complying with 4.28 are not required in alterations, except where the existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.

**Reason:** Provides clear guidance on the type of alteration work that triggers a compliance requirement for alarm systems. Unlike a door, a water closet, or virtually all other accessible elements, an alarm system cannot generally be replaced on a piece-by-piece basis. In existing buildings without visual alarms, the installation of visual alarms in even a portion of the building typically requires an upgrade or replacement of the main alarm panels and risers. Numerous jurisdictions have been requiring that any alteration work within a space include the addition of visual signals, triggering costly alarm system upgrades that dwarf the cost of the original alteration. This new language is consistent with current ADAAG 4.1.6(1)(b), which requires that “if existing elements...are altered...then each such altered element...shall comply with the applicable provisions...” Where large scale alterations are undertaken, common practice would include the upgrading of the alarm system in that area. With the rapidly changing technology in the field, systems quickly become outdated, and replacement parts can become difficult or impossible to obtain. Coupled with the difficulty of trying to work around an existing noncomplying alarm system, and still meet applicable codes for audible alarm coverage in a space, the likelihood of someone being able to avoid the installation of visual alarms in a large renovation is remote. This language is intended to free smaller alterations from the disproportionate costs of upgrading alarms in a small area.
QUESTIONS

What if a private entity operates or leases space to many different types of facilities of which only a relative few are places of public accommodation? Is the whole private entity still a public accommodation?

Legally speaking the entire private entity is a public accommodation but only has Title III obligations with respect to the operations of the places of public accommodation. (Technical Assistance Manual, published under Section 506 of the ADA)

Illustration: ZZ Top Oil Company owns a wide range of production and processing facilities that are not places of public accommodation. It also operates a large number of retail service stations. Only the operation of the service stations falls within the broad scope of Title III, the other facilities would be subject only to the requirements for new construction and alterations.

ADA and the Fair Housing Act
Illustration: A private, nonsectarian, nonprofit organization operates a homeless shelter permitting stays ranging from overnight to those of sufficient lengths to result in coverage as a dwelling unit under FHA. The shelter also provides social services such as counseling and medical care to residents and others. As a “social services establishment” the homeless shelter is a place of public accommodation and would be subject to Title III. Because it allows short-term stays it may also be considered a place of public accommodation as a “place of lodging.”

What costs can be included in determining whether the 20 percent disproportionality limitation has been met?
1. Widening doors
2. Installing ramps
3. Making bathrooms accessible
4. Lowering telephones
5. Relocating water fountains
6. Other costs associated with making the path of travel accessible
What happens if the costs exceed the 20 percent? Is the facility exempt from the path of travel requirement?

No. The entity still must make the path of travel accessible to the extent possible without going over the 20 percent. Priority shall be given to those elements that provide the greatest degree of access. Changes should be made in the following order:

1. Accessible entrance
2. Accessible route to altered area
3. At least one accessible restroom
4. Phones
5. Drinking fountains
6. Alarms

COMMENTS AND EXAMPLES

SLEEPING AREAS IN PLACES OF PUBLIC ACCOMMODATIONS (Visual Signals)

In 4.28.3, ADA references 75 candela with mounting heights of 80″ above the floor or 6″ from the ceiling, whichever is lower. This is a key statement as it conflicts slightly with the requirements found in NFPA 72, Chapter 6 (6-4.4 - not less than 80″ above floor and no greater than 96″).

NFPA 72 references 4″-12″ (2-5.2.1.6 and 5-2.5.1) from the ceiling (smoke detectors) and 177 candela (Table 6-4.4.3 and 2-4.4.2) (visual signal) when mounted less than 24″ from the ceiling or on the ceiling. The code further references 110 cd (Table 6-4.4.3) when mounted greater than 24″ from the ceiling.
MOUNTING HEIGHTS - PUBLIC AREAS

**NFPA 72, 6-4.4**
Bottom of appliance not less than 80" or greater than 96".

**ADA 4.28.3 (6)**
Appliance shall be placed 80" above the highest floor level or 6" below ceiling, whichever is lower.

Corridor: Typical 96" (8') ceilings

Analysis: To meet the requirements of both ADA and NFPA mount the appliance with the bottom at 80" from the floor. ADA requirements do not specifically call out where the 80" is measured from—top, center, or bottom.

WHY IS THIS IMPORTANT?

**Analysis**

1. ADAAG requirements do not specifically address sleeping room applications.
2. Although referenced in the Access Board’s Technical Bulletin #2 (July ‘94) ADAAG requirements do not specifically address combination units (smoke detectors/strobe).
3. ADAAG’s Technical Bulletin #2 specifically references the UL research on alerting the hearing impaired in sleeping areas.
4. Included in Section 2.2 of ADAAG is a statement allowing departures from a particular requirement where substantially equivalent or greater accessibility is provided.
**IMPORTANT NOTE:** ADAAG is expected to adopt the following changes:

### 4.28.3.2.2 Wall Mounted Appliances
Appliances shall be located 80 inches (2030 mm) minimum and 96 inches (2440 mm) maximum above the finished floor, measured to the bottom of the appliance.

**EXCEPTION:** Wall mounted appliances which are part of a smoke detector shall be located 4 inches (100 mm) minimum and 12 inches (305 mm) maximum below the ceiling, measured to the top of the smoke detector.

**Reason:** Provides a range for installation of wall mounted appliances; current ADAAG allowed only one absolute height, depending on the height of the ceiling in the space. This revision is consistent with NFPA 72. The new exception is for combination units which incorporate both a smoke detector and a visual signal. To meet the NFPA 72 smoke detector criteria, these appliances must be located within 4-12 inches of the ceiling.

### 4.28.3.2.3 Ceiling Mounted Appliances
Ceiling mounted appliances shall be located in accordance with 4.28.3.3.3. Where ceiling height exceeds 30 feet (9140 mm), appliances shall be suspended from the ceiling to a height of 30 feet (9140 mm) maximum above the finished floor.

**Reason:** New provisions to specifically address height of ceiling mounted appliances. The height of a ceiling mounted appliance affects the required minimum intensity - this is addressed in new table 4.28.3.3.3.

### CANDELA REQUIREMENTS
In UL’s research on awakening the hearing impaired, 110 candela was determined to be needed to awaken 90 percent of the test subjects. This 110 candela was the base for determining what was needed to awaken a hearing impaired person in a smoke condition. To maintain the same 110 candela in a 4 percent smoke condition room (maximum allowed in UL tests), the intensity must be raised by 38 percent to 177 candela. To compensate for light loss in a smoke filled room, if the same 38 percent is deducted from a 75 candela strobe as outlined in ADAAG 4.28.3, the effective intensity would be 46.5 candela, far short of the necessary candela as noted in the UL research of 110 candela.
Therefore, the requirements found in the Equivalent Facilitation Section 2.2 of ADAAG, using a 110 cd or 177 cd strobe provides equal to or greater accessibility to the hearing impaired. Also, the mounting height requirement would or could be waived.

**IMPORTANT NOTE:** ADAAG is expected to adopt the following changes:

4.28.3.4.2 Minimum Effective Intensity. Appliances shall have a minimum effective intensity of 15 candela.

*Reason:* Because appliances will be directly viewed, a lower candela appliance is acceptable. This is consistent with NFPA 72, and with Coalition recommendation.

4.28.3.5.4 Minimum Effective Intensity and Mounting Height. Wall mounted appliances located 24 inches (610 mm) minimum below the ceiling shall have a minimum effective intensity of 110 candela. Ceiling mounted appliances and wall mounted appliances located less than 24 inches (610 mm) below the ceiling shall have a minimum effective intensity of 177 candela.

*Reason:* Greatly increased candela requirements are necessary to awaken a sleeping individual. Greater candela requirements apply to appliances located closer to the ceiling because smoke may begin to obscure the signal before a person is awakened.

**FLASH RATE DIFFERENCES**

ADAAG references in 4.28.3(5) that the flash rate shall be a minimum of 1 Hz and a maximum of 3 Hz.

NFPA 72 references in 6-4.2 that the flash rate shall not exceed three flashes per second (3 Hz) nor be less than one flash every three seconds (1/3 Hz).

ADAAG’s research indicated that flash rate cycles between one and three flashes per second successfully alerted subjects with hearing impairments. A 3 Hz signal appeared to be somewhat more effective; thus, ADAAG requires flash rates *within the 1-3 Hz range*. Rates exceeding 5 Hz may be disturbing to persons with photosensitivity. A rate in excess of 5 Hz should be avoided, either by raising the intensity and decreasing the number of fixtures or by synchronizing the flash rate.

**WHY IS THIS IMPORTANT?**

*Analysis*
1. ADAAG specifically calls for a flash rate of 1-3 Hz. Any change to this requirement would have to come through a state or local code which would have been determined equivalent by the Department of Justice. The process includes public notices and comments at which time individuals with any concerns regarding this area would comment.

2. Until such time, the 1-3 Hz requirement should be seriously considered and followed when designing a job.

3. The selection of a visual signal with a constant flash rate, regardless of voltage, is also important as ADAAG specifically indicates that flash rates shall be within the 1-3 Hz range.

4. This would mean that any visual signal where flash rate is variable upon voltage and drops below the 1 Hz rate shall not be suitable for use.

**IMPORTANT NOTE:** ADAAG is expected to adopt the following changes:

**4.28.3.1.3 Flash Rate.** The flash rate for an individual appliance shall be 1 Hz minimum and 2 Hz maximum over its rated voltage range.

*Reason:* Changes allowable flash rate range from 1-3 Hz to 1-2 Hz. Flash rate is the primary factor that may impact persons with photosensitivity. The Coalition conducted research to determine the lowest flash rate that would provide adequate notification to persons with hearing impairments. Flash rates of 1/3 and 1/2 Hz were tested; while these rates did alert persons with hearing impairments, the time to alert was significantly more than that for a 1 Hz flash rate. This delay in notification was unacceptable to representatives for persons with hearing impairments; however, it was accepted that there was no need to have a flash rate of greater than 1 Hz. The new range of 1-2 Hz is provided to give a tolerance for manufacturing.

The new language regarding the “rated voltage range” is added to clarify the parameters over which an appliance must meet the flash rate criteria, because changes in voltage can affect the flash rate.
Table 4.28.3.3.2
Spacing Allocation for Wall Mounted Visual Alarms

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<thead>
<tr>
<th>Maximum Area of Coverage</th>
<th>One Light Per Area</th>
<th>Two Lights Per Area</th>
<th>Four Lights Per Area</th>
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CANDELA RATINGS - 75 CANDELA (ADAAG) VERSUS 15 CANDELA (NFPA/UBC)

ADAAG references in 4.28.3(4) the intensity shall be a minimum of 75 candela. No differences are referenced for smaller rooms or corridors.

NFPA 72, Chapter 6, 6-4.4.1(a) and (b) candela requirements vary upon room size, beginning with 15 candela in a 20’ x 20’ room.

ADAAG’s research was done in a 50’ x 50’ area, which when utilizing the inverse square law equates to an average lumens per square foot increase of .030 (75 cd ÷ 2500 square feet). In the research conducted by UL, the same lumens per square foot increase utilizing a 15 candela strobe in a 20’ x 20’ area was .0375 (15 cd ÷ 400 square feet). (See our book on Equivalent Facilitation for formula.)

Analysis
1. The scoping provisions of Section 2.2 could be used in this case if photometric calculations were provided with the certificate of occupancy, along with a statement regarding the lumens per square foot using a 75 cd (.030) and a 15 cd (.0375). Consideration must be given to reflective surfaces, carpeting, etc., before installation.

2. The provisions of ADAAG do not specifically reference any listing requirements. Therefore, a visual signal complying with the requirements of UL1971 and UL1638 could provide a solution to the requirements of ADA (75 cd) and NFPA 72 (15 cd).
A distributor, at the request of a college, made an inquiry regarding one building or all buildings needing to be in compliance with ADA.

EXISTING COLLEGE BUILDING WITH ADDITIONS

1. The ADA defines a facility as, “All or any portion of buildings, structures, sites, or complexes and equipment both indoor and outdoor.” (ADA 3.5) (36.104)

2. Therefore, the city in their recognition of the college as “one” building is correct. (ADA 3.5) (36.104)

3. Factors of alteration(s) apply. Remember, compliance is triggered when a major alteration is undertaken. (ADA 4.1.6)

4. Factors they will consider in updating the existing "old" building:
   A) Nature and cost
   B) Financial resources of the "facility"
   C) Legitimate safety requirements necessary for safe operations
   D) Any geographical separation and separate fiscal responsibility

5. Library - All public areas must be made accessible. (ADA Section 8)

6. Lecture halls - Compliance per assembly occupancy.

7. Dormitories - Falls into Chapter 9, Transient Lodging; four percent of first 100 dorm rooms, two percent thereafter. (ADA Section 9)

8. Path of travel (Section 36.403 Alterations - Path of Travel)

9. Alteration = a change to a building or facility that affects or could affect the usability of or access to the building or facility or any part thereof. (Section 36.403 Alterations)
   A) Any altered element must meet new construction guidelines [4.1.6(1)(b)].
   B) Does the altered space affect or could it affect the usability of or access to an area containing a primary function - path of travel must be made accessible.

TITLE II AND FLASHING EXIT SIGNS

In nursing homes owned by a local, state, or federal government, flashing exit signs are required under Title II of the ADA, 4.28.3. Title II of the ADA is the requirement for local, state, or federally owned buildings. Please note that Title II will begin to follow the same guidelines as Title III. Timeframe for this conversion is unknown.
4.28.3 **Visual Alarms** (major difference between Title III and Title II)

If provided, electrically powered internally illuminated emergency exit signs shall flash as a visual emergency alarm in conjunction with audible emergency alarms. The flashing frequency of visual alarm devices shall be less than 5 Hz. If such alarms use electricity from the building as a power source, then they shall be installed on the same system as the audible emergency alarms.

**Exceptions**

1. Visual alarm devices that are mounted adjacent to emergency exit signs may be used in lieu of flashing exit signs.
2. Specialized systems utilizing advanced technology may be substituted for the visual systems specified above if equivalent protection is afforded handicapped users of the building or facility.

**HEIGHT REQUIREMENTS FOR MANUAL PULL STATIONS** (Title III)

Note that if the space where the pull station is located will only allow a wheelchair in from the front, the maximum height is 48" from floor. However, if a wheelchair can get to the area by the side, the maximum height is 54".

Note the requirements as stated in 4.2.5 and 4.2.6.

**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" (1220 mm) [(see Figure 5(a)]. *The minimum low forward reach is 15" (380 mm).* If the high forward reach is over an obstruction, reach and clearances shall be as shown in Figure 5(b).

**4.2.6 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" (1370 mm) and the low side reach shall be no less than 9" (230 mm) above the floor [Figure 6(a) and (b)]. If the side reach is over an obstruction, the reach and clearances shall be as shown in Figure 6(c).
STAIRWELLS - EMERGENCY EGRESS?
Section 36.402, Paragraph (e) defines a “path of travel” as a continuous, unobstructed way of pedestrian passage by means of which an altered area may be approached, entered, and exited; and which connects the altered area with an exterior approach (including sidewalks, streets, and parking areas), an entrance to the facility, and other parts of the facility. This concept of an accessible path of travel is analogous to the concepts of “accessible route” and “circulation path” contained in Section 3.5 of the current UFAS. Some commenters suggested that this paragraph should address emergency egress. The Department disagrees. “Path of travel,” as it is used in this section, is a term of art under the ADA that relates only to the obligation of the public accommodation or commercial facility to provide additional accessible elements when an area containing a primary function is altered. The Department recognizes that emergency egress is an important issue, but believes that it is appropriately addressed in ADAAG (Appendix A), not in this paragraph. Furthermore, ADAAG does not require changes to emergency egress areas in alterations.

CEILING MOUNTING STROBES
As there is no process for certifying alternative methods (except in transportation facilities under DOT enforcement), the responsibility for demonstrating equivalent facilitation in the event of a challenge rests with the covered entity (Access Board Technical Bulletin #2, July '94).

When should equivalent facilitation be considered? ADAAG technical provisions apply to normative conditions. Signal intensity and placement in very small and very large rooms and in spaces with high ceilings, irregular geometry, dark or non-reflective walls, or very high ambient lighting levels may best be determined by specialized consultants employing photometric calculation for system design rather than a literal application of ADAAG specifications. For these reasons, ADAAG 2.2 Equivalent Facilitation permits alternative designs that achieve substantially equivalent or greater accessibility. The American National Standard for Accessible and Usable Buildings and Facilities (CABO/ANSI A117.1-1992), reflecting current NFPA 72 performance recommendations for visual alarms, stipulates lamp, installation, and spacing criteria at some variance with ADAAG technical specifications for visual alarms and with this bulletin. ANSI Table 4.26.3.2(a), Room Spacing Allocation, suggests that an alarm installation of several low-intensity lamps within a room is the practical equivalent of a single high-intensity lamp serving that space.
In multipurpose facilities where bleacher seating, athletic equipment, backdrops, and other movable elements may at times be deployed or in warehouses, libraries, convention centers, and other building types where devices would not be visible when installed at specified heights, optimal signal placement may require considerable study and the development of alternative intensity and placement calculations as an equivalent facilitation.
## CROSS REFERENCE GUIDE

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