



Rehabilitation Services, Inc.

ADA Compliance Services

9841 SW 100th Ave.
Miami, FL 33176
305 271 0012
fax 305 273 1221

Robert Lessne, PhD, CRC, ABDA

Web: www.rehabserv.com.
email: ergobob1@consultant.com

3415 Pelican Ln
Orlando, FL 32803
407 895 3974

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Report developed exclusively for:

XYZ CORPORATION

Introduction

XYZ Retail Sales Corporation is multi-store retailer doing business in many communities throughout the state of Florida. They serve the general public retailing clothing, shoes and sundries. Their buildings are one story edifices located off paved sidewalks or paved parking lots. At the assessed location, access for the general public is through doors located at the front of the building. Deliveries are made at special bays in the back of the building.

Entryways

- Main entrance doorway requires between foyer and outside require 15 to 16 pounds of pressure to operate, and doors between foyer and store require 20, 10, 25, and 17 pounds of pressure respectively to operate, in conflict with Florida statute 553.504(6)
- Pay phone on outside of store measures 32in high and 12in out in conflict with 4.4.1(see photo 7)
 - 553.504 *Exceptions to applicability of the guidelines. Notwithstanding the adoption of the Americans with Disabilities Act Accessibility Guidelines in s. 553.503, all buildings, structures, and facilities in this state shall meet the following additional requirements when they provide increased accessibility:*
 - (6) *Notwithstanding the requirements in reference 4.13.11 of the guidelines, exterior hinged doors shall be so designed that such doors can be pushed or pulled open with a force not exceeding 8.5 foot pounds.*
 - 4.4.1* *General. Objects projecting from walls (for example, telephones) with their leading edges between 27 in and 80 in (685 mm and 2030 mm) above the finished floor shall protrude no more than 4 in (100 mm) into walks, halls, corridors, passageways, or aisles (see Fig. 8(a)). Objects mounted with their leading edges at or below 27 in (685 mm) above the finished floor may protrude any amount (see Fig. 8(a) and (b)). Freestanding objects mounted on posts or pylons may overhang 12 in (305 mm) maximum from 27 in to 80 in (685 mm to 2030 mm) above the*

ground or finished floor (see Fig. 8(c) and (d)). Protruding objects shall not reduce the clear width of an accessible route or maneuvering space (see Fig. 8(e)).

General Store

- Fire extinguishers protrude more than 4 inches into pathways thus violate 4.4.1. Specifically in “Today’s Woman” section where device measures 5 1/2 in out and 39 in high
- There is an employee use telephone which protrudes 5.5 in not in accordance with 4.4.1 (see photo 8)
- Throughout the store there was a persistent lack of compliance with section 4.3. A combination of the positioning of and nature of stock all but violated necessary passageway widths in every part of the store. Specifically problems were found in the following sections of the store, “Dresses”, “Girls wear”, “Career Sports wear”, “Boys Wear”, “Infants & Toddlers”, “Petite Fashion”, and “Woman’s Fashion.” It was found that the aisles consistently measure between 26 in and 29 in. Additionally there were many instances of careless placement of merchandise and various marked and un-marked boxes as to blatantly obscure pathways. Furthermore there exist support structures which reduce aisle width to approximately 18 in (see photos 9-15)
- Outside store fitting rooms were merchandise hooks that were non-compliant with 4.4.1 (See photo 16)
- Exits: The store has a total of 2 emergency exits. The exit at the rear of the store requires 25 pounds of pressure to operate in violation of 553.554(6) and does not allow access to the street. Both the exit at the rear of the store and the exit from the stock area have thresholds of 2 in in violation of 4.5.2
- Water fountain measures 24 in from the floor to the bottom of the deck in violation with 4.15.5
- Layaway desk is at a height of 38 in and the jewelry counter is 39 in high both contrary to 4.32.40 (See photo 17)
 - *4.5.2 Changes in Level. Changes in level up to 1/4 in (6 mm) may be vertical and without edge treatment (see Fig. 7(c)). Changes in level between 1/4 in and 1/2 in (6 mm and 13 mm) shall be beveled with a slope no greater than 1:2 (see Fig. 7(d)). Changes in level greater than 1/2 in (13 mm) shall be accomplished by means of a ramp that complies with 4.7 or 4.8.*
 - *4.32.4* Height of Tables or Counters. The tops of accessible tables and counters shall be from 28 in to 34 in (710 mm to 865 mm) above the finish floor or ground.*
 - *4.1.2 Accessible Sites and Exterior Facilities: New Construction. An accessible site shall meet the following minimum requirements:*
 - *(16) Building Signage: (a) Signs which designate permanent rooms and spaces shall comply with 4.30.1, 4.30.4, 4.30.5 and 4.30.6. (b) Other signs which provide direction to or information about functional spaces of the building shall comply with 4.30.1, 4.30.2, 4.30.3, and 4.30.5. EXCEPTION: Building directories, menus, and all other signs which are temporary are not required to comply.*
 - *553.504 Exceptions to applicability of the guidelines. Notwithstanding the adoption of the Americans with Disabilities Act Accessibility Guidelines in s. 553.503, all buildings, structures,*

and facilities in this state shall meet the following additional requirements when they provide increased accessibility:

- (6) Notwithstanding the requirements in reference 4.13.11 of the guidelines, exterior hinged doors shall be so designed that such doors can be pushed or pulled open with a force not exceeding 8.5 foot pounds.
- 4.30.4 Raised and Brailled Characters and Pictorial Symbol Signs (Pictograms). Letters and numerals shall be raised 1/32 in (0.79 mm) minimum, upper case, sans serif or simple serif type and shall be accompanied with Grade 2 Braille. Raised characters shall be at least 5/8 in (16 mm) high, but no higher than 2 in (50 mm). Pictograms shall be accompanied by the equivalent verbal description placed directly below the pictogram. The border dimension of the pictogram shall be 6 in (152 mm) minimum in height.
- 4.3.1 General. All walks, halls, corridors, aisles, skywalks, tunnels, and other spaces that are part of an accessible route shall comply with 4.3.
- 4.3.3 Width. The minimum clear width of an accessible route shall be 36 in (915 mm) except at doors (see 4.13.5 and 4.13.6). If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as shown in Fig. 7(a) and (b).
- 4.4.1* General. Objects projecting from walls (for example, telephones) with their leading edges between 27 in and 80 in (685 mm and 2030 mm) above the finished floor shall protrude no more than 4 in (100 mm) into walks, halls, corridors, passageways, or aisles (see Fig. 8(a)). Objects mounted with their leading edges at or below 27 in (685 mm) above the finished floor may protrude any amount (see Fig. 8(a) and (b)). Freestanding objects mounted on posts or pylons may overhang 12 in (305 mm) maximum from 27 in to 80 in (685 mm to 2030 mm) above the ground or finished floor (see Fig. 8(c) and (d)). Protruding objects shall not reduce the clear width of an accessible route or maneuvering space (see Fig. 8(e)).
- 4.4.2 Head Room. Walks, halls, corridors, passageways, aisles, or other circulation spaces shall have 80 in (2030 mm) minimum clear head room (see Fig. 8(a)). If vertical clearance of an area adjoining an accessible route is reduced to less than 80 in (nominal dimension), a barrier to warn blind or visually impaired persons shall be provided (see Fig. 8(c-1)).
- 4.15 Drinking Fountains and Water Coolers
 - 4.15.5 Clearances. (1) Wall- and post-mounted cantilevered units shall have a clear knee space between the bottom of the apron and the floor or ground at least 27 in (685 mm) high, 30 in (760 mm) wide, and 17 in to 19 in (430 mm to 485 mm) deep (see Fig. 27(a) and (b)). Such units shall also have a minimum clear floor space 30 in by 48 in (760 mm by 1220 mm) to allow a person in a wheelchair to approach the unit facing forward.

Parking lot

- There are a total of 137 parking spaces, although the requiring a minimum of 5 disabled and 1 van parking spaces are. Currently there are only 2 disabled spaces both of which do meet the required dimensions. However do not meet requirements for signage as defined in 4.6.4

- 4.6.4* *Signage. Accessible parking spaces shall be designated as reserved by a sign showing the symbol of accessibility (see 4.30.7). Spaces complying with 4.1.2(5)(b) shall have an additional sign "Van-Accessible" mounted below the symbol of accessibility. Such signs shall be located so they cannot be obscured by a vehicle parked in the space.*
- 4.1.2(5)(b), *access aisles adjacent to accessible spaces shall be 60 in (1525 mm) wide minimum. (b) One in every eight accessible spaces, but not less than one, shall be served by an access aisle 96 in (2440 mm) wide minimum and shall be designated "van accessible" as required by 4.6.4. The vertical clearance at such spaces shall comply with 4.6.5. All such spaces may be grouped on one level of a parking structure.*

Restrooms

- There is a complete lack of signage from the main store area to the area containing the restrooms in violation of 4.30.6
- Contained within the hall way leading to the restrooms there is a time clock used for employees to "punch in" at 38in high protruding 6in in violation of 4.4.1
- At the entrance to both rest rooms signage is incorrectly positioned at the center of the door not in accordance with 4.30.6
- Toilet paper dispensers are not in accordance with 4.16.6, currently located at a height of 24in in both restrooms (see photo 1)
- Paper towel dispensers are at a height of 45in and protrude 10in in violation of 4.4.1, 4.2.5, and 4.2.6.
- Coat hangers are at a height greater then 54in in violation of 4.2.5 and 4.2.6
- Flush control in the ladies room is in violation of 4.16.5, being mounted on the narrow side (see photo 2)
- There is no rear grab bar at the rear as described in 4.26.2 and 4.16.4 (see photo 2)
- Side grab bars is 3in from the wall in conflict with 4.26.2
- There is a complete lack of insulation beneath sinks in both restrooms as required 4.19.4
- Sink hard ware in the ladies does not comply with 4.19.5 and 4.27.4 (see photo 3)
- Ladies room door requires 14 pounds of pressure to open. In violation of 553.554
 - 4.4.1* *General. Objects projecting from walls (for example, telephones) with their leading edges between 27 in and 80 in (685 mm and 2030 mm) above the finished floor shall protrude no more than 4 in (100 mm) into walks, halls, corridors, passageways, or aisles (see Fig. 8(a)). Objects mounted with their leading edges at or below 27 in (685 mm) above the finished floor may protrude any amount (see Fig. 8(a) and (b)). Freestanding objects mounted on posts or pylons may overhang 12 in (305 mm) maximum from 27 in to 80 in (685 mm to 2030 mm) above the ground or finished floor (see Fig. 8(c) and (d)). Protruding objects shall not reduce the clear width of an accessible route or maneuvering space (see Fig. 8(e)).*
 - 4.30.6 *Mounting Location and Height. Where permanent identification is provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is*

no wall space to the latch side of the door, including at double leaf doors, signs shall be placed on the nearest adjacent wall. Mounting height shall be 60 in (1525 mm) above the finish floor to the centerline of the sign. Mounting location for such signage shall be so that a person may approach within 3 in (76 mm) of signage without encountering protruding objects or standing within the swing of a door.

- *4.4.2 Head Room. Walks, halls, corridors, passageways, aisles, or other circulation spaces shall have 80 in (2030 mm) minimum clear head room (see Fig. 8(a)). If vertical clearance of an area adjoining an accessible route is reduced to less than 80 in (nominal dimension), a barrier to warn blind or visually-impaired persons shall be provided (see Fig. 8(c-1)).*
- *4.2.5* Forward Reach. If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be 48 in (1220 mm) (see Fig. 5(a)). The minimum low forward reach is 15 in (380 mm). If the high forward reach is over an obstruction, reach and clearances shall be as shown in Fig. 5(b).*
- *4.16.6 Dispensers. Toilet paper dispensers shall be installed within reach, as shown in Fig. 29(b). Dispensers that control delivery, or that do not permit continuous paper flow, shall not be used.*
- *4.2.5* Forward Reach. If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be 48 in (1220 mm) (see Fig. 5(a)). The minimum low forward reach is 15 in (380 mm). If the high forward reach is over an obstruction, reach and clearances shall be as shown in Fig.5(b).*
- *4.19.4 Exposed Pipes and Surfaces. Hot water and drain pipes under lavatories shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories.*
- *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 in (1370 mm) and the low side reach shall be no less than 9 in (230 mm) above the floor (Fig. 6(a) and (b)). If the side reach is over an obstruction, the reach and clearances shall be as shown in Fig 6(c).*
- *4.16.5* Flush Controls. Flush controls shall be hand operated or automatic and shall comply with 4.27.4. Controls for flush valves shall be mounted on the wide side of toilet areas no more than 44 in (1120 mm) above the floor.*
- *4.26.2* Size and Spacing of Grab Bars and Handrails. The diameter or width of the gripping surfaces of a handrail or grab bar shall be 1-1/4 in to 1-1/2 in (32mm to 38 mm), or the shape shall provide an equivalent gripping surface. If handrails or grab bars are mounted adjacent to a wall, the space between the wall and the grab bar shall be 1-1/2 in (38 mm) (see Fig. 39(a), (b), (c), and (e)). Handrails may be located in a recess if the recess is a maximum of 3 in (75 mm) deep and extends at least 18 in (455 mm) above the top of the rail (see Fig. 39(d)).*
- *4.16.4* Grab Bars. Grab bars for water closets not located in stalls shall comply with 4.26 and Fig. 29. The grab bar behind the water closet shall be 36 in (915 mm) minimum.*
- *4.19.5 Faucets. Faucets shall comply with 4.27.4. Lever-operated, push-type, and electronically controlled mechanisms are examples of acceptable designs. If self-closing valves are used the faucet shall remain open for at least 10 seconds.*

4.27.4 Operation. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching, or twisting of the wrist. The force required to activate controls shall be no greater than 5 lbf (22.2 N).

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Fitting Rooms

- At fitting room entryway there is a series of hooks for the purpose of hanging numbers to signify the amount of items being brought into the fitting rooms. These are placed at 59 and 67 inches high and protrude 5 inches. Failing to meet the requirements of 4.4.1
- At the entry way to the accessible fitting room there is curtain pole at the height of 70.5in, falling below the requirements of 4.4.2 (see photo 4)
- At several points in the dressing area there are coat hanging rods in clear violation of 4.4.1 (see photos 4&5)
- Fitting room mirrors meet requirements of 4.35.5. With the only exception being that they are not in a position affording a view to a person on the bench as well as to a person in a standing position.
- Within the dressing room area there is an area for hanging clothes that leads to a dead end, in violation of 4.35.2. The hanging racks are at a level of 50 and 15 in and protrude far more then 4in as requires by 4.4.1 (see photo 6)
- There is a employee use telephone which protrudes 5.5in not in accordance with 4.4.1
- The provided coat hangers are located at 60in, thus in violation of reach limitations as described in 4.2.5 and 4.2.6
 - 4.4.1* *General. Objects projecting from walls (for example, telephones) with their leading edges between 27 in and 80 in (685 mm and 2030 mm) above the finished floor shall protrude no more than 4 in (100 mm) into walks, halls, corridors, passageways, or aisles (see Fig. 8(a)). Objects mounted with their leading edges at or below 27 in (685 mm) above the finished floor may protrude any amount (see Fig. 8(a) and (b)). Freestanding objects mounted on posts or pylons may overhang 12 in (305 mm) maximum from 27 in to 80 in (685 mm to 2030 mm) above the ground or finished floor (see Fig. 8(c) and (d)). Protruding objects shall not reduce the clear width of an accessible route or maneuvering space (see Fig. 8(e)).*
- 4.35 Dressing and Fitting Rooms
 - 4.35.5 *Mirror. Where mirrors are provided in dressing rooms of the same use, then in an accessible dressing room, a full-length mirror, measuring at least 18 in wide by 54 in high*

(460 mm by 1370 mm), shall be mounted in a position affording a view to a person on the bench as well as to a person in a standing position.

- 4.4.2 Head Room. Walks, halls, corridors, passageways, aisles, or other circulation spaces shall have 80 in (2030 mm) minimum clear head room (see Fig. 8(a)). If vertical clearance of an area adjoining an accessible route is reduced to less than 80 in (nominal dimension), a barrier to warn blind or visually impaired persons shall be provided (see Fig. 8(c-1)).
- 4.35.2 Clear Floor Space. A clear floor space allowing a person using a wheelchair to make a 180-degree turn shall be provided in every accessible dressing room entered through a swinging or sliding door. No door shall swing into any part of the turning space. Turning space shall not be required in a private dressing room entered through a curtained opening at least 32 in (815 mm) wide if clear floor space complying with section 4.2 renders the dressing room usable by a person using a wheelchair
- 4.2.5* Forward Reach. If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be 48 in (1220 mm) (see Fig. 5(a)). The minimum low forward reach is 15 in (380 mm). If the high forward reach is over an obstruction, reach and clearances shall be as shown in Fig.5(b).
- 4.2.6* Side Reach. If the clear floor space allows parallel approach by a person in a wheelchair, the maximum high side reach allowed shall be 54 in (1370 mm) and the low side reach shall be no less than 9 in (230 mm) above the floor (Fig. 6(a) and (b)). If the side reach is over an obstruction, the reach and clearances shall be as shown in Fig 6(c).

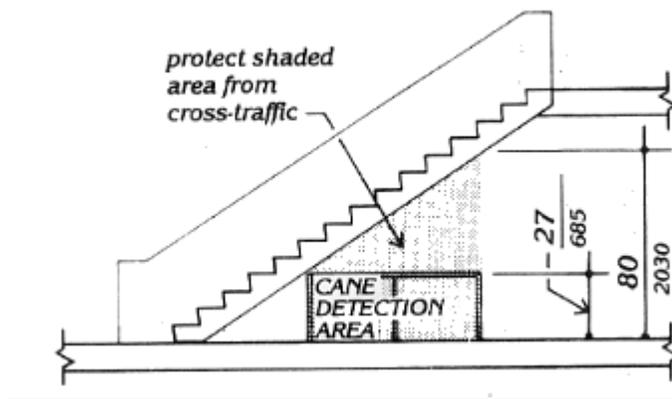
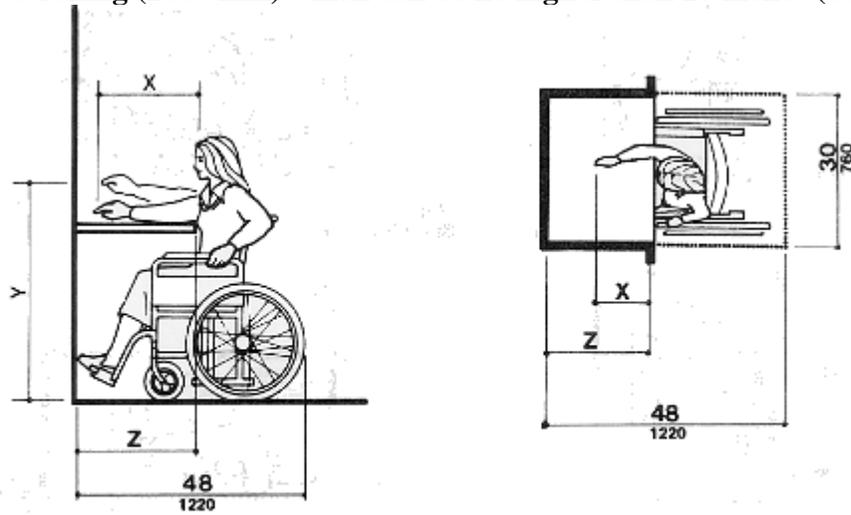


Figure 8c-1
Protruding Objects
Overhead Hazards

Overhead Hazards. As an example, the diagram illustrates a stair whose underside descends across a pathway. Where the headroom is less than 80

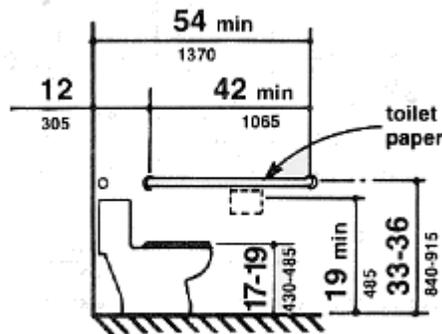
inches, protection is offered by a railing (2030 mm) which can be no higher than 27 inches (685 mm) to



NOTE: x shall be ≤ 25 in (635 mm); z shall be $\geq x$. When $x < 20$ in (510 mm), then y shall be 48 in (1220 mm) maximum. When x is 20 to 25 in (510 to 635 mm), then y shall be 44 in (1120 mm) maximum.

ensure detectability.

Figure 5a
High Forward Reach Limit



(b)
Side Wall

Figure 29b
Grab Bars at Water Closets
Side Wall

A 42 inch (1065 mm) minimum length grab bar is required to the side of the water closet spaced 12 inches (305 mm) maximum from the back wall and extending a minimum of 54 inches (1370 mm) from the back wall at a height between 33 and 36 inches (840-915 mm). The toilet paper dispenser shall be mounted at a minimum height of 19 inches (485 mm). (4.16.3, 4.16.4, 4.16.6)

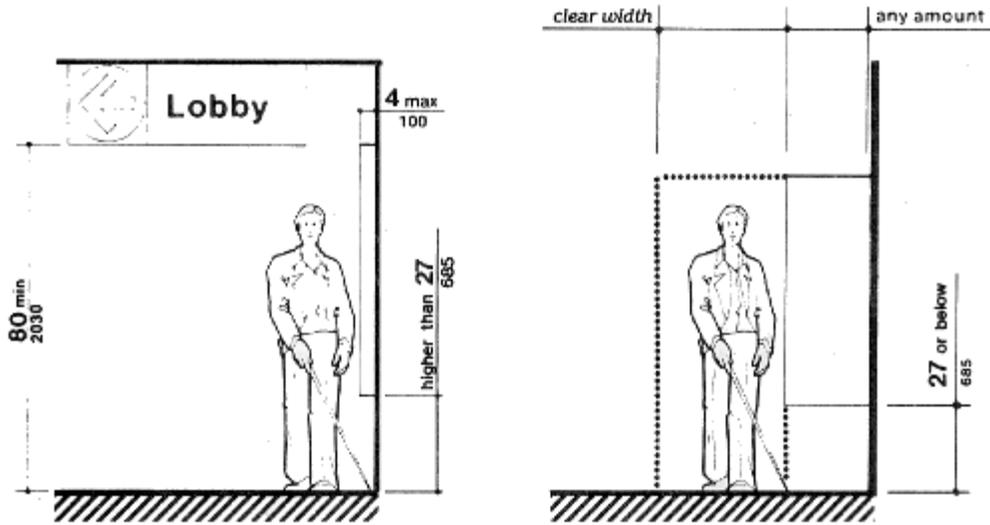


Figure 8a
Protruding Objects
Walking Parallel to a Wall

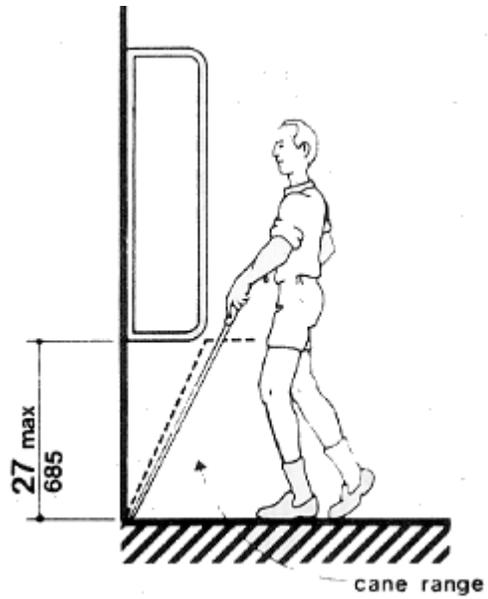


Figure 8b
Protruding Objects
Walking Perpendicular to a Wall

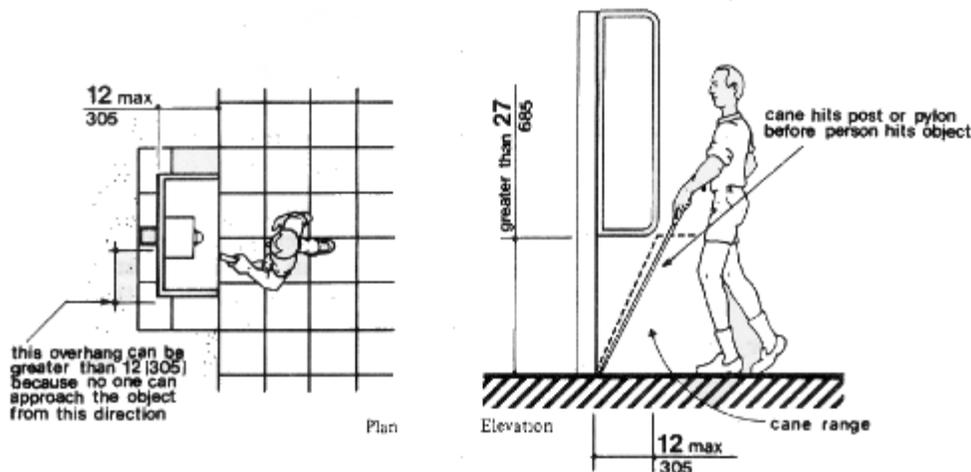


Figure 8d
Protruding Objects
Objects Mounted on Posts or Pylons

The diagram illustrates an area where an overhang can be greater than 12 inches (305 mm) because the object cannot be approached in the direction of the overhang.

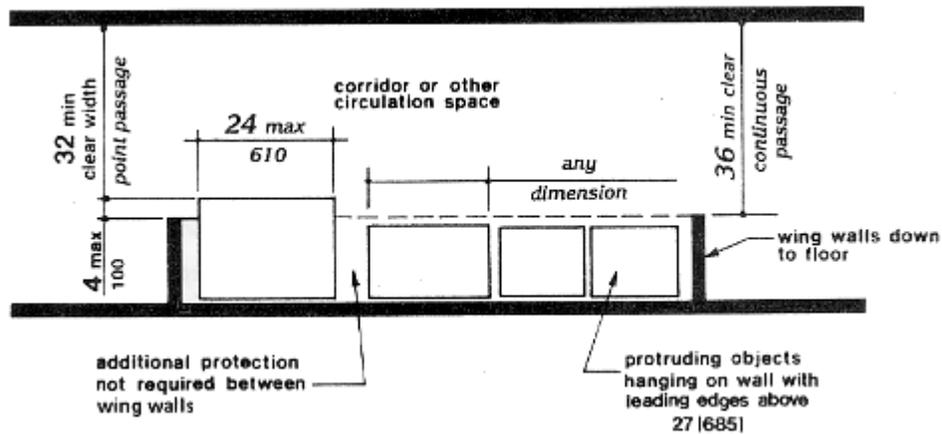


Figure 8e
Protruding Objects
Example of Protection around Wall-Mounted Objects and Measurements of Clear Widths

The minimum clear width for continuous passage is 36 inches. Thirty two (32) inches is the minimum clear width for a maximum distance of 24 inches (610 mm). The maximum distance an object can protrude beyond a wing wall is 4 inches (100 mm).

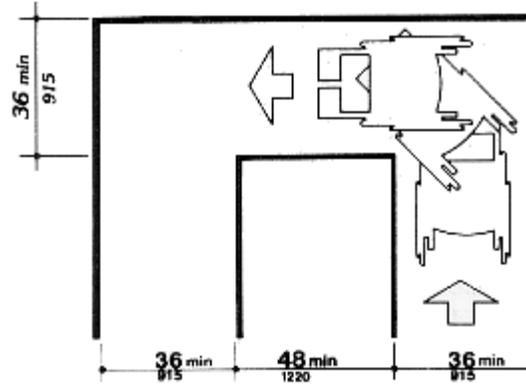
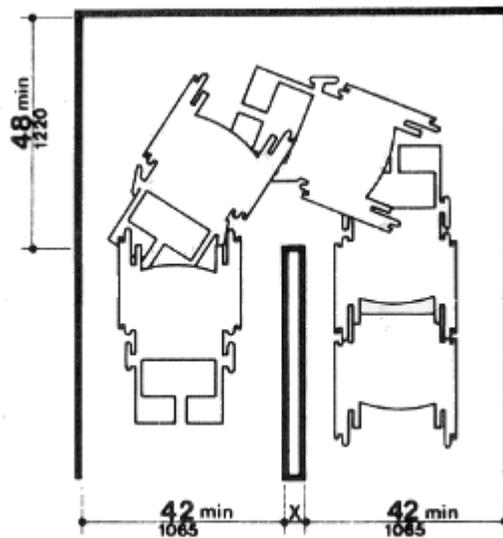


Figure 7(a)
Accessible Route
90 Degree Turn

A 90 degree turn can be made from a 36 inch (915 mm) wide passage into another 36 inch (915 mm) passage if the depth of each leg is a minimum of 48 inches (1220 mm) on the inside dimensions of the turn.



NOTE: Dimensions shown apply when $x < 48$ in. (1220 mm).

Figure 7(b)
Accessible Route
Turns around an Obstruction

A U-turn around an obstruction less than 48 inches (1220 mm) wide may be made if the passage width is a minimum of 42 inches (1065 mm) and the base of the U-turn space is a minimum of 48 inches (1220 mm) wide.

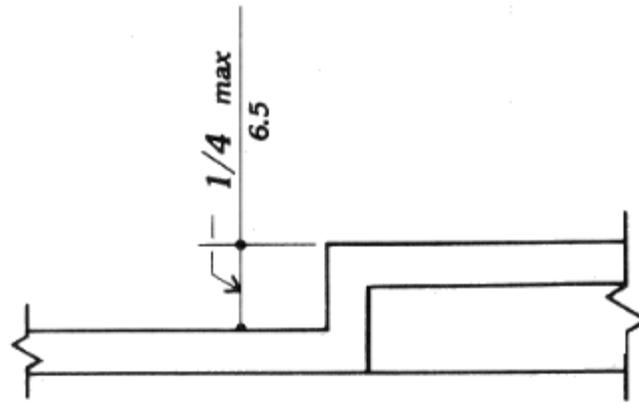


Figure 7(c)
Accessible Route
Changes in level

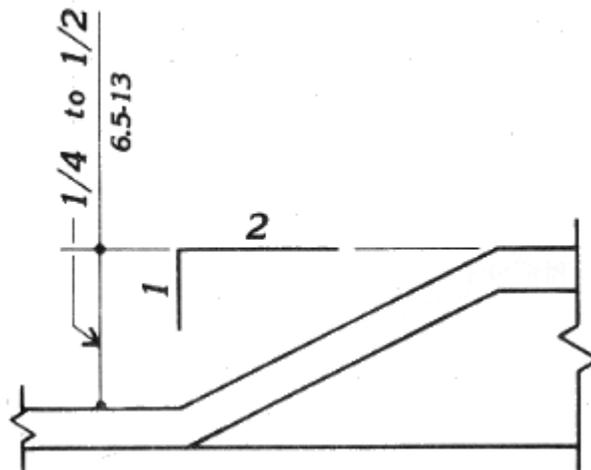


Figure 7(d)
Accessible Route
Changes in level

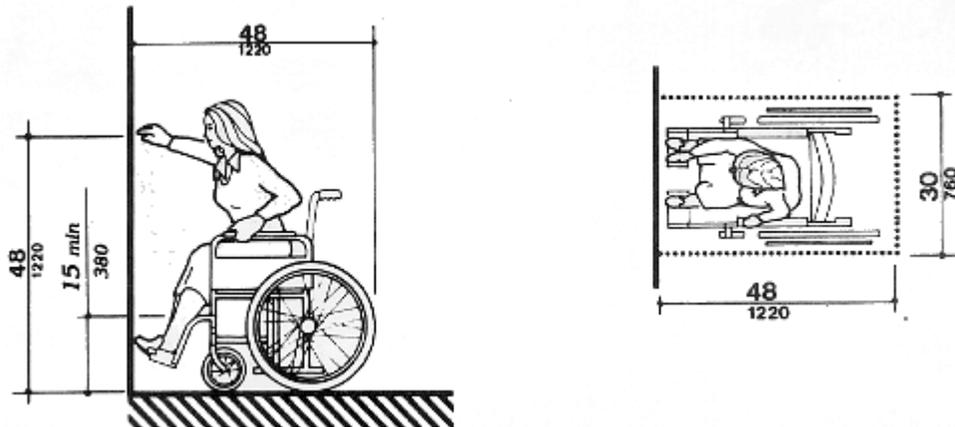


Figure 5a
High Forward Reach Limit

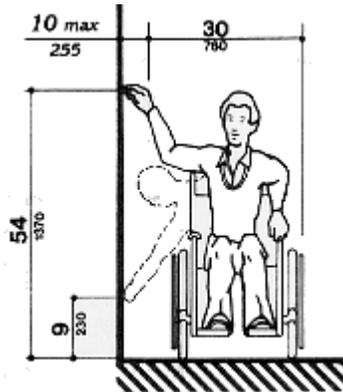


Figure 6(b)

High and Low - Side Reach Limits

The 30 by 48 inch wheelchair clear floor space is located a maximum 10 inches (255 mm) from the wall.

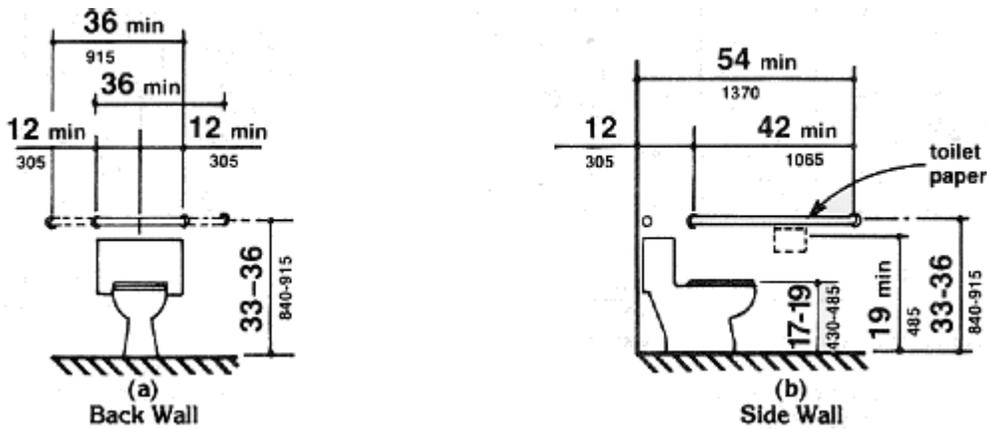


Figure 29

Grab Bars at Water Closets

Fig. 29(a) Back Wall. A 36 inch (915 mm) minimum length grab bar is required behind the water closet mounted at a height between 33 and 36 inches (840-915 mm). The grab bar must extend a minimum of 12 inches (305) beyond the center of the water closet toward the side wall and a minimum of 24 inches (610 mm) toward the open side for either a left or right side approach.



Photo 1

This document is truncated at this page. The following pages are snapshots of the store demonstrating problem areas.



Photo 2



Photo 3

Consulting Services for the Legal, Vocational, and Case Management Community
Forensic Bioeconomics and Ergonomics Personal Injury and Wrongful Death, Wage Earning Capacity, Functional Disability Loss Analysis Estimates,
including Hedonics (Pain, Suffering and Grief Analysis), Life Care Planning with Economic Projection Estimates, Computer Services