

CALIFORNIA STATE ACCESSIBILITY STANDARDS

TITLE 24 CAC

INTERPRETIVE MANUAL

**PREPARED BY THE OFFICE OF THE STATE ARCHITECT
AND THE DEPARTMENT OF REHABILITATION**



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PREFACE

This Interpretive Manual was prepared by the Office of the State Architect (OSA) and the Department of Rehabilitation (DR). It is the result of over a year of weekly meetings during which various sections of the regulations were discussed in detail.

Phone calls and letters received by both offices made it apparent that many building officials, architects, etc., had the same questions regarding the regulations. It was agreed that many questions could be answered by such a manual, and valuable information regarding accessibility could be included. The manual is an attempt to put into writing the most commonly asked questions about the regulations and accessibility in general. The interpretations are the joint opinion of OSA and DR regarding the regulations.

This is an interpretive manual. The format is to recite a section of the regulations and follow it with our interpretation of that section. The interpretations are in italicized type and the regulations are in regular type. The chronology of the regulations is the same as is found in Title 24.

The adoption tables provided in this manual are not necessary but are included to familiarize you with their use and would be necessary if you were using Title 24.

The Department of Rehabilitation and the Office of the State Architect have staff available to respond to questions regarding access to buildings by the disabled. It is recognized that the enforcing agency designated in Section 2-110(b)11.C. on page 12 is responsible for making the final decision on enforcement of the access requirements. Therefore, the interpretations in this manual may differ from a decision made by other enforcing agencies.

Since the regulations are not cast in stone, they are subject to change; the same is true for this manual. The interpretations are OSA's and DR's opinion of how the regulations should be applied. They are not law and may change due to court decisions, changes of policy or administration.

Copies of this document are available at a cost of \$8.00 and may be obtained by writing to:

Office of the State Architect
Access Compliance Unit
1500 5th Street
Sacramento, CA 95814

INTRODUCTION

Here is our second edition of the Interpretive Manual. As with the first edition, this document contains all of the regulations on access that are promulgated by the Office of the State Architect (OSA) and published in Title 24 of the California Administrative Code, the State Building Code. The regulations affect both publicly and privately funded buildings. To gain a thorough understanding of how to use these regulations it is important that you read Chapter 2-1. This chapter explains Title 24, it's relationship to the Uniform Building Code, the interface between the two codes, how to use the adoption tables, and especially the application of OSA's access regulations. The application section describes three important issues:

1. Where access is to be applied,
2. Who enforces the access regulations, and
3. The legislative authority requiring OSA to write these regulations.

With this edition we have made necessary changes that reflect recent changes in Title 24. They include moving all of the regulations contained in Chapter 2-17 to Chapter 2-5, and renumbering Chapter 2-33.

In Part 5, the Plumbing Code section, we changed the bubbler height of drinking fountains from 33 inches to 36 inches and we changed the operating pressure requirements for all water faucets and flush mechanisms to 5lbs. force, previously some devices required 3lbs. force and some required 5lbs. force.

Enjoy.

JB

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Chapter 2-1
TITLE, SCOPE AND GENERAL

Adoption Table No. 2-1A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-101.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-102.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-102(a)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-103.....	-	82	-	79	79	79	79	-	-	-	-	-	-	-	-	-	-
2-108.....	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-109.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-109(a).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-110(a).....	-	82	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-110(b).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-110(b)5....	-	-	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-
2-110(b)6....	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-
2-110(b)9....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-110(b)11..	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-110(b)12..	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-
2-110(b)13..	-	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-
2-110(b)14..	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-
2-110(b)15..	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-111.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-112.....	-	-	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-113.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-

Title

Sec. 2-101. The provisions contained in this part shall be known as the State Building Code of the (Compiled) State Building Standards Code as defined in Section 18910, Health and Safety Code, may be cited as such and are referred to hereafter as "these regulations" or "these building standards" or "this Code".

What do you mean by "this part"?

You are looking at Part 2 of Title 24. Presently there are 12 parts that make up Title 24. Part 1 is the administrative section for use by the group that is in charge of Title 24, the Building Standards Commission.

Parts 2, 3, 4 and 5 are those sections that must interact with the model codes. State regulatory agencies sometimes modify the model codes to carry out a legislative mandate, this is done in parts 2 through 5. The format of these parts has therefore been arranged to appear just like the model code counterpart. Part 2 is formatted like the Uniform Building Code, Part 3 is like the National Electrical Code, Part 4 is like the Uniform Mechanical Code, and Part 5 is like the Uniform Plumbing Code. Part 6 is a miscellaneous grouping of regulations and is to be eliminated. Part 7 is the elevator safety regulations and Part 8 is the State Historical Building Code. Parts 9 through 11 are reserved for future use, Part 12 is the State Referenced Standards Code.

The 2 in 2-100 designates that you are looking at Part 2.

Purpose

Sec. 2-102.

- (a) **Standards.** To provide minimum standards to safeguard life or limb, health, property, and public welfare, and by regulating and controlling the design, construction, quality of materials, use and occupancy, location and maintenance of all buildings and structures within the scope of this Code.
- (b) **Incorporation.** To assure that barrier free design is incorporated in all buildings, facilities, site work, and other developments to which this Code applies to assure that they are accessible to, and usable by, physically disabled persons.

Scope

Sec. 2-103.

- (a) **Application.** The provision of these building standards shall apply to the construction, alteration, moving, demolition, repair, and use of any building or structure within the authority of any state agency. These building standards shall not apply to work located primarily in a public way, public utility towers and poles, or mechanical equipment not specifically regulated in these building standards.

NOTE: It is not the intent of this section that every existing occupancy within the scope of the State Fire Marshal's jurisdiction, mandatorily conform or be made to conform to the new construction requirements relative to fire, panic and explosion safety. Reasonable judgment must be exercised by the enforcing agency in the application of these building standards to existing occupancies.

This section seems to say that these regulations do not apply to work located in the public right-of-way, what about sidewalks?

What this section means is that these regulations do not apply to work in the public way except where specifically regulated. And there are several areas that are specifically regulated such as curb ramps in public sidewalks.

What is the scope of these regulations?

This is part 2 of Title 24. And it encompasses basically the same subject material as the Uniform Building Code. In general the regulations in Title 24 are additions or changes to the model codes as deemed necessary by the various state regulatory agencies to fulfill their role as prescribed by the legislature. As an example, when the legislature perceives a need to provide accessibility to the disabled, they pass a law that requires regulations be developed to do just that. Thus we get OSA (Office of the State Architect) writing regulations governing accessibility, and the regulations they develop therefore become part of Title 24. If the Uniform Building Code had incorporated all the regulations necessary to carry out the legislative intent OSA could have just adopted those parts of the Uniform Building Code by reference and the job would be done. However, since the legislature went well beyond the scope developed in the Uniform Building Code, it was up to the adopting agency, OSA, to write additional regulations or changes to existing Uniform Building Code requirements to fulfill the mandate of the Legislature.

In some cases OSA adopted existing portions of the Uniform Building Code, in some cases they modified the Uniform Building Code requirements and in other cases they added to or deleted from the Uniform Building Code requirements. In order to unravel this procedure you must read all of this application section which explains how to use Title 24.

Legislative mandates to adopt regulations by various regulatory agencies, and the adoption processes are consistent for all state agencies and for all parts of Title 24.

(b) Effective Date. Date of publication, or as otherwise noted herein.

Non-Building Regulations

Sec. 2-108. Requirements contained in the UBC, or in any other referenced standard, code or document, which are not building standards as defined in Section 18912, Health and Safety Code, shall not be construed as a part of the provisions of this Code.

For the applicability of regulations relating to maintenance, operation, use, limitations or prohibitions, and similar non-building regulations, see other Titles of the California Administrative Code.

What's the point?

The point of this section is that Title 24 may contain only building regulations, nothing else. For example, it may not have appeals processes or administrative regulations, etc. These types of regulations go in other titles.

Title 24 is one of 25 titles that make up the California Administrative Code. These 25 titles comprise all regulations of state agencies that write regulations. Each adopting agency has a title in which to place its particular regulations. You may be familiar with some of these. The State Fire Marshal has regulations in Title 19. Cal-OSHA has theirs in Title 8. Housing and Community Development have theirs in Title 25 and so on. In the past, building regulations have been allowed in these various titles. However, at present all building regulations must be in one location; Title 24. So we have Title 24, a compilation of many adopting agencies' building regulations under a single cover.

Order of Precedence

Sec. 2-109.

(a) General. In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern. Where a specific provision varies from a general provision, the specific provision shall apply.

2-109(b)

- (b) **Fire Codes.** Nothing in these building standards shall diminish their requirements of the State Fire Marshal.

Application

Sec. 2-110. Application.

- (a) **Vesting Authority.** Buildings, premises, sites, and structures within the scope of jurisdiction of any State adopting agency shall be made to conform to the provisions of this Code, but only to the extent the adopting agency has been granted the authority by the State Legislature to regulate these buildings, premises, sites and structures.
- (b) **Responsibility of Agencies.** The agencies listed in the adoption table at the beginning of each Chapter of this Code; the specific scope of application of the Code provisions or building standards adopted by each agency; the enforcing agency responsible for enforcement; and the specific statutory authority of each agency to adopt and enforce such provisions or building standards of this Code, unless other statutory authority is specifically cited under a specific Adoption Table are as follows:

If I'm doing a B-2 (office) or an R-1 (apartment) or whatever, where does it tell me which regulations I use?

To determine which regulations apply to a B-2 (office) or an R-1 (apartment) or any other occupancy, you must use and understand the application section. The very first place you always refer to in part 2 is the application section. This section explains which state agencies have authority over any specific occupancy. It may be that several state regulatory agencies have authority over a specific occupancy, such as an office, therefore you would need to adhere to all of their requirements.

The application section contains the scope or parameter of application of the code provisions adopted by each agency, in other words which kinds of buildings and specific types of regulations an agency has the authority to control. In addition, it explains who is charged with the enforcement of the agencies regulations, and the specific statutory authority of each agency to adopt and enforce such provisions. A simple example would be the application of the state regulatory authority for housing, H&CD. Under Section 2-110 (b) 9, there's a list of those occupancies that H&CD has legislative authority to govern. The list is as follows: Hotels, motels and apartment houses, employee housing, lodging houses, dwellings and factory built housing.

Section 2-110 (b) 9 is therefore stating that the application of regulations written by H&CD is confined to those occupancies enumerated in that list. You would never apply regulations written by H&CD to a commercial building such as an office (B-2) nor does H&CD have any authority to author such regulations. In the case of the Accessibility Regulations adopted by the Office of the State Architect (OSA), the application section is 2-110 (b) 11, takes two pages to complete the description of which buildings require access.

Once you understand the application of regulations by a state agency you then need to know which regulations within any specific chapter belong to the agency in question. This is accomplished by means of the adoption tables found at the beginning of each chapter.

So it takes a combination of the application section plus the adoption tables found at the beginning of each chapter to identify which regulations make up the requirements for a specific occupancy such as the B-2 office example.

The point, I guess, is that Building Codes and especially Title 24 only work by capturing the big picture - you cannot read them on a sentence-by-sentence basis.

2-110(b) continued

Below is a typical adoption table. It identifies the parts of the chapter that have been adopted or changed by the State Agency in question. In our case, those chapters marked with a 79 under the column heading OSA/AC (Office of the State Architect, Access Compliance) are the regulations we are concerned with.

Chapter 2-1
TITLE, SCOPE AND GENERAL

Adoption Table No. 2-1A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-101.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-102.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-

- 1. AGR--Department of Food and Agriculture.**
Application--Dairies and places of meat inspection.
Enforcing Agency--Department of Food and Agriculture.
Authority Cited--Agriculture Code Sections 18735, 19384, 33481 and 33731.
Reference--Agriculture Code Sections 18735, 19384, 33481 and 33731.
- 2. BOC--Board of Corrections.**
Application--Local detention facilities.
Enforcing Agency--Board of Corrections.
Authority Cited--Penal Code Section 6030.
Reference--Penal Code Section 6030.
- 3. BSC--State Building Standards Commission.**
Application--State buildings, including buildings constructed by the Trustees of the California State University and Colleges and the Regents of the University of California, where no State agency has the authority to adopt building standards applicable to such buildings.
Enforcing Agency--State or local agency specified by the applicable provisions of law.
Authority Cited--Health and Safety Code Section 18934.5.
Reference--Health and Safety Code Sections 18901 through 18949.
- 4. CA--Department of Consumer Affairs, State Board of Cosmetology.**
Application--Schools of cosmetology and electrology.
Enforcing Agency--State Board of Cosmetology.
Authority Cited--Business and Professions Code Sections 7310 and 7311.
Reference--Business and Professions Code Sections 7310 and 7311.

5. **CEC--California Energy Commission.**
Application--All occupancies.
Enforcing Agency--Local building department or the California Energy Commission.
Authority Cited--Public Resources Code Sections 25402, 25920 and 25922.
Reference--Public Resources Code Sections 25402, 25910, 25920, 25921, and 25922.
6. **DHS--Department of Health Services.**
Application--Restaurants and retail food establishments; public swimming pools; drinking water supplies; sanitary control of shellfish; sanitation of public beaches; food crop and harvesting; radiation; organized camps.
Enforcing Agency--Local health enforcing agency for all health and sanitation requirements; and local building department for all other areas.
Authority Cited--Health and Safety Code Sections 102, 203, 208, 427.3, 1225, 1276, 1411, 4010.1, 5474.29, 18897.2, 24102, 25811, 28281, 28282, 28290, 28694.5, and 28802.5.
Reference--Health and Safety Code Sections 102, 203, 208, 427.3, 1225, 1276, 1411, 4010.1, 5474.29, 18897.2, 24102, 25811, 28281, 28282, 28290, 28694.5 and 28802.5.
7. **DOE--Department of Education.**
Application--Facilities for exceptional children.
Enforcing Agency--Bureau of School Planning, Department of Education.
Authority Cited--Education Code Section 56100.
Reference--Education Code Section 56100.
8. **DOT--Department of Transportation.**
Application--Quarters for highway relocation assistance.
Enforcing Agency--Department of Transportation.
Authority Cited--Government Code Section 7267.8.
Reference--Government Code Section 7267.8.
9. **HCD/1--Department of Housing and Community Development.**
Application--Hotels, motels, lodging houses, apartment houses, dwellings, employee housing, and factory-built housing. Access and adaptability requirements for the physically disabled shall apply to all privately funded apartment houses of five or more dwelling units constructed or approved for construction after the effective date of these requirements, excluding from these regulations condominiums, co-ops and town houses.
 - A. To determine the total number of dwelling units affected by these regulations, the total number of buildings on a building site shall be considered as one building.
 - B. Nothing in these regulations shall be construed to require an expenditure in excess of \$600 per adaptable dwelling unit, based on January 1981 "ENR US-20 Cities." Average construction cost index of 3372.02 ("Engineering News Record," McGraw Hill Publishing Company) for access and adaptability for the physically disabled.
A builder/developer shall be required to expend up to \$600 per adaptable dwelling unit if necessary to comply with the access and adaptability features for the physically disabled.
NOTE: For exceptions relating to access and adaptability requirements for the physically disabled, see Sections 2-1213 (b) Exceptions 2 and 3.
 - C. The requirements for access and adaptability for the physically disabled shall not apply to the construction of new apartment house projects which received approval by an advisory agency or other appropriate local agency on or before six months following the publication date of these building standards, provided application for the permits to construct the new apartment house projects are

submitted or filed on or before 12 months following the publication date of these building standards.

For the purposes of these building standards, "approval" includes but not limited to, approval or conditional approval of a tentative subdivision or tentative parcel map or parcel map pursuant to the Subdivision Map Act (Division 2 commencing with Section 66410, or other permit for an apartment house project.)

Enforcing Agency--Local building department or the Department of Housing and Community Development.

Authority Cited--Health and Safety Code Sections 17003.5 through 17921, 50558 and 50559.

Reference--Health and Safety Code Sections 17000 through 17060, 17910 through 17990, 50558, and 50559.

10. HCD/2--Department of Housing and Community Development.

Application--Permanent buildings and accessory buildings in mobile home parks, and special occupancy parks.

Enforcing Agency--Local building department or the Department of Housing and Community Development.

Authority Cited--Health and Safety Code Sections 17003.5 and 18300.

Reference--Health and Safety Code Sections 18000 through 18700.

11. OSA/AC--Access Compliance, Office of the State Architect.

A. Application--Publicly funded buildings, structures, sidewalks, curbs, and related facilities.

NOTE: See Government Code, commencing with Section 4450.

(1) All buildings, structures, sidewalks, curbs, and related facilities constructed by the use of the State, county, or municipal funds, or the funds of any political subdivision of the State.

Application, Publicly Funded - Important!

Application to publicly funded buildings

This is the first statement regarding the application of OSA - Access Compliance requirements. It makes the statement that the OSA - AC regulations applies to all publicly funded buildings, sidewalks, etc. This includes County funded, State funded, and City funded buildings. It does not include 100% Federally funded buildings. This section also includes sidewalks. This means that public sidewalks are also regulated and must comply with OSA - AC requirements.

(2) All buildings, structures, and facilities, occupied 50 percent or more, which are leased, rented, contracted, sublet, or hired for periods in excess of two years by any municipal county, or State division of government, or by a special district. The determination as to whether the building, structure, or facility is occupied 50 percent or more shall be based upon the usable floor area as defined in the UBC.

(3) All publicly funded living accommodations.

EXCEPTION: This section shall not apply to any living accommodation which prior to July 1, 1982 qualifies for one of the following conditions:

- a. Received a binding, conditional or preliminary commitment of financing from a funding entity.
- b. Applied for a building permit.
- c. Commenced construction.

NOTE: For special conditions relating to living accommodations, see Section 2-1213 (b).

- (4) All publicly funded buildings used for one or two family dwelling unit purposes shall conform to the appropriate provisions applicable to living accommodations.

Publicly Funded Living Accommodations

This section requires State College housing, City or County owned housing to comply with the applicable sections of OSA - AC requirements on living accommodations. Remember this whole section is talking about Publicly Funded only.

- (5) All existing publicly funded buildings and facilities when alterations, structural repairs or additions are made to such buildings or facilities. This requirement shall only apply to area of specific alteration, structural repair, or addition, and shall not be construed to mean that the entire structure or facility is subject to this Code. Compliance shall require:
- a. That a primary entrance to the building or facility and the primary path of travel to the specific area shall be accessible to and usable by disabled persons.
 - b. That sanitary facilities, drinking fountains, and public telephones serving the remodeled area shall be accessible to and usable by disabled persons.

Existing Buildings - Very Important

This is the section that details the extent to which an existing building must comply if an addition, alteration or repair is made. Full compliance in an existing building incorporates the following work only:

1. The area of remodel must comply.
2. A path of travel to the remodeled area must comply and
3. bathrooms, telephones and drinking fountains serving the remodeled area must comply. These requirements apply to all remodeling jobs regardless of the valuation of the job.

Please notice that this section requires a primary path of travel to be made accessible. OSA - AC interprets this to mean a single path of travel. One only. In the case of a high rise building this would mean one elevator only and would not include any stairs as part of the path of travel requirements.

Path of travel incorporates all elements necessary to provide access to the remodeled area from the exterior arrival site. It can include parking areas, walks or sidewalks, ramps, corridors, an elevator and doorways, etc., as necessary to provide for arrival at the site and traversing to the actual interior area being remodeled.

- (6) When the total construction cost of alterations, structural repairs, or additions does not exceed a valuation threshold of \$50,000, based on January 1981, "ENR US20 Cities" average construction cost index of 3372.02 ("Engineering News Record", McGraw Hill Publishing Co.), and the enforcing agency finds that compliance with this code creates an unreasonable hardship, compliance shall be limited to the actual work of the project. The enforcing agency shall, annually, update the valuation threshold to a current amount based on the increase in the index since the last figure used.

Unreasonable Hardship

In some cases especially on small jobs, complying with 2-110 (b) 11. A(5) above would be difficult or impossible because the cost of providing access is too high in relationship to the total cost of the job. If this appears to be the case and the value of the job contemplated is under \$50,00.00 (adjusted ENR) then an unreasonable hardship determination must be made in order to provide an exemption. To do this there is a specific procedure to follow. This procedure is spelled out in the definition chapter, specifically Section 2-422. Here five criteria are spelled out that must be determined and documented in order to conclude there is an unreasonable hardship. What we're saying is that you must always adhere to full compliance as detailed in the previous section (2-110 (b) 11. A (5)) unless you find its a hardship.

One additional point, the \$50,000.00 as adjusted each year is the cost of the job without providing the accessibility features.

Another point; it is the intent of OSA that only the specific area that creates the unreasonable hardship should be eliminated not all the access features.

Do not forget, the exemption only applies to the path of travel, restrooms, drinking fountains and public phones serving the area, the area of remodel is not exempted by this section.

(7) Alterations, structural repairs or additions consisting of one of the following shall be limited to the actual work of the project:

- a. Altering one building entrance to meet handicapped requirements.
- b. Altering one existing toilet facility to meet handicapped requirements.
- c. Altering existing elevators to meet handicapped requirements.
- d. Altering existing steps to meet handicapped requirements.
- e. Altering existing handrails to meet handicapped requirements.

EXCEPTION: Projects which consist only of heating, ventilating, and air conditioning of existing space are not alteration projects for the purposes of disabled accessibility and shall not be subject to this code.

What does this mean?

The point here is that certain jobs may be done without triggering any other access requirements. Those jobs are listed in this section.

Does cosmetic work trigger access? No, but check with your local building department or OSA. Access is generally triggered by structural modifications.

B. Application--Privately funded public accommodations or facilities.

NOTE: See Health and Safety Code, commencing with Section 19955.

We now switch to the section on Privately Funded Buildings! In other words, using private sector money.

(1) Any building, structure, facility, complex, or improved area or portion thereof which is used by the general public and shall include:

- a. Auditoriums, convention centers and stadiums.

2-110(b)11.B.(1) continued

- b. Hospitals, including but not limited to, hospitals, nursing homes, and convalescent homes.
- c. Theaters, restaurants, and shopping centers.
- d. Hotels and motels.
- e. Passenger vehicle service stations.
- f. Offices of physicians and surgeons.
- g. Office buildings.
- h. Public curbs and sidewalks.

Again, OSA - AC requirements apply to buildings, facilities and to private sidewalks, as well. The term "and shall include" as used in this section is meant to be an expanding term, in other words the List of buildings - a through h is not inclusive but is intended to be representative of the general types of buildings that are affected.

- (2) Any sanitary facilities which are made available for the public, clients, or employees in such accommodations or facilities.

Notice that all sanitary facilities made available to the public, clients or employees must also be made accessible.

- (3) Any curb or sidewalk intended for public use that is constructed in this State with private funds.

Notice! Privately funded curbs and sidewalks are included.

- (4) All existing privately funded public accommodations when alterations, structural repairs, or additions are made to such public accommodations as set forth under 11A (5), (6), and (7) above.

Very Important! The requirements for existing privately funded buildings that are to be remodeled are the same as for publicly funded. So you are referred to the publicly funded sections to get this information.

EXCEPTION NO. 1: In privately funded multi-storied passenger vehicle service stations, shopping centers, offices of physicians and surgeons, and office buildings, subject to this code, floors or levels above and below the first floor or ground level are exempt from these requirements if a ramp or elevator is not available to provide public access to such floors or levels.

EXCEPTION NO. 2: In privately funded multi-storied buildings, floors or levels above the first floor or ground level are exempt from these requirements if a reasonable portion of all facilities and accommodations normally sought and used by the public in such a building are accessible to and usable by physically disabled persons.

There are (2) TWO important exceptions!:

Exception #1

This section applies only to passenger vehicle service stations, shopping centers, offices of physicians and surgeons and office buildings. You do not need to install elevators in these multi-storied buildings. Nor do you provide access except on the ground floor or other accessible levels.

Exception #2

This Section says: For those occupancies or buildings not listed above you do not need to provide an elevator. However, you must provide a reasonable portion of those facilities found on the upper levels, on the ground or accessible level. For this exception to apply, OSA-AC interprets "reasonable portion" to mean just that, a reasonable amount, but not all. You need not provide all of what's on the inaccessible level on the accessible level.

C. Enforcing Agency

- (1) By the Director of General Services where State funds are utilized for any project or where funds of counties, municipalities, or other political subdivisions are utilized for the construction of elementary, secondary, or community college projects.
- (2) By the governing bodies thereof where funds of counties, municipalities, or other political subdivisions are utilized except as otherwise provided above.
- (3) By the building department of every city, county, or city and county within the territorial area of its city, county, or city and county, where private funds are utilized. "Building department" means the department, bureau, or officer charged with the enforcement of laws or ordinances regulating the erection or construction, or both the erection and construction, of buildings.

EXCEPTION: The provisions of these regulations shall not apply to any portable buildings leased or owned by a school district which are not used by the physically handicapped and which are otherwise within the scope of this section upon application to and when specifically approved by the Department of Rehabilitation.

Who enforces those regulations?

In privately funded projects it is the local building department. That is what it says in # (3). and in # (2) above. For State projects enforcement is by the Department of General Services - this translates to OSA-AC.

- D. Special Conditions for the Physically Handicapped Requiring Appeals Action Ratification--**Whenever reference is made in these regulations to this section, the findings and determinations required to be rendered by the local enforcing agency shall be subject to ratification through an appeals process.

Appeals Action

Throughout the regulations you will find exceptions from the requirements for full compliance especially in existing buildings. However you will also find total exemptions from the regulations. Whenever you find a total exemption you will be directed to the above section which requires the enforcing agency to use it's appeals process to approve the elimination of accessible features.

E. Authority Cited--Government Code Section 4450.

F. Reference--Government Code Sections 4450 through 4458 and Health and Safety Code Sections 19955 through 19959.

12. **OSA/SSS--Structural Safety Section, Office of the State Architect.**
Application--Public elementary and secondary school and community college buildings.
Enforcing Agency--Structural Safety Section, Office of the State Architect.
Authority Cited--Education Code Sections 39152 and 81142.
Reference--Education Code Sections 39140 through 39157 and 81130 through 81147.
13. **OSHA--Occupational Safety and Health Standards Board.**
Application--Places of employment.
Enforcing Agency--Division of Occupational Safety and Health.
Authority Cited--Labor Code Section 142.3.
Reference--Labor Code Section 142.3.
14. **OSH/PD--Office of Statewide Health Planning and Development.**
Application--Clinics and health facilities.
Enforcing Agency--Division of Facilities Development, Office of Statewide Health Planning and Development.
Authority Cited--Health and Safety Code Sections 446.2, 446.3, 1275, and 15055.
Reference--Health and Safety Code Sections 446.2, 446.3, 1275, and 15000 through 15093.
15. **SFM--Office of the State Fire Marshal.**
Application--High-rise buildings; assembly buildings, educational and institutional buildings; occupancies when auxiliary or accessory to an assembly, educational or institutional buildings; organized camps, State owned or occupied buildings including State colleges and universities; tents, awnings, or other fabric enclosures used in connection with any occupancy. Protective social care facilities (Group D Occupancy, Title 24), R Occupancies (existing and new hotels, motels, apartment houses, and new dwellings).
Enforcing Agency--Local fire authority. State Fire Marshal where no local fire authority exists and for State owned or occupied building.
Authority Cited--Health and Safety Code Sections 13108, 13116, 13143, 13143.6, 13211, 17920.7, 17921, and 18897 through 18897.3.
Reference--Health and Safety Code Sections 13100 through 13146.5, 13210 through 13216, 17920.7, 17921 and 18897 through 18897.7.
16. **SHB--State Historical Buildings Code Advisory Board, Office of the State Architect.**
Application--Qualified historical buildings and structures and their associated sites.
Enforcing Agency--State or local agency specified by the applicable provisions of law.
Authority Cited--Health and Safety Code Section 18959.5.
Reference--Health and Safety Code Sections 18950 through 18960.
17. **YA--Department of the Youth Authority.**
Application--Juvenile halls.
Enforcing Agency--Department of the Youth Authority.
Authority Cited--Welfare and Institutions Code Sections 210 and 1712.
Reference--Welfare and Institutions Code Sections 210 and 1712.

Format

Sec. 2-111. This part fundamentally adopts the UBC by reference on a chapter by chapter basis. Such adoption is reflected in the adoption table of each chapter of this part. When the adoption table of a chapter of this part makes no reference to a specific chapter of the UBC, such chapter of the UBC is not adopted as a portion of this Code.

NOTE: See Notice page for explanation of model code years in all adoption tables.

What Format?

Yes, there is a format. The format of part 2 (your reading part 2) is just like U.B.C. that is, similar information is in the like numbered sections of Title 24 and U.B.C. Example: doors, corridors, stairs are in Chapter 2-33 of Title 24 and are in Chapter 33 of UBC. Occupancy chapters are 2-6 through 2-12 of Title 24, and they are found in Chapters 6 through 12 of the Uniform Building Code.

The mix of, or interface of regulations between UBC and Title 24 is explained by reading all of this chapter. If you really want to understand Title 24 you must read all of Chapter 2-1 of this manual. It's the only way to get the big picture, and it is a very big picture.

Validity

Sec. 2-112. If any chapter, section, subsection, sentence, clause, or phrase of this Code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the State as stipulated by statutes, or otherwise inoperative, such decision shall not affect the validity of the remaining portion of this Code.

Standard Reference Documents

Sec. 2-113

- (a) The codes, standards, and publications, adopted and set forth in this Code, including other codes, standards, and publications referred to therein are, by title and date of publication, hereby adopted as Standard Reference Documents of this Code.
- (b) When this Code does not specifically cover any subject relating to building design and construction, recognized fire prevention engineering practices shall be employed. The National Fire Codes and the Fire Protection Handbook of the National Fire Protection Association may be used as authoritative guides in determining recognized fire prevention engineering practices.

Effective Date (For OSHA)

Sec. 2-114. Regulations herein affecting building standards, apply to any building, or building alteration, or building modification for which construction is commenced after the effective date of the regulations. Date of commencement of construction, for the purpose of this section, shall be:

- (a) The advertising date for invitation of bids for State and local government projects.
- (b) The building permit issuance date for other projects.

Approvals (For OSHA)

Sec. 2-115

- (a) When an approval is required by a CAL-OSHA regulation, the Division of Occupational Safety and Health may classify as "Approved" products, materials, devices, systems, or installations that have been approved, listed, or labeled as conforming to applicable test standards by Underwriters' Laboratories, Factory Mutual Engineering, Inc., U.S. Bureau of Standards, U.S. Bureau of Mines, National Institute for Occupational Safety and Health, or other OSHA accredited testing laboratories.
- (b) The Division of Occupational Safety and Health may require proof in addition to that under (a) that the products, materials, devices, systems, or installations will provide reasonable safety.
- (c) When these orders require an approval of products, materials, devices, systems, or installations, and that approval is not available under (a), it will be necessary to submit engineering calculations, stress analysis, and other data for each design, model, or make, for which an approval is requested.

NOTE: This means that the product is approved as to design, strength, material, capacity, make, and model. It does not mean that each specific item requires an individual approval.

2-115(c) continued

So now that you know all there is to know about the application and use of Title 24, let's do an example and see how much you've learned. Our example starts below.

Chapter 2-1

Example # 1

How would you determine the regulations required for an existing privately funded multi-story office building that has an elevator and that is going to have a suite remodeled on the third floor. What regulations apply if any?

Step 1

Our first move is to look at the application section to determine if OSA has regulations pertinent to this case.

Application Section 2-110 (b)11. B(1)g. which says "yes!" privately funded office buildings must be accessibility.

Step 2

Here's a run down on what the privately funded section says.

2-110(b)11. is the general section enumerating OSA-AC requirements.

2-110(b)11. B. is the section devoted to privately funded buildings.

2-110(b)11. B. (1). is a general statement regarding the affected occupancy types.

2-110(b)11. B. (1). g. is the specific occupancy type.

2-110(b)11. B. (2). sanitary facilities are required for the public, clients and employees.

2-110(b)11. B. (3). curb and sidewalk must comply.

2-110(b)11. B. (4). sets out the requirements for existing buildings.

2-110(b)11. B. EXCEPTION No. 1 and No. 2. Detail requirements for multi-story and existing buildings.

Step 3

Here's what we're looking for. EXCEPTION No. 1 above says multi-storied office buildings are exempt on upper floors if there is no elevator. In our example, we have an elevator so upper floors must comply.

Step 4

Now let's look at 2-110(b)11. B. 4. the existing building requirements. We are referred to 2-110(b)11. A 5, 6 and 7, where the requirements are spelled out.

2-115(c) continued

We are remodeling one suite on an upper floor. So the section says:

- 1. The area itself must comply with the regulations (full compliance).*
- 2. A single path of travel must comply, that means a primary entrance, corridors, doors, one elevator, ramps, and parking must comply with the regulations. All components necessary to complete a single path of travel must be made accessible.*
- 3. Sanitary facilities, drinking fountains and public phones where provided and only those serving the area being remodeled must be made accessible.*

Step 5

Our next move is to go to each of the chapters dealing with the specific regulations regarding the work contemplated in this building.

Such as Chapter 2-6 thru 2-12 for occupancy requirements.

Chapter 2-5 for sanitary requirements.

Chapter 2-33 and 2-71 for path of travel requirements.

Chapter 2-51 for elevator requirements.

Chapter 2-72 for alarms.

Part 3 for electrical requirements.

Part 5 for plumbing requirements.

If you are using this manual, you will not need to concern yourself with the adoption tables since there is no need to identify OSA-AC requirements. However, the description in this chapter can be handy if you ever pick up the full Title 24 and must find something.

Well, it's just that simple. You now know the procedure to use the application section, the adoption tables, and the rest of the code.

Chapter 2-4
DEFINITIONS AND ABBREVIATIONS

Adoption Table No. 2-4A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	79	79	79	79	-	79	-	-	-	-	-	-	-	-
2-402.....	-	82	-	79	-	79	-	-	79	-	-	-	-	-	-	-	-
2-403.....	-	-	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-404.....	-	82	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-205.....	-	82	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-406.....	-	-	-	79	-	79	-	-	79	-	-	-	-	-	-	-	-
2-407.....	-	-	-	79	-	79	-	-	79	-	-	-	82	-	-	-	-
2-408.....	-	-	-	-	-	79	-	-	79	-	-	-	-	-	-	-	-
2-409.....	-	-	-	79	-	79	-	-	79	-	-	-	-	-	-	-	-
2-410.....	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-412.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-413.....	-	-	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-414.....	-	82	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-415.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-417.....	-	-	-	-	-	79	-	-	79	-	-	-	82	-	-	-	-
2-418.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-419.....	-	-	-	79	-	79	-	-	79	-	-	-	-	-	-	-	-
2-420.....	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-421.....	-	-	-	-	-	79	-	-	79	-	-	-	-	-	-	-	-
2-422.....	-	-	-	79	79	79	79	-	-	-	-	-	-	-	-	-	-
2-424.....	-	-	-	-	-	79	-	-	79	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanations of this Table.

NOTE 2. See State Building Code History Note Appendix.

Definitions

A.

Sec. 2-402

ACCESSIBILITY. The combination of various elements in a building or area which allows access, circulation, and the full use of the building and facilities by the disabled.

These regulations are meant to provide minimum standards for barrier free design. The elimination of physical barriers determines the accessibility of a building or area.

ACCESSIBLE LOCATION. A location which can be reached by an employee standing on the floor, platform, runway, or other permanent working area.

ADULT is a person who has attained or exceeds the age of 18 years.

AGED HOME OR INSTITUTION is a facility used for the housing of persons 65 years of age or older.

aisle is a circulation path between objects such as seats, tables, merchandise, equipment, displays, shelves, desks, etc.

Check Chapter 2-5 for wheelchair maneuvering dimensions and Section 3313a and b of UBC for aisle width requirements. Furniture layouts are required to adhere to these requirements.

ANSI. American National Standards Institute.

APPROVED means meeting the approval of the enforcement agency, except as otherwise provided by statute, when used in connection with any system, material, type of construction, fixture, or appliances as the result of investigation and test conducted by the agency, or by reason of accepted principles or tests by national authorities, technical, health, or scientific organizations or agencies.

NOTE: See Health and Safety Code Section 17921.1 for "approved" as applied to hotplates. See Health and Safety Code Section 17921.3 for "approved" as applied to low flush water closets.

APPROVED LISTING AGENCY is any agency approved by the enforcement agency unless otherwise provided by statute which is in the business of listing and labeling and which makes available at least an annual published report of such listings in which specific information is included that the product has been tested to recognized standards and found to comply.

APPROVED TESTING AGENCY is any agency which is determined by the enforcement agency, except as otherwise provided by statute, to have adequate personnel and expertise to carry out the testing of systems, materials, type of construction fixtures or appliances.

ASSEMBLY BUILDING is a building or portion of a building used as follows:

1. Used or intended to be used for the gathering together of 50 or more persons for purposes of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation or education, or,
2. Any building or structure or portion thereof used or intended to be used for the showing of motion pictures when an admission fee is charged and when such building or structure is open to the public and has a capacity of 10 or more persons.

ATTIC STORY. Any story immediately below the roof and wholly or partly within the roof framing, designed, arranged or built for business or storage use.

B.

Sec. 2-403

BUILDING means any structure as to which State agencies have regulatory power, built for support, shelter, housing or enclosure of persons, animals, chattels, equipment or

property of any kind, and also includes structures, wherein things may be grown, made, produced, kept, handled, stored, or disposed of, and all appendages, accessories, apparatus, appliances, and equipment installed as a part thereof. "Building" shall not include machinery, equipment, or appliances installed for manufacture or process purposes only, nor shall it include any construction installations which are not a part of a building, any tunnel, mine shaft, highway, or bridge, or include any house trailer or vehicle which conforms to the Vehicle Code.

There is nothing very exciting in this definition. However, it does point out the fact that State agencies do have regulatory power over certain structures in the state as described in detail in the application section Chapter 2-1.

C.

Sec. 2-404

CAC means the California Administrative Code.

CELLULAR CONCRETE is a lightweight product consisting of portland cement and selected gas forming chemicals or foaming agents which created homogeneous voids in the hardened concrete.

CHILD OR CHILDREN is a person or persons under the age of 18 years.

COMMUNITY KITCHEN is a separate room or building in a labor camp used or intended to be used by the occupants of the labor camp for cooking or preparing their own meals.

CURB CUT is an interruption of a curb at a pedestrian way, which separates surfaces that are substantially at the same elevation.

CURB RAMP is a sloping pedestrian way, intended for pedestrian traffic, which provides access between a walk or sidewalk to a surface located above or below an adjacent curb face.

What's the difference between a curb cut and curb ramp you ask? When the ramp begins at the bottom of or extends through the curb face, it is a curb cut. See the illustrations for further clarification. Ramps can be hazardous to the visually impaired or blind and therefore should incorporate tactile grooves for those who use long or white canes.

D.

Sec. 2-405

DAY CARE is the care of persons during any period of a 24 hour day where permanent sleeping accommodations are not provided.

NOTE: "Day Care" shall not be construed to preclude the use of cots or mats for employee napping purposes when attendants and staff personnel are awake and on duty in the area where napping occurs.

DEPARTMENT is the Department of Housing and Community Development.

DAY CARE HOME, LARGE FAMILY is a home licensed in accordance with the provisions of 1597.54 Health and Safety Code, which provides family day care to 7 to 12 children, inclusive, including children who reside at the home, in the provider's own home, for periods of less than 24 hours per day.

DAY CARE HOME, SMALL FAMILY is a home which provides family day care to six or fewer children, including children who reside at the home, in the provider's own home, for periods of less than 24 hours per day.

DETACHED BEDROOM is a separate accessory structure, without kitchen or sanitary facilities, designed for and intended to be used as a sleeping or living facility for one family, to be employed in conjunction with a main structure (s) which includes kitchen and sanitation facilities.

DETACHED SINGLE-FAMILY DWELLING is any single-family dwelling which is separated from adjacent property lines by 3 feet or more or is separated from adjacent buildings by 6 feet or more.

DIRECTIONAL SIGN is a publicly displayed notice which indicates, by use of words or symbols, a recommended direction or route of travel.

Directional signs are usually used to indicate accessible paths of travel. Signs should be designed to facilitate reading by the visually disabled. Background contrast and character proportion are critical. See Section 2-522(b) for guidelines for the design and provision of directional signs.

E.

Sec. 2-406.

ELEVATOR, PASSENGER:

NOTE: See Definition of Elevator, Part 7, Title 24, CAC.

ENFORCING AGENCY shall mean the designated department or agency as specified by statute.

EQUIVALENT FACILITATION is an alternate means of complying with the literal requirements of these standards and specifications that provides access in terms of the purpose of these standards and specifications.

NOTE 1: See Section 2-102.

NOTE 2: In determining equivalent facilitation, consideration shall be given to means that provide for the maximum independence of the physically disabled individual while presenting the least risk of harm, injury, or other hazard to such disabled persons or others.

What is equivalent to facilitation? That is the \$64,000.00 question!

It was the intent of the authors of these regulations to provide relief from strict literal enforcement of these regulations. Much in the same way that the Uniform Building Code allows for alternate materials and methods of construction. Therefore, in the case of findings of unreasonable hardship equivalent facilitation represents another way of providing accessibility.

One example might be the provision of tables for wheelchair patrons in a cocktail lounge in lieu of a belly up bar.

F.

Sec. 2-407

FACILITY (OR FACILITIES) is a building, structure, room site, complex, or any portion thereof, that is built, altered, improved or developed to serve a particular purpose.

FINAL INSPECTION PLACE. Any room, compartment, or specially prepared open place at which final inspection of retained carcasses may be conducted in an establishment which slaughtering is done.

FIRE-RETARDANT TREATED WOOD is lumber or plywood impregnated with chemicals and when tested in accordance with UBC standard No. 42-1 for a period of 30 minutes, shall have a flame spread of not over 25 and show no evidence of progressive combustion. Materials which may be exposed to the weather, shall maintain this fire-retardant classification when tested in accordance with the rain and weathering tests of UBC Standard No. 32-7.

NOTE NO. 1: All materials shall bear identification showing the fire performances rating thereof and, if intended for exterior use, shall be further identified to indicate suitability

for exposure to the weather. Such identifications shall be issued by an approved agency having a service for inspection of materials at the factory.

NOTE NO 2: Fire-Retardant Treated Wood shall not be construed as "noncombustible" within the meaning of Section 2-415.

FLOOR HOLE. Any opening in a floor or platform which is smaller than a floor opening.

FLOOR OPENING. An opening in any floor or platform 12 inches or more in the least horizontal dimension. It includes stairway, floor openings, ladderway floor openings, hatchways, and chute floor openings.

FULL-TIME CARE shall mean the establishment and routine care of persons on an hourly, daily, weekly, monthly, yearly or permanent basis, whether for 24 hours per day or less, and where sleeping accommodations are provided.

G.

Sec. 2-408

GRAB BAR is a bar for the purpose of being grasped by the hand for support.

GUARDRAIL. A vertical barrier erected along the open edges of a floor opening, wall opening, ramp, platform, runway or other elevated area to prevent persons from falling off the open edge.

H.

Sec. 2-409

HAZARDOUS SUBSTANCE. One which by reason of being explosive, flammable, toxic, poisonous, corrosive, oxidizing, irritant, or otherwise harmful is likely to cause injury.

HIGH RISE BUILDING.

NOTE: See Section 2-1807.

HISTORICAL BUILDING.

NOTE: See "Qualified Historical Building".

Either qualified historical buildings or buildings with significant historical value may utilize alternate methods of accessibility or deviations from these regulations as authorized. See Section 2-522(d) and the State Historical Building Code for alternatives. The State Historical Building Code is Part 8 of Title 24, a complete explanation of all parts is enumerated in Chapter 2-1 of this document.

I.

Sec. 2-410

IMPACT INSULATION CLASS. (IIC) is a single-number rating for ceiling/floor construction that represents the ability of the construction to isolate impact noise, where measurement procedure is based on ASTM E492-73T, and as defined in UBC Standard No. 35.2.

INTERNATIONAL SYMBOL OF ACCESSIBILITY. That symbol adopted by Rehabilitation International's 11th World Congress for the purpose of indicating that buildings and facilities are accessible to the physically disabled.

NOTE: See Section 2-522 (b) and Figure No. 2-5-6.

All accessible building entrances are to be identified with this symbol. See the illustration for design proportions.

K.

Sec. 2-412

KICK PLATE is an abrasion-resistant plate affixed to the bottom portion of a door to prevent a trap condition and protect its surface.

Wheelchair footrests are often used to push open doors. Therefore, it is important that an abrasion resistant kick plate be available and that it be strong enough to take this kind of abuse.

L.

Sec. 2-413

LEVEL AREA is a specified surface that does not have a slope in any direction exceeding 1/4 inch in one foot from the horizontal.

LIFT, SPECIAL ACCESS.

NOTE: See "Special Access Lifts".

Special access lifts can be used to provide access to different floors or levels when ramps or elevators would be difficult or costly to install. The maximum vertical rise is governed by requirements promulgated by OSHA.

LISTED AND LISTING are terms referring to equipment which is shown in a list published by an approved testing agency, qualified and equipped for experimental testing, and maintaining an adequate periodic inspection of current productions, and whose listing states that the equipment complies with nationally recognized safety standards.

NOTE: These terms shall also mean equipment or materials accepted by the State Fire Marshal as conforming to the provisions of these regulations and which are included in a list published by the State Fire Marshal.

LIVING ACCOMMODATIONS. Any "privately or "publicly funded building or portion thereof having three or more apartments as defined in the UBC.

M.

Sec. 2-414

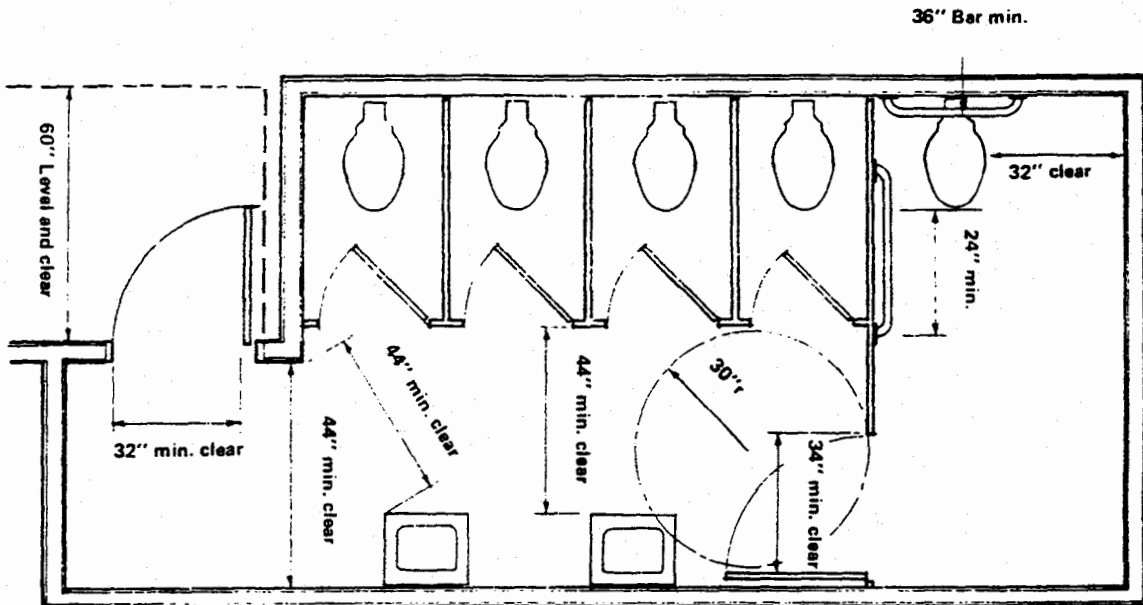
MENTALLY RETARDED PERSONS, PROFOUNDLY OR SEVERELY shall mean any retarded person who is unable, or unlikely to be able, to physically or mentally respond to any oral instruction relating to fire danger, and unassisted take appropriate action relating to such danger.

NOTE: The determination as to such incapacity shall be made by the Director of the State Department of Public Health or his designated representative pursuant to Section 13131.3, Health and Safety Code.

MESS HALL is a room or portion of a room in a labor camp, other than a kitchen or dining area in a dwelling unit, used or intended to be used for the serving of food.

MESS HALL KITCHEN is a room or portion of a room used or intended to be used as a kitchen in conjunction with a mess hall.

MULTIPLY ACCOMMODATION TOILET FACILITY. A room that has more than one sanitary fixture, is intended for the use of more than one person at a time, and which usually is provided with privacy compartments or screens shielding some fixtures from view. A bathroom serving a hotel guest room and a privacy toilet in small offices, stores and similar locations are not included in this category.



The illustration shows an example of a multi-accommodation toilet facility. As you might have guessed, a multiple accommodation toilet facility can accommodate several occupants at once.

N.

Sec. 2-415

NONAMBULATORY PERSONS means persons unable to leave a building unassisted under emergency conditions. It includes, but is not limited to, persons who depend upon mechanical aids such as crutches, walkers and wheelchairs, and profoundly or severely mentally retarded persons. Except for the allowances permitted under Section 2-1001 for facilities of 6 or less capacity, infants shall be considered as nonambulatory persons.

NONCOMBUSTIBLE as contained in Section 415, UBC, is supplemented by adding the following material as subsection (3), thereof:

- (3) Homogeneous or composite materials, other than as described in 1. or 2. of Section 415, UBC, having a surface flame spread rating not higher than 25, a fuel contribution rating of not more than 35, and a smoke development rating of not more than 50 without evidence of continued progressive combustion, and of such composition that surfaces that would be exposed by cutting through the material in any way would not exceed the ratings stipulated herein.

Flame-spread, fuel contribution, and smoke development ratings as used herein refers to ratings obtained in accordance with tests conducted as specified in UBC Standard No. 42-1.

NORMAL shall mean conforming to a pattern or standard regarded as usual or typical.

P.

Sec. 2-417

PASSAGE DOOR is a door other than an exit door through which persons may traverse.

Passage doors and exit doors have the same requirements for accessibility in these regulations.

PASSENGER ELEVATOR:

NOTE: See Definition of Elevator, Part 7, Title 24, CAC.

PATH OF TRAVEL is a passage that may consist of walks and sidewalks, curb, ramps, and pedestrian ramps, lobbies and corridors, elevators, other improved areas, or a necessary combination thereof, that provides free and unobstructed access to and egress from a particular area or location, for pedestrians and/or wheelchair users.

Be sure to read this one, it is important.

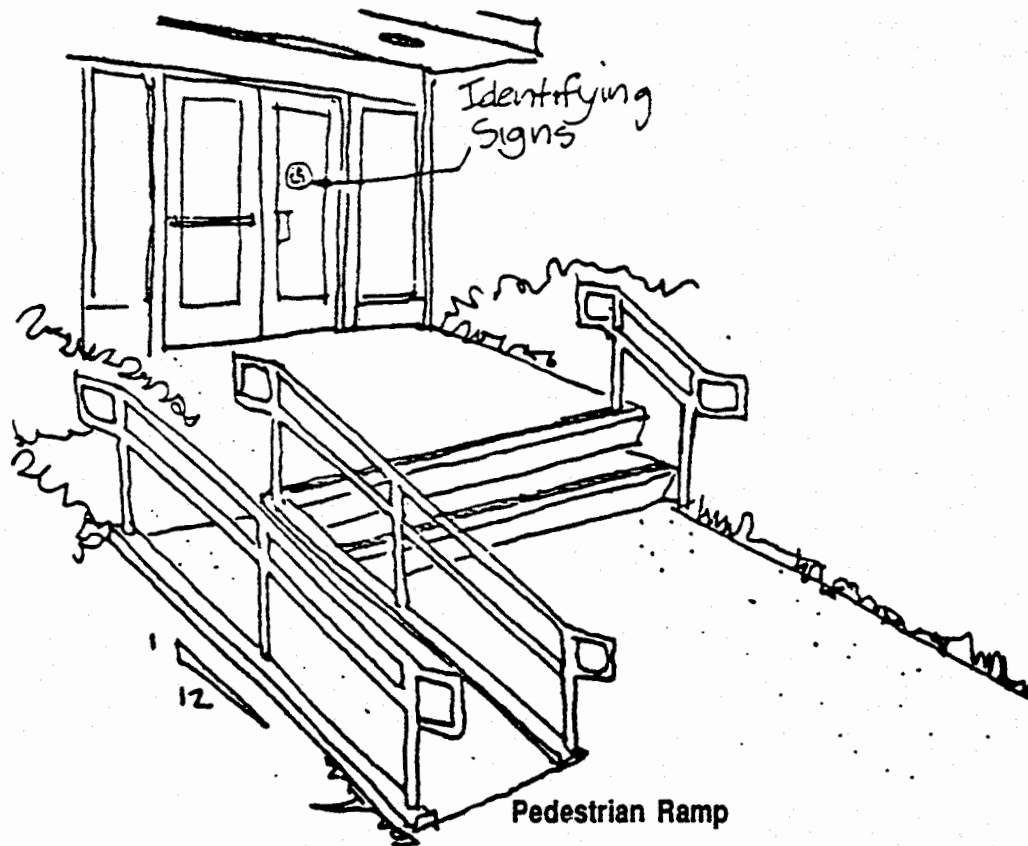
I will say it again, you must read Chapter 2-1 prior to any other section of this manual. If you have done that, then you are aware that in existing buildings only a single path of travel to the remodeled area is required. In multi-storied buildings, this would include one elevator only.

The point of path of travel is that people arriving at the building site are provided accessibility from the exterior of the building, including either the right-of-way and/or parking lot to the interior portions of the building. The path of travel will include various elements including the entrance, walkways, ramps, etc. necessary to provide a direct accessible route to the interior of the building. All features within the path of travel are to adhere to these regulations.

PEDESTRIAN is an individual who moves in walking areas with or without the use of walking assistive devices such as crutches, leg braces, wheelchairs, etc.

PEDESTRIAN RAMP is a sloping path of travel intended for pedestrian traffic and as differentiated from a curb ramp.

See the illustrations for examples of pedestrian ramps. As described elsewhere in this code, any path of travel should be considered a ramp when its slope is greater than 1 and 20. See Section 2-3307 and 2-3325 for further information.



PEDESTRIAN GRADE SEPARATION is a structure erected over or under an obstacle such as a freeway, roadway, street, railroad, stream, etc., and intended primarily for pedestrian use.

Pedestrian grade separations must comply with the requirements for ramps.

PEDESTRIAN WAY is a route by which a pedestrian may pass.

PERMANENT shall mean facilities which are intended to be used for periods longer than those designated in this Code under the definition of temporary.

PHYSICALLY DISABLED shall mean individuals who have impairments, either permanent or temporary in nature, as follows:

1. Impairments which affect ambulation due to cerebral palsy, poliomyelitis, spinal cord injury, amputation, arthritis, cardiac and pulmonary conditions, and other conditions diseases which reduce mobility, including aging.
2. Impairments that require the use of crutches, canes or wheelchairs.
3. Total blindness or impairments affecting sight to the extent that the individual functioning in public areas may be insecure or exposed to danger.
4. Deafness or hearing impairments that may expose an individual to danger or insecurity.

PLATFORM, UNENCLOSED is a horizontal, generally level and raised surface for speakers, performances, displays, etc., as distinguished from "platforms" which are enclosed.

Chapter 2-6 the Assembly Occupancy Chapter of this document has requirements for platforms or pits, etc. and in addition has requirements that these areas be made accessible.

PREPARE means to slaughter, cut up, bone, recut, pack, repack, label, or relabel fresh or frozen pet food or horsemeat intended for human use subject to the control of the California Department of Agriculture.

PRIMARY ENTRANCE shall mean any entrance to a facility which has a substantial flow of pedestrian traffic to any specific major function of the facility.

Having read Chapter 2-1 you realize that when remodeling existing buildings, only a single primary entrance is required to be accessible and in new construction, all primary entrances are required to be accessible. In Chapter 2-33 you will find the specific requirements for making entrances accessible.

What is an exit door?

For the purposes of these regulations, the term "exit door" applies to all doors required for access, i.e., primary entrances, passage doors, etc. The term was used because of its existence in the UBC and Fire Codes.

PROCESSING FOR USE AS PET FOOD means chilling, freezing, packing, repacking, or otherwise handling any meat, meat food product or meat by-product, or horsemeat, horsemeat food product, or horsemeat by-product destined for use as pet food.

PUBLICLY FUNDED as used in this Code does not include loans, grants, guarantees, or other financial assistance provided by a public agency to finance construction, rehabilitation or purchase of privately owned housing accommodations, including housing financed under the Cal Vet program and other privately-owned buildings, facilities, and structures.

PYROXYLIN PLASTIC. Any plastic substance, material, compound, other than cellulose nitrate film, having soluble cotton or cellulose nitrate as a base, including celluloid fiberloid, pyralin, viscoloid, zylonite and other products, materials and compounds by whatever name known, when in the form of blocks, slabs, sheets, tubes or fabricated shapes.

Q.

Sec. 2-418

QUALIFIED HISTORICAL BUILDING (OR STRUCTURE) shall mean any structure or collection of structures deemed important to the history, architecture, or culture of an area by an appropriate local or State governmental jurisdiction. This shall include structures of national, State, or local historical registers or official inventories, such as the National Register of Historic Places, State Historical Landmarks, State Points of Historical Interest, and city or county registers or inventories of historical or architecturally significant sites and places or landmarks.

NOTE: See Section 2-522 (d).

Special allowances for accessibility to qualified historical buildings are provided in the State Historical Building Code. That document is Part 8 of Title 24.

R.

Sec. 2-419

RAMP:

NOTE: See "Pedestrian Ramp" or "Curb Ramp".

REASONABLE PORTION shall mean that segment of a building, facility, area, space, or condition which would normally be necessary if the activity therein is to be accessible by the disabled.

What is a reasonable portion? - a very good question.

The reasonable portion concept is found in Chapter 2-1 of this manual, it was given to us by the Legislature and therefore must be incorporated into our regulations.

The reasonable portion concept generally applies to multi-storied structures and provides exceptions to the regulations requiring accessibility to all portions of a facility. In most cases, every feature need not be accessible, if a reasonable portion of the facilities and accommodations provided is accessible. The State Architect's Office interpretation of this section is that it is not necessary to duplicate each of the occupancy types on the upper floors of multi-storied buildings, on the first or accessible floor.

RECOMMEND does not require mandatory acceptance, but identifies a suggested action which shall be considered for the purpose of providing a greater degree of accessibility to the physically disabled.

REMODELING:

NOTE: See "Alter or Alteration" of UBC.

Remodeling includes any change, addition or modification in construction to a structure or area. Projects which consist of only heating, ventilating and air conditioning of existing space or cosmetic changes are not subject to access regulations. See Section 2-110(b)11. A(7) e for requirements based on the scope of the project.

RESTRAINT shall mean the physical retention of a person within a room, cell, or cell block by any means; or within the exterior walls of a building by means of locked doors inoperable by the person restrained. Restraint shall also mean the physical binding, strapping, or similar restriction of any person in a chair, walker, bed, or other contrivance for the purpose of deliberately restricting the free movement of ambulatory persons.

NOTE: Restraint shall not be construed to include nonambulatory persons, nor shall it include the use of bandage material, strip sheeting, or other fabrics or materials (soft ties) used to restrain persons in hospital type beds or wheelchairs to prevent injury, provided an approved method of quick release is maintained. Facilities employing the use of soft ties, however, shall be classified as a building used to house nonambulatory persons.

RISER is that upright portion of a step in a stair.

S.

Sec. 2-420

SANITARY FACILITY is any single unit or a combination of water closets, urinals, lavatories, bathtubs, or showers, together with the room or space in which they are housed.

Equivalency is the keynote to providing accessibility!

Sanitary facilities serving an accessible area along with associated paths of travel shall be accessible and provide equally for the able-bodied and the disabled. For example, it is unacceptable to provide a unisex accessible toilet where separate nonaccessible toilet rooms are provided for the able-bodied.

SHOPPING CENTER is one or more sales establishments or stores.

Check this.

That's right. One or more sales establishments is a shopping center. This ties in with requirements for reasonable portion contained in Chapter 2-1 so be sure to read that chapter if you haven't already.

SHOULD:

NOTE: See Recommend.

SIDEWALK is a surfaced pedestrian way contiguous to a street used by the public.

NOTE: See definition for "Walk".

There is a difference between a walk and a sidewalk. The State Architect specifically defines an important difference between a sidewalk and walk. Sidewalks are always associated with, and adjacent to public ways; they do not have to meet the requirements for ramps regardless of their slope. Walks are on private property not part of a public right of way and do not have to comply with ramp requirements. In other words, you don't need handrails on sidewalks. Walks however do require handrails and must comply with ramp requirements when the slope exceeds 1 in 20.

SINGLE ACCOMMODATION SANITARY FACILITY is a room that has not more than one of each type of sanitary fixture, is intended for use by only one person at a time, has no partition around the toilet, and has a door that can be locked on the inside by the room occupant.

NOTE 1: See Section 2-511 (a)

NOTE 2: For bathrooms serving Group R Occupancies, see Section 2-1213.

Single accommodation sanitary facilities can be unisex or separate, but must be the same for able-bodied or the disabled.

SITE DEVELOPMENT is "on site" and "off site" work including, but not limited to, walks, sidewalks, ramps, curbs, curb ramps, parking facilities, stairs, planting areas, pools, promenades, exterior gathering or assembly areas and raised or depressed paved areas.

SMOKE DETECTOR is a device which senses visible or invisible particles of combustion.

SOUND TRANSMISSION CLASS (STC) is a single-figure rating for floor/ceiling and interior wall partition construction that represents the ability of the construction to isolate airborne noise, where measurement procedure is based on ASTM E90-70 or ASTM E366-71, and as defined in UBC Standard No. 35-1.

SPECIAL ACCESS LIFT is a hoisting and lowering mechanism equipped with a car or platform, or support which serves two landings of a building or structure and is designed to carry a passenger or passengers and (or) luggage or other material a vertical distance as may be allowed.

See Chapter 2-51 for special requirements for lifts.

SQUARE FEET. Is abbreviated as ft 2.

STORAGE ACCESS AISLE. An aisle, from which pedestrian traffic is excluded during truck operation, designed for the passage of a single industrial truck.

SUITABLE. Capable of performing with safety the particular function specified in these regulations.

T.

Sec. 2-421

TEMPORARY shall mean buildings and facilities intended for use at one location for not more than one year and seats intended for use at one location for not more than 90 days.

Again this is a requirement handed down to us by the Legislature and therefore incorporated into our regulations. Yes, temporary and emergency facilities are required to be made accessible. This requirement is found in Government Code Section 4451.

TOEBOARD. A vertical barrier erected along the open edges of floor openings or floor holes, platforms, and runways.

TREAD is the horizontal surface of a step in a stair.

U.

Sec. 2-422

UBC shall mean the 1979 Edition of the Uniform Building Code as published by the International Conference of Building Officials.

EXCEPTION: The UBC as it relates to the jurisdiction of HCD shall be construed to mean 1982 Edition in all adoption Tables and in most adoption Tables for SFM.

UBC STANDARDS shall mean the 1979 or 1982 Edition of the Uniform Building Code Standards as published by the International Conference of Building Officials.

UNREASONABLE HARDSHIP: An unreasonable hardship exists when the enforcing agency finds that compliance with the building standard would make the specific work of the project affected by the building standard unfeasible, based upon an overall evaluation of the following factors:

1. The cost of providing access.
2. The cost of all construction contemplated.
3. The impact of proposed improvements on financial feasibility of the project.
4. The nature of the accessibility which would be gained or lost.
5. The nature of the use of the facility under construction and its availability to disabled persons.

The details of any finding of unreasonable hardship shall be recorded and entered in the files of the enforcing agency.

This is a biggie!

As you peruse through the regulations, you will find exceptions from the literal requirements of these regulations for existing buildings. Many of these exceptions may only be incorporated when it is found that an unreasonable hardship would exist if compliance is provided. Each exception from the requirements granted because of unreasonable hardship refers you to this definition. It is the intent that in order to find unreasonable hardship the enforcing authority must make an evaluation based on the five criteria incorporated herewith and to document those findings. Unreasonable hardship is to be determined on a case by case basis.

W.

Sec. 2-424

WALK is a surfaced pedestrian way not located contiguous to a street used by the public.
(See definition for "Sidewalk".)

What's the difference between a walk and a sidewalk? The State Architect's Office specifically describes a difference between a walk and a sidewalk. Walks must conform to the requirements for ramps if their slope exceeds 1 and 20. Sidewalks do not have to meet that requirement. Ramp requirements are found in Section 2-3307.

WHEELCHAIR is a chair mounted on wheels to be propelled by its occupant manually or with the aid of electric power, of a size and configuration conforming to the recognized standard models of the trade.

WHEELCHAIR OCCUPANT OR WHEELCHAIR USER is an individual who, due to a physical impairment or disability, utilizes a wheelchair for mobility.

WORKING LEVEL OR WORKING AREA. A platform, walkway, runway, floor, or similar area fixed with reference to the hazard. This does not include ladders or portable or temporary means used for access, repair, or maintenance, provided such means are removed immediately upon completion of the work.

Chapter 2-5
**CLASSIFICATION OF ALL BUILDINGS BY USE OR OCCUPANCY
AND GENERAL REQUIREMENTS FOR ALL OCCUPANCIES**
Adoption Table No. 2-5A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
501.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
502.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503(a).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503(b).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503(c).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503(d).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503(d) Exception 3.	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
503(d) Exception 4.	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
504.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
505(a).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
505(b).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
505(c).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
505(d).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
505(e).....	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
506(a)1.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
506(a)2.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
506(a)3.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
507.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-507.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
509.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
510.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Adoption Table No. 2-5A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
2-511(a).....	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-
2-511(a)8....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-511(a) 9A(1) (2) (3)	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-511(a)10..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-511(a)11..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-511(a)12..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-511(a)13..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-511(a)14..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-511(b).....	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-
2-511(b)1(a)	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-511(c).....	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-
2-511(d).....	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-
2-514.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-515.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-516.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-517.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-518.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-519.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-520.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-521.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-522(a).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-522(b).....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-522(c).....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-522(d).....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-522(e).....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-522(f).....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Access to Toilet and Other Facilities

Sec. 2-511

(a) Access to Water Closets and Sanitary Facilities.

1. **General.** Sanitary facilities that serve buildings, facilities, or portions of buildings or facilities that are required by these standards to be accessible to the physically handicapped, shall conform to the following requirements, except as specifically exempted in other portions of this Code.

NOTE: See Section 5-1502, Part 5, Chapter 15 of Title 24 for additional sanitation standards.

Are all the toilet rooms in my building required to be accessible?

At the sake of being repetitive, the only place you can find this is in Chapter 2-1, the application section. By thoroughly reading Chapter 2-1 of this interpretative manual, you will have a very clear understanding of which areas require accessibility and which do not. In general, all sanitary facilities provided on accessible levels must comply.

Special Note: Mounting heights for fixtures are found in Part 5 of Title 24 (the plumbing code section of Title 24).

EXCEPTION: In existing buildings or facilities, when the enforcing agency determines that compliance with any building standard under this section would create an unreasonable hardship, an exception to such standard shall be granted when equivalent facilitation is provided. When equivalent facilitation is used, the following criteria shall apply:

- A. All sanitary facilities are not required to comply with these building standards when the enforcing agency determines that sanitary facilities are accessible to and usable by physically disabled persons within a reasonable distance of accessible areas.
- B. Equivalent facilitation would provide for either a lateral-or-front transfer toilet stall.

NOTE: See Figure 2-5-1C.

- C. Equivalent facilitation would require doors to have a clear, unobstructed opening of at least 30 -in.

Who gets this exception? And from whom is it granted?

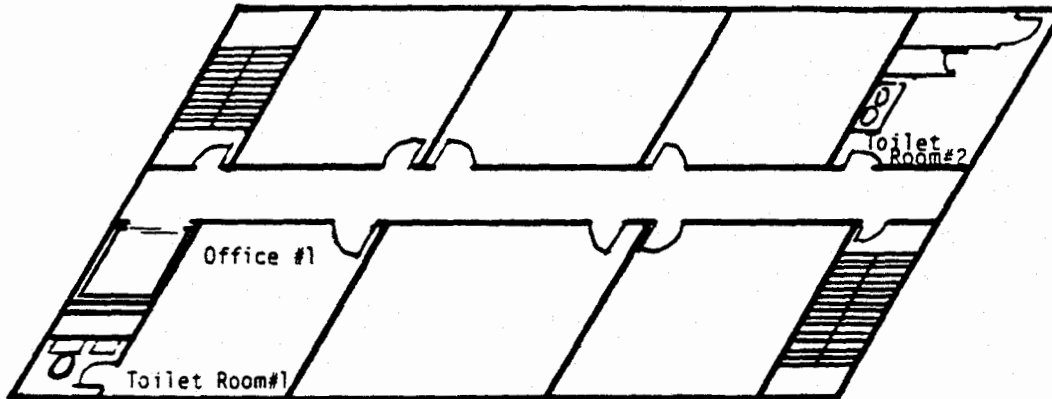
The exceptions to compliance under this section are all covered by the same prerequisite. That is, a finding of unreasonable hardship by the enforcing agency and the provision of an equivalent means of providing access.

Special note must be taken in applying this section's exceptions for it is only available in the case of an existing building or facility where work is being done which would trigger compliance. Work which triggers compliance is fully explained in Chapter 2-1 of this manual.

The second part of this question deals with who may grant this exception. Again, we get back to the importance of reading Chapter 2-1 (enforcing responsibilities are described in Section 2-110(b)11C.).

How is equivalent facilitation determined?

Equivalent facilitation is a concept taken from the enabling legislation, and in most instances when used in this code is left up to the designer and the building official to determine. However, this particular exception differs in that the parameters of equivalent facilitation are specifically defined. As an example, the first exception is a recognition of the hardship which might be created when requiring all the facilities in an area affected to comply with these regulations. For example:



The work of the project as contemplated by the owner will consist of work being done in office #1 which has an adjoining toilet room. In accordance with Chapter 2-1 compliance would be required for the actual work of the project, the path of travel to the area of remodel including a primary entrance and key facilities serving the area of the project. In this example, Toilet Room #1 would be required to comply since it serves the area of remodel. However, the enforcing authority agrees that due to physical constraints created by the building structure, Toilet Room #1 cannot be modified for use by the disabled. Equivalent facilitation as determined by the Building Official could be the provision of access to and within Toilet Room #2 which is located within a reasonable distance of the area of remodel

What is a reasonable distance?

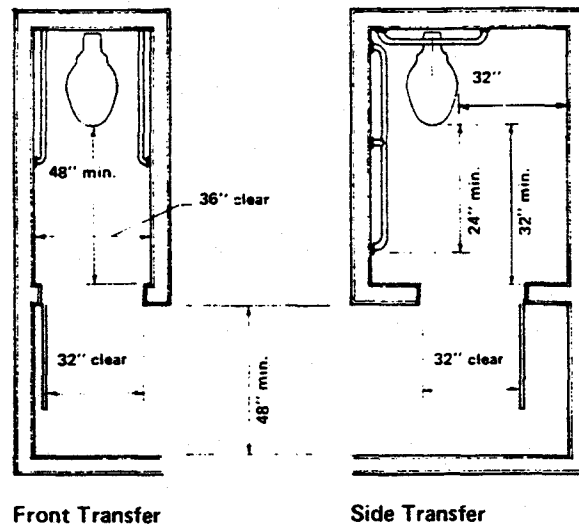
Since reasonable distance is not defined in the regulations this is an item that should be determined on a case-by-case basis. In making this determination existing conditions should be considered: such as the existing building layout, bathrooms presently available, distance to be traveled by the able-bodied and a comparison of alternatives available to provide facilities for the disabled.

The example above utilized these concepts.

This exception allows for either a front or side transfer toilet stall. In other words, either a long narrow or a short wide stall. The history of access regulations has experienced a number of variations in the size of an accessible toilet stall. The present requirement for a wide, and long stall is a reflection of the education which took place during adoption of these regulations. People who are confined to a wheelchair must transfer to the fixture. The most popular means of doing this is by the use of either the front or lateral transfer

2-511(a)1. continued

method. It is because of the inability of many persons to master both lateral and front transfers that the wide deep stall is specified as the code complying stall at this time. See Section 2-511(a)6.B.



These are designs which are acceptable for use in existing buildings as a provision of equivalent facilitation. These designs do not provide usability to all disabled persons, however it was included to recognize construction constraints in existing buildings. While we recognize that they will not meet the needs of all the disabled it was agreed upon during the public hearing process that either of these designs provide usability by a significant portion of the disabled population.

The standard chair measures between 27 and 29 inches in width on the average. Add enough clearance to accommodate electric controls or clearance to prevent knuckle busting, and you have the required 32 inches of opening width as specified in Chapter 2-33. This exception permits the use of a 30" door in existing buildings when the 32" would create an unreasonable hardship.

2. **Separate Facilities.** Where separate facilities are provided for non-disabled persons of each sex, separate facilities shall be provided for disabled persons of each sex also. Where unisex facilities are provided for non-disabled persons, such unisex facilities shall be provided for the disabled.

The provisions of this subsection speak towards equality of treatment, which is a major premise of this code; providing a unisex toilet for the disabled while providing a men's and women's toilet for the able-bodied promotes the notion that the disabled are neither fish nor fowl.

Are accessible unisex toilets allowed?

Yes, remember equality of treatment. If the able-bodied don't have to share then the disabled shouldn't have to either, but if the able-bodied share then so should the disabled.

3. Accessible Floors. Where sanitary facilities are located on accessible floors of a building, they shall be made accessible to the physically disabled.

Not much to say here except the redundancy of this subsection is just to reassure all, that if the space is accessible and sanitary facilities are provided then those facilities must be accessible.

4. Where Used By Children. Where facilities are to be used solely by small children, the specific heights may be adjusted to meet their accessibility needs.

Anyone who has visited a kindergarten classroom knows why this subsection was included, and why strict adherence to the standards of this code could create more inaccessibility than accessibility. It is important to recognize that all children are disabled by an environment scaled without consideration being given to their size and space needs. However, the non-disabled child can adapt more readily than a child with a physical disability. The following graph and sketch have been taken from an access information bulletin prepared by the Adaptive Environment Center for the National Center for a Barrier Free Environment. This information can and should be used in creating a barrier free environment for all children.

If facilities are intended for use specifically for students which may include disabled users under 12 years of age, the following criteria shall be used

a. Toilet grab bar size	1'-4" with 1'-2" space between grab bar and wall
b. Toilet grab bar height	mounted 10" above the seat
c. Toilet grab bar length alongside the water closet	3'-0" with 1'-6" length extending beyond the front edge of the water closet
d. Grab bar must be capable of supporting a 150 lbf. load applied anywhere along the length. Connections must also be capable of supporting a 150 lbf. load	
e. Toilet height	1'-3" to top of seat from floor surface
f. Lavatory height	2'-5" below apron to floor surface
g. Maximum height of controls, receptacles and dispensers	3'-4" from center of operable part to the floor
h. Height of handrails	2'-0" to the center of the bar from the floor surface
i. Height of water fountain spigot	2'-6" from the floor surface
j. Height of telephone to highest operable mechanism	3'-8" from the floor surface

Comparison of Wheelchair Sizes for Children and Adults

	Junior-size	Adult-size
Average seat height	16½"-18½"	19"
Average width	20½"-24"	27"
Average length	42"-46"	42"-46"

The height and length of the junior-size wheelchair are almost identical to an adult's. Only the width is noticeably smaller (3" to 6½").

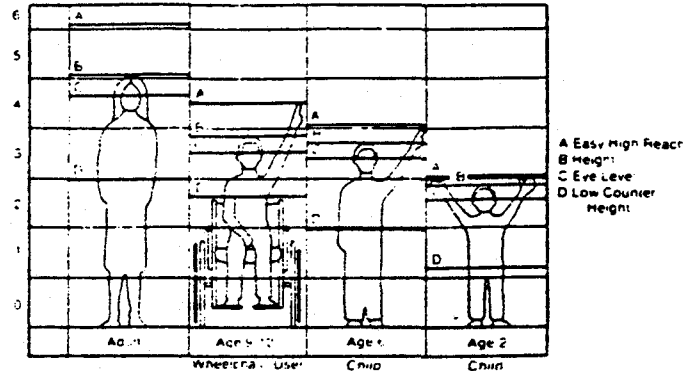


Chart showing human scale from age 2 to adult (composite of men and women).

What changes can be made to the required heights?

The specific heights are not addressed by this code. Therefore, it becomes a design question and as mentioned above, the graphs and diagrams provided by the National Center will help.

Are there any adjustments allowed for clear floor space?

The amount of floor space required for a junior size or child's wheelchair and an adult's chair is just about the same. Therefore, very little if any adjustment should be made.

5. **Passageways.** Passageways leading to sanitary facilities shall have a clear access width as specified in Chapter 2-33. All doorways leading to such sanitary facilities shall have:
 - A. **Clear Opening.** A clear unobstructed opening width of 32-in.
 - B. **Level Area.** A level and clear area for a minimum depth of 60-in in the direction of the door swing as measured at right angles to the plane of the door in its closed position, and 44-in where the door swings away from the level and clear area.
 - C. **Identification Symbols.** On doorways leading to men's sanitary facilities, an equilateral triangle 1/4-in thick with edges 12-in. long and a vertex pointing upward and on women's sanitary facilities a circle 1/4-in thick and 12-in. in diameter. These geometric symbols shall be centered on the door at a height of 60-in and their color and contrast shall be distinctly different from the color and contrast of the door.

This section calls for an accessible route to those sanitary facilities. It would be pointless to provide accessible sanitary facilities without an accessible route. In order to make an accessible route it will be necessary to address all the elements confronted along the path of

2-511(a)5. continued

travel to the sanitary facility in question. Some of the code sections you will want to look at are as follows: 2-3301(f) for entrances, 2-3304(c) for types of locks and latching devices, 2-3304(e)1 for door size, 2-3304(h)1 & 2 for door thresholds and door landings, 2-3304(l)2 for door closing devices, 2-3304(m) for door kick plates and 2-3305(b) for corridor sizes.

Why do we need these level landing areas?

The specifics were arrived at after studies as to what is required for a person using an assistive device to open and pass through a door, to turn down a corridor, or move from one space to another, and to perform any other normal requirement for functioning in and using a facility.

Where did these sanitary facilities symbols come from ?

The requirement for a circle or a triangle on a toilet room door was developed during the public hearing process. It addresses the needs of the blind and more specifically the needs of the partially sighted. The symbols, being raised and of a distinctive size and shape are easily identified by the blind and visually impaired. The symbols, contrasting color or shade in addition to its size and shape are recognizable by the partially sighted.

How do those who are neither blind or sight impaired know which toilet is which?

The regulations do not preclude other text or symbols being placed on the door.

What is the symbol used to identify a unisex facility? We were afraid you might ask.

The exact nature of a unisex symbol is not discussed in the code as yet. However, consultation with various groups has led us to the belief that a triangle mounted on a circle is the best possible solution. Incidentally, the geometric symbol specified in this section should be reachable by a person sitting in a wheelchair. Therefore, a portion of the symbol must be within the area which is reachable. Chapter 2-5 discusses the reach requirements for persons in wheelchairs.

6. Multiple Accommodation Toilet. Multiple accommodation toilet facilities shall have the following:

NOTE: See definition in Chapter 2-4.

- A. Wheelchair Clearance.** A clear space measured from the floor to a height of 27-in above the floor, within the sanitary facility room, of sufficient size to inscribe a circle with a diameter not less than 60-in, or a clear space 56-in x 63-in in size. Doors other than the door to the disabled toilet compartment in any position may encroach into this space by not more than 12-in.
- B. Clear Space.** A water closet fixture located in a compartment shall provided a 28-in wide clear space from a fixture or a 32-in wide clear space from a wall at one side of the water closet and a 48-in long clear space in front of the water closet if the compartment has an end opening door (facing the water close). A 60-inch minimum length clear space shall be provided in a compartment with the door located at the side. Grab bars shall not project more than 3-in into the clear spaces as specified above.
- C. Compartment Doors.** Water closet compartment shall be equipped with a door that has an automatic closing device, and shall have a clear unobstructed opening width of 32-in when located at the end and 34-in when located at the side with the door positioned at an angle of 90 degrees from its closed position.

2-511(a)6. continued

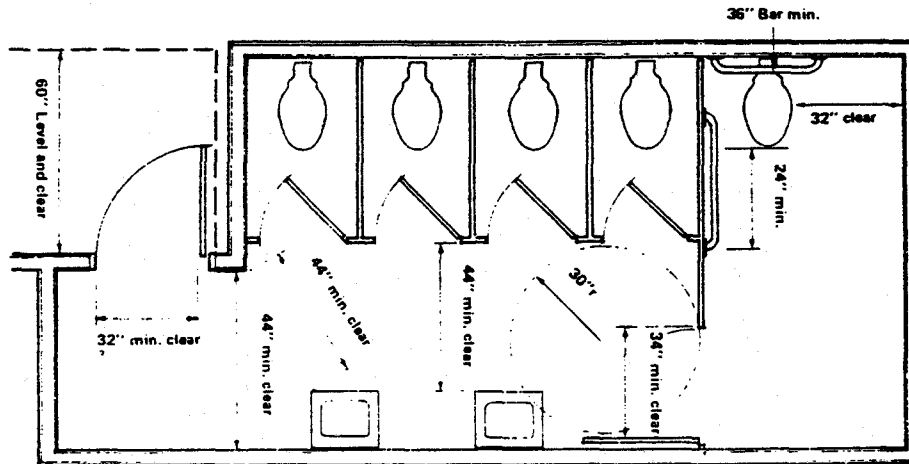
Except for door opening widths and door swings, a clear unobstructed access not less than 44-in shall be provided to water closet compartments designed for use by the disabled and the space immediately in front of a water closet compartment shall be not less than 48-in as measured at right angles to compartment door in its closed position.

What about the strike side clearance of 18" required for interior doors?

This requirement does not apply to toilet compartment doors.

What does "multiple accommodation" mean?

The requirements under this section deal specifically with the requirements for sanitary facilities planned for the use of more than one person at a time. Let's not get them mixed up with the requirements for single occupancy toilet facilities. The requirements in this section are not all that complex especially if we look at the example below.

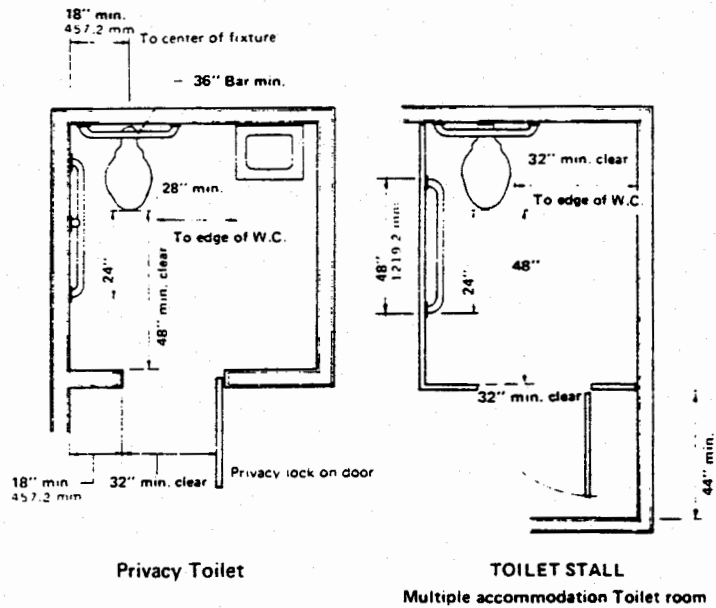


I think it's obvious that if you go into the bathroom you would also like to get out. Therefore, we have the requirement for the 360 degree turning circle. In addition, we have a requirement preventing doors from encroaching into this circle except for the door to the toilet stall itself.

Item 2 is the regulation that specifies the toilet stall size. These dimensions allow for either a front or lateral transfer from a wheelchair to the toilet. As described elsewhere in this section, both front and lateral transfer ability is required to provide full accessibility.

- 7. Single Accommodation Toilet Facilities.** There shall be sufficient space in the toilet room for a wheelchair measuring 30-in wide by 48-in long to enter the room and permit the door to close. The water closet shall be located in a space which provides a 28-in wide clear space from a fixture or a 32-in wide clear space from a wall at one side and 48-in of clear space in front of the water closet.

NOTE: For bathrooms serving hotel guest rooms, see Section 2-1213 (d).



How big is a single accommodation toilet room?

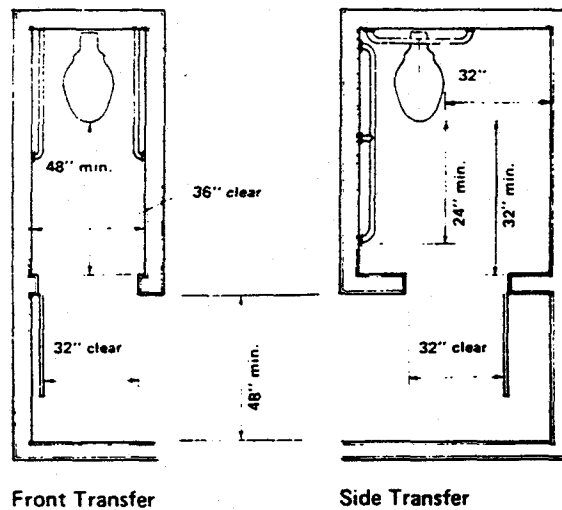
The size of the toilet room is not prescribed, but we are given dimensions for maneuvering space. The reason for this is that toilets, lavatories, waste receptacles, etc., vary in size and shape which impact the usability of the space. The illustration for privacy toilets is one example of providing the required maneuvering space.

Can the door swing into the room?

Yes. Often it is necessary to swing the door into the room, and there is nothing in the code that prevents this condition.

2-511(a)7. continued

EXCEPTION: In an existing building a single accommodation toilet facility may have the water closet fixture located in an area which provides a clear space of not less than 36-in wide by 48-in long in front of the water closet.



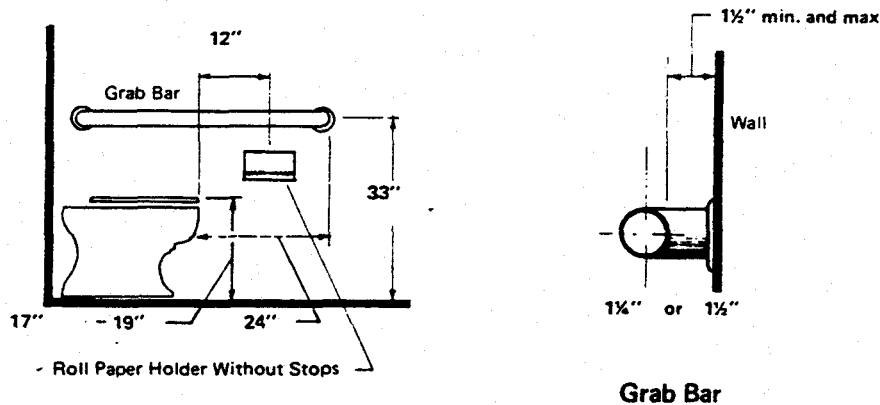
Here's an exception that makes allowances for single occupancy toilet rooms in existing buildings. Remember, these are minimum requirements and the point here is not how small can we make this room, but how can we make it accessible.

As a concession to the unique problems found in existing buildings, OSA has allowed either a front or a side transfer toilet stall. Do not forget in a single occupancy toilet room you do not need the 60" diameter circle; you do need to be able to get in and use the room and get out.

8. Grab Bars.

- A. Location.** Grab bars located on each side, or one side of the back of the physically disabled toilet stall or compartment shall be securely attached 33-in above and parallel to the floor. Grab bars at the side shall be at least 42-in long with the front end positioned 24-in in front of the water closet stool, and grab bars at the back shall be not less than 36-in long.

Note: See Figures 5-1A, 1B, 1C.

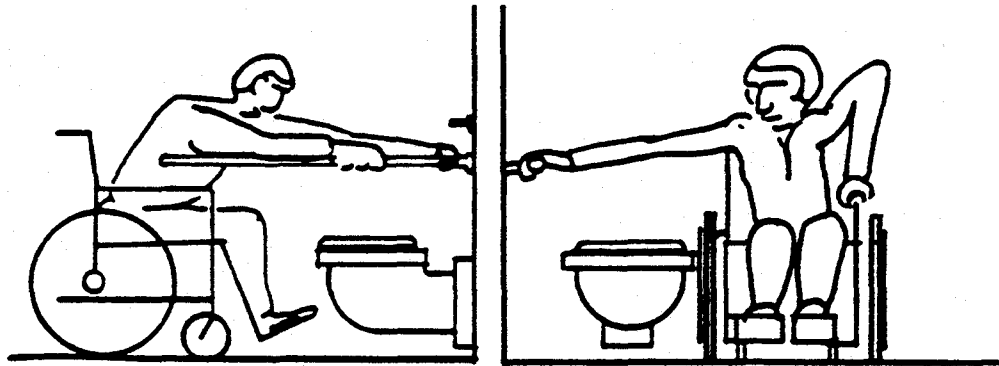


- B. The Diameter or Width.** The diameter or width of the gripping surfaces of a grab bar shall be 1-1/4-in to 1-1/2-in or the shape shall provide an equivalent gripping surface. If grab bars are mounted adjacent to a wall, the space between the wall and the grab bars shall be 1.5-in.

NOTE: See Figure 2-5-1C.

- C. The Structural Strength.** The structural strength of grab bars, tub and shower seats, fasteners, and mounting devices shall meet the following specifications:
- (1) Bending stress in a grab bar or seat induced by the maximum bending movement from the application of 250 pounds per foot shall be less than the allowable stress for the material of the grab bar or seat.
 - (2) Shear stress induced in a grab bar or seat by the application of 250 pounds per foot shall be less than the allowable shear stress for the material of the grab bar or seat, and its mounting bracket or other support is considered to be fully restrained, then direct and torsional shear stresses shall not exceed the allowable shear stress.
 - (3) Shear force induced in fastener or mounting device from the application of 250 pounds per foot shall be less than the allowable lateral load of either the fastener or mounting device or the supporting structure whichever is the smaller allowable load.
 - (4) Tensile force induced in a fastener by a direct tension force of 250 pounds per foot plus the maximum moment from the application of 250 pounds per foot shall be less than the allowable withdrawal load between the fastener and supporting structure.
 - (5) Grab bars shall not rotate within their fittings.
- D. Surface.** A grab bar and any wall or other surface adjacent to it shall be free of any sharp or abrasive elements. Edges shall have a minimum radius of 1/8-in.

Grab bars must be provided to facilitate pulling one's self forward or sliding sideways from chair to fixture. In addition to those in wheelchairs, there are many other disabled persons who benefit from the provision of grab bars.



9. Bathing Facilities. Where facilities for bathing are provided for the public, clients or employees, including showers, bathtubs, or lockers, at least one such facility, and not less than one percent of all facilities, shall conform to the following standards unless specifically exempted by other portions of these regulations.

A. Compartment Showers. Compartment showers shall conform to the following requirements:

- (1) Compartments shall be 42-inches in width between wall surfaces and 48-inches in depth with an entrance opening width of 36-inches. Grab bars shall comply with subsection 2-511(a)8.
- (2) When a threshold or recessed drop is used, it shall be a maximum of 1/2-inch in height and shall be beveled or sloped at an angle not exceeding 45 degrees (100% gradient) from the horizontal.
- (3) The shower floor shall slope toward the rear to a drain located within 6-inches of the rear wall. Maximum slope of floor shall be 1/2-inch per foot in any direction. The floor surfaces shall be of Carborundum or grit-faced tile or of material providing equivalent slip-resistance.

(4) Shower accessories shall include:

- a. A folding seat located on the wall opposite controls and mounted 18-inches above the bathroom floor.

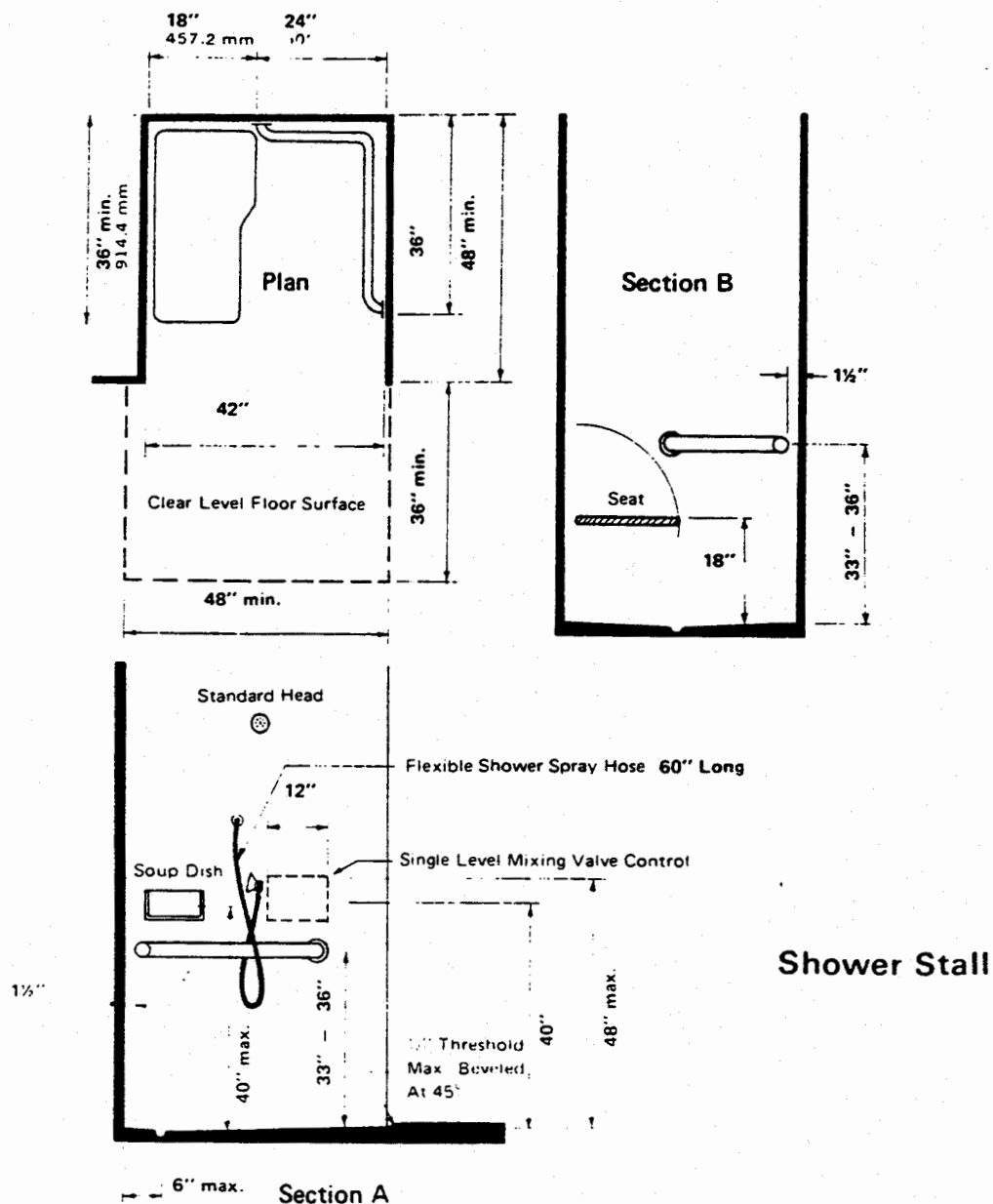
NOTE: See Figure 2-5-2.

- b. Grab bars located on walls adjacent to and opposite the seat. Grab bars shall also comply with the diameter, loading, and projection requirements of Subsection 2-511(a)8. "L" shaped shower grab bars, otherwise meeting the requirements of subsection 2-511(a)8. shall be not less than 24-inches x 36-inches in length positioned on the wall of the shower. The 36-inches side shall extend on the wall having the shower head and controls. Grab bars shall be mounted 33-inches to 36-inches above the shower floor.

NOTE: See Figure 2-5-2.

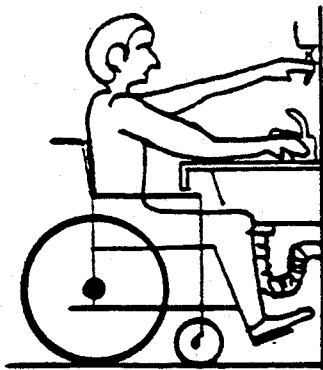
- c. Soap dish shall be located on the control wall at a maximum height of 40-inches above the shower floor.

(5) Enclosures, when provided for shower stalls shall not obstruct transfer from wheelchairs onto shower seats.



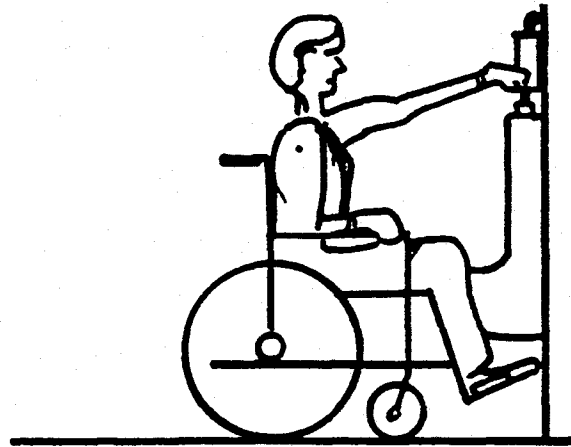
This section requires compartment showers to be accessible to wheelchair occupants. The shower described in this section would accommodate either a person who wishes to transfer to the shower seat or the individual who wishes to shower while remaining in a wheelchair.

- B. **Open Showers.** Where no separate shower compartments are provided, the physically handicapped shower shall be located in a corner with "L" shaped grab bars extending along two adjacent walls with a folding seat adjacent to the shower controls.
 - C. **Lockers.** Where lockers are provided for public, clients, employees, members, or participants, at least one and not less than one percent of all lockers shall be made accessible to the physically handicapped. A path of travel not less than 36-inches in clear width shall be provided to these lockers.
 - 10. **Interior Surfaces.** In other than dwelling units, toilet room floors shall have a smooth, hard, non-absorbent surface such as portland cement, concrete, ceramic tile or other approved material which extends upward onto the walls at least 5-inches. Walls within water closet compartments and walls within 24-inches of the front and sides of urinals shall be similarly finished to a height of 48-inches and, except for structural elements, the materials used in such walls shall be a type which is not adversely affected by moisture.
 - 11. **Shower Areas.** Showers in all occupancies shall be finished as specified in Subsection 2-511(a)10 to height of not less than 70-inches above the drain inlet. Materials other than structural elements used in such walls shall be of a type which is not adversely affected by moisture.
 - 12. **Doors and Panels.** Doors and panels of shower and bathtub enclosures shall be substantially constructed from approved, shatter-resistant materials. Hinged shower doors shall open outward.
 - 13. **Glazing for Shower and Bathtub Enclosures.** Glazing used in doors and panels of shower and bathtub enclosures shall be fully tempered, laminated safety glass or approved plastic. When glass is used, it shall have minimum thickness of not less than 1/8-inch when fully tempered, or 1/4-inch when laminated, and shall pass the test requirements of UBC Standard No. 54-2.
 - 14. **Plastics.** Plastics used in doors and panels of showers and bathtub enclosures shall be of a shatter-resistant type.
- (b) **Toilet Room Fixtures and Accessories.**
- 1. **Lavatory Fixtures.** The requirements of this subsection shall apply to lavatory fixtures, vanities, and built-in lavatories.
 - A. A clear floor space 30-inches x 48-inches complying with Section 522(c), shall be provided in front of a lavatory to allow a forward approach. Such clear floor space shall adjoin or overlap an accessible route and shall extend into knee and toe space underneath the lavatory.
 - B. Mirrors shall be mounted with the bottom edge no higher than 40-inches from the floor.



2-511(b)2.

2. **Towel, Sanitary Napkins, Waste Receptacles.** Where towel, sanitary napkins, waste receptacles, and other similar dispensing and disposal fixtures are provided, at least one of each type shall be located with all operable parts, including coin slots, within 40-in from the finished floor.
3. **Toilet Tissue Dispensers.** Toilet tissue dispensers shall be located on the wall within 12-inches of the front edge of the toilet seat.
NOTE: See Figure 2-5-1A.
4. **Urinals.** Where urinals are provided, at least one shall have a clear floor space 30-inches x 48-inches in front of the urinal to allow forward approach. This clear space shall comply with Section 2-522-(c).



A picture is worth a thousand words.

(c) Water Fountains (Drinking)

General. Where water fountains are provided, they shall comply with this section.

Alcoves. Water fountains shall be located completely within alcoves or otherwise positioned so as not to encroach into pedestrian ways. The alcove in which the water fountain is located shall be not less than 32-inches in width and 18-inches in depth.

NOTE 1: See Figure 2-5-3.

NOTE 2: See Section 5-1507, Part 5, Chapter 15 or Title 24.

EXCEPTION : When the enforcing agency determines that it would create an unreasonable hardship to locate the water fountain in an alcove, the water fountain may project into the path of travel, and the path of travel shall be identifiable to the blind as follows:

1. The surface of the path of travel at the water fountain shall be textured so that it is clearly identifiable by a blind person using a cane. The minimum textured area shall extend from the wall supporting the water fountain to 1 foot beyond the front edge of the water fountain and shall extend 1 foot beyond each side of the water fountain, or
2. Wing walls shall be provided on each side of the water fountain. The wing walls shall project out from the supporting wall at least as far as the water fountain to within 6-inches of the surface of the path of travel. Also, there shall be a minimum of 32-inches clear between the wing walls.

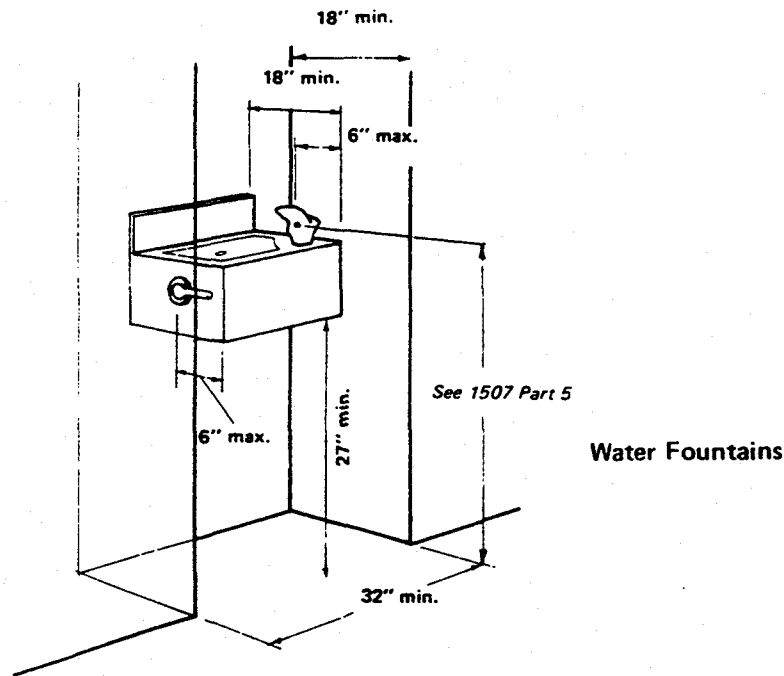


Figure 5-3

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

Drinking water is something that is good for all of us and for some disabled people, it is a critical health necessity. Accessible drinking fountains are required wherever drinking fountains are provided. Incidentally, Part 5 of Title 24 found elsewhere in this interpretative manual has all of the specifications for accessible drinking fountains.

(d) Telephones

1. General. If public telephones are provided, they shall comply with this section.

NOTE: See Figure 5-4.

Disabled persons may have even greater needs to use public phones than able-bodied persons. For this reason phones must be usable as specified below.

Must every single phone comply?

The way in which this section is worded indicates that every phone should be positioned so it is reachable by a person sitting in a wheelchair. This, in turn, affects the floor area leading to the space and the mounting height at which the apparatus is fixed. (See 2-511(d)8. for specifics on phones for hearing impaired persons.

2. Clear Floor Ground Space. A clear floor or ground space at least 30-inches x 48-inches that allows either a forward or parallel approach by a person using a wheelchair shall be provided at telephones.

It is important that the phone be located in quarters which will allow the wheelchair user to get close enough to use it.

2-511(d)3.

3. **Size and Approach.** The minimum clear floor ground space required to accommodate a single, stationary wheelchair and occupant is 30-inches x 48-inches. The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object. Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.

NOTE: See Figure 2-5-5A (b) and (c).

How much of the wheelchair may be under the apparatus or object?

The answer to this question is largely dependent upon the particulars of the specific wheelchair and user in question. However, as a general rule and as a good example of how some fixtures must allow knee space, see the illustrations.

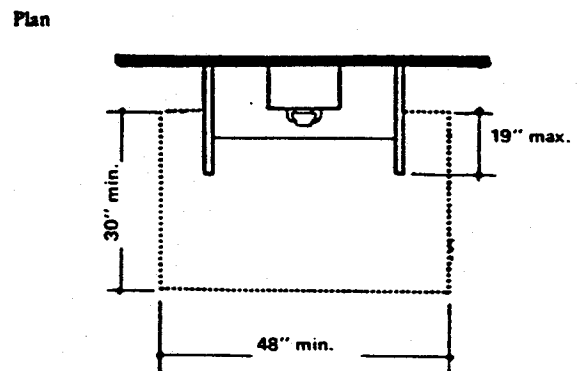
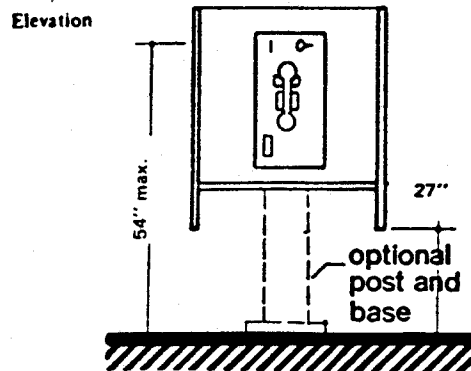
4. **Relationship of Maneuvering Clearances to Wheelchair Spaces.** One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or otherwise confined on all or part of three sides, additional maneuvering clearances shall be provided.

NOTE: See Figures 2-5-5A (d) and (e).

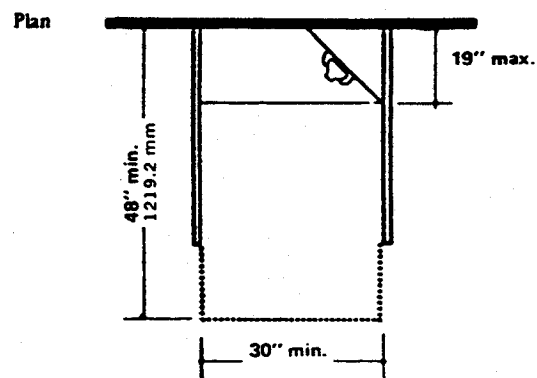
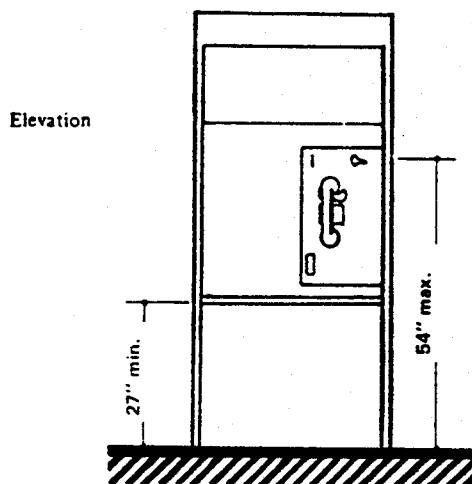
This standard will allow space to prevent a wheelchair user from getting trapped in a come-on-in, but don't you dare try to leave design.

5. **Floor Surfaces of Wheelchair Spaces.** Floor surfaces of wheelchair spaces shall conform to Section 2-522(c). Bases, enclosures, and fixed seats shall not impede approaches to telephones by people who use wheelchairs.
6. **Mounting Height.** The highest operable part of the telephone shall be within the reach ranges specified in subsections 2-522 (c). Telephones mounted diagonally in a corner that require wheelchair users to reach diagonally shall have the highest operable part no higher than 54-inches above the floor.
NOTE: See Figure 2-5-4.
7. **Enclosures.** If telephone enclosures are provided, they may overhang the clear floor space required in Subsections (2), (3), and (4) within the following limits:
 - A. **Side Reach Possible.** The overhang shall be no greater than 19-inches. The height of the lowest overhanging part shall be equal to or greater than 27-inches.
NOTE: See Figure 2-5-4 (a).
 - B. **Full-Height Enclosures.** Entrances to full-height enclosures shall be 30-inches minimum.
NOTE: See Figure 2-5-4 (b).
 - C. **Forward Reach Required.** If the overhang is greater than 12-inches, then the clear width of the enclosure shall be 30-inches minimum; if the clear width of the enclosure is less than 30-inches, then the height of the lowest overhanging part shall be equal to or greater than 27-inches.
NOTE: See Figure 2-5-4 (c).
 - D. **Protruding Telephone Enclosures.** Where Telephone enclosures protrude into walls, halls, corridors, or aisles, they shall also comply with Section 2-522 (f).

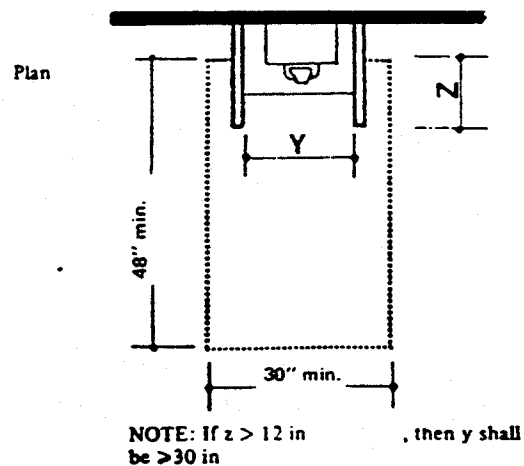
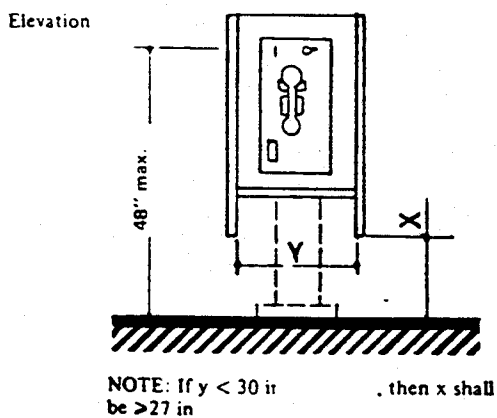
2-511(d)7. continued



(a)
Side Reach Possible



(b)
Full Height Enclosure



(c)
Forward Reach Required
Mounting Heights and Clearances for Telephones

Figure 5-4

2-511(d)8.

8. **Equipment for Hearing Impaired People.** Telephones shall be equipped with a receiver that generates a magnetic field in the area of the receiver cap. If banks of public telephones are provided, then a reasonable number, but always at least one, in a building or facility shall be equipped with a volume control.

You mean all phones have to be equipped for the hearing impaired?

No, we don't mean that. The single phone, provided along a corridor or in the lobby of a building or facility required to be accessible would need such amplification equipment. However, where a group of phones are provided (a bank of phones) only a portion (reasonable number) is required.

9. **Controls.** Telephones shall Have push-button controls where service for such equipment is available.
10. **Cord length.** The cord from the telephone to the handset shall be at least 29-inches long.

It is no fun to swing alone, and if you are alone in a wheelchair that is what you do when trying to use a phone with a short cord.

Sec. 2-522

(a) Light and Control Switches, Manual Fire Alarm Boxes and Receptacle Outlets

NOTE: See Sections 3-210-50(e), 3-380-8(c), and 3-760-8.1 for installation heights.

(b) Signs and Identification

1. The International Symbol of Accessibility shall be the standard used to identify facilities that are accessible to and usable by physically disabled persons as set forth in these building standards and as specifically required in this section.

NOTE; See Figure 2-5-6.

2. **Color of Symbol.** The symbol specified above shall consist of a white figure on a blue background. The blue shall be equal to Color No. 15090 in Federal Standard 595a.

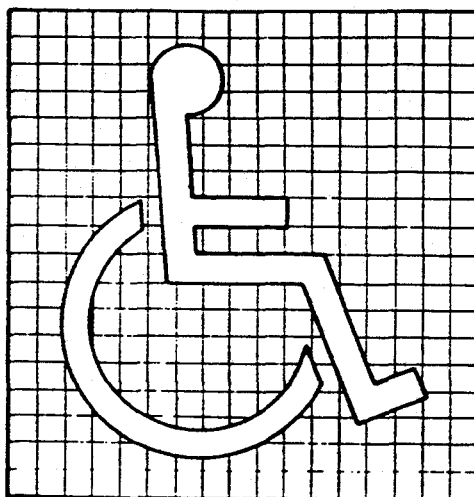
EXCEPTION: The appropriate enforcement agency may approve special signs and identification necessary to complement decor or unique design when it is determined that such signs and identification provides adequate direction to handicapped persons.

Why signs?

Signage can save valuable time and prevent considerable inconvenience. For example, assume that you are a young couple both in wheelchairs going out to dinner as you often do. You get to the restaurant in your van and try to park in a covered parking stall but the roof is too low. After finally parking in the service yard you try to find an accessible path to the restaurant entrance. After some time has been spent searching for a path which was usable and safe, you finally find a pair of doors. Neither one is identified so you enter the right door which turns out to be inaccessible; I think you catch the drift here.

If the facilities were properly identified all of this danger, inconvenience and lost time could have been avoided. A quick and easy way of doing this is by marking such accessible features with the International Symbol of Accessibility. For specific application of this section, see 2-522(b)7.

3. **Braille Symbols.** Contracted Grade 2 Braille shall be used wherever Braille symbols are specifically required in other portions of these standards. Dots shall be 1/10-inch on centers in each cell with 2/10-inch space between cells. Dots shall be raised a minimum of 1/40-inch above the background.
4. **Letter Size.** Letters and numbers on signs shall have a width-to-height ratio of between 3:5 and 1:1 and a stroke width to height ratio between 1:5 and 1:10.
5. **Contrast of Symbol.** Characters and symbols shall contrast with their background, either light characters on a dark background or dark characters on a light background.
6. **Raised and Recessed Characters.** When raised or recessed characters or symbols are used, they shall conform to the following:
 - A. **Letter Type.** Letters and numbers on signs shall be raised or recessed 1/32-inch minimum and shall be sans-serif characters.
 - B. **Symbol Size.** Raised characters or symbols shall be a minimum of 5/8-inch high. Recessed characters or symbols shall have a 1/4-inch minimum stroke width.
7. **Entrance Signs.** All building entrances that are accessible to and usable by physically disabled persons shall be identified with at least one standard sign and with additional directional signs, as required, to be visible to persons along approaching pedestrian ways.
8. **Information Posted.** Buildings that have been remodeled to provide specific sanitary facilities for public use that conform to these building standards shall have this information posted in the building lobby, preferably as part of the building directory.
9. **Traffic Control Devices.** Pole supported pedestrian traffic control buttons shall be identified with color coding consisting of a textured horizontal yellow band 2-inch in width encircling the pole, and a 1-inch wide dark border band above and below this yellow band. Color coding should be placed immediately above the control button. Control buttons shall be located no higher than 48-inch above the surface adjacent to the pole.



(a)
Proportions



(b)
Display Conditions

International Symbol of Accessibility

Figure 17-6

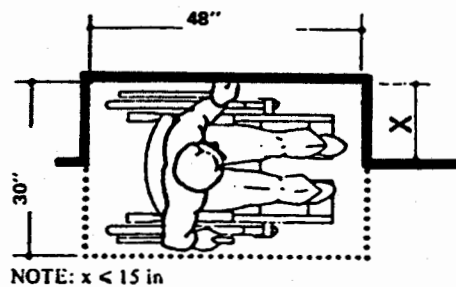
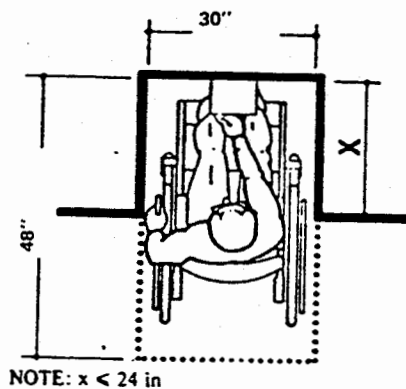
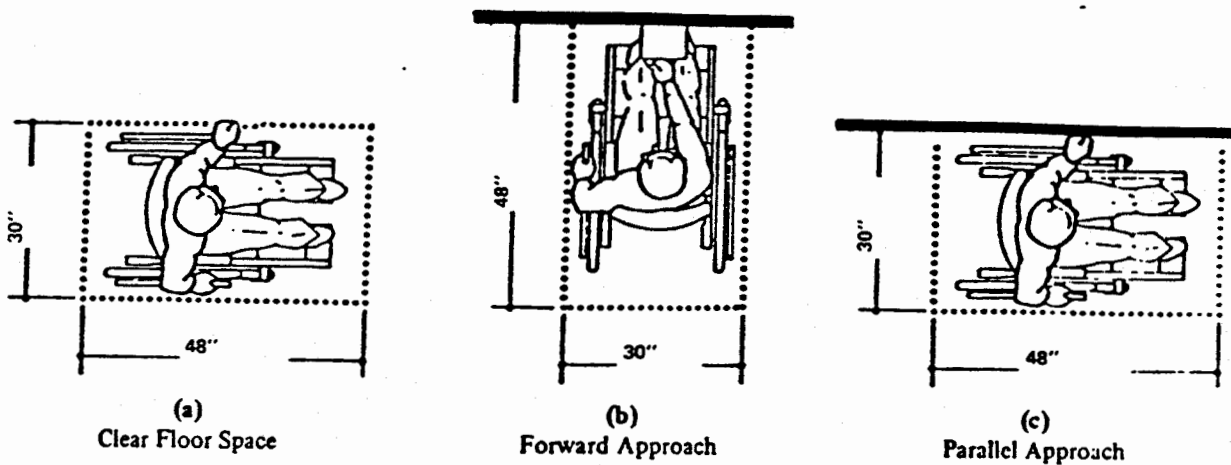
Are there any variations on the original theme, i.e. the little guy in the wheelchair?

Yes, the exception in this section will allow for any wording or symbol configuration so as to blend with the architectural-graphic design qualities of the facility.

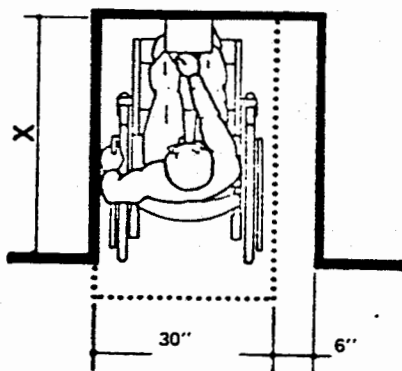
(c) Clear Floor or Ground Space for Wheelchairs.

1. **Size and Approach.** The minimum, clear floor or ground space required to accommodate a single, stationary wheelchair and occupant is 30-inches x 48-inches. The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object. Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.
NOTE; See Figure 2-5-5A.
2. **Relationship of Maneuvering Clearances to Wheelchair Spaces.** One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin or overlap an accessible route or adjoin another wheelchair clear floor space. If a clear floor space is located in an alcove or other wise confined on all or apart of three sides, additional maneuvering clearances shall be provided.
NOTE: See Figure 2-5-5A.
3. **High Forward Reach.** If the clear floor space only allows forward approach to an object, the maximum high forward reach allowed shall be 48-inches. If the high forward reach is over an obstruction, reach and clearances shall be shown in Figure 2-5-5C.
4. **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-inches and the low side reach shall be no less than 9-inches above the floor.
NOTE; See Figure 2-5-5D.

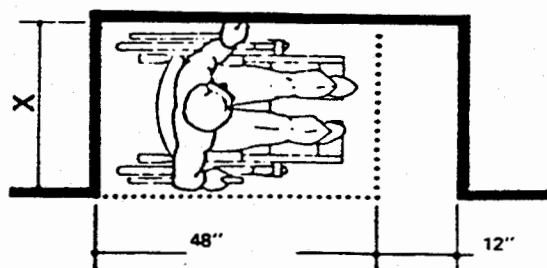
Just a brief word here; this is probably one of the most important sections in the code for those designers and builders among us who find it necessary or desirable to deviate from specific standards. This section along with other anthropometrically oriented sections allow a basic understanding into the physiology of disabilities, in this case those disabilities related to a wheelchair.



(d)
Clear Floor Space in Alcoves



NOTE: If $x > 24$ in (610 mm), then an additional maneuvering clearance of 6 in (150 mm) shall be provided as shown.

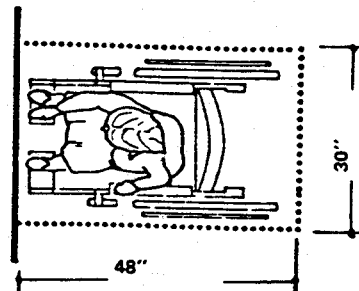
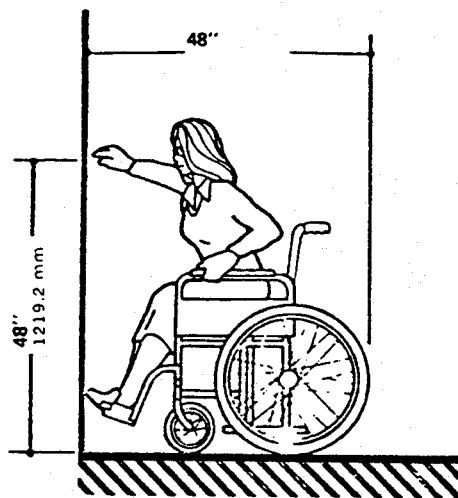


NOTE: If $x > 15$ in (380 mm), then an additional maneuvering clearance of 12 in (305 mm) shall be provided as shown.

(e)
Additional Maneuvering Clearances for Alcoves

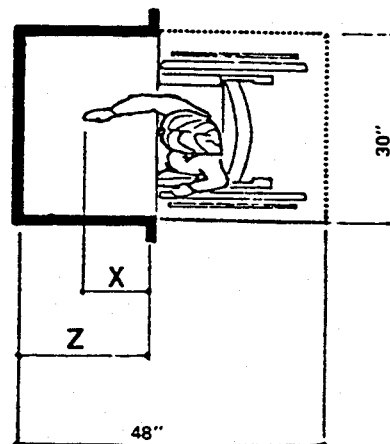
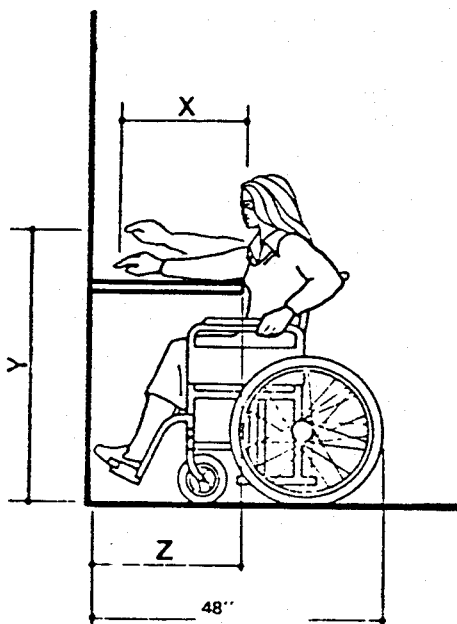
Minimum Clear Floor Space for Wheelchairs

Figure 2-5-5A



(a)

High Forward Reach Limit



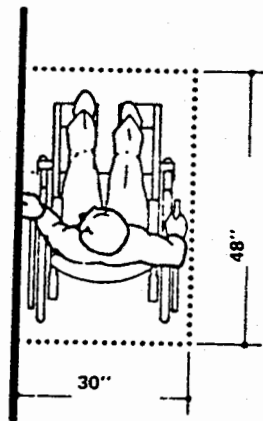
NOTE: x shall be ≤ 25 in (635 mm); z shall be $\geq x$. When x < 20 in (510 mm), then y shall be 48 in (1220 mm) maximum. When x is 20 to 25 in (510 to 635 mm), then y shall be 44 in (1120 mm) maximum.

(b)

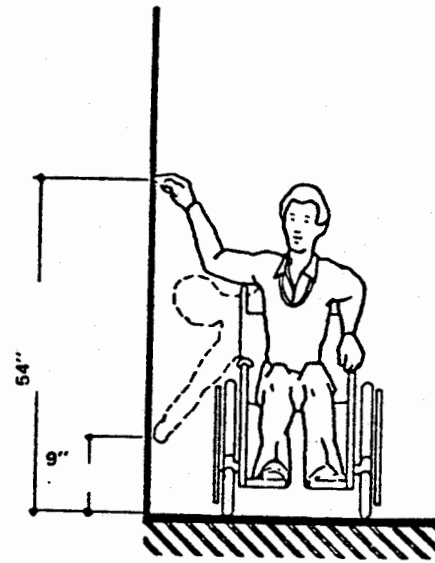
Maximum Forward Reach over an Obstruction

Forward Reach

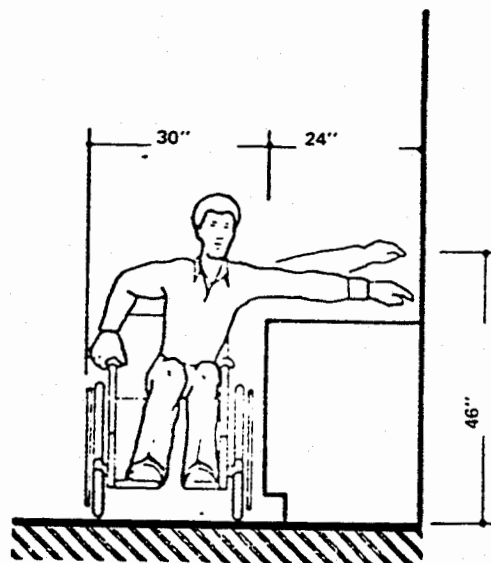
Figure 2-5-5C



(a)
Clear Floor Space
Parallel Approach



(b)
High and Low
Side Reach Limits



(c)
Maximum Side Reach
over Obstruction

Side Reach

Figure 2-5-5D

- (d) **Special Standards of Accessibility for Buildings with Historical Significance Other Than Qualified Historical Buildings.** When a building has, in the opinion of the enforcing agency, a significant degree of historical value, such agency may, with concurrence of the local access appeals board, or the Department of Rehabilitation Mobility and Communications Barriers Section and the Office of the State Architect, authorize deviations from the requirements of these building standards.
- NOTE:** For alternative building standards applicable to Qualified Historical Buildings, see Part 8, Title 24, CAC.

Here is one close to our hearts. The stated purpose of this section is to ensure that historical buildings comply with prevailing provisions for access for the disabled unless such compliance would destroy the historical fabric of the structure in question. In which case there are two alternatives.

- 1. Deviations from OSA regulation may be granted with the concurrence of the enforcing agencies Appeals Board or the joint concurrence of the Department of Rehabilitation and OSA.*
- 2. If the building is a qualified Historical Landmark recognized by a governing body such as National, State or local register of Historical Places then the alternatives listed in the State Historical Building code may be used.*

(e) Floors and Levels

In buildings and facilities, floors of a given story shall be a common level throughout, or shall be connected by pedestrian ramps, passenger elevators or special access lifts.

EXCEPTION NO. 1: In existing buildings, other than dining, banquet and bar facilities, when the enforcing agency determines that compliance with this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

EXCEPTION NO 2: In new and existing dining, banquet, and bar facilities, when the enforcing agency determines that compliance with this section would create an unreasonable hardship, an exception shall be granted provided that a minimum of 75 percent of the dining, banquet, and bar area shall be a common level throughout or shall be connected by pedestrian ramps, passenger elevators, or special lifts. See Section 2-110(b)11D for new buildings only.

EXCEPTION NO. 3: In existing buildings, this section shall not apply when legal or physical constraints would not allow compliance with this section or equivalent facilitation without creating an unreasonable hardship. See Section 2-110(b)11D.

EXCEPTION NO. 4: Where specifically exempted in other portions of this code. The surface of the floors shall be slip-resistant.

This section is a little bit tricky, so let's look at it closely.

First of all we have the regulation that states that floors of a given story shall be a common level throughout or shall be connected by a pedestrian ramp, or elevator, or lift. That's pretty clear. All areas on any given story must be accessible.

Next we have Exception No.1. This states that in existing buildings other than dining, banquet and bar facilities where it is determined that we have an unreasonable hardship, we may provide equivalent facilitation, this might mean that we would not provide access to all levels providing we were able to duplicate all activities on the accessible level.

Next we have Exception No.2 that says in dining, banquet and bar facilities whether new or existing, and where it is determined there is an unreasonable hardship, an exception can be provided if at least 75% of the dining, banquet and bar areas are accessible. Remember that in Chapter 2-6, the Occupancy Chapter dealing with these facilities, the requirement exists for each type of participation area to be accessible. With this in mind, it becomes clear that each activity area; a bar, a restaurant or dining hall is required to provide at least 75% accessibility. One final note on Exception No.2, this exception requires concurrence of the local enforcing agencies Appeals Board in order to utilize this particular exception.

Finally we have Exception No.3, this is a typical exception found throughout the code that allows for total exemption from these requirements where physical or legal constraints preclude the use of this section. Again, we have the requirement that this exception may only be used with the concurrence of the local enforcing agencies Appeals Board as specified in Section 2-110(b)11D.

(f) Protruding Objects

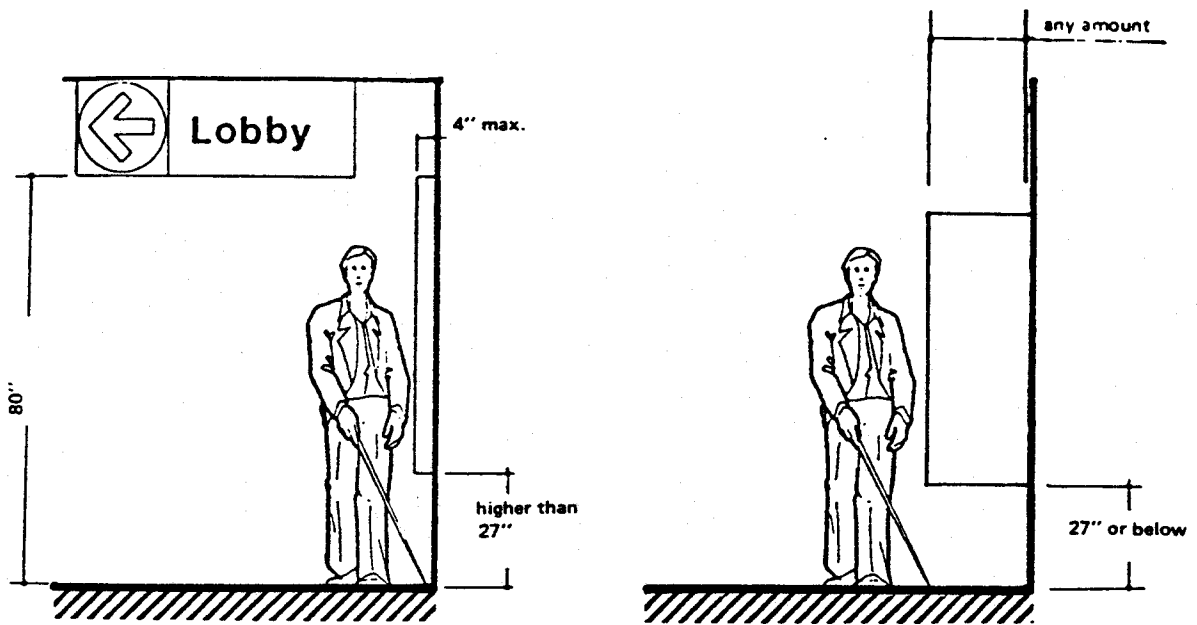
1. **General.** Objects projecting from walls (for example, telephones) with their leading edges between 27-inches and 80-inches above the finished floor shall protrude no more than 4-inches into walks, halls, corridors, passageways or aisles. Objects mounted with their leading edges at or below 27-inches above the finished floor may protrude any amount. Free-standing objects mounted on posts or pylons may overhang 12-inches maximum from 27-inches to 80-inches above the ground or finished floor. Protruding objects shall not reduce the clear width of an accessible route or maneuvering space.

NOTE: See Figures 2-5-7(a) and 2-5-7(b).

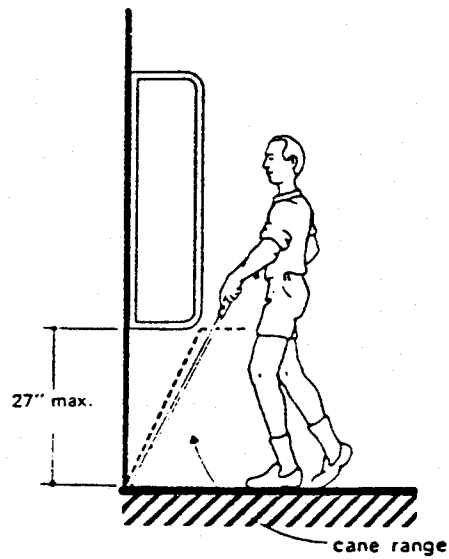
2. **Head Room.** Walks, halls, corridors, passageways, aisles or other circulation spaces shall have 80-inches minimum clear head room.

NOTE: See Figure 2-5-7(a).

Picture a person hurrying down a busy corridor heading for a meeting, or maybe away from danger. Besides running into others walking in the same or opposite directions, the person must avoid a phone projecting from the wall, a drinking fountain or other obstacles in the corridor. Assuming the person is in control of all his physical and sensory facilities, I am sure you can see a potentially dangerous situation here. Now assume the person is in a wheelchair or blind or any combination of the above and I think you will see why we have covered the area of protruding objects.



(a)
Walking Parallel to a Wall



(b)
Walking Perpendicular to a Wall

Protruding Objects

Figure 2-5-7

Chapter 2-6
REQUIREMENTS FOR GROUP OCCUPANCIES

Adoption Table No. 2-6A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHR	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-611.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
Table No. 2-6B	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-633.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

Here we have the ultimate in simplicity. In Chapter 2-6, the Adoption Table shows that 2-611 is the only section we need to check for requirements regulating disabled access. Incidentally, Chapter 2-6 is the beginning of the occupancy chapters which run from Chapter 2-6 through Chapter 2-14. These chapters, for those of you familiar with the Uniform Building Code are the occupancy chapters and describe the unique requirements that are specific to the various individual occupancies prescribed by the building codes.

Special Standards of Accessibility

Sec. 2-611

- (a) **General.** The provisions of this section apply to the specified types of facilities and identify specific requirements of accessibility and usability which shall be provided for each of the listed occupancy uses.

Here is a very important point!

These regulations are broken down into three major components. Component 1 is the application section which is found in Chapter 2-1. Component 2 is the general requirements which you will find in Chapters 2-5, 2-33, 2-51 and 2-71, 2-72 Part 3, and Part 5. The third component is the occupancy chapters which you will find in Chapters 2-6 through 2-14. The application section is the first place you will always want to look when you pick up this book. This is the place where you will make the determination as to whether or not access must be provided to the building in question.

The general requirements section covers items which are common to all buildings including parking entrances, doorways, restrooms, etc. These general items must be provided in all buildings to which these regulations apply.

Chapters 2-6 through 2-14 contain requirements which are unique and specific to the individual occupancy types (such as, the unique occupancy Group B2, an office building).

These occupancy chapters are often referred to as the special occupancy chapters. Items contained in the special occupancy chapters cannot be found in the general provisions of these regulations. In Chapter 2-6 as an example you can find among many other items information on how many wheelchair seating spaces must be provided in a theater, whether or not stages have to be accessible and how to make locker facilities usable by disabled persons. Each of these items is a part of a facility which must be made accessible in order for the building to comply with the access requirements. The requirements for these items cannot be found in the general provisions of these regulations. Therefore, when looking at access in general the best process is to determine whether or not the building has to be accessible by looking at the application section, next, look at the unique requirements found in the occupancy chapters and finally, look at the general requirements for parking, doors, restrooms, etc.

- (b) Auditorium, Assembly Halls, Theaters and Related Facilities.

1. **Seating.** Seating for the disabled shall be accessible from the main lobby or from a primary entrance, together with related toilet facilities.

Short and simple, seating for the disabled must be provided in all of the above facilities. In addition, access must be provided between seating areas, the main lobby, all primary entrances, and toilet facilities.

2-611 (b)1 A.

- A. In all assembly places where seating is provided, there shall be spaces for the disabled using wheelchairs. The number of such spaces is shown in Table 2-6B.

Table No. 2-6B		Wheelchair Seating Spaces
Seating Capacity		
4-50		2
51-300		4
301-500		6

- (1) When the seating capacity exceeds 500, one additional wheelchair seating space shall be provided for each total seating capacity increase of 100.
- (2) Wheelchair spaces shall be level, and when the seating capacity exceeds 300, shall be in more than one location. Each such space shall be a minimum of 60 inches in length and 30 inches in width.

What is a wheelchair seating space and how many do I have to provide in my new theater?

A wheelchair seating space is a level area which is provided for persons confined to wheelchairs so that they can sit safely and view the presentation.

These spaces are required to be a minimum of 60 inches in length and 30 inches in width and they are also required to be level. It is required that these seating areas be integrated with the general seating arrangements so that disabled persons can sit with able-bodied friends or family members.

An example of the requirements for the number of wheelchair spaces when the seating capacity exceeds 500 is as follows:

*501 seating capacity require that there be 6 wheelchair seating spaces,
599 seating capacity equals 6 wheelchair seating spaces,
601 seating capacity equals 7 wheelchair seating spaces.*

- (3) Readily removable seats may be installed in these wheelchair spaces when such spaces are not required to accommodate wheelchair users.

Wheelchair seating spaces are not wasted when not utilized by the disabled. Portable seats may be installed in the wheelchair seating spaces when disabled users will not be present.

- B. In addition to spaces provided for wheelchair users as noted in A above, there shall be provided seating for semi-ambulant individuals. The number of such seating shall be equal to at least one percent of the total seating and shall be no fewer than two. Such seats shall provide at least 24-in clear leg space between the front of the seat to the nearest obstruction or to the back of the seat immediately in front.

How can I accommodate disabled persons with mobility impairments who use aids other than wheelchairs?

Here we have requirements for special seating for semi-ambulant individuals. In other words, those folks who don't use wheelchairs but need assisting devices such as braces, crutches or walkers. Seating spaces are also required for these individuals. These seating spaces must provide at least 24 inches of clear leg space between the front of the seat to the nearest obstruction. This space allows persons with mobility impairments to get in and out of these seats.

- C. In determining the location of disabled seating, life safety shall be considered, and all seating provided must comply with the fire and panic safety requirements of the State Fire Marshal.

EXCEPTION NO. 1: In existing buildings and facilities, when the enforcing agency determines that compliance with the seating requirements of this code would create an unreasonable hardship such requirements shall not apply. When the unreasonable hardship finding is applied, at least one percent of the total seating provided shall be accessible to and usable by physically disabled persons who use wheelchairs and such seating shall comply with the level requirements and the individual space requirements of this code.

Under many requirements contained in these regulations there are exceptions permitted when the enforcing agency determines that compliance will create an unreasonable hardship. Be sure to check Chapter 2-4 for the definition of "unreasonable hardship" as it reiterates the five criteria necessary to come to a determination that an unreasonable hardship exists. In the case of this particular regulation, the provision of equivalent facilitation is spelled out, as follows: When the unreasonable hardship finding is applied, it is specified in this section that at least one percent of the total seating must be accessible and that the spaces must still comply with the level requirements and individual space requirements of the code. Please notice that this exception is permitted only in existing buildings and only when the enforcing agency determines that compliance with the regular seating requirements would create an unreasonable hardship.

EXCEPTION No. 2: When an existing theater is subdivided into more than one facility having upper levels not accessible by ramp or elevator, and the enforcing agency determines that full compliance with this code would create an unreasonable hardship such upper levels need not be made accessible provided all facilities at grade are accessible and any event, showing of motion pictures or other activities made available to the public in all of the facilities are scheduled to assure that all such functions are available to the public in the accessible facility.

This exception was written at a time when subdividing old theaters was very common. The purpose of these remodeling projects was to divide a single large theater into several small theaters within the same building. Many of the old theaters that were being remodeled were two stories or more and the only access between floor levels or stories was by stairs. With theater seating arrangements being created in this way, it was recognized that it would be an extreme hardship in some cases to put elevators in these old buildings. Therefore, the idea of rotating films to the accessible level seemed like an acceptable alternative to putting in a costly elevator.

It is obvious that this is a requirement that cannot be controlled through the building permit process. The exception does, however, provide some flexibility when remodeling of this type occurs in multi-storied theater facilities. The main point to be

made here is that if the enforcing agency determines that compliance would create a hardship, then the provision exists for rotating of films. And the theater owner, the theater-goers and local enforcing authorities are all notified by these regulations that rotation is necessary.

2. **Stages, Enclosed and Unenclosed Platforms, and Orchestra Pits.** Stages, enclosed and unenclosed platforms, and orchestra pits shall be made accessible to the physically disabled.

Stages, platforms and orchestra pits are used for numerous reasons. These areas have typically not been available to disabled performers in the past. By making these facilities accessible it enables disabled persons to perform in raised areas and to participate in presentations made on stages, platforms and orchestra pits.

EXCEPTION NO. 1: When the enforcing agency finds that requiring compliance with this code, for an enclosed or unenclosed platform or depressed area not more than 24-inches above or below an adjacent accessible level, would create an unreasonable hardship the enclosed and unenclosed platform or depressed area shall be made accessible by a portable ramp with a slope not exceeding one vertical to twelve horizontal.

Here is another example where the enforcing agency must determine when there is an unreasonable hardship and the provision of equivalent facilitation is specified by the regulations. Equivalent facilitation in this instance could be the provision of a portable ramp with a slope not exceeding 1 and 12. See 2-422 for definition of unreasonable hardship.

EXCEPTION NO. 2: In existing buildings and facilities, stages, enclosed or unenclosed platforms, and orchestra pits need not be accessible when the enforcing agency determines that compliance with this code would create an unreasonable hardship.

In existing buildings where making the stages, platforms and orchestra pits accessible would create a hardship, the enforcing agency can actually permit an exemption. See 2-422 for definition of unreasonable hardship.

3. **Ticket Booth.** Customer and employee sides of ticket booths and of concession and refreshment sales facilities shall be made accessible to the physically disabled.

Access to ticket booths by both customers and employees, permits customers to purchase tickets as well as disabled persons to work in such ticket booths. To make the ticket booth accessible you should refer to Section 2-522(c) for the requirements for wheelchair maneuvering space.

4. **Miscellaneous Areas.** Public toilets and other public areas shall be made accessible to the physically disabled.

(c) **Stadiums, Grandstands, Bleachers, Athletic Pavilions, Gymnasiums, and Miscellaneous Sport-Related Facilities.**

1. **Spectator Seating.** In facilities with a seating capacity of 5000 or less there shall be spaces for the disabled using wheelchairs, which conform to the requirements

of Section 2-611(b)1A. When, however, the number of permanent seating spaces exceeds 5000 the number of wheelchair seating spaces shall conform to the requirements of Section 2-611(d)1A for the first 5000 seats only and one additional wheelchair seating space shall be provided for each total seating capacity increase of 500.

You will notice that wheelchair seating spaces in stadiums and grandstands, etc., are the same percentages as for theaters with the exception that where seating exceeds 5000 only 1 seat per each additional 500 is necessary. Don't forget that where seating exceeds 300, wheelchair spaces shall be in more than one location.

- 2. Ticket Booth.** Customer side shall be and employee side of ticket booths may be accessible.

Note that the requirements for ticket booths serving stadiums differ from the requirements for ticket booths for auditoriums and theaters. The difference is that stadiums and grandstands need only be accessible on the customer's side and accessibility on the employee's side is optional; where auditoriums and theaters require both the customer and employee side to be accessible.

- 3. Participation Areas.** Participation areas shall be accessible to the physically disabled including the following listed and similar activity areas:
- A. Tennis, racquet and handball courts.
 - B. Gymnasium floor areas and general exercise rooms.
 - C. Basketball, volleyball and badminton courts, bowling lanes.
 - D. Swimming pool deck areas must be accessible and an assisting device provided to assist physically-disabled persons in gaining entry into the pool.
 - E. Athletic team rooms and facilities, playing fields and running tracks.

Disabled persons participate in the same athletic activities as able-bodied individuals. Therefore, we have the requirements for sports related participation areas to be accessible. Notice that an assistive device is required for swimming pools. This will provide accessibility for people with disabilities to the pool itself.

What is an assisting device?

An assisting device is any equipment or access feature which provides disabled persons access to pools and spas. An example would be one of the many lifts currently on the market.

What about hot tubs and spas, are they required to be accessible?

Yes. Notice that the statement regarding participation areas incorporates the wording (including the following listed and similar activities). This is therefore a broadening term to describe the fact that the list is not all inclusive. Therefore, the answer is yes. Spas should be made accessible by the use of either a lift or a ramp if necessary.

- 4. Clubrooms.** Clubrooms shall be made accessible to the physically disabled.
- 5. Sanitary and Locker Facilities.** Where spectator and/or participant sanitary and/or locker facilities are provided they shall conform with the requirements in Chapter 2-5.

To make locker facilities accessible it is necessary to provide adequate wheelchair space between lockers and benches and in addition some lockers must be located at a height which makes them usable by the disabled.

EXCEPTION NO. 1: Where the enforcing agency determines that compliance with these regulations would create an unreasonable hardship, an exception may be granted, when equivalent facilitation is provided through the use of other methods or materials.

Here's one of the typical exceptions found throughout the code that describes the fact that if you have an unreasonable hardship an exception may be granted when equivalent facilitation is provided through other methods or materials. Be sure to check the definition of unreasonable hardship as found in Chapter 2-4 of this document.

EXCEPTION NO. 2: In existing buildings, when the enforcing agency finds that compliance with regulations would create an unreasonable hardship, an exception may be granted when all of the following minimum conditions are met:

- A. When the total seating does not exceed 5000 at least one percent of such seating shall be accessible to and usable by physically-disabled persons. When the total seating provided exceeds 5000 one additional seat for each 2000 seats provided over 5000 shall be accessible to and usable by physically-disabled persons.
- B. Sanitary facilities, ticket booths, clubrooms, concessions, and refreshment facilities are accessible.
- C. One of each type of participation area is usable and accessible.

We have several types of typical exceptions found throughout the regulations as follows:

- 1) *in some cases, the exceptions call for equivalent facilitation without describing what that might be, and*
- 2) *as in this particular case we describe what equivalent facilitation shall be.*

Equivalent facilitation in this case is as follows:

- A) *the percentage of accessible seating can be reduced to one percent of the total seating capacity*
- B) *this portion of the exception assures that in determining hardship at no time will the provisions of access to the public areas be denied, and*
- C) *once the enforcing agency determines that in fact there is an unreasonable hardship then it will be necessary to make only one tennis court, racquetball court, or bowling lane, etc., accessible.*

- (d) **Dining , Banquet, and Bar Facilities.** Dining, banquet, and bar facilities shall be made accessible to the physically handicapped as provided in this section.

Access must be provided to restaurants, bars, fast food places and banquet facilities. Notice that in 2-611(d)2 it speaks to the fact that each type of functional activity must be made accessible. This means that within any given restaurant each activity must be accessible. These activities could include the restaurant area, a banquet area, a bar area, dancing area, whatever. We emphasize again each type of activity must be accessible.

EXCEPTION NO. 1: In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

This typical exception found throughout the regulations allows for the provision of accessibility by a different means than what is described in the general provisions. This exception can only be used after determining that it would be an unreasonable hardship to provide access through the general provisions. The determination of unreasonable hardship must be made using the 5 criteria listed in the definition Chapter 2-4, Section 2-422.

Here we have the typical equivalent facilitation hardship; if it is determined that an unreasonable hardship exists, then an exception may be granted when equivalent facilitation is provided (Check with Chapter 2-4 for the definition of unreasonable hardship).

EXCEPTION NO. 2: In existing buildings, these regulations shall not apply when legal or physical constraints would not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 2-110(b)11D.

This is a typical exception found throughout the code that allows a total exemption from the regulations if there is a legal or physical constraint which would not allow compliance without creating an unreasonable hardship, and this determination is approved by the local enforcing agencies appeals board. The necessity for the appeals process is specified by Section 2-110(b)11D.

EXCEPTION NO. 3: For floors and levels in new and existing buildings see Section 2-522(c).

This exception refers you to Section 2-522(e) in Chapter 2-5. Section 2-522(e) requires that floors of a given story be of a common level throughout or be connected by ramp, or elevator, or access lift. Exception No.2 under this Section states in part: "In new and existing dining, banquet, and bar facilities when it is determined that compliance creates an unreasonable hardship, an exception can be granted. However, a minimum 75 percent of the dining, banquet and bar areas shall be of a common level throughout or connected by ramp, elevator, or lift". What this really means is that if it is determined that it is a hardship to have 100 percent of the floor area in a dining, banquet, or bar facility accessible, then changes in floor levels can occur without a ramp or lift as long as 75 percent of the floor area is accessible.

1. **Primary Entrance.** Access to these facilities shall be provided at primary entrances.
2. **Functional Activity.** Wheelchair access shall be provided to all areas where each type of functional activity occurs.
3. **Seating.** Each dining, banquet and bar area shall have one wheelchair seating space for each twenty seats, with at least one minimum wheelchair seating space per each functional area. Such seating shall be designed and arranged to permit use by wheelchair occupants. Access to such seating space shall be provided with main aisles not less than 36-in in clear width. Accessible seating space shall be integrated with general seating to allow a reasonable selection of seating area and to avoid having one area specifically highlighted as the disabled area. The ratio of seating designed for disabled use is based upon the total number of seats provided.

2-611(d)3. continued

In Section 2-611(d)3 are the requirements for seating. These seating requirements are necessary to insure that once inside an otherwise accessible restaurant, a disabled person can eat at a dining table. Many restaurants provide seating in booths or have other types of fixed seating which are not usable by persons in wheelchairs or persons who use other assisting devices. The intent of these seating regulations is to insure first of all that there is an adequate aisle of 36 inches in clear width to all seating areas and that seats are available and accessible to the disabled. It is recommended that tables provide a minimum clearance of 27 inches to the bottom of the table apron.

4. **Cafeteria Line Aisles.** Cafeteria line aisles shall be a minimum of 36-in of clear width.

Cafeteria aisles should be accessible so that the disabled can go through cafeteria lines to view and select foods the same as able-bodied persons do.

5. **Restrooms.** Restrooms and powder rooms shall conform to requirements in Section 2-511.

EXCEPTION: Where the enforcing agency finds that it would result in an unreasonable hardship to require compliance in each toilet facility, then a minimum of one toilet facility shall be accessible to and usable by physically-disabled persons when it is determined that it would not result in disabled persons experiencing any more difficulty in terms of travel and accessibility as experience by others.

The restroom requirements in restaurants are the same as for all other buildings, see the regulations in Section 2-511 where the requirements for sanitary facilities are described. In addition, there is a special exception to the restroom requirements for restaurants which states "when the enforcing agency determines that access to each toilet facility in a restaurant would create a hardship then a minimum of one facility can be made accessible to and usable by the disabled." However, this is only permitted if the accessible toilet room is not located in such a way as to result in disabled people having to travel further than the able-bodied or having to travel through undesirable areas. This particular exception is unique to this occupancy chapter.

6. **Food Preparation Areas.** Access to food preparation areas shall comply with the provisions for entrance doors and doorways, Section 2-3304.

Here we have general access requirements to employee areas that do not include specific work station requirements. Food preparation areas need only comply with entrance doors and doorway regulations. This means that access need not be provided at specific work stations.

- (e) **Religious Facilities.** Religious facilities shall be made accessible to the physically disabled as provided in this section.

Religious facilities must be made accessible.

EXCEPTION: In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

Here it is again folks, the typical exceptions found throughout the regulations dealing with an unreasonable hardship and an allowance for equivalent facilitation if the defined five criteria imply an unreasonable hardship. See Chapter 2-4 for the definition of an unreasonable hardship, and the five criteria.

1. **Sanctuary.** Sanctuary areas shall be made accessible to the physically handicapped.
 - A. Wheelchair seating spaces shall conform to the requirements in Section 2-611(b)1A.
 - B. Wheelchair access shall be provided to raised platforms, choir rooms, choir lofts, performing areas, and other similar areas.

Wheelchair seating spaces and sanctuaries must comply with the same requirements as for theaters. Raised platforms, choir rooms, lofts and other performing areas must be accessible. This allows a disabled person the ability to participate in religious ceremonies including weddings, funerals, or whatever the case might be. Again, the point here is that the disabled are entitled to enjoy a religion and attend religious activities the same as able-bodied persons, and therefore should be entitled to the same accessibility.

EXCEPTION: In existing buildings, these regulations shall not apply to choir lofts when the enforcing agency determines that such compliance would create an unreasonable hardship.

This exception applies only to existing buildings and it states that when the enforcing agency determines that the provision for access to choir lofts creates an unreasonable hardship the choir loft can be exempted. See Chapter 2-4 for the definition of unreasonable hardship.

2. **Assembly Areas.** Assembly areas shall be made accessible to the physically disabled. Enclosed and unenclosed platforms and stages in assembly areas shall conform to these requirements.
3. **Classrooms and Offices.** Classrooms and offices shall have entry doors that conform to the requirements in Chapter 2-33.
4. **Sanitary Facilities.** Sanitary facilities shall conform to the requirements in Chapter 2-5.

**Chapter 2-7
REQUIREMENTS FOR GROUP B OCCUPANCIES**

Adoption Table No. 2-7A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
705.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82
2-705(a).....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82
2-705(b).....	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-
2-705(c).....	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-
2-711(c).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-712.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
Table No. 2-712(b)3c.	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-713.....	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-
2-714.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82
2-715.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82
2-716.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82
2-717.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82
2-718.....	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-
2-719.....	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-
2-720.....	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-
2-721.....	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-
2-733.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanations of this Table.

NOTE 2. See State Building Code History Note Appendix.

NOTE 3. See Section 2-1724 for special ventilation and sanitation requirements.

The Adoption Table tells us that in Chapter 2-7, Section 2-712 is the only section adopted by the Office of the State Architect and therefore access requirements in this chapter must comply with that section only.

Special Standards of Accessibility

Sec. 2-712

- (a) **General.** The provisions of this section apply to the specified types of facilities and identify specific requirements of accessibility and usability which shall be provided for each of the listed occupancy uses.
- (b) **Office Buildings and Personal and Public Service Facilities.** Office buildings and personal and public service facilities shall conform to the provisions of this section.
EXCEPTION NO. 1: In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

Here is the exception for existing buildings that allows equivalent facilitation, providing an unreasonable hardship is found when incorporating the regulations. See Section 2-422 for the definition of unreasonable hardship.

EXCEPTION NO. 2: In existing buildings, the provisions of this section shall not apply when legal or physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship.
 (See 2-110(b)11D)

- 1. **Facilities Covered.** Facilities covered in this section are those that are used by the public as customers, clients, visitors or which are potentially places of employment and shall include, but not be limited to the following categories:
 - A. All types of general and specialized business professional offices including those related to insurance, real estate, attorneys, credit bureaus, consultants, counseling and accounting.
 - B. All types of sales establishments including outlets for all general and special merchandise and equipment including personal and household furnishings and supplies, foods, sporting equipment, office supplies, vehicles and related parts and supplies, building materials and pet shops.
 - C. All personal and public service facilities including banks, savings and loan companies, credit unions, newspaper and printing establishments, photographic studios, laundermats, cleaning and laundry outlets; veterinarian clinics and hospitals, auto rental agencies, travel bureaus, public utility facilities, police stations and detention facilities, courtrooms, fire stations.

What we have in A, B, and C above is a list of some of the types of facilities that are covered in the Group B occupancy chapter. As we have stated before this list is not inclusive but is to be indicative of the general types of facilities that require accessibility. One important point that it makes, is that these are facilities that are used by the public as either customers, clients, visitors or which are potentially places of employment. Therefore, areas that are specific to either customers, clients, visitors or employees shall be available and accessible.

- 2. **Business and Professional Offices.** Areas to be made accessible include:
 - A. Client and visitor areas and office areas, together with related toilet rooms shall be made accessible.
 - B. Conference rooms, counseling rooms or cubicles and similar areas shall be made accessible.

2-712(b)2.C.

- C. Employee work areas shall have a minimum of 36 inches wide clear access, except as modified in other portions of these regulations. See Section 3313 (a) and (b) of 1979 Edition of UBC.

This section discusses the kinds of areas that should be accessible in business and professional offices and again covers the requirements for client, visitor and employee areas. The intent of these regulations is to provide access to and through a facility. In considering access in an office setting, the best way might be to put yourself in that particular employment situation. You know that in order to function in an office you have to have access to every area including client and visitor areas, toilet rooms, conference rooms, etc. The listing of areas to be made accessible is not all inclusive and therefore there may be other facilities included in this category which are not specifically identified in the regulations.

3. Sales Facilities.

- A. General sales, display and office areas together with related toilet rooms shall be made accessible.
- B. Sales employee work stations shall be located on accessible levels, and the customer side of sales or checkout stations shall be accessible. Employee work areas shall be sized and arranged to provide access to employees in wheelchairs.

As you can see, under Item 3B employee work areas shall be sized and arranged to provide access to employees in wheelchairs. You can make your determinations best after reviewing Section 2-522(c) which gives you wheelchair maneuvering space requirements.

- C. In new construction checkstands shall be made accessible by providing a 36 inches aisle on the customer side of the checkstand. Where quick checkstands are provided, at least one shall be accessible. Where regular checkstands are provided, the number of checkstands that are accessible shall be as follows:

Table 2-712 (b) 3C

<u>No. of Regular Checkstands</u>	<u>No. to be Accessible</u>
<u>1-8</u>	<u>1</u>
<u>9 and over</u>	<u>2</u>

In new and existing construction, accessible checkstands shall always be open to disabled customers and shall be identified by a sign clearly visible to those in wheelchairs. The sign shall display the international symbol of accessibility in white on a blue background and shall state "This checkstand to be open at all times for disabled customers".

In existing buildings where a group of sales or checkstands are constructed adjacent to and paralleling each other in function, a minimum of one such stand shall be made accessible to and usable by disabled customers.

D. Turnstiles.

NOTE: See Section 2-3304(n).

Item 3D Turnstiles. Turnstiles obviously are not usable by people in wheelchairs. Therefore, they should not be used as the only primary entrance. For further information, see Section 2-3304(n).

- E. Where shopping cart theft prevention barriers are utilized they shall conform to the following requirements.
- (1) Each entrance and exit provided for public use shall be accessible to and usable by handicapped persons.
 - (2) Shopping cart barriers located at a public entrance or exit shall be designed to provide a clear unobstructed opening at least 32-inches in width for handicapped ingress and egress.
 - (3) Where gates are utilized, they shall open in the direction of travel, provide a clear unobstructed opening 32-inches in width and be maintained unlocked during business hours. Gates shall not operate a publicly audible alarm system or require more than a 5 pounds per foot to operate.
 - (4) Where a clear unobstructed opening is provided, a level area is required on both sides of the clear opening or gate which extends a minimum of 44-inches on each side of the opening and is at least 48-inches in width.
 - (5) Where a gate is utilized, the level area on both sides of the clear opening or gate shall be a minimum of 60-inches in width and extend a minimum of 60-inches (measured from the gate in a closed position) in the direction of the gate swing. The level area opposite the gate swing shall be a minimum of 48-inches in width and extend a minimum of 42-inches.
 - (6) When a gate is used, the bottom of the gate shall be within 3-inches of the surface of the path of travel. The surface of the gate on each side shall be smooth to present no hazard to a handicapped person using the gate, and structurally adequate to allow it to be opened with the wheelchair foot pedals.
 - (7) The path of travel to and through the clear opening or gate shall be designed to prevent barriers from obstructing it and shall be continuously maintained unobstructed during business hours. Also, the design shall specifically prevent parked vehicles from obstructing ingress and egress.
 - (8) Interior and exterior pedestrian traffic barriers (posts, rails, turnstiles, etc.) shall allow unobstructed travel for handicapped persons through a 32-inches clear opening.

Shopping cart barriers as constructed in the past have often created access barriers for the disabled. The above items provide specific guidelines which insure that the shopping cart theft solution does not create an access problem for the disabled.

- F. Where fitting or dressing rooms are provided for male or female customers, at least one (of each type) shall be accessible to and usable by handicapped persons. Entry doors shall conform to the requirements of Section 2-3304 and aisles leading to such doors shall conform to Section 3313 (a) and (b) of 1979 Edition of UBC. The bottom of mirrors provided for handicapped use shall be not greater than 20-inches from the floor and clothing hooks not greater than 48-inches from the floor. The minimum dimension of the room shall be 60-inches in width and length.

This section requires that fitting rooms or changing rooms should be accessible to the disabled and that aisles leading to those fitting rooms be as specified in Section 3313 of the Uniform Building Code (1979 edition).

EXCEPTION NO. 1: Minor specialized display areas that do not exceed 200 square feet in floor area and to which the general public is excluded need not be made accessible.

An example of such a display area as described in Exception No.1 would be those located at windows where fashions are modeled by mannequins, or raised areas inside a store where other items are displayed.

EXCEPTION NO. 2: Offices, in sales facilities that do not exceed 5,000 square feet in total area, that are located on nonaccessible levels need not be made accessible.

What this says is if a sales facility which is under 5,000 square feet total, has an office located on an nonaccessible level, access need not be provided to the office. So the point is the 5,000 square feet applies to the sales facility itself not to the office.

4. Personal and Public Service Facilities.

- A. Client and visitor areas, office areas, and related toilet rooms shall be made accessible.
- B. Employee work areas shall have 36-inches wide clear access except as modified in other portions of these regulations.

NOTE: See Section 3313 (a) and (b) of 1979 Edition of UBC.

5. Public Utility Facilities.

- A. Office areas, meeting rooms, and similar areas together with related toilet rooms shall be made accessible.
- B. Public tour areas, to the extent that such public tours are conducted through or about a facility, or where the public is permitted to walk in such areas, shall provide accessibility in those portions of the facility and grounds where this occurs.

EXCEPTION NO. 1: Facilities located in operational areas which would not have any reasonable availability to or usage by persons who use wheelchairs for mobility are not subject to the wheelchair accessibility requirements of these regulations.

This is a unique exception that deals with the availability to and usage by people who use wheelchairs. Obviously there are areas normally required to be accessible that because of the nature of the occupancy are not available to or usable by some physically disabled. Certain occupancies used by public utilities could fall into this category. Such as areas in power generating stations, heavy equipment rooms and so on. Therefore, if it is determined that particular areas are not accessible to or usable by people in wheelchairs then this exception allows an exemption from these regulations. OSA often uses a job description to make this kind of determination.

EXCEPTION NO. 2: When the enforcing agency determines that compliance with this subsection would create an unreasonable hardship, an exception to such provision shall be granted when equivalent facilitation is provided.

This is the typical exception found throughout the regulations that provides for equivalent facilitation when it is determined that the general regulations would create an unreasonable hardship. See the definition of unreasonable hardship in Chapter 2-4.

- C. Visitor overlook facilities, orientation areas and similar public use areas, and any sanitary facilities, that serve these facilities, shall be made accessible.
- D. Where public parking is provided, spaces shall be provided for the physically handicapped as specified in Chapter 2-71.

6. Police Department, Law Enforcement, Fire Department Facilities and Courtrooms.

- A. Office areas, conference rooms, classrooms, dispatch rooms, and similar areas, along with related sanitary facilities, shall be made accessible.
- B. Detention area visitor room shall be made accessible.
- C. At least one detention cell facility with supporting sanitary facilities shall be made accessible.
- D. Courtroom areas including the judge's chambers and bench, counsel tables, jury box, witness stand, and public seating area shall be made accessible.

Items A through D must comply with all the general provisions of these regulations as for doors, doorways, restrooms, corridors, public phone areas, etc., and yes, at least one detention cell must comply.

7. Miscellaneous General Standards.

- A. Circulation aisles and pedestrian ways shall be sized according to functional requirements, and in no case shall be less than 36 inches in clear width.
- B. Storage areas are not required to meet these standards except that where located on accessible floors or levels, the doorway providing access to such areas shall be not less than 32 inches in clear width.

(c) Factories and Warehouses. Factories and warehouses shall conform to the provisions of this section.

EXCEPTION: In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

1. Factories.

- A. Major or principal floor areas shall be made accessible.
- B. Office areas shall be made accessible.
- C. Sanitary facilities serving the above shall be made accessible.

2. Warehouses.

- A. Miscellaneous warehousing areas which are located on the floor nearest grade and those areas on other floors that are otherwise provided with access by level entry, ramp, or elevator shall be made accessible.
- B. Office areas shall be made accessible.
- C. Sanitary facilities serving the above shall be made accessible.

This section has the typical exception for existing buildings and provides for equivalent facilitation when it is determined that it would be unreasonably difficult to provide regular access. See Chapter 2-4 for definition of unreasonable hardship.

(d) Group B Occupancies. Group B occupancies used for assembly purposes, but having an occupant load of less than 50, shall conform to the requirements as specified in Section 2-611.

NOTE: For floors and levels in dining, banquet, and bar facilities, see Section 2-522(e).

Chapter 2-8
REQUIREMENTS FOR GROUP E OCCUPANCIES

Adoption Table No. 2-8A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-801.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-802(c).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-802(d).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-809.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-810.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-811.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-812.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-833.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

If you weren't using this manual, you would need to know how to use this adoption table. For more information see Chapter 2-1.

Special Standards of Accessibility.

Sec. 2-812

- (a) **General.** The provisions of this section apply to educational and library facilities and identify specific requirements of accessibility and usability which shall be provided for each of the listed occupancy uses.

Educational and library facility areas shall be made accessible to the physically handicapped, as prescribed in this chapter.

This is the Occupancy Chapter dealing with educational and library type facilities.

EXCEPTION NO. 1: In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

EXCEPTION NO. 2: In existing buildings, where the enforcing agency determines because of physical constraints, compliance with these regulations or equivalent facilitation would create an unreasonable hardship, these regulations shall not apply.

See Section 2-110(b)11D.

Here again we have the typical exception found throughout the regulations that allows equivalent facilitation where it would be create an unreasonable hardship to comply with the literal requirements. See Chapter 2-4 for definition of unreasonable hardship.

- (b) **Laboratory Rooms.** Laboratory rooms shall have at least one work station, and one additional work station for each 40 stations provided that is accessible to and usable by the physically handicapped or such work station shall be so constructed that it can be easily converted for such use.

EXCEPTION: There the enforcing agency determines that it would create and unreasonable hardship to require compliance with these regulations for special use rooms such as laboratory preparation rooms, supply rooms, small research laboratories, and areas containing specialized equipment not readily usable by persons with particular handicaps, such facilities need not comply these regulations, except that a clear width of 32-inches shall be maintained into such rooms.

Again, here is the typical exception found throughout the regulations that provides an exemption where there are physical constraints that create an unreasonable hardship. This exemption requires concurrence of the local enforcing authorities Appeals Board as prescribed in Section 2-110(b)11D.

- (c) **Teaching Facility Cubicles, Study Carrels, etc.** Teaching facility cubicles, study carrels, etc., shall have at least one cubicle or carrel in each group (language, dental, audio-visual, typing, drafting, dark rooms, etc.) made accessible to and usable by the physically handicapped.

In this section the regulations require that laboratories and laboratory work stations be made accessible. The exception recognizes that in some laboratory situations having a disability will prevent appropriate use of the laboratory facilities. The regulations therefore include an exception for these types of cases. However, at a minimum, access to the facility is required by way of a 32 inch clear door width and a 36 inch aisle.

- (d) **Library General Use Areas.** Library general use areas such as those housing card files, book stacks, periodicals, reading and reference areas, information desks, circulation counters, etc., shall be made accessible to the physically handicapped.

Since the disabled are now a major portion of our society and because there are many disabled persons attending educational institutions, the regulations require each type of teaching facility which is available to the able-bodied be made available to the disabled as well.

1. **Open Book Stacks.** Open book stacks (those available to customer use) may be of normal height, but shall have main aisles no less than 44-inches in width and side aisles no less than 36-inches in width.
EXCEPTION NO. 1: In existing buildings, shelving in the amount of not more than 15 percent of the total amount of library shelving may be located on an inaccessible mezzanine area.
EXCEPTION NO. 2: In existing buildings, multi-tiered, closed book stacks (those restricted to employee use) are exempt from these accessibility standards.
2. **Height of Book Shelves.** Unless an attendant is available to assist physically handicapped persons, all book shelving shall be located not more than 54-inches above the floor.

The library requirements basically ensure that disabled persons are able to use a library facility. This includes everything in a library; card files, book stacks, reading and reference materials, desks, etc. There is some flexibility in the height of bookshelves if a librarian is available to assist the disabled in obtaining books on higher shelves. However, if no such person is available, bookshelves shall be no more than 54 inches above the floor. The library regulations also allow for exceptions in existing buildings. This includes the exception that fifteen percent of the library shelving can be located on an inaccessible mezzanine level and in existing buildings multi-tiered closed book stacks which are restricted to employees use are exempt. Both of these requirements are just plain exceptions to the regulations and are not based upon the existence of hardship or the provision of equivalent facilitation.

Chapter 2-10
REQUIREMENTS FOR GROUP I OCCUPANCIES
 Divisions 1, 1A, 2, 2A and 3
 Adoption Table No. 2-10A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1001.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1002.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1004.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1007.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(a)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(b)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(c)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(d)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(e)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(f)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(g)...	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(h)...	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(i)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(j)....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(k)...	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(l)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(m)...	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1008(n)...	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1009.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1010.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1011.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1012.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	-	-

Adoption Table 2-10A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHR	DOT	AGR	YA	BOC	DOE	CA
Table No. 2-1012B....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	-	-
2-1013.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	-	-
2-1014.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	79	-	-
2-1033.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1044.....	-	-	-	-	-	-	-	-	-	-	-	-	-	79	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

2-1011(a)

If you weren't using this manual, you would need to know how to use this adoption table. For more information see Chapter 2-1.

Special Standards of Accessibility.

Sec. 2-1011

- (a) **General.** The provisions of this section apply to the specified types of medical facilities and identify specific requirements of accessibility and usability which shall be provided for each.

Medical facility areas shall be made accessible to the physically handicapped, including both employee and patient areas of in-patient and out-patient facilities such as hospitals, convalescent homes, physician and dental offices and suites, related diagnostic and laboratory units, etc., as follows:

EXCEPTION: In existing buildings, when the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

- (b) **Nursing Care Suites.** Nursing care suites shall have a minimum of one, and at least one additional patient bed for every 10 patient beds provided, that is accessible to and usable by handicapped persons. Where bath or toilet rooms are provided adjacent to patient rooms, they shall be made accessible in like proportion. Single occupancy sanitary facilities may satisfy this requirement.

EXCEPTION: Acute care facilities shall have two percent of patient beds and adjacent bath or toilet rooms accessible

- (c) **Diagnostic and Treatment Areas.** Diagnostic and treatment areas and, where applicable, at least one dressing room, sanitary facility, etc., for each unit or suite, shall be made accessible.

- (d) **Waiting Areas, Offices and Sanitary Facilities.** Waiting areas, offices, and sanitary facilities serving them shall be made accessible as covered in other portions of these standards.

- (e) **Offices and Suites.** In buildings that house offices and suites of physicians, dentists, etc., all such offices or suites shall be made accessible, subject to other provisions in these regulations.

This section is a bit misleading so let's decipher it together.

First of all, under item (b) ,nursing care suites ,will find the regulations for nursing homes. Acute care facilities described in the exception to (b) are the requirements for hospitals. Therefore, you apply the requirements in (b) to nursing homes and you apply the exception as far as patient beds and toilet rooms , to hospitals. At the end of (a) we have the typical exception found throughout the regulations that allows for equivalent facilitation when it is determined that application of these regulations would create an unreasonable hardship (see Chapter 2-4 for definition of unreasonable hardship).

This chapter states that all types of medical facilities must provide appropriate access and that includes, patient, as well as employee areas.

Under (e) we have a statement that calls for offices and suites of physicians, dentists, etc., to be made accessible. Those offices should comply with the requirements found in Chapter 2-7 as well.

Chapter 2-11
REQUIREMENTS FOR GROUP M OCCUPANCIES

Adoption Table No. 2-11A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1107.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1108.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1133.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1134.....	-	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

2-1107(a)

If you weren't using this manual, you would need to know how to use this adoption table. For more information see Chapter 2-1.

The Adoption Table indicates that in Chapter 2-11 only Section 2-1107 has been adopted by the State Architect's Office as the regulations on accessibility.

Special Standards of Accessibility

Sec. 2-1107

(a) **Parks and Recreation Areas.** The following parks and recreational areas shall comply with these regulations:

EXCEPTION NO. 1: In existing buildings, when the enforcing agency determines that compliance would create an unreasonable hardship, a variance shall be granted when equivalent facilitation is provided.

EXCEPTION NO. 2: Where the enforcing agency finds that, in specific areas, the natural environment would be materially damaged by compliance with these regulations, such areas shall be subject to these regulations, only to the extent that such material damage would not occur.

EXCEPTION NO. 3: Automobile access shall not be provided or paths of travel shall not be made accessible when the enforcing agency determines that compliance with these regulations would create an unreasonable hardship.

Parks and recreational areas must be made accessible as specified except that: No. 1 The typical exception for existing buildings is included recognizing the unique problems found when applying these regulations to existing buildings, however, equivalent facilitation must be provided. No. 2 Access shall only be provided to the extent that it does not materially damage the environment. No. 3 Automobile access and paths of travel are not required to be accessible if such access creates an unreasonable hardship. See Chapter 2-4 for the definition of unreasonable hardship.

1. **Campsites.** Campsites, minimum of 2 and no fewer than 3 for each hundred campsites provided, shall be accessible by level path or ramp and shall have travel routes with slopes not exceeding one in twelve to sanitary facilities. Permanent sanitary facilities serving campgrounds shall be accessible to wheelchair occupants.
2. **Beaches, Picnic Areas.** Beaches, picnic areas, day-use areas, vista points, and similar areas shall be accessible.
3. **Sanitary Facilities.** Sanitary facilities, to the extent that such facilities are provided, each public use area that is accessible to wheelchair occupants by automobile, walks, or other paths of travel.
4. **Boat Docks.** Boat docks, fishing piers, etc., shall be accessible.
5. **Parking Lots.** Parking lots shall be provided with handicapped parking spaces and with curb cuts leading to all adjacent walks, paths, or trails.

See Section 2-7102 for specific parking requirements.

6. **Trails, Paths.** Trails, paths, and nature walk areas, or portions of these, shall be constructed with gradients which will permit at least partial use by wheelchair occupants. Hard surface paths or walks shall be provided to serve buildings and other functional areas.

Everybody likes to get out and communicate with nature, right? So let's make nature accessible to everyone. Therefore, every effort should be made to ensure that trails, nature

2-1107(a)6. *continued*

paths, etc., are usable by the disabled. However, we have left this requirement somewhat open ended because of the difficulties which may be encountered at various sites.

7. **Nature Trails.** Nature trails and similar educational and informational areas shall be accessible to the blind by the provision of rope guidelines, raised Arabic numerals and symbols for identification, information signs, and related guide and assistance devices.

NOTE: For museums, orientation buildings, visitor centers, office buildings, retail stores, restaurants, etc., and sanitary facilities serving these uses, see Chapters 2-6 through 2-12.

Blind persons and visually impaired persons enjoy these areas by touch and smell and therefore should not be denied the pleasure of experiencing nature trails.

The note in this section makes it clear that buildings built in conjunction with camping areas, visitor centers, etc., must comply with the specific occupancy requirements found in Chapters 2-6 through 2-12.

- (b) **Highway Rest Areas.** The specific standards of accessibility for highway rest areas and similar facilities shall be as follows, subject to other provisions in these regulations:
 1. **Permanent facilities.** At least one kind of permanent functional area or facility, as applicable, shall be accessible to the physically handicapped including:
 - A. A sanitary facility for each sex.
 - B. At least one picnic table and one additional table for each 20 tables or fraction thereof provided.
 - C. Information and display areas.
 - D. Drinking fountains.
 - E. At least one parking space.
 2. **Curb Ramps.** Curb ramps conforming to Section 2-7103 shall be provided at pedestrian ways where appropriate.

The weary highway traveler likes to make a pit stop whether able-bodied or disabled.

Basically, highway rest areas must comply with these regulations to the same extent as other occupancies in these regulations. All general provisions apply i.e., doors, doorways, telephones, restrooms, etc., must be accessible.

In addition, each functional activity must also be available for use by the disabled individual.

Chapter 2-12
REQUIREMENTS FOR GROUP R OCCUPANCIES

Adoption Table No. 2-12A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
1201.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1201.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1202.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1205(a).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1205(a)1...	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1205(a)2...	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1205 Exception 1	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1205 Exception 2	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1205 Exception 3	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1205(b).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1205(b) Note.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1206.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1207.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1207.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
1208.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1211.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1212.....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1213(a).....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(a)2..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1213(b).....	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-

Adoption Table 2-12A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
2-1213(b) Exceptions 2 & 3.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1213(b)1 Exception....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1213(b)1 Without Exception....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(b)2..	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(b)3..	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(b)4..	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(b)5..	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(b)6..	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(b)7..	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(c)....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1213(d) Without Exception No. 1.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1213(d)5 Without Note	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1215.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1216.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1217.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1218(c), (d), (e).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1233.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1234.....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

NOTE 3. See Appendix, Chapter 12.

2-1213(a)

Well, if you were using Title 24 now you would need to know how to use the Adoption Table. So let's talk about it. This Adoption Table tells us to look at the following sections for accessibility requirements: 2-1213(a), 2-1213(b), 2-1213(b)1 without Exception, 2-1213(b)2, 2-1213(b)3 and 2-1213(b)4, 2-1213(b)5, 2-1213(b)6 and 2-1213(b)7 and 2-1213(c), 2-1213(d)5 without note and that's it folks. You need to know these things if you ever pick up something other than an interpretive manual. So that's why we keep harping on it.

Access to Buildings and Facilities

Sec. 2-1213

(a) **Hotels, Motels, and Dormitory Buildings or Complexes.** Hotels, motels and dormitory buildings or complexes shall provide access for the physically handicapped in accordance with the provisions of this section.

EXCEPTION: When the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

1. **Guest Rooms.** Hotels, motels, and dormitory buildings or complexes shall have at least one guest room or dormitory room together with their sanitary facilities for each 25 or fraction thereof provided up to 100 and one additional guest room or dormitory room for each 40 or fraction thereof provided over 100 that are accessible to and usable by the physically handicapped.

NOTE: See Section 2-1213(d).

2. **Entry Width.** Every entry, opening or passage door opening into any area shall have a minimum clear and unobstructed opening of 32-in with the door positioned at an angle at 90° from its closed position.
3. **Public Rooms.** Public and common use rooms and similar areas shall be made accessible to the physically handicapped, subject to specific provisions contained in other portions of these regulations.
4. **Recreational Facilities.** When recreational facilities are provided, including swimming pools, they shall comply with subsections 2-611(c) and 2-1107(a).
5. **Kitchens.** When accommodations are provided with kitchen units, at least one and no less than one for every 25 of such accommodations provided, shall comply relative to accessible kitchen facilities with Subsection 2-1213(b) below.

Here's the opening statement. As you can see, these are the regulations that provide access criteria for hotels, motels and dormitory buildings or complexes.

(a) Exception: Here is an exception that allows for equivalent facilitation to be provided when it is determined that an unreasonable hardship would be created by complying with the letter of the law. See Chapter 2-4 for the definition of equivalent or of unreasonable hardship.

(a)1: Here is a section we get a lot of questions about. This section states that hotels, motels and dormitory buildings shall have four percent of their rooms accessible up to 100 rooms, and one additional guest room for each 40 or fraction thereof over 100.

(a)2: This section requires that every room in a hotel, motel or dormitory complex must have entries, passage doors or openings into any area, providing a minimum clear width of 32 inches. This requirement not only affects the four percent we discussed in Item 1 but in fact the entire remaining portion of the building on accessible levels.

(a)4: Recreational Facilities. Recreational facilities within hotels, motels and dormitory building complexes are required to be accessible.

(a)5: Kitchens. This section calls for accessible kitchens as described in 2-1213(b) to be provided in accessible hotel, motel, and dormitory rooms.

(b) Living Accommodations. All publicly funded living accommodations, as defined, on accessible floors and primary entrance floors constructed or approved for construction after the effective date of these regulations, shall comply with the following provisions:

EXCEPTION NO. 1: When the enforcing agency determines that compliance with these building standards, when applied to existing buildings, would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

EXCEPTION NO. 2: When public sidewalks, easements, or other similar paths of travel fronting a building, in which is located a "primary entrance", as defined under subsection 2-417, has a slope of greater than 15% gradient, the provisions of this section need not apply.

EXCEPTION NO. 3: When a primary entrance is above or below grade and the first dwelling unit nearest to grade of living accommodations consisting of 5 or less units per building, is effectively a story above or below grade, the provisions of this section need not apply unless such dwelling unit is accessible by means of an elevator, ramp, or lift to and from a primary entrance.

EXCEPTION NO. 4: In existing buildings, these regulations shall not apply when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 2-110(b)11D.

1. **Parking.** Parking spaces shall comply with Section 2-7102 of this Code.
2. **Kitchens.** Kitchens shall be designed and constructed to provide a minimum clear space of 60-inches between cabinet fronts, countertops, or walls for all U-shaped kitchen areas, and a minimum clear space of 48-inches for all other kitchen designs.
3. **Countertops.** A minimum linear length of 30-inches of countertop shall be provided for the kitchen sink, and a minimum linear length of 30-inches of shall be provided for a work surface, both of which shall be designed to enable repositioning to a minimum height of 28-inches. The sink and work surface may be a single integral unit, or be separate components. The base cabinets directly under sink and work surface counter areas which are designed for repositioning shall be removable to provide clearance for a wheelchair.
The sides and back of adjacent cabinets, which may become exposed to moisture or for handling when a countertop is lowered, shall be constructed of durable, non-absorbent materials appropriate for such uses. Finished flooring shall be installed on the floor beneath such countertop.
EXCEPTION: Stone, culture stone, and tiled countertops may be use without meeting the repositioning requirements.
4. **Lower Shelving.** Lower shelving and/or drawer space shall be provided in the kitchen at a height of no more than 48-inches.
5. **Primary Entrances.** Every primary entrance and individual living accommodations shall be provided with a door buzzer, bell, chime, or equivalent installation.
6. **Toilet Facilities.** Toilet facilities shall comply with subsection 2-1213(d), as modified for living accommodations.

2-1213(b)7.

- 7. Living Accommodations.** Living accommodations on primary-entrance floors and other floors above or below served by ramp, elevator, or special lift shall be made to comply with the above requirements.

NOTE: See Chapter 2-51, Part 2, Title 24, CAC, for requirements applicable to special access (wheelchair) lifts.

(b): Living Accommodations. This section gets a little tricky. This section was written by the State Architect's Office for publicly funded living accommodations such as housing authorities, etc. Notice that these regulations apply to living accommodations on accessible floors and primary entrance floors.

Exception No. 1

Here again we have the typical exception that allows for equivalent facilitation when it is determined that full compliance would be an unreasonable hardship. This exception applies to existing buildings, be sure to look at the definition of unreasonable hardship in Chapter 2-4.

Exception No. 2

Here we have the "San Francisco" exception. Recognizing that the world isn't flat, this exception is provided for those buildings developed on steep sites that preclude the use of these access regulations.

Exception No. 3

This is another exception developed for that portion of the world that isn't flat. If your primary entrance is only accessible by stairs and is effectively a story above or below grade, then the building need not comply.

Exception No. 4

Here again we have the typical exception that deals with the problems of legal or physical constraints allowing for a complete exemption providing concurrence is received from the enforcing authorities appeals process. Requirements for the appeals process are found in 2-110(b)11D.

(b)2: Kitchens. This section provides the required accessibility dimensions for disabled cooks.

(b)3: Here we have one of the adaptability provisions for accessible living accommodations. This section provides for an adjustable countertop that can be lowered to accommodate those users that are in wheelchairs.

- (c) Publicly Funded Dwellings.** Publicly funded dwellings shall comply with 2-1213(b) for living accommodations.

- (d) Bathrooms.** Bathrooms for hotels, motels, dormitories, and living accommodations shall comply with the provisions of this subsection.

- 1. Bathroom Entrance Doorways.** Bathroom entrance doorways shall have an 18-inch clear space to the side of the strike edge of the door on the swing side of the door.
- 2. Shower Compartments.** Where shower compartments are provided, they shall conform to the provisions of Section 2-511(a)9A.

2-1213(d)3.

3. **Bathtubs.** There shall be a minimum space 48-inches parallel by 30-inches perpendicular to the side of a bathtub or bathtub-shower combination to provide for the maneuvering of a wheelchair and transfer to and from the bathing facilities, which may include the maneuverable area under the lavatory.
4. **Water Closets.** The water closet shall conform to the provisions of Section 5-1502 (Part 5 of Title 24). The water closet may be located in a space 36-inches in clear width with 48-inches of clear space provided in front of the water closet. This space may include maneuverable space under a lavatory, arranged so as not to impede access. Doors shall not infringe on the above clearances.
5. **Grab Bars, Lavatories, and Accessories.** Grab bars, lavatories, and accessories shall conform to the provisions of subsections 2-511(a)8 and 2-511(b).
EXCEPTION NO. 1: Hotel, motel, and dormitory bathrooms beyond those specified in Section 2-1213(a) need not comply with the provision of this subsection provided all bathroom entrance doors have a clear opening width of 32-inches and shall be either sliding doors or shall be hung to swing in the direction of egress from the bathroom.
EXCEPTION NO. 2: Living accommodations need not provide folding shower seats in shower compartments provided support backing is installed to provide for future use of an adaptable unit.
EXCEPTION NO. 3: Living accommodations need not provide a shower spray unit in bathtubs.
EXCEPTION NO. 4: In living accommodations, water closets need not conform to the minimum or maximum height requirements provided such water closets are so designed and arranged so as to be adaptable to a height of not less than 15-inches measured to the top of the seat.
EXCEPTION NO. 5: Living accommodations need not provide grab bars provided support backing is installed to allow for future installations of grab bars.

(d) Bathrooms. These are the requirements for bathrooms in hotels, motels, dormitories and living accommodations. Including the requirement for strike side clearance at a doorway. Strike side clearance allows a wheelchair user to approach the door, pull along side the opening and open the door without great difficulty. Without strike side clearance, a wheelchair user would have to approach the door, grab the door lever handle, open the door and back away from the door at the same time. This operation requires three hands.

(d) Item 2. Shower Compartments, Item 3. Bathtubs, Item 4. Water Closets, Item 5. Grab Bars, Lavatories, and Accessories. These sections describe the various elements within a hotel or dormitory bathroom and hopefully this section of the regulations needs no interpretation.

(d)5 Exception No.1

What this Section says is that 4% of the total number of hotel guest rooms with their accompanying bathrooms must be made accessible per these regulations. The remaining 96% must have partial accessibility to the bathrooms by providing a clear opening width of 32" and if there is a swinging door it is to swing in the direction of egress, or out as they say.

(d)5 Exception No. 2

This exception as you can see applies only to living accommodations and exempts the folding seat as long as there is backing.

Chapter 2-14
REQUIREMENTS FOR GROUP D OCCUPANCIES
NOTE: This is a new chapter which has no corresponding provisions in the UBC
Adoption Table No. 2-14A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire Chapter 2-14.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 Chapter 2-14 as noted below....	-	-	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1401.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1402.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1403.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1404.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1405.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1406.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1407.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1408.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1409.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1409(e).....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1410.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1411.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1412.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1413.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1414.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-1415.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-1433.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

Would you like to know how this Adoption Table works, see Chapter 2-1 for everything you'll ever want to know about adoption tables.

Fire Alarm Systems

Sec. 2-1409

- (e) Every Group D Occupancy in which there is housed one or more hearing impaired persons shall be provided with a device acceptable to the enforcing agency designed to alert such persons in the event of fire emergency. Signaling devices required by this section shall be located in the room or area used by such persons for sleeping purposes and shall be activated by the fire alarm system when such system is provided. A person will be considered hearing impaired if a physician certifies in writing to the facility operator that the individual cannot respond to an audible alarm.

Provisions For The Handicapped in New Construction

Sec. 2-1415 In addition to other provisions of these standards, Group D occupancies shall comply with the special standards of accessibility for new construction as follows:

- (a) **Group D, Division 1.** Group D, Division 1 Occupancies for Group 1, Division 1 Occupancies as specified in Chapter 2-10.
- (b) **Group D, Division 2.** Group D, Division 2 Occupancies for Group 1, Division 1A Occupancies as specified in Chapter 2-10.
- (c) **Group D, Division 3.** Group D, Division 3 Occupancies for Group R, Division 1 Occupancies as specified in Chapter 2-12.
- (d) **Group D, Division 4.** Group D, Division 4 Occupancies for Group R, Division 3 Occupancies as specified in Chapter 2-12.

Chapter 2-33
EXITS

Adoption Table No. 2-33A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOI	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	79	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3301(b).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3301(b).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3301(f).....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3301(f)1 without exceptions 1 & 2.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3301(g)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3301(h)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3302(a)	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3302(a)1 without exceptions....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3302(a)2...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(a)1...	-	-	-	82	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(a)2...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3302(a)2 without exceptions....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(a)3...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3303(a)3 without Note.....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(a)4...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3303(a)5...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3303(a)6...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(a)7...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-

Adoption Table No. 2-33A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
2-3303(a)8...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(a)9...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(d)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(d) Exception....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(e)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(e) Exception....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(g)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3303(h)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(i).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(j).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(k)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3303(l).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(a)1...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(a)2...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(b)1...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(b)2A.	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(b)2B.	-	-	-	82	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(b)2C.	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(b)2D.	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(b)2E.	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(b)3...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(c)....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(c)1 without Exceptions 1, 3 & 4.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(c)1 without Exceptions 3	-	-	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-

Adoption Table No. 2-33A... continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
2-3304(c)1 without Exception 4...	-	-	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(c)2...	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3304(c)3...	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3304(e)1 without Exception 1..	-	82	-	-	-	-	-	82	82	-	-	-	-	-	-	-	-
2-3304(e)1 without Exception 2..	-	82	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(e)2...	-	82	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(e)3...	-	82	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(e)4...	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(e)5...	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(f).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(g)1...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(g)2...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(h)1A.	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3304(h)1B.	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(h)2A without Exceptions 1, 2, 3.....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(h)2A without Exception 4..	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(h)2A without Exception 5..	-	-	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(h)2B.	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-

Adoption Table No. 2-33A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHR	DOT	AGR	YA	BOC	DOE	CA
2-3304(h)2C.	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(h)2D.	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(i).....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(j).....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(l)....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(l)1..	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3304(l)2..	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(m)...	-	82	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(n)1..	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(n)2..	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3304(o)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(p)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3304(q)...	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3305(a)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3305(b)...	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3305(b)1..	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
3305(c)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3305(c)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
3305(d)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3305(e)....	-	-	-	82	-	-	-	-	82	-	-	-	-	-	-	-	-
3305(f)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3305(g)....	-	-	-	82	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3305(h)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
3305(h)....	-	82	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3305(h) Exception 2..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3305(h) Exception 3..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Adoption Table No. 2-33A... continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHR	DOT	AGR	YA	BOC	DOE	CA
3305(h) Exception 4..	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3305(i).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3306(a).....	-	82	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3306(b).....	-	82	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3306(c).....	-	82	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3306(d).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3306(e).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3306(g).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3306(h).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3306(i).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3306(j)1 without Exceptions 1, 4, 5.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3306(j)1 without Exceptions 1,4,5,6.....	-	-	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3306(j)1 without Exceptions 2, 3, 6.....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3306(j)2A.	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3306(j)2B.	-	82	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3306(j)2C.	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3306(j)2D.	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3306 (j)2E.	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3306(j)2F.	-	82	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3306(j)2F without Note.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3306(j)2G.	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3306(j)2 Note.....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-

Adoption Table No. 2-33A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOI	AGR	YA	BOC	DOE	CA
2-3306(j)3	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3306(o)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3306(p)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3306(r)....	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3306(s)1A.	-	82	-	-	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3306(s)1B.	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3306(s)2...	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3306(s)3...	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3306(s) without Exceptions...	-	82	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3307(a).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3307(a) Note.....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3307(a) without Note.....	-	82	-	-	-	79	-	-	82	-	-	-	-	-	-	-	-
3307(b).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3307(b)1...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3307(b)1 without Exception.....	-	82	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3307(b)2...	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3307(b)3...	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
3307(c)1...	-	82	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3307(c).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3307(c) without Exceptions.....	-	82	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
3307(d).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3307(d)1...	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-

Adoption Table No. 2-33A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA79
2-3307(d)2...	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3307(d)3...	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3307(d)4...	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3307(d)5...	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3307(d)6...	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3307(d)7...	-	82	-	82	-	79	-	-	82	-	-	-	-	-	-	-	-
2-3307(d)8...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3307(e).....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3307(e).....	-	-	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3307(e) without Exceptions 1 & 4.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3307(f).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3307(g)....	-	82	-	82	-	79	-	-	-	-	-	-	-	-	-	-	-
3307(g)....	-	82	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3307(h)....	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
3307(h)....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3307(i)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3307(i)....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3307(j)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3307(j)....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3307(k)...	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3307(l)....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3307(m)...	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3307(n)....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3307(o)....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3307(p).....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Adoption Table No. 2-33A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHR	DOT	AGR	YA	BOC	DOE	CA
3308.....	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
3309(b)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3309(c)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3313(a)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
3313(a)....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
3313(b)....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3313(b)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3314(a)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3314(c)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3314(d)2..	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3318(a)....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3321(b)...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3321(c)...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3321(h)...	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
3322(a)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(b)...	-	-	-	82	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(d)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(e)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(f)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(g)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(h)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(i)....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(j)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3322(k)...	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
3323.....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3323(e)4..	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3323(e)5..	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-

Adoption Table No. 2-33A...continued

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
2-3325.....	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3326(a)....	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3326(b)....	-	82	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3326(c)....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-3327.....	-	-	-	82	-	-	-	-	-	-	-	-	-	-	-	-	-
2-3328.....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3329.....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
2-3330.....	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
Table 2-33A.	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-
Figures 33-1A thru Figure 11B..	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

NOTE 3. For special test standards which vary from UBC, see Chapter 2-60.

Look at this adoption table.

If you were using Title 24, the first thing you'd need to do is figure out what sections you need to read, otherwise you're really going to get confused. This means you've looked at the application section and determined which State agencies you need to be concerned with. Next, you're going to go through this adoption table and identify which sections in this chapter belong to the State agency you've identified as being pertinent to the building you're working on. Fortunately, you're looking at our manual so we've already identified all the OSA-AC requirements for you but when you use the full Title 24 heed the advice given here.

General

Sec. 2-3301

(f) Entrances.

1. All primary entrances to buildings and facilities shall be made accessible to the physically handicapped.

Yes all primary entrances must be made accessible.

What is a primary entrance?

Section 2-417 states primary entrance shall mean any entrance to a facility which has a substantial flow of pedestrian traffic to any specific major function of the facility.

As an example in a large shopping mall with several entrances to the mall area which of these would be considered the primary entrance? All of them would!

EXCEPTION NO. 1: In existing buildings where the enforcing agency determines that compliance with the building standards of this subsection would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided. Equivalent facilitation would require at least one entrance to be accessible to and usable by physically handicapped persons.

Here is one of those typical exceptions for existing buildings, found throughout the regulations. If you've got an unreasonable hardship, (as spelled out in 2-422) then you do not need to provide access as specified to the letter of the law. You may provide equivalent facilitation. Equivalent facilitation might be an entrance that is not necessarily a primary one but is actually more convenient for the disabled than the primary entrance.

EXCEPTION NO. 2: These building standards shall not apply to existing buildings when legal or physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See Section 2-110(b)11D.

Here is the other typical exception found throughout the regulations. It allows for complete elimination of accessibility where legal or physical constraints would prevent it. You must however get this exemption through the appeals board process (see 2-110(b)11D). A legal constraint could be a right-of-way agreement preventing change to the structure at the area in question. A physical constraint could be a property line or structural element that can't be moved, thus preventing the installation of access features.

2. **Temporary Restrictions.** During periods of partial or restricted use of a building or facility, the entrances used for primary access shall be accessible to and usable by physically handicapped persons.
3. **Recessed Doormats.** Recessed doormats shall be adequately anchored to prevent interference with wheelchair traffic.

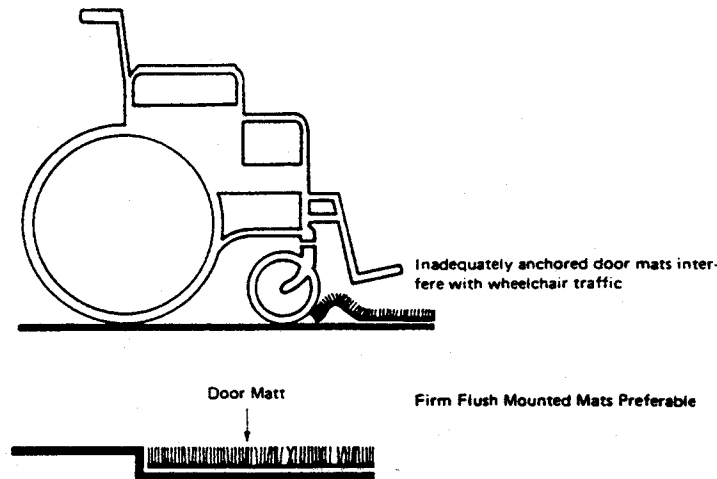


Figure 33-1A

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

Are these recessed doormats required?

No, but where provided they must be anchored as specified.

Doors

Sec. 2-3304

(c) Type of Lock or Latch.

1. Exit doors shall be openable from the inside without the use of a key or any special knowledge or effort.

What is an exit door?

For the purposes of these regulations, the term "exit door" applies to all doors required for access, i.e., primary entrances, passage doors, etc. The term was used because of its existence in the UBC and Fire Codes.

EXCEPTION NO. 1: This requirement shall not apply to exterior exit doors in a Group B Occupancy if there is a readily visible, durable sign on or adjacent to the door stating "THIS DOOR TO REMAIN UNLOCKED DURING BUSINESS HOURS". The sign shall be in letters not less than 1-in high on a contrasting background. The locking device must be of a type that will be readily distinguishable as locked.

NOTE: The use of this exception may be revoked by the enforcing agency for due cause.

EXCEPTION NO. 2: Exit doors from buildings or rooms having an occupant load 10 or less may be provided with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key, special knowledge or effort and mounted at a height not to exceed 48-in above the finished floor.

2. Manually operated edge or surface-mounted flush bolts and surface bolts are prohibited. When exit doors are used in pairs and approved automatic flush bolts

are used in pairs and approved automatic flush bolts are used, the door leaf having the automatic flush bolts shall have no door knob or surface-mounted hardware. The unlatching of any leaf shall not require more than one operation.

EXCEPTION: Group R, Division 3 Occupancies.

3. Hand activated door opening hardware shall be centered between 30-inches and 44-inches above the floor. Latching and locking doors that are hand activated and which are in a path of travel, shall be operable with a single effort by lever type hardware, by panic bars, push-pull activating bars, or other hardware designed to provide passage without requiring the ability to grasp the opening hardware. Locked exit doors shall operate as above in egress direction. Doors to individual hotel or motel units shall operate similarly, except that when bolt and unlatching operation is key operated from corridor or exterior side of unit door, large bow keys (2-inches full bow) or 1-1/4-inch (half bow) shall be provided in lieu of lever-type hardware on the corridor side. Separate dead lock activation on room side of corridor doors in hotels or motels shall have lever handle or large thumb turn in an easily reached location.

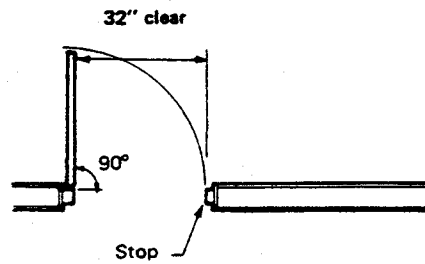
Where do I need lever handled hardware?

Where you need it is in all the accessible areas of a building. The regulations say "doors that are hand activated and which are in the path of travel." This means anywhere in the building that is accessible (available to and usable by the disabled). Notice that other types of hardware are also allowed such as panic bars.

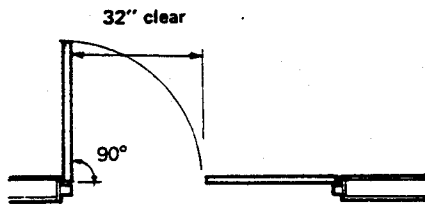
The second issue in this subsection deals with hotel doors. The reg.'s call for a large bow key where the unlatching is accomplished with a key. Yes, there is such a thing as a large bow key, and the bow is just what you thought it was, the grasping portion of the key. Large bow keys are available.

(e) Width and Heights.

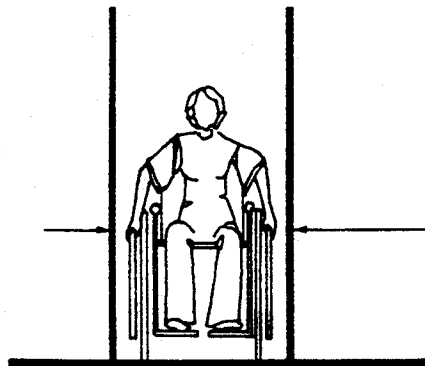
1. **Door Size.** Every required exit doorway shall be of a size as to permit the installation of a door not less than 3 feet. in width and not less than 6 feet., 8-inches. in height. When installed in exit doorways, exit doors shall be capable of opening at least 90 degrees and shall be so mounted that the clear width of the exitway is not less than 32-inches. In computing the exit width required by subsection 3302(b), UBC, the net dimension of the exitway shall be used.
EXCEPTION NO. 1: Doorways may be 30-inches in width in Group I, Division 2A Occupancies and in Group D Occupancies.
2. **Hinged Doors.** For hinged doors, the opening width shall be measured with the door positioned at an angle of 90 degrees from its closed position.
3. **Pair of Doors.** Where a pair of doors is utilized at least one of the doors shall provide a clear unobstructed opening width of 32-inches with the leaf positioned at an angle of 90 degrees from its closed position.
4. **Automatic Doors.** When an automatic door operator is utilized to operate a pair of doors, at least one of the doors shall provide a clear unobstructed opening width of 32-inches with the door positioned at an angle of 90 degrees from its closed position.
EXCEPTION NO. 1: The provisions of Subsection 2-3304(e) 3 and 4 shall not apply to existing buildings, except when otherwise required under conditions applicable to access for the physically handicapped. In existing buildings, the following shall apply:
 - A. Where the occupant load is less than 10, except Group I, Division 1 Occupancies, doorways may be 30-in in clear width.



Clear openings must be between the door in its 90° open position and the face of the stop.



Clear opening for two leaf doors must be between either door in its 90° open position & the edge of the other door.



An Adult wheelchair averages 27" wide. The required 32" clear opening allows 2 1/4" clearance on ea. side for hands.

- B. Where occupant load is greater than 10 and it is determined that compliance with 2-3304(e)1 would create an unreasonable hardship doorways may be 30-in in clear width.

EXCEPTION NO. 2: In existing buildings, the provisions of this section shall not apply when legal or physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See 2-110(b)11 D.

5. **Revolving Doors.** Revolving doors shall not be used as a required entrance for the physically handicapped.

Let's unravel this .

What this really says is in existing buildings you do not have to comply with the requirements for "pair of doors" or "automatic doors".

It states that in existing buildings with an under 10 occupant load, doorways may be 30" clear width. And it says that in existing buildings with an occupancy load over 10 you may also have 30 inches clear width doors, but in this case you must find unreasonable hardship to allow this. Clear? I hope so.

32 inches in the clear!

The point here is that you can't take a 30 inch wheelchair through a 28 inch door. And sometimes you do need to get through that door, like when you really have to go! Right?

The clearance required is 32 inches clear, that means with the door open 90 degrees measuring from the door surface to the door stop on the opposite side.

(h) Floor Level at Doors.

1. Thresholds.

- A.** The floor or landing shall be not more than 1/2-inch lower than the threshold of the doorway.

EXCEPTION: Subsection 2-3304(h)1A shall not be enforced retroactively.

- B.** Change in level between 1/4-inch and 1/2-inch shall be beveled with a slope no greater than 1:2. Change in level greater than 1/2-inch shall be accomplished by means of a ramp.

NOTE: See Section 2-3307.

Compressed Carpet 1/4" max. below threshold

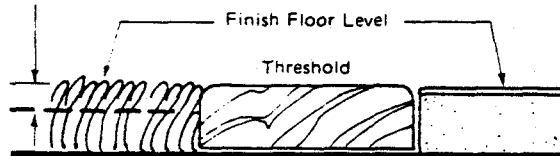
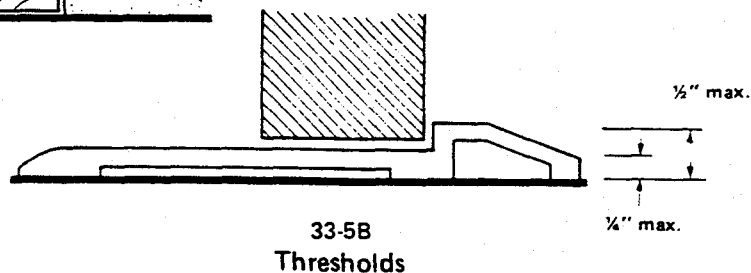


Figure 33-5



An interesting point!

If you have a change in floor level at a doorway of more than 1/2-inch say one inch, you can still accomplish this transition and stay in compliance with the regulations. A 1/2 inch of the change can take place at the threshold, the other 1/2" shall be made to comply with the requirements for ramps and would require 6 inches of run at 1:12 slope to accommodate this change, but it does solve the problem.

2. Level Floor or Landing.

- A. There shall be a level and clear area on each side of an exit door and 44 inches where door swings away from the level and clear area. The level area shall have length of at least 60-inches in the direction of door swing as measured at right angles to the plane of the door in its closed position.

EXCEPTION NO. 1: In Group R, Division 3 Occupancies and within individual units of Group R, Division 1 Occupancies, a door may open on the top step of a flight of stairs or an exterior landing, provided the door does not swing over the top step or exterior landing and the landing is not more than 7-1/2-inches below the floor level.

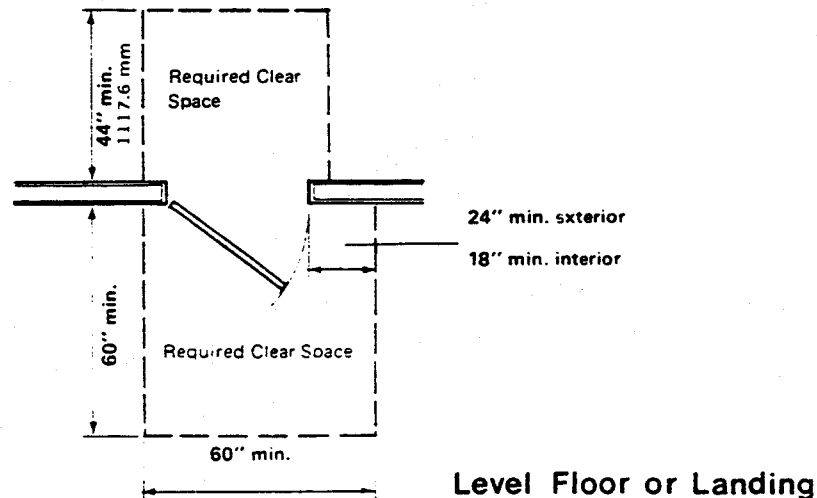
EXCEPTION NO. 2: In Group R, Division 3 Occupancies, screen doors and storm doors may swing over stairs or steps.

EXCEPTION NO. 3: In Group R, Division 3 Occupancies and private garages and sheds where a door opens over a landing, the landing shall have a length equal to the width of the door.

- B. The floor or landing on each side of an exit door shall be level. The level area shall have a length in the direction of door swing of at least 60-inches and the length opposite the direction of door swing of 44-inches as measured at right angles to the plane of the door in its closed position.

EXCEPTION: In group R Occupancies, the level area shall have a length both in the direction of door swing and opposite the direction of door swing of 44-inches as measured at right angles to the plane of the door in its closed position.

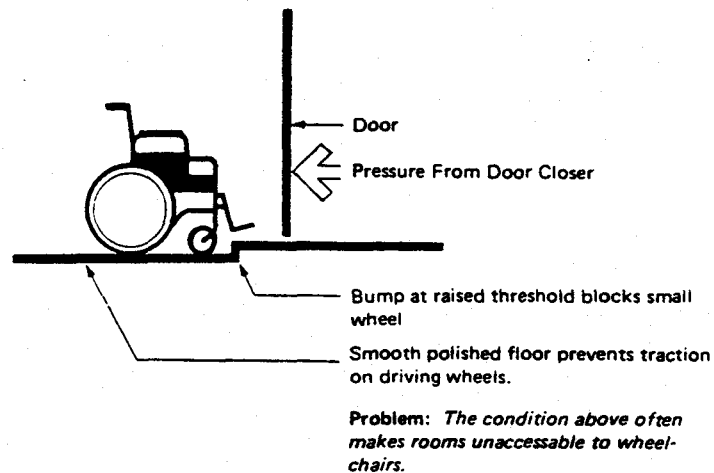
- C. The width of the level area on the side to which the door swings shall extend 24-inches past the strike edge of the door for exterior doors and 18-inches past the strike edge for interior doors.



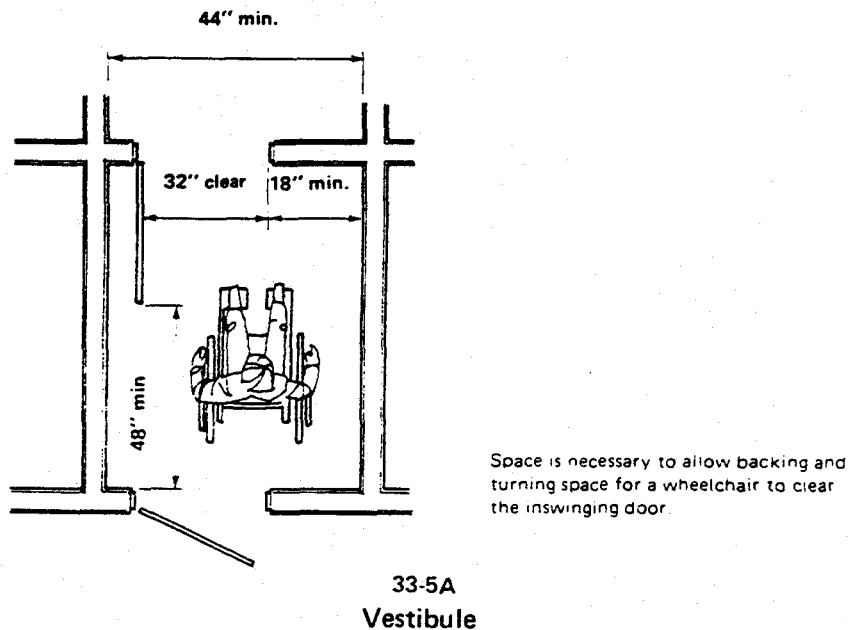
A pictures worth a thousand words.

So here's a picture of a level landing.

Strike side clearance is needed to allow wheelchair users to get out of the way of the door when opening it. Without this clearance the person would have to open the door and back away from the door at the same time. A feat that takes three hands.



- D. The space between two consecutive door openings in a vestibule, serving other than a required exit stairway shall provide a minimum of 48-inches of clear space from any door opening into such vestibule when the door is positioned at an angle of 90 degrees from its closed position. Doors in a series shall swing either in the same direction or away from the space between the doors.



Another thousand words eliminated.

The vestibule has been a traditional trap for wheelchair users. Once in, it can be almost impossible to get out, due to lack of maneuvering space. That's why it's been regulated.

(l) Hardware.

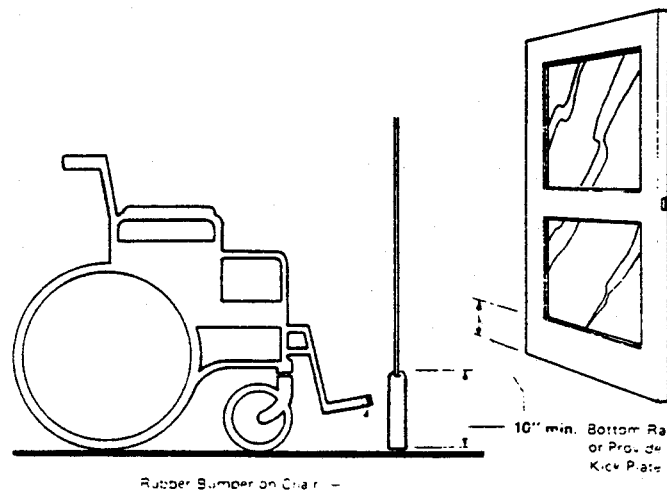
2. **Effort to Operate Doors.** Maximum effort to operate doors shall not exceed 8-1/2 lbs for exterior doors and 5lbs for interior doors, such pull or push effort being applied at right angles to hinged doors and at the center plane of sliding or folding doors. Compensating devices or automatic door operators may be utilized to meet the above standards. When fire doors are required, the maximum effort to operate the door may be increased not to exceed 15 lbs.

Pounds Force = What?

Pounds force is not foot-pounds. It is a single element, the pounds pressure or pounds of pulling force required to open a door. Put a fish scale on the door handle and pull, that's the amount we're talking about.

8.5 lbs. for exterior doors, 5 lbs. for interior doors and 15 lbs. if it's a fire door.

- (m) **Construction.** The bottom 10-inches of all doors except automatic and sliding shall have a smooth uninterrupted surface to allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition. Where narrow frame doors are used, a 10-inches high smooth panel shall be installed on the push side of the door, which will allow the door to be opened by a wheelchair footrest without creating a trap or hazardous condition.



33-4B
Door Construction

Figure 33-4

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

Wheelchair users usually open a door that swings away by pushing it with their chair footplates. This is about the only way many people can do it.

(n) Turnstiles.

2. Where turnstiles are utilized in a facility for the purpose of providing fully controlled access, such as where an admission price is charged, a door or gate that is accessible to the physically handicapped, shall be provided adjacent to or within a distance not exceed 30 feet from each turnstile exit or entrance. This alternate passageway shall be

maintained in an unlocked condition during business hours and the door or gate shall not activate a publicly audible alarm system.

Where posts, rails, or other pedestrian controls are utilized, they shall provide 32-inches of clear opening.

EXCEPTION: In existing buildings, building standards 2-3304(c), (e), (l), and (m) shall not apply when physical constraints or equivalent facilitation will not allow compliance with these building standards without creating an unreasonable hardship. See Section 2-110(b)11D.

The point here is that wheelchair users should not experience any more difficulty than the able-bodied. A disabled person should not be expected to contend with locked gates or to wait for the attendant with the key to let you in or have everyone turn to see the wheelchair user enter because he had activated an alarm by using the gate rather than the turnstile.

Corridors and Exterior Exit Balconies

Sec. 2-3305

(b) Width.

1. **Corridor Widths.** Every corridor serving an occupant load of 10 or more shall be not less in width than 44-inches. Regardless of occupant load, corridors in Group R, Division 3 Occupancies and within dwelling units in Group R, Division 1 Occupancies shall have a minimum width of 36-inches.

NOTE: For special requirements for Groups E and I Occupancies Occupancies, see Section 3319, UBC, and 2-3321.

2. **Corridors Over 200 Feet.** Corridors that exceed 200 ft. in length shall:

- A. Have minimum clear width of 60-inches., or,
- B. Have, at a central location, a 60-inch x 60-inch minimum wheelchair turning space or passing alcove; or,
- C. Have, at a central location, an intervening cross or tee corridor, a minimum of 44-inches in width; or,
- D. Have, at a central location, an openable door.

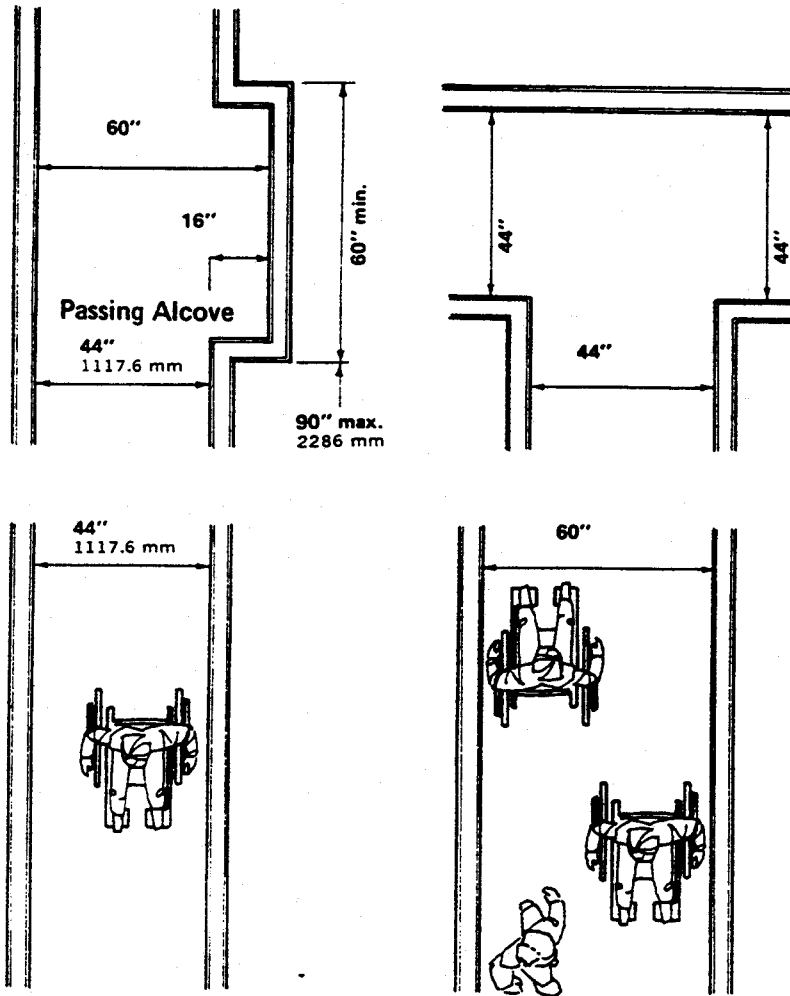
EXCEPTION NO. 1: In existing buildings, when the enforcing agency determines that compliance with any building standard under this section would create an unreasonable hardship, an exception to such building standard shall be granted when equivalent facilitation is provided.

Here we have it again. The typical exception that allows equivalent facilitation in existing buildings where the general requirements of the regulations create an unreasonable hardship. (See 2-422 for definition to unreasonable hardship).

EXCEPTION NO. 2: In existing buildings, the provisions of this section shall not apply when legal or physical constraints will not allow compliance with these building standards or equivalent facilitation without creating an unreasonable hardship. See Section 2-110(b)11D.

NOTE: Subsection 2-3305(b)2 is not adopted by the State Fire Marshal, therefore should not be enforced by fire officials.

And again the typical exception used throughout these regulations allowing exemption from this subsection where legal or physical constraints create unreasonable hardship. Approval is required by the enforcing agencies appeals board.



Corridor over 200 feet

We're looking at providing adequate space for the wheelchair user. Two wheelchairs would require 60" to pass in a corridor. So where the width is less these passing areas are provided. See illustration.

Stairways

Sec. 2-3306

(j) Handrails.

1. **Required Handrails.** Stairways shall have handrails on each side, and every stairway required to be more than 88-inches in width shall be provided with not less than one intermediate handrail for each 88-inches of required width. Intermediate handrails shall be spaced approximately equal within the entire width of the stairway.

Why handrails on both sides?

Some people do not have complete use of both arms or hands. They therefore would use the handrail on one side going up the stairs and on the other side going down the stairs.

EXCEPTION NO. 2: Stairways serving one individual dwelling unit in Group R, Division 1 or 3 Occupancies may have one handrail, except that such stairways open on one or both sides shall have handrails provided on the open side or sides.

EXCEPTION NO. 3: Private stairways 30-in or less in height may have handrails on one side only.

2. Handrail Configuration.

- A. Handrails shall be 30-inches to 34-inches above the nosing of the treads.
- B. Handrails shall extend a minimum of 12 inches beyond the top nosing and 12-inches plus the tread width beyond the bottom nosing.

This seems to us to be pretty straightforward. The extensions are needed for those folks who are a bit unstable and provide extra support until they are completely off the stairs.

- C. Ends shall be returned or shall terminate in newel posts or safety terminals.
- D. Where the extension of the handrail in the direction of the stair run would create a hazard, the extension shall be made at right angles, on the face of a returning wall. Where the stairs are continuous from landing to landing, the inner rail shall be continuous and need not extend out into the landing.
- E. Handrails projecting from a wall shall have a space of not less than 1-1/2-inch between the wall and the handrail.
- F. The handgrip portion of handrails shall be not less than 1-1/4-inches nor more than 2-inches in cross-sectional dimension or the shape shall provide an equivalent gripping surface and shall have a smooth surface with no sharp corners.

What's an equivalent gripping surface?

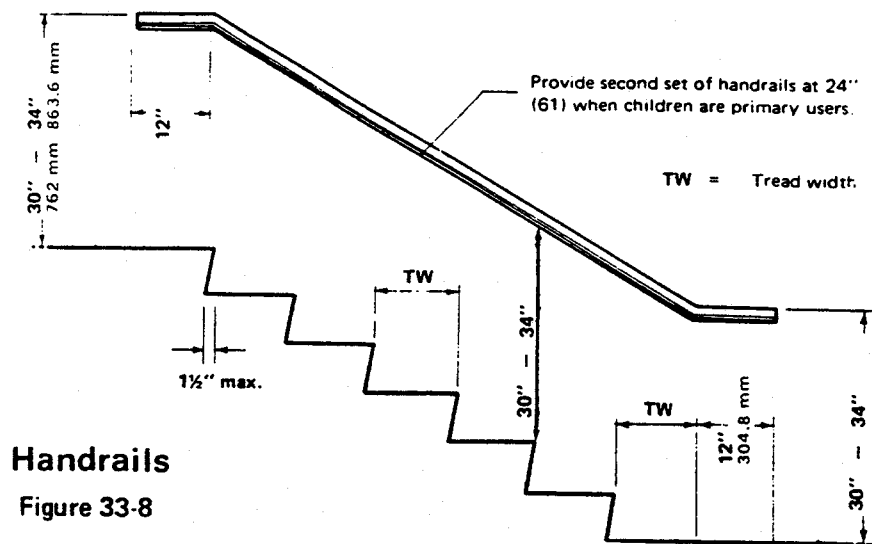
This section requires a diameter dimension but not a cross sectional area. Therefore, equivalent gripping surface can be any shape with at least one dimension providing between 1-1/4 inches to 2 inches across, that is easily gripped.

EXCEPTION NO. 1: In existing buildings when the enforcing agency determines that compliance with any requirement under 2-3306(j)2 would create an unreasonable hardship, an exception to the physically handicapped requirements may be granted when equivalent facilitation is provided.

Here we have it again. The typical exception that allows equivalent facilitation in existing buildings where the general requirements create an unreasonable hardship (see 2-422 for definition of unreasonable hardship).

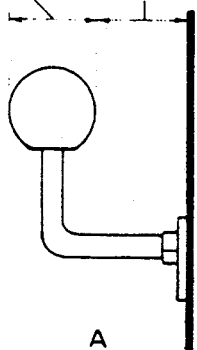
EXCEPTION NO. 2: These regulations shall not apply in existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship.
See Section 2-110(b)11D.

And again the typical exception used throughout these regulations allowing exemption from this subsection where legal or physical constraints create unreasonable hardship. Approval is required by the enforcing agencies appeals board.



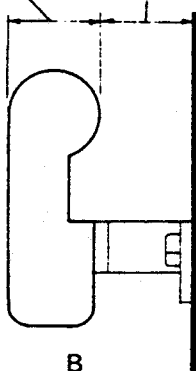
Handrails
Figure 33-8

1 1/4" - 2"
31.8 mm - 50.8 mm

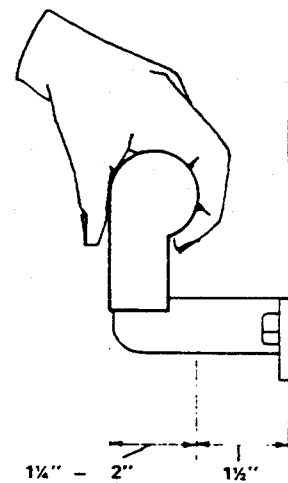


A

1 1/4" - 2" 1 1/2" min.

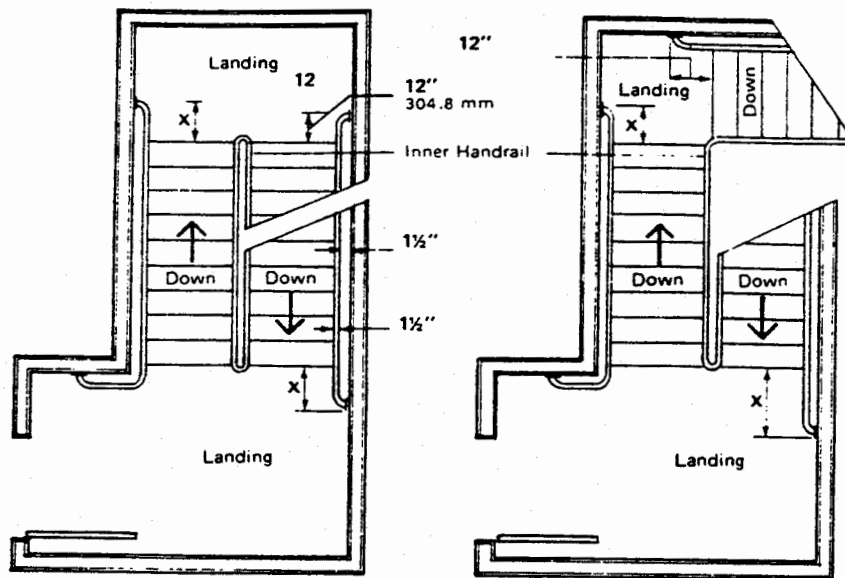


B



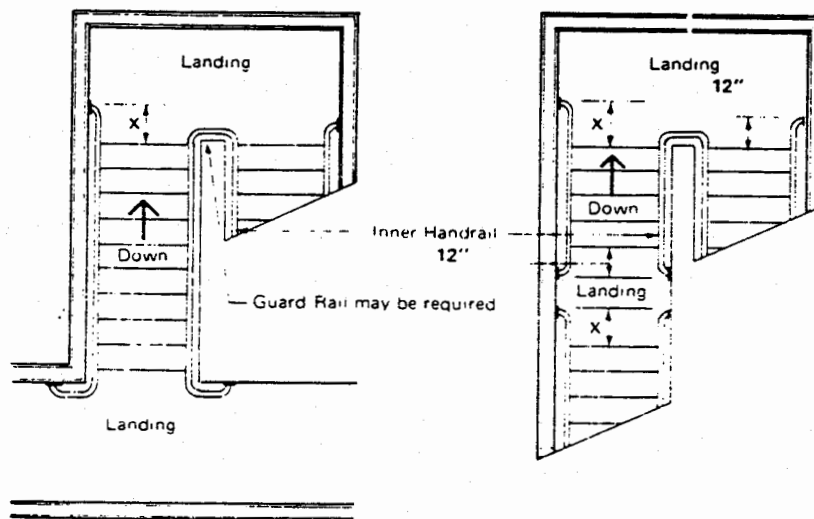
C

Figure 33-9



x: Extension of Handrail shall be equal to the tread width plus 12 inches.

Note: Inner handrail at landings of stairs that double back or immediately turn shall be continuous and shall not extend into landing or path of travel.



Stair Handrails

Figure 33-10

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

- (r) **Striping for the Visually Impaired.** The upper approach and the lower tread of each stair shall be marked by a strip of clearly contrasting color at least 2-inches wide placed parallel to and not more than 1-inch from the nose of the step or landing to alert the visually impaired. The strip shall be of material that is at least as slip-resistant as the other treads of the stair.

Where stairways occur outside a building, the upper approach and all treads shall be marked by a strip of clearly contrasting color at least 2-inches wide and placed parallel to and not more than 1-inch from the nose of the step or landing to alert the visually impaired. The strip shall be of a material that is at least as slip resistant as the other treads of the stair. A painted strip shall be acceptable

Stair striping for the visually impaired!

The partially sighted will be aided by this regulation that will call their attention to stairs.

The question has been asked about how you provide this strip where carpeting is installed. Carpet installers are able to put a contrasting color carpet in as prescribed to meet this requirement. The installation seems to work well.

(s) **Treads, Nosings and Risers.**

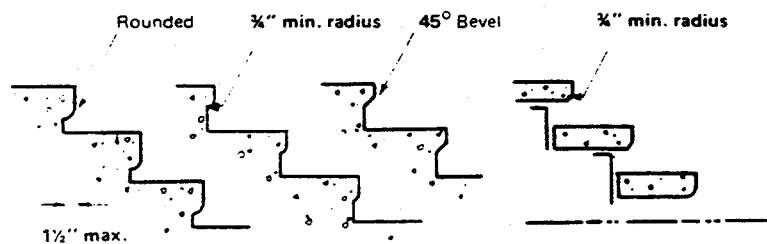
1. **Treads.**

A. All tread surfaces shall be slip-resistant.

B. Treads shall have a smooth, rounded or chamfered exposed edges, and no abrupt edges at the nosing (lower front edge).

2. **Nosing.** Nosing shall not project more than 1-1/2-inch past the face of the riser below.

3. **Risers.** Risers shall be sufficiently solid to prevent the passage of objects larger than 1/4-inch.



Stairs

Note: All stairs to have closed risers

Figure 33-7

These regulations help those who have partial mobility.

The closed riser prevents getting a foot hung up under the tread.

Interestingly - the stair requirements only apply in those buildings served by an elevator or ramp. The legislature set it up this way. Stairs only need comply between floors that are accessible by either ramp or elevator.

EXCEPTION NO. 1: In existing buildings when the enforcing agency determines that compliance with any requirement under this subsection would create an unreasonable hardship, an exception to the physically handicapped requirements may be granted when equivalent facilitation is provided.

The point of these typical exceptions found throughout the regulations is that in existing buildings you do not need to follow the letter of the law. The code recognizes the often difficult situations that can present themselves, and allows for some deviation.

EXCEPTION NO. 2: These regulations shall not apply in existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 2-110(b)11D.

And again the typical exception used throughout these regulations allowing exemption from this subsection where legal or physical constraints create unreasonable hardship. Approval is required by the enforcing agencies appeals board.

Ramps

Sec. 2-3307

- (a) **General.** Any path of travel shall be considered a ramp if its slope is greater than 1 ft. rise in 20 ft. of horizontal run.
- (b) **Width.**
 - 1. **Widths as for Exits.** The width of ramps shall be as for exits.
 - 2. **Ramps that also serve as pedestrian ramps** shall conform to subsection 3306(b), UBC (1979 Edition).
 - 3. **Primary Entrance and Special Occupancy.** Pedestrian ramps serving primary entrances to buildings having an occupant load of 300 or more shall have a minimum clear width of 60-inches. Ramps serving Group R Occupancies may be 36-inches clear width when the occupant load is 50 or less. All other pedestrian ramps shall have a minimum width of 48-inches.
- (c) **Slope.** The maximum slope of a ramp that serves any exitway, provides handicap access or is in the path of travel shall be 1 foot rise in 12 feet of horizontal run.

As discussed in Chapter 2-1 section (2-110 (b) 11.A (5) existing buildings)path of travel includes many elements to make a building accessible. Ramps are often one of these elements. If the slope of the path of travel exceeds 1:20 then you have a ramp. However it must exceed 1:15 before handrails are required. A slope of 1:12 is the maximum allowed by these regulations, and this slope can be too steep for some people. So slopes of less than 1:12 are more desirable.

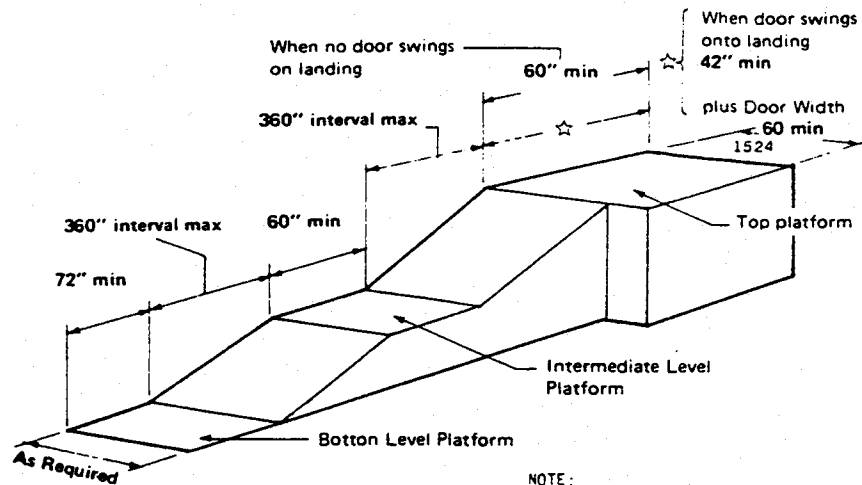
- (d) **Landings.** Ramp landings shall be installed as follows:
 - 1. Location of landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30-inches of vertical rise and at each change of direction. Landings are not considered in determining the maximum horizontal distance of each ramp.

NOTE: Examples of ramp dimensions are:

Slope	Max. Rise (in.)	Max. Horizontal Projection (ft.)
1:12	30	30
1:16	30	40
1:20	30	50
1:15	30	37.5

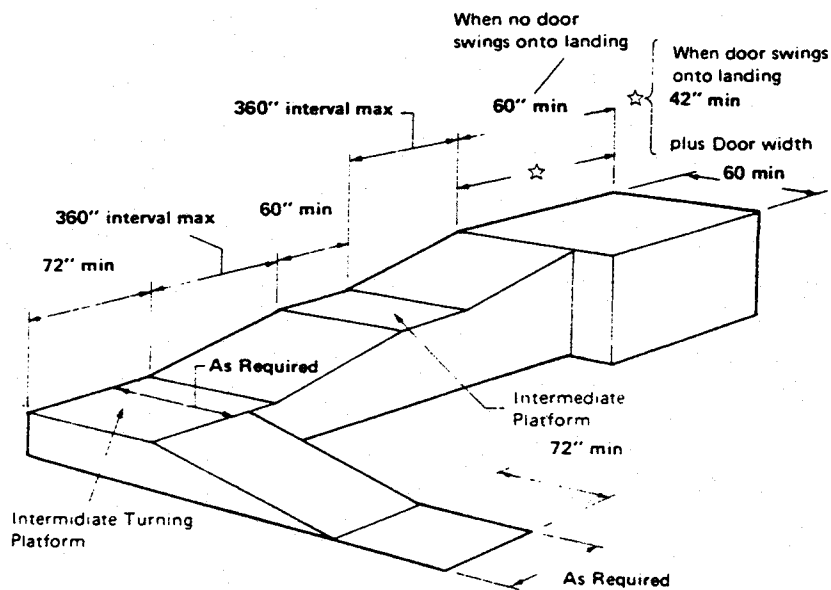
2. **Size of Top Landings.** Top landings shall be not less than 60-inches wide and shall have a length of not less than 60-inches in the direction of ramp run.
3. **Encroachment of Doors.** Doors in any position shall not reduce the minimum dimension of the ramp landing to less than 42-inches and shall not reduce the required width by more than 3-1/2-inches when fully open.
4. **Strike Edge Extension.** The width of the landing shall extend 24-inches past the strike edge of any door or gate for exterior ramps and 18-in past the strike edge for interior ramp.
5. **Landing Width.** At bottom and intermediate landings, the width shall be at least the same as required for the ramps.
6. **Change of Direction.** Intermediate landings at a change of direction in excess of 30 degrees and bottom landings shall have a dimension in the direction of ramp run of not less than 72-inches.
7. **Other Intermediate Landings.** Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60-inches.

This section isn't worded too clearly. Top landings shall be 60 inches x 60 inches unless a door encroaches onto the landing, if so ,the landing width and length must be door width + 42 inches. So a 3 ft. door would result in a 78 inch x 78 inch landing. In addition ,strike side clearance is required as prescribed.



Straight Ramp Run

NOTE:
Maximum Horizontal Distances of each
ramp and run varies. See table under
2-3306

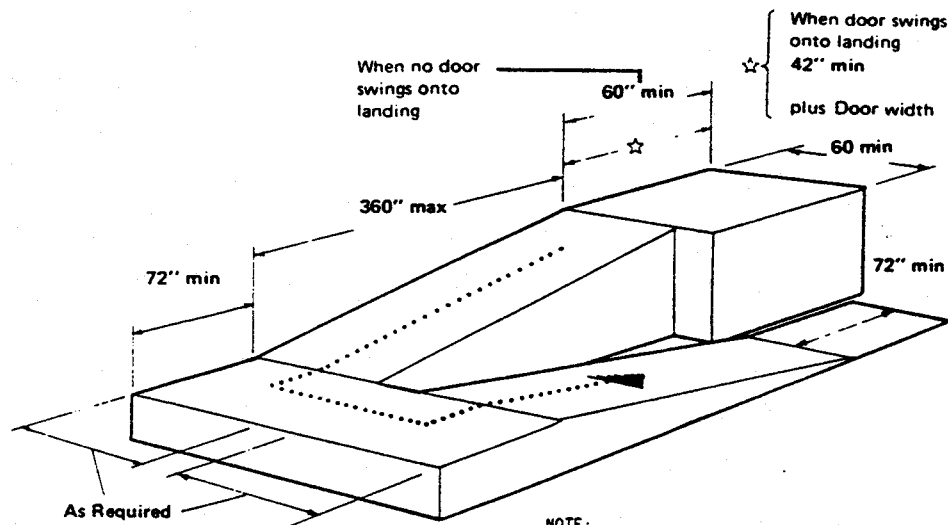


Ramp With Turning Platform

NOTE:
Maximum Horizontal Distances of each
ramp and run varies. See table under
2-3306

Figure 33.11A

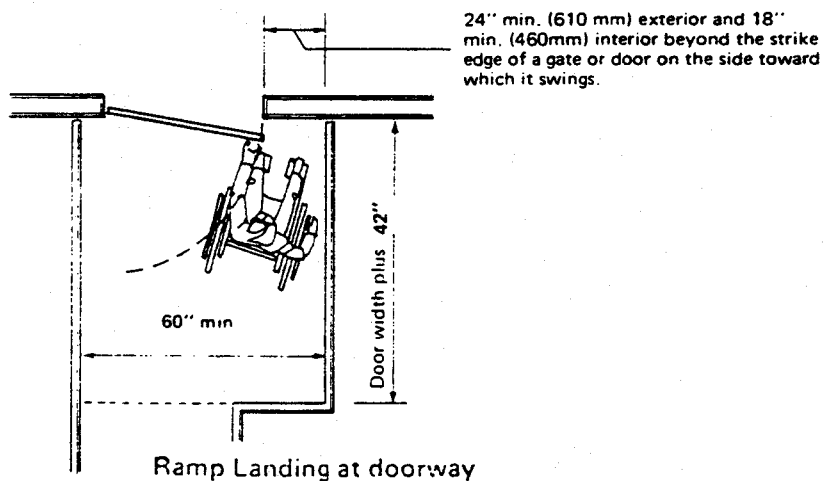
This figure is illustrative only of the applicable Building Standards and does not
delineate the only means of complying with such standards



Ramp With Intermediate Switch-Back Platform

NOTE:
Maximum Horizontal Distances of each ramp and run varies. See table under 2-3306

All ramps must meet handrail and curb requirements



Ramp Landing at doorway

Figure 33-11B

This figure is illustrative only of the applicable Building Standards and does not delineate the only means of complying with such standards.

- (e) **Handrails.** Handrails are required on ramps that provide handicap access if slope exceeds 1 foot rise in 15 feet of horizontal run. Handrails shall be placed on each side of each ramp, shall be continuous the full length of the ramp, shall be 30-inches to 34-inches above the ramp surface, shall extend a minimum of 1 foot beyond the top and bottom of the ramp, and the ends shall be returned. Handrails projecting from a wall shall have a space of not less than 1-1/2-inches between the wall and the handrail. The grip portion shall be not less than 1-1/4 inches nor more than 2-inches in cross-sectional dimension, or the shape shall provide an equivalent gripping surface and all surfaces shall be smooth with no sharp corners.

EXCEPTION NO. 1: Handrails at ramps immediately adjacent to fixed seating are not required.

EXCEPTION NO. 2: Ramps that require handrails and that serve one individual dwelling unit in Group R, Division 1 or 3 Occupancies may have one handrail except that such ramps open on one or both sides shall have handrails provided on the open side or sides.

EXCEPTION NO. 3: Curb ramps do not require handrails.

NOTE: See Section 2-7103.

EXCEPTION NO. 4: In Group I, Division 1 Occupancies, ramps shall be provided with handrails.

*The first thing is that you don't need handrails until the slope exceeds 1:15.
Next as with stairs, handrails are required on both sides of ramps for those folks who may not have complete use of both arms or hands. They may need to go up using the left handrail and go down using the right handrail to accommodate their disability.
Next curb ramps do not need handrails.*

- (g) **Surface.** The surface of ramps shall be slip resistant as defined in 2-3325(a).

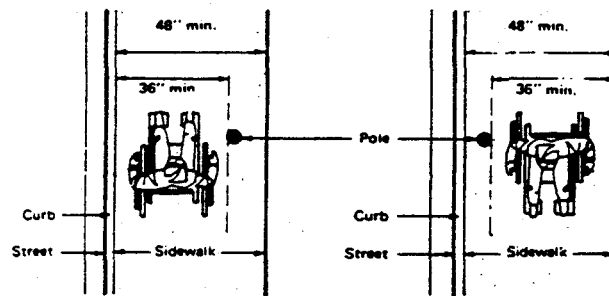
What is slip resistant?

Slip resistant is like broom finished concrete - not slippery.

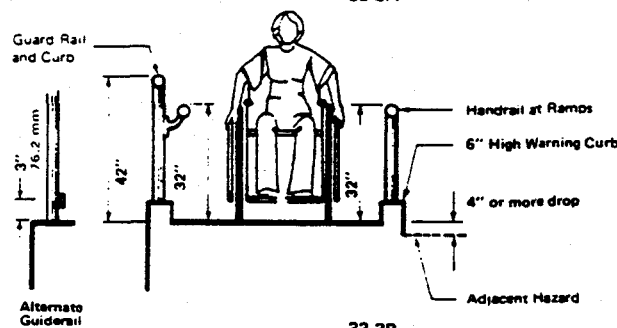
- (h) **Wheelguides.** Where the ramp surface is not bounded by a wall or fence and the ramp exceeds 10 ft. in length, the ramp shall comply with one of the following requirements:
1. A guide curb a minimum of 2-inches in height shall be provided at each side of the ramp or;
 2. A wheel guide rail shall be provided, centered 3-inches plus or minus 1-inch above the surface of the ramp.

Wheelguides or curbs are needed to protect wheelchair users from the possibility of having a wheel go off the edge of the ramp.

2-3313(a)



33-3A



33-3B

Ramps
Figure 33-3

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

Aisles

Sec. 3313 (a) General.

- (a) **General.** Every portion of every building in which are installed seats, tables, merchandise, equipment or similar materials shall be provided with aisles leading to an exit.
- (b) **Width.** Every aisle shall be not less than 3 feet wide if serving only one side, and not less than 3 feet 6 inches wide if serving both sides. Such minimum width shall be measured at the point farthest from an exit, cross aisle or foyer and shall be increased by 1-1/2 inches for each 5 feet in length toward the exit, cross aisle or foyer. With continental seating, as specified in Section 3314, side aisles shall be not less than 44 inches in width.

Look at this!

This is right out of U.B.C. That's right it is. In this case O.S.A. has adopted that portion of U.B.C. that deals with aisles. That fact is identified by the lack of the prefix 2 in the section number.

Walks and Sidewalks

Sec. 2-3325

(a) **Continuous Surface.** Walks and sidewalks subject to these regulations shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding 1/2-inch, (see (c) below), and shall be a minimum of 48-inches in width. Surfaces shall be slip-resistant as follows:

1. **Slopes Less than 6 Percent.** Surfaces with a slope of less than 6 percent gradient shall be at least as slip-resistant as that described as a medium salted finish.
2. **Slopes 6 Percent or Greater.** Surfaces with a slope of 6 percent gradient or greater shall be slip-resistant.
3. **Surface Cross Slopes.** Surface cross slopes shall not exceed 1/4-inch per foot except when the enforcing agency finds that due to local conditions it creates an unreasonable hardship, the cross slope shall be increased to a maximum of 1/2-inch per foot for distances not to exceed 20 feet.

EXCEPTION: When because of right-of-way restrictions, natural barriers, or other existing conditions, the enforcing agency determines that compliance with the 48-inches, clear sidewalk width would create an unreasonable hardship, the clear width may be reduced to 36-inches.

(b) **Gratings.** Walks, sidewalks and pedestrian ways shall be free of gratings whenever possible. For gratings located in the surface of any of these areas, grid openings in gratings shall be limited to 1/2-inch in the direction of traffic flow.

EXCEPTION NO. 1: Where the enforcing agency determines that compliance with this section would create an unreasonable hardship an exception may be granted when equivalent facilitation is provided.

EXCEPTION NO. 2: This section shall not apply in those conditions where due to legal or physical constraints the site of the project will not allow compliance with these Building Standards or equivalent facilitation without creating an unreasonable hardship. See Section 2-110(b)11D.

(c) **5 Percent Gradient.** When the slope in the direction of travel of any walk exceeds 1 vertical to 20 horizontal (5% gradient) it shall comply with the provisions of Section 2-3307, Pedestrian Ramps.

(d) **Changes in Level.** Abrupt changes in level along any accessible route shall not exceed 1/2-inch. When changes in level do occur, they shall be beveled with a slope no greater than 1:2 except that level changes not exceeding 1/4-inch may be vertical. When changes in levels greater than 1/2-inch are necessary they shall comply with the requirements for curb ramps.

NOTE: See Section 2-7103.

(e) **Level Areas.** Walks shall be provided with a level area not less than 60-inches x 60-inches at a door or gate that swings toward the walk, and not less than 48-inches wide by 44-inches deep at a door or gate that swings away from the walk. Such walks shall extend 24-inches to the side of the strike edge of a door or gate that swings toward the walk. (For example, see Figure 2-33-2.)

(f) **Walks with Continuous Gradients.** All walks with continuous gradients shall have level areas at least 5 feet in length at intervals of at least every 400 feet.

Obviously there should be no steps or abrupt changes of level in a walk or sidewalk.

Surfaces should be slip resistant and cross slopes avoided whenever possible.

Cross slopes are very difficult for wheelchair users. The chair is continually trying to head downhill. Where walks exceed 1:20 they must comply with ramp requirements.

Hopefully this section is self-explanatory.

2-3325(f) continued

The regulations make a distinction between a walk and a sidewalk. A sidewalk is contiguous to a public way, a walk is not. Walks must comply with ramp requirements where the slope exceeds 1 in 20. Sidewalks do not have to comply with ramp requirements.

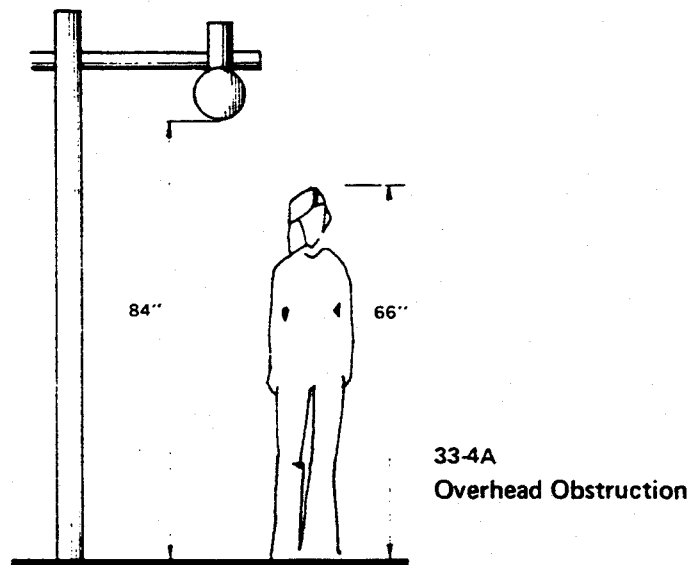
Exception No. 1. Here is the typical exception allowing equivalent facilitation where the regulations create an unreasonable hardship. The definition and criteria required to determine an unreasonable hardship are found in the definition chapter Section 2-422.

Exception No. 2. This exception recognizes that sometimes site problems will preclude the use of these regulations. In that event a finding of unreasonable hardship must be made by the enforcing agency and concurrence is required by the enforcing agencies appeals board as specified by 2-110(b)11 D.

Hazards

Sec. 2-3326

- (a) **Warning Curbs.** Abrupt changes in level, except between a walk or sidewalk and an adjacent street or driveway, exceeding 4 inches in a vertical dimension, such as at planters or fountains located in or adjacent to walks, sidewalks, or other pedestrian ways, shall be identified by curbs projecting at least 6 inches in height above the walk or sidewalk surface to warn the blind of a potential drop off.
When a guardrail or handrail is provided, no curb is required when a guide rail is provided centered 3-inches plus or minus one inch above the surface of the walk or sidewalk, the walk is 5 percent or less gradient or no adjacent hazard exists.
- (b) **Overhanging Obstructions.** Any obstruction that overhangs a pedestrian's way shall be a minimum of 80-inches above the walking surface as measured from the bottom of the obstruction.



Hazards such as drop-offs adjacent to walk ways or overhanging obstructions can be dangerous to people with sight problems. This section addresses these situations.

Chapter 2-51
ELEVATORS, DUMBWAITERS, EXCALATORS AND MOVING WALKS

Adoption Table No. 2-51A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire 79 or 82 UBC.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Entire 79 or 82 UBC except as noted below.....	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
2-5101.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-5102.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-5103(f).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
5103(h).....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-5103(i).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-5103(j).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-5103(k).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-5103(l).....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-5103(m).....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-
2-5106.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

Emergency Operation and Special Provisions

Sec. 2-5103

(m) Elevator Requirements for Accommodation of Physically Handicapped Persons.

The ups and downs of accessibility.

Exception No. 1: When the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception to such regulation shall be granted when equivalent facilitation is provided.

This is a twist to the typical exception found throughout the code, in that it does not specify existing buildings. In other words if a regulation in section 2-5103(m) creates an unreasonable hardship, equivalent facilitation may be provided rather than meeting the letter of the Law. The definition of equivalent facilitation is much like the Uniform Building Code statement regarding "Alternative materials and Methods of Construction" in that it gives the Building Official the right to accept a method or system that meets the purpose of their standards but does not comply with literal interpretation.

EXCEPTION NO. 2: These provisions shall not apply to existing buildings when legal or physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship. See Section 2-110(b)11D.

Here is the typical exception from the regulations. You can only use this exemption if approved by the Building Department Appeals Board. An example of physical constraint would be the inability to alter an elevator or elevator door because of structural members that prevent this type of change.

1. **Ladders.** Each elevator car shall have a high recessed area or moveable ceiling which will make possible the carrying of a 9 ft. high ladder.
2. **Accessibility for the Handicapped.** Where accessibility is required for the disabled, passenger elevators shall comply with the following requirements:

When do you need an elevator?

Good question. Basically these regulations do not require the installation of an elevator. But the only sure way to determine requirements in multi-storied buildings is to thoroughly read the application Section 2-110 so why not look at that right now, if you haven't already done so.

If an elevator is installed and in the path of travel to areas requiring accessibility, then it must comply with this section.

- A. **Leveling Tolerance.** Passenger car elevators shall stop within $\pm 1/2$ -inch of the adjacent building floor level, and shall maintain that $\pm 1/2$ -inch tolerance under normal loading and unloading conditions.

B. Car and Door Size.

NOTE: See 5103(h) UBC, 1979 ed. for Car Size.

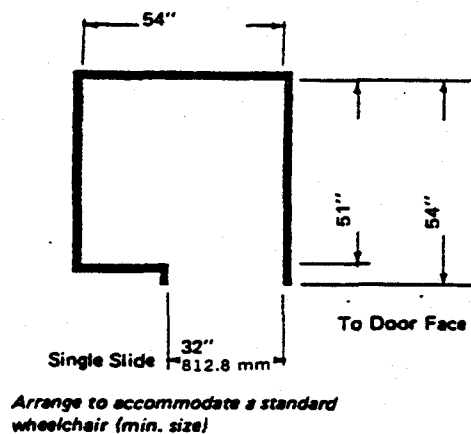
- (1) Passenger elevators, in buildings other than those listed in 5103(h) UBC serving an occupant load of more than 50 shall have a minimum inside car platform of 5 feet 8-inches wide x 4 feet 3-inches deep. Doors shall be 3 feet clear side slide-type.

2-5103(m) 2.B.(2)

- (2) Passenger elevators in buildings other than those listed in 5103(h) UBC, serving an occupant load of less than 50 shall have a minimum inside car platform of 4 feet 6-inches wide x 4 feet 6-inches deep from the rear wall to the inside face of the door.

EXCEPTION: Other dimensions may be substituted where it can be demonstrated that a wheelchair can enter or turn around within the elevator cab.

- (3) Elevator doorways except those covered above shall provide a minimum clear opening width of 2 feet 8-inches.



Typical Minimum Passenger Elevator Plan

Figure 51-A

This figure is illustrative only of the applicable Building Standards and does not delineate the only means of complying with such standards.

What does this say?

This section specifies car size and door size.

Uniform Building Code calls for a car size of 6 feet 8 inches x 4 feet 3 inches with a door opening of 42 inches for buildings more than 3 stories in height. Title 24 then fills in the gaps. That is, it calls for car and door size for buildings 3 stories or less. Car size as specified by Title 24 is 5 feet 8 inches x 4 feet 3 inches deep with a 3 foot door where the occupant load is over 50.

If the occupant load is under 50 then the car size shall be 4 feet 6 inches x 4 feet 6 inches with a 2 foot 8 inch door.

- C. **Handrails.** Passenger elevator shall be provided with at least one handrail located 2 feet 6-inches to 2 feet 10-inches above the car platform.
- D. **Call and Car Operation Button.**
- (1) Elevator floor buttons shall be within 4 feet 6-inches of the car floor. Except for photo electric tube by-pass switches, emergency controls including the emergency stop and alarm shall be grouped in or adjacent to the bottom of the panel and shall be no lower than 2 feet 11-inches from the floor. For multiple controls only, one set must comply with these height requirements. The emergency telephone handset shall be

positioned no higher than 4 feet above the floor, and the hand set cord shall be minimum of 2 feet 5-inches in length.

(2) Identification for the visually impaired shall be as follow:

- a. Passenger elevator car controls shall have a minimum dimension of 3/4-inch and shall be raised. All control buttons shall be designated by a 5/8-inch minimum, Arabic numeral, standard alphabet character, or standard symbol and a Braille symbol located immediately to the left of the control button.

NOTE: See figure 51-B.

The raised characters shall be on a contrasting background. Controls and emergency equipment identified by raised symbols shall include but not be limited to, door open, door close, alarm bell, emergency stop and telephone.

- b. Passenger elevator landing jambs on all elevator floors shall have the number of the floor on which the jamb is located designated by raised Arabic numerals which are a minimum of 2-in. in height and raised Braille symbols which conform to Section 2-522(b)3 located approximately 5 feet above the floor on the jamb panels on both sides of the door so that they are visible from within the elevator. Raised Braille symbols shall be placed directly to the left of the corresponding raised Arabic numerals. The raised characters shall be on a contrasting background.

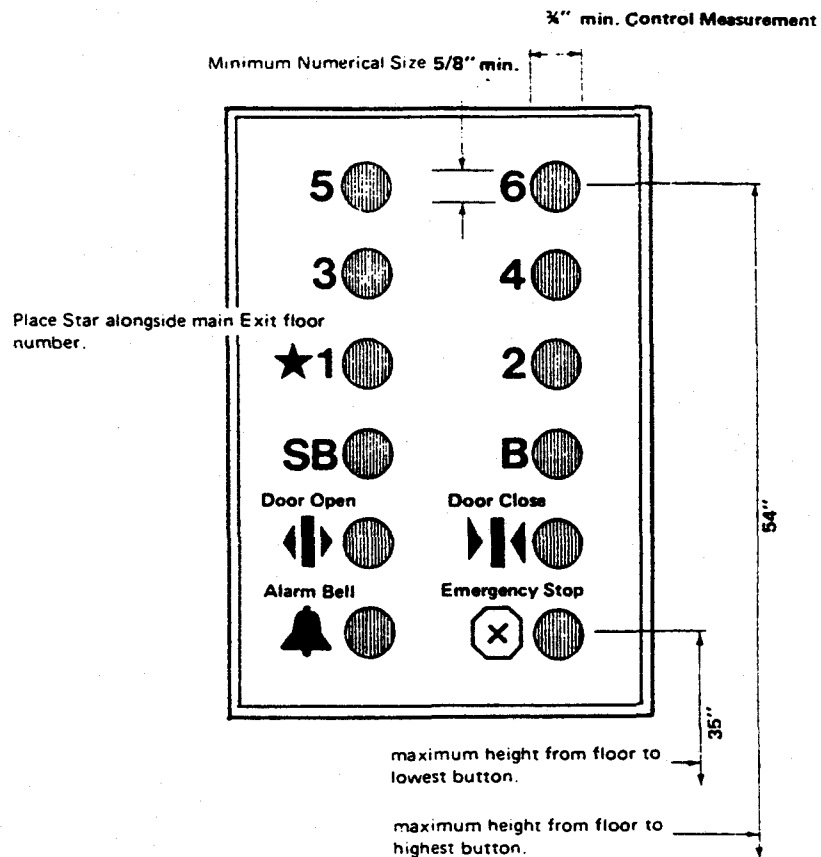
(3) Call operation buttons shall be within 3 feet 6-inches of the floor. Buttons shall be a minimum of 3/4-inch in size and shall be raised. Visual indication shall be provided to show each call registered and extinguished when answered.

Elevator car operation buttons need to be within reach of wheelchair users and they need to be of a type that blind or partially sighted can identify. So that's what we've got!

E. Car Call Signals. A visual and audible signal shall be provided at each hoistway entrance indicating to the prospective passenger the car answering the call and its direction of travel as follows:

- (1) A minimum of 72-inches in height from the lobby floor.
- (2) A minimum of 2-1/2-inches high x 2-1/2inches wide.
- (3) Visible from the proximity of the hall call button.
- (4) Of a configuration which distinguishes between up and down elevator travel.
- (5) The use of in-car lanterns, located on the car door jambs, visible from the proximity of the hall call buttons and conforming to the above requirements will be acceptable.
- (6) The use of arrow shapes as preferred for visible signals.

F. Location. Passenger elevators shall be located near a major path of travel and provisions shall be made to assure that they remain accessible and usable at all times the building is occupied.



Elevator Control Panel

Figure 51-B

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

2-5106(a)

Special Elevators

Sec. 2-5106

- (a) **Special Access (Wheelchair) Lifts.** Special access wheelchair lifts may be provided between levels, in lieu of passenger elevator, when the vertical distance between landings, structural elevators, structural design and safeguards are as allowed by the State of California, Department of Industrial Relations, Division of Occupational Safety and Health. Special access wheelchair lifts shall conform with all regular and special requirements of the State of California, Department of Industrial Relations, Division of Occupational Safety and Health as they may be specifically approved by them.

NOTE: See Section 3000(c). (13), Part 7 of this code, for wheelchair lifts which have a rise of not more than 5 feet.

So where can wheelchair lifts be used?

Wheelchair lifts can be installed to provide access where the installation of a ramp or elevator would be difficult or costly. However, the maximum lift height allowed by Cal OSHA is five feet. Questions or requests for exemptions from the five foot maximum distance allowed between levels served by a lift should be directed to the Department of Industrial Relations.

1. The lift platform or support shall be of sufficient size to accommodate large motorized wheelchairs and shall have a rated capacity of not less than 400 pounds and a weight safety factor of not less than 5 based upon the rated load.

How big is a large motorized wheelchair?

Throughout these regulations, the space requirements for wheelchairs are described as 30 inches x 48 inches whether it's a large motorized or small manual chair.

2. The rated speed of the platform shall not exceed 200 feet per minute and the operating control shall be the constant pressure type designed so that it can be easily operated by a handicapped person. A push bar control designed for use by handicapped persons or a control that provides equal usability shall be provided.
3. The lift assembly shall be securely supported to maintain the platform in a level position and to prevent the loosening or displacement of any portion of the unit. All portions of the lift machinery shall be protected from intrusion of water.
4. Enclosures shall be provided for the platform wheelchair supports and lift which provides a reasonable degree of safety for handicapped persons using the lift and others exposed to the lift, except as provided in Subsection (a)7. Provide installation with safety devices that may be required per Subsections (a)5, 6 and 7.
5. The lift platform and the top landing shall be equipped with a locking device, door or gate 42 inches in height. The device, door or gate shall be equipped with both mechanical and electrical contracts which prevent operation of the platform unless they are properly closed.
6. "Call-Send" controls shall be provided at the top and bottom landing. When the platform and lift travel area are not enclosed, "Call-Send" controls shall be key locked or otherwise controlled as to use.

Are there any requirements for call controls?

See Chapter 2-51 for call button guidelines and installation height requirements.

2-5106(a)7.

7. When the enclosure required in Subsection (a)4 is not provided the underside of the lifting platform shall be equipped with a safety pan cover which will automatically shut-off the lifting device should any obstruction under the platform interfere with its downward travel.
8. A pit shall be provided to permit the platform to stop flush with the landing level or in lieu of a pit, a ramp shall be provided which does not exceed 1 inch rise in 12 inches of horizontal run. The surface of the ramp shall have a non-skid surface.
EXCEPTION: If the horizontal run of the ramp does not exceed 12 inches the maximum rise may be 2-1/2 inches.
9. When the lift is hydraulically operated or is of the electric-hydraulic type, releveing switches shall be provided to keep the platform level with the landing at which it has been parked.

Where can I get information on approved lifting devices?

The State Architect's Office and the Department of Rehabilitation are not in the business of approving manufactured items for use with the accessibility standards. However, we are happy to talk with you regarding lifts that are available on the market today.

EXCEPTION NO. 1: Existing buildings. The provisions of this Section shall not apply to existing buildings when physical constraints will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship.

NOTE: See Section 2-110(b)11D.

This exception found throughout the regulations allows an exemption from the literal accessibility requirements if there is an unreasonable hardship. Unreasonable hardship is defined by five criteria in Section 2-422 of Chapter 2-1. Additional concurrence is required by the enforcing agencies appeals process in order to incorporate this exemption.

EXCEPTION NO. 2: When the enforcing agency determines that compliance with any regulation under this section would create an unreasonable hardship, an exception to such regulation shall be granted when equivalent facilitation is provided.

This exception is similar to the U.B.C. section allowing for alternative materials and methods of construction. In this case, if the regulations create an unreasonable hardship (defined in 2-422)then equivalent facilitation may be incorporated.

Chapter 2-71
SITE DEVELOPMENT REQUIREMENTS FOR HANDICAPPED ACCESSIBILITY
 NOTE: This is a new Chapter which has no corresponding provisions in the UBC.
Adoption Table No. 2-71A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOI	AGR	YA	BOC	DOE	CA
Entire Chapter 2-71...	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

2-7101(a)

If you have read everything in the manual up to this point, congratulations!

Site Development and Grading

Sec. 2-7101

- (a) **General.** Site development and grading shall be designed to provide access to primary entrances and access to normal paths of travel and where necessary to provide access shall incorporate pedestrian ramps, curb ramps, etc.

Where does the path of travel begin?

As we said in 2-103 these building standards shall not apply to work located primarily in a public way with a few exceptions such as curb ramps.

However they do apply to publicly or privately funded sidewalks, walks and curbs and related facilities including walks, pedestrian ways, and parking areas. Basically, the path of travel to the primary entrances, which includes these components, begins at the boundary of the building project.

- (b) **Outside Stairways.** Where stairways occur outside a building refer to Section 2-3306(r).

EXCEPTION NO. 1: Where the enforcing agency determines that compliance with these regulations would create an unreasonable hardship, because of topography, natural barriers, etc., an exception may be granted when equivalent facilitation is provided through the use of other methods or materials.

Here's a twist on the typical exception found elsewhere in the code. OSA recognizes that topographic and other natural barriers will make compliance difficult or impossible in some cases. In those cases where problems are determined to create an unreasonable hardship, equivalent facilitation may be substituted for the literal requirements of these regulations.

EXCEPTION NO. 2: In existing buildings, this Section shall not apply in those conditions where due to legal or physical constraints the site of the project would not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship.

NOTE: See Section 2-110(b)11D.

Again we have a total exemption from site development requirements where legal or physical constraints preclude the use of these regulations and again we have the requirement that an unreasonable hardship be found and that there is concurrence by the local enforcing agencies appeals board.

2-7102(a)

Parking

Sec. 2-7102

(a) **Spaces Required.** The following table establishes the number of handicapped parking spaces required:

Total Number of Parking Spaces	Number of Handicapped Parking Spaces Required
1-40.....	1
41-80.....	2
81-120.....	3
121-160.....	4
161-300.....	5
301-400.....	6
401-500.....	7
over 500.....	1 for each 200 additional spaces provided.

When less than 5 parking spaces are provided, at buildings and facilities subject to these regulations, one shall be 14 feet wide and lined to provide a 9 foot parking area and a 5 foot loading and unloading area. However, there is no requirement that the space be reserved exclusively or identified for disabled use only.

Does this space need to be marked as accessible although it is not reserved?

No, this means that none of the signs used for identification in reserving an accessible space are required. The wide space would be used by the disabled only if empty.

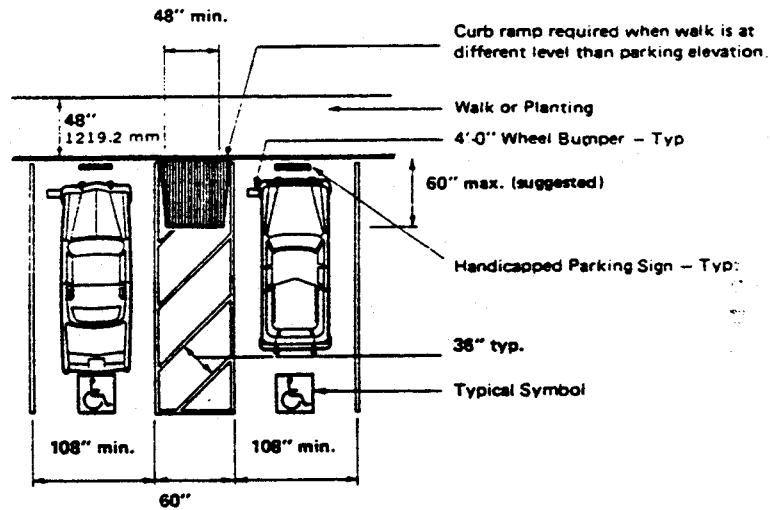
EXCEPTION: This subsection shall not apply to existing facilities where compliance with local ordinances precludes satisfying the above requirements or of providing equivalent facilitation unless a change of occupancy occurs.

NOTE: See Section 2-110(b)11D.

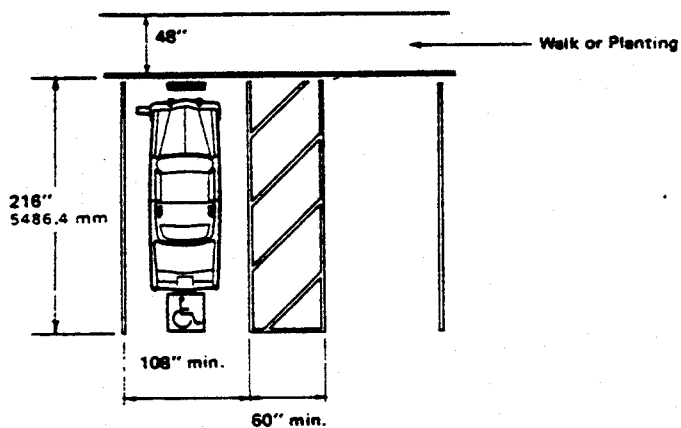
After decoding this exception, we have come up with the following interpretation: If you have a zoning ordinance that requires five spaces for the particular job in question; but you can only get four because you provide a wide parking stall for the disabled, then what you have is an ordinance that precludes the use of this section for existing facilities. However, if you have a change of occupancy then this exception shall not apply.

(b) **Parking Space Size.** Physically handicapped parking spaces shall be located as near as practical to a primary entrance. If only one space is provided, it shall be 14 feet wide and outlined to provide a 9 foot parking area and a 5 foot loading and unloading area. When more than one space is provided in lieu of providing a 14 foot wide space for each parking space, two spaces can be provided within a 23 foot wide area lined to provide a 9 foot parking area on each side of a 5 foot loading and unloading area in the center. The minimum length of each parking space shall be 18 feet.

NOTE: See Figure 71-1A.



Handicapped Spaces, Double Type



Handicapped Space, Single Type

Figure 71-1A

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

Many people question the requirements for such large parking spaces and in addition they question the usability of a mutually shared unloading space between two adjacent parking spaces.

This section has been researched and we find that it does work. The extra wide stalls and the mutually shared unloading space are required for those who must pull their wheelchair along side of the vehicle and transfer from the vehicle to the wheelchair.

Without this added space, the wheelchair could not be pulled along side of the vehicle and we would therefore have an inaccessible parking space. This also facilitates access for vans with side lifts.

(c) **Arrangement of Parking Space.** In each parking area, a bumper or curb shall be provided and located to prevent encroachment of cars over the required width of walkways. Also, the space shall be so located that a handicapped person is not compelled to wheel or walk behind parked cars other than their own. Pedestrian ways which are accessible to the physically handicapped shall be provided from each such parking space to related facilities, including curb cuts or ramps as needed. Ramps shall not encroach into any parking space.

EXCEPTION NO. 1: Ramps located at the front of physically handicapped parking spaces may encroach into the length of such spaces when such encroachment does not limit a handicapped person's capability to leave or enter their vehicle, thus providing equivalent facilitation.

NOTE: See Figures 71-1A and 71-1B.

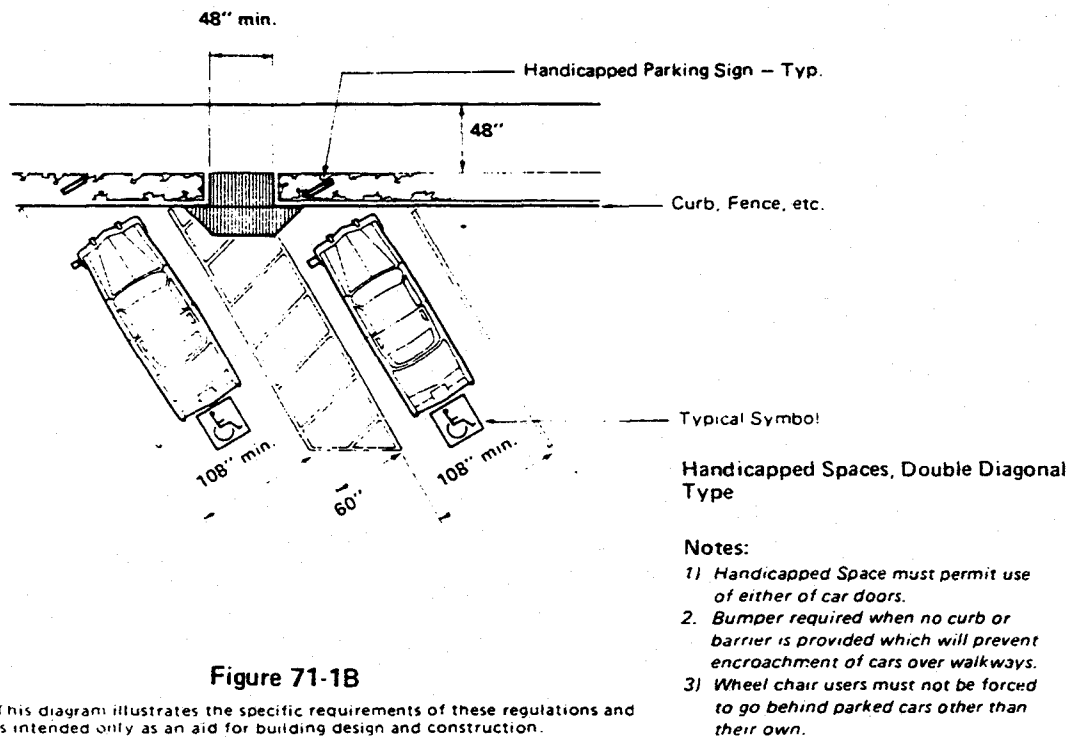


Figure 71-1B

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

2-7102(c) continued

What is the required slope for these ramps and are handrails also required?

The ramp should be configured so that a level area is provided at the car door and the slope should not exceed 8.33% (1 and 12). Side slopes are acceptable at one and eight. Handrails are not required.

Exception No. 2 below allows for the provision of equivalent facilitation. However, an unreasonable hardship must be determined in order to use this exception. See 2-422 for the definition of unreasonable hardship.

EXCEPTION NO. 2: Where the enforcing agency determines that compliance with any regulation of this subsection would create an unreasonable hardship, a variance or waiver may be granted, when equivalent facilitation is provided.

EXCEPTION NO. 3: Parking spaces may be provided which would require a physically handicapped person to wheel or walk behind other than handicapped parking spaces when the enforcing agency determines that compliance with these regulations or providing equivalent facilitation would create an unreasonable hardship.

NOTE: See Section 2-110(b)11D.

People with disabilities often can't move quickly, people in wheelchairs are very difficult to see in parking lots; therefore, we have this requirement.

If this exception is to be granted, then it is required that it receive concurrence of the local enforcing authorities appeals board.

- (d) **Slope of Parking Space.** Surface slopes of parking spaces for the physically handicapped shall be the minimum possible and shall not exceed 1/4-inch per foot (2.083% gradient) in any direction.

Cross slopes are very difficult for those using wheelchairs and often very dangerous for people using walkers or canes.

- (e) **Identification.** Each parking space reserved for the disabled shall be identified by a permanently affixed reflectorized sign constructed of porcelain on steel, beaded text, or equal, displaying the International Symbol of Accessibility. The sign shall not be smaller than 70 sq. inches in area and shall be centered at the interior end of the parking space at a minimum height of 80-inches from the bottom of the sign to the parking space finished grade, or centered on the wall at the interior end of the parking space at a minimum height of 36-inches from the parking space finished grade, ground, or sidewalk.

A sign shall also be posted, in a conspicuous place, at each entrance to the off-street parking facility, not less than 17-inches x 22-inches in size with lettering not less than 1-inch in height, which clearly and conspicuously states the following:

"Unauthorized vehicles not displaying distinguishing placards or license plates issued for physically disabled persons may be towed away at owner's expense. Towed vehicles may be reclaimed at _____ or _____ by _____ telephoning _____."

In addition to the above requirements, the surface of each parking place shall have a surface identification duplicating the symbol of accessibility in blue paint, at least 3 foot sq.

What is considered equal to porcelain or steel with beaded text and what color of blue is correct?

2-7102(e) continued

Painted metal signs are acceptable whether they are steel, aluminum, or whatever. Blue paint for the symbol of accessibility and curb markings should match color No. 15090 in the Federal Standard 595a as specified in Section 2-522(b)2. of the regulations (similar to Royal Blue).

- (f) **Parking Structures.** Entrances to and vertical clearances within parking structures shall have a minimum vertical clearance of 8 feet 2 inches where required for accessibility to handicapped parking spaces.

EXCEPTION NO. 1: Where the enforcing agency determines that compliance with Section 2-7102(f) would create an unreasonable hardship, an exception may be granted, when equivalent facilitation is provided.

Why do I need to provide such high clearance you ask?

Many wheelchair users drive sitting in their wheelchair. This usually necessitates an extremely tall van with a hydraulic lift to accommodate the wheelchair user. Surveys done during the public hearing process of these regulations produced evidence that 8 feet 2 inches, in fact, is not tall enough for some of these types of vans but accommodates a significant number of them.

How may I provide equivalent facilitation?

A covered accessible space outside the parking structure no farther from the facilities served, than the main structure, is considered equivalent facilitation; another alternative is to provide all the disabled parking spaces on the first floor of the parking structure, in this way only the first floor would have to comply with the 8 foot 2 inch height requirement.

Do these exceptions mean I don't have to plan for accessible parking inside my parking structure?

No! The application of either of these exceptions to the 8 foot 2 inch height requirement will not exempt you from providing accessible parking under the requirements of Section 2-7102(a).

The provision of the exceptions to structure height requirements was never intended to totally eliminate accessible spaces inside the structure. Many if not most disabled drivers do not use vans. In fact, the majority of persons who must transfer to a wheelchair drive standard passenger cars, cars which can enter the conventional height parking structure. However, in order for these individuals to be able to park, space for loading and unloading adjacent to the auto space is required.

EXCEPTION NO. 2: This section shall not apply to existing buildings where the enforcing agency determines that, due to legal or physical constraints, compliance with these regulations or equivalent facilitation would create an unreasonable hardship.

NOTE: See Section 2-110(b)11D.

Here again, we have the typical exception dealing with legal or physical constraints and unreasonable hardship. Total exemption may be granted providing there is concurrence from the local appeals board.

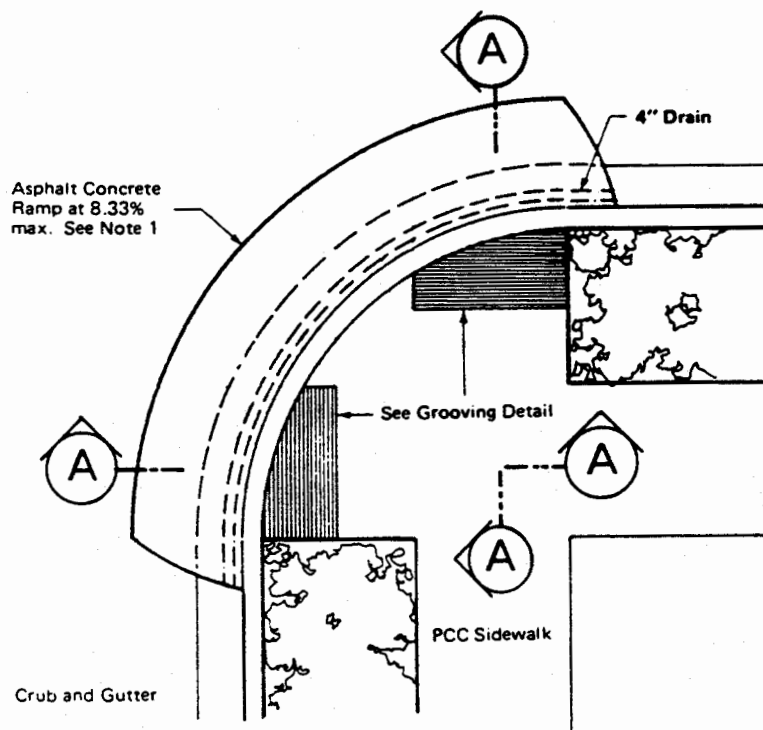
2-7103(a)

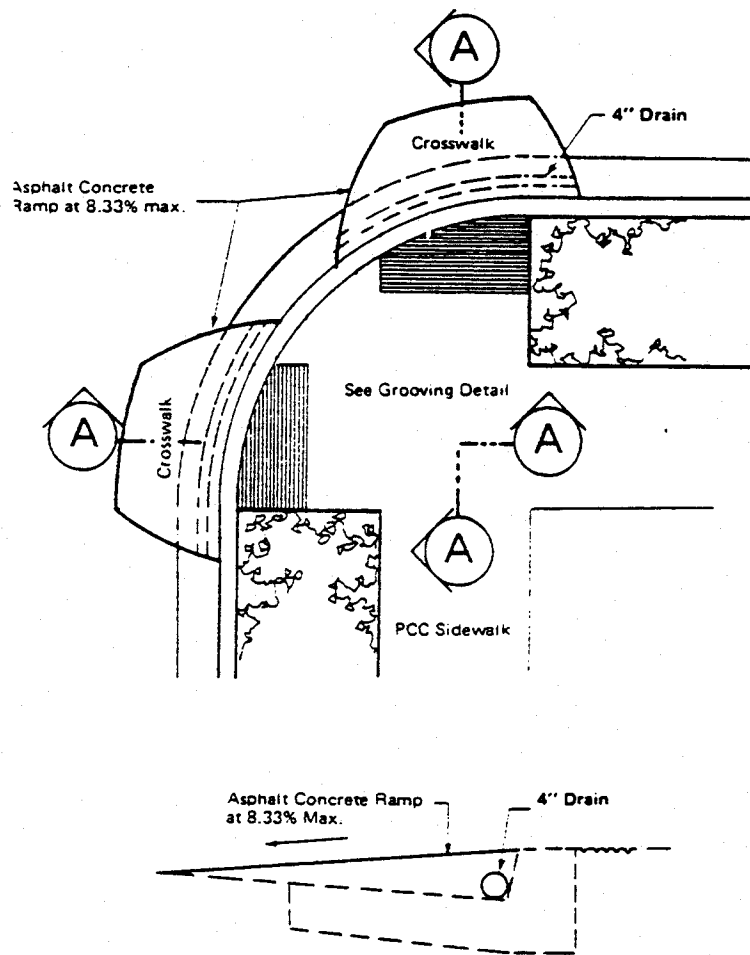
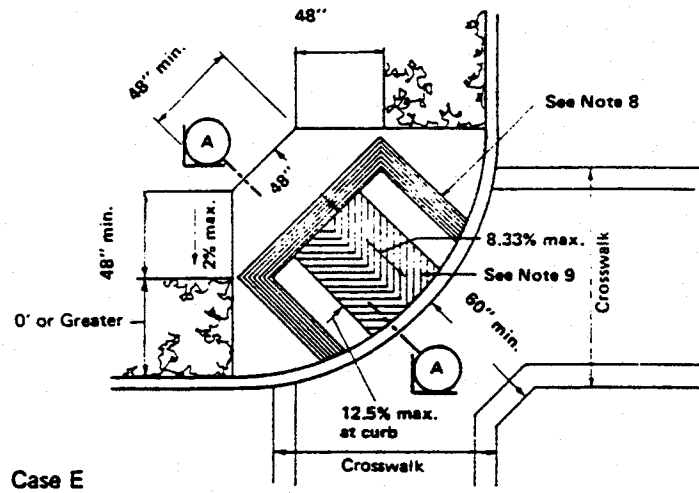
Curb Ramps

Sec. 2-7103

(a) **General.** Curb ramps shall be constructed at each corner of street intersections and where a pedestrian way crosses a curb. The preferred and recommended location for curb ramps is in the center of the crosswalk of each street corner. Where it is necessary to locate a curb ramp in the center of the curb return and the street surfaces are marked to identify pedestrian crosswalks, the lower end of the curb ramp shall terminate within such crosswalk areas.

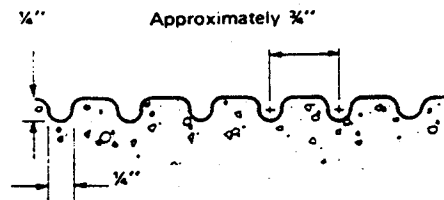
NOTE: See Figure 2-71-3C, Case E.





2-7103(b)

- (b) **Width of Curb Ramps.** Curb ramps shall be a minimum of 4 feet in width and shall lie, generally, in a single sloped plane, with a minimum of surface warping and cross slope.
 - (c) **Slope of Curb Ramps.** The slope of curb ramps shall not exceed 1 vertical to 12 horizontal. The slope of the fanned or flared sides of curb ramps shall not exceed 1 vertical to 8 horizontal.
 - (d) **Level Landing.** A level landing 4 ft. deep shall be provided at the upper end of each curb ramp over its full width to permit safe egress from the ramp surface, or the slope of the fanned or flared sides of the curb ramp shall not exceed one vertical to 12 horizontal.
 - (e) **Beveled Lip.** The lower end of each curb ramp shall have a 1/2-inch lip beveled at 45 degrees.
 - (f) **Finish.** The surface of each curb ramp and its flared sides shall be slip-resistant and shall be of contrasting finish from that of the adjacent sidewalk.
 - (g) **Directional Grooves.** The surface of each curb ramp located in the center of the curb return shall be grooved parallel to the center line of the crosswalks typically in two directions with 1/4-inch x 1/4-inch grooves approximately 1-1/2-inches on center.
- NOTE: See Figure 2-71-3C, Case E.



Grooving Detail

Figure 71-2B

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

- (h) **Border.** All curb ramps shall have a grooved border 12-inches wide at the level surface of the sidewalk along the top and each side approximately 3/4-inch on center. All curb ramps constructed between the face of the curb and the street shall have a grooved border at the level surface of the sidewalk.
- NOTE: See Figure 2-71-2A and 2-71-2B.

Be sure and look closely at all the requirements for curb ramps. It is the intent of the State Architect's Office to provide uniform curb ramps throughout the state so that people with disabilities will always encounter a familiar configuration. So such things as slope, location, tactile warnings or borders are items that require careful scrutiny by all designers, architects and enforcers in order to provide uniformity throughout the state.

What is the difference between a curb cut and a curb ramp?

A curb cut occurs where the curb line is broken by the ramp. The ramp bottom thus begins at or extends through the vertical face of the curb. See illustrations. Both curb cuts and curb ramps incorporate the same ramp slope criteria. (See definitions in Chapter 2-4).

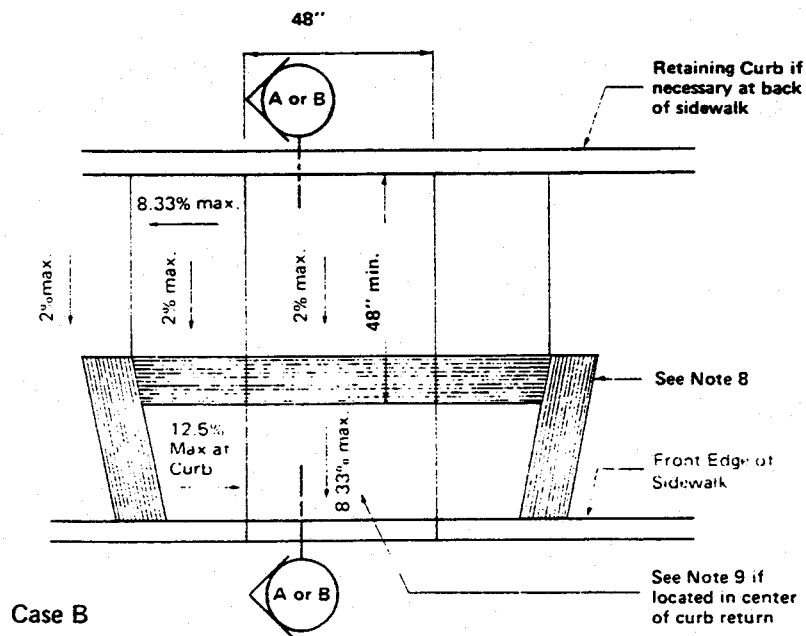
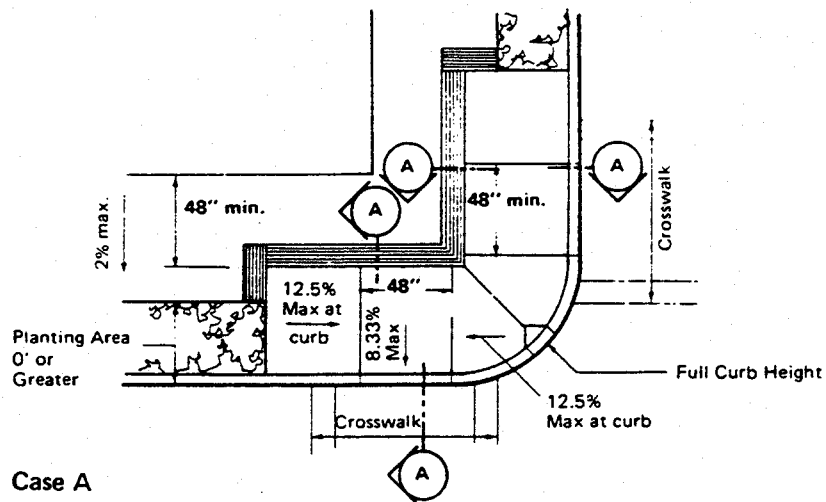


Figure 71-3A

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

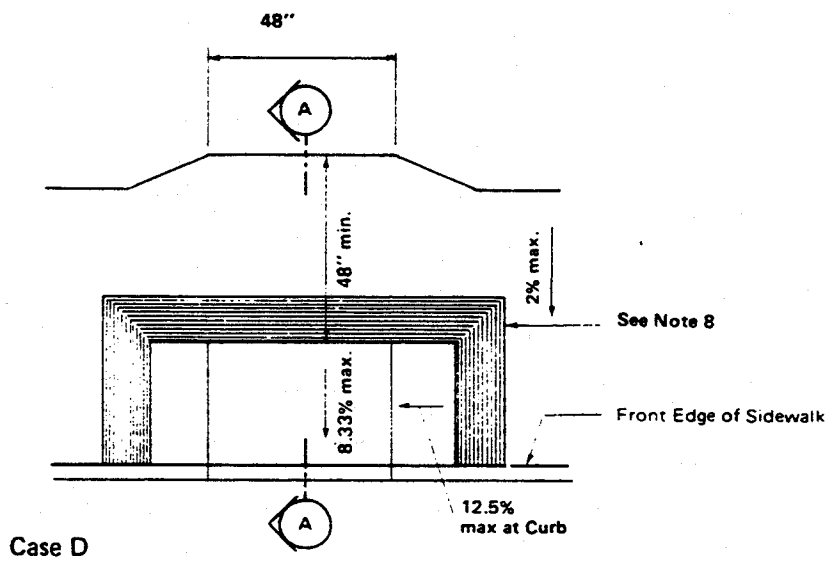
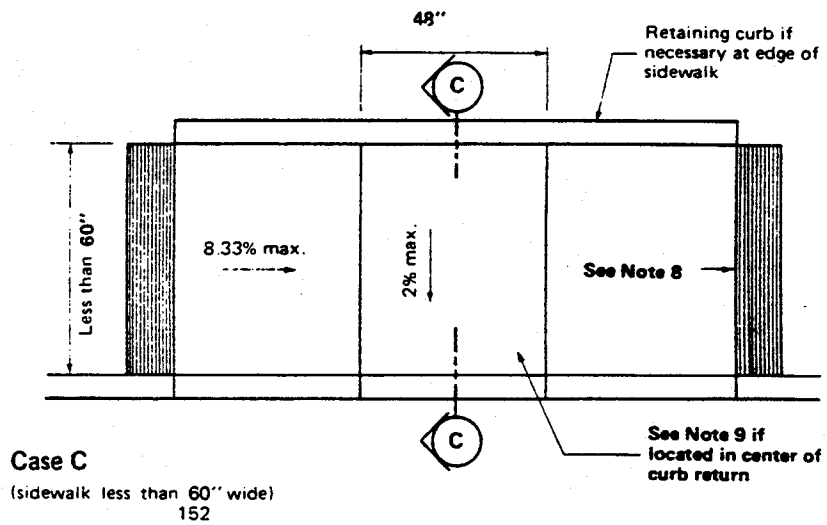


Figure 71-3B

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

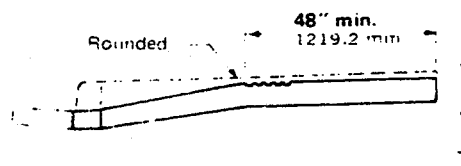
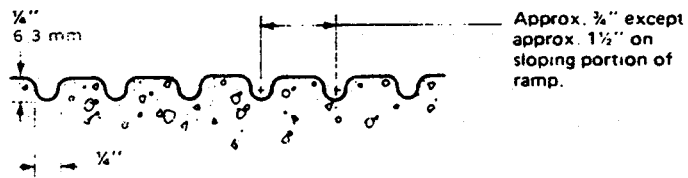
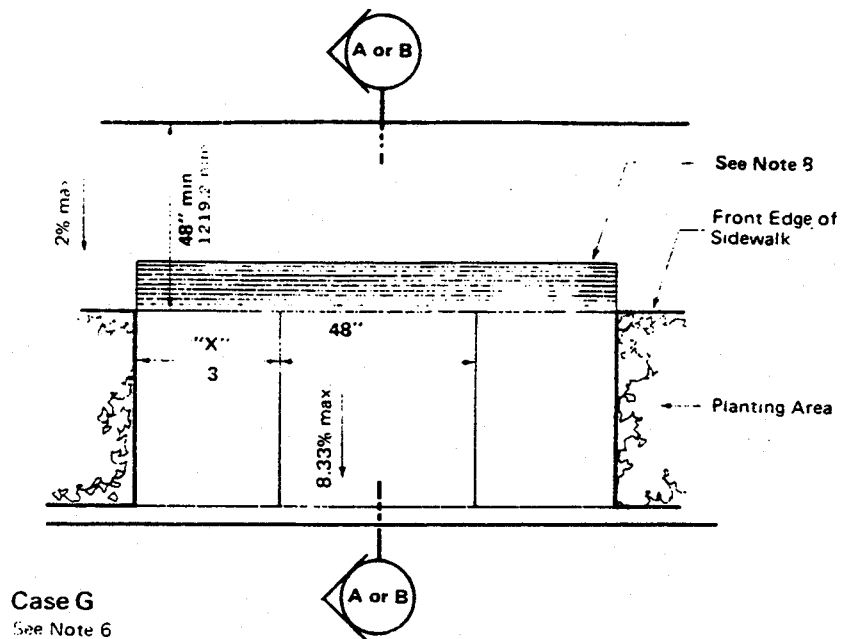


Figure 71-3D

This diagram illustrates the specific requirements of these regulations and is intended only as an aid for building design and construction.

Notes

1. If distance from curb to back of sidewalk is too short to accommodate ramp and 4 foot platform as in Case A, the sidewalk may be depressed longitudinally as in Case B or C or may be widened as in Case D.
2. If sidewalk is less than 5 feet wide, the full width of the sidewalk shall be depressed as shown in Case C.
3. As an alternate to Case A, one ramp may be placed in the center of the curb return as in Case E.
4. When ramp is located in center of curb return, crosswalk configuration must be similar to that shown on the plan to accommodate wheelchairs.
5. If planting area width is equal to or greater than ramp length, ramp side slope "X" distance=3 feet. (See Case G).
6. For Cases F and G, the longitudinal portion of the sidewalk may need to be depressed as shown in Case B.
7. If located on a curve the sides of the ramp need not be parallel, but the minimum width of the ramp shall be 4 feet.
8. The ramp shall have a 12 inch wide border with 1/4 inch grooves approximately 3/4 inch o.c. See Grooving detail. The ramp shall have a transverse broomed surface texture rougher than the surrounding sidewalk except when located in center of curb return.
9. When ramp is located in center of curb return, it shall be grooved in a herringbone pattern with 1/4 inch grooves approximately 1 1/2 inches o.c. See grooving detail. Grooves should be aligned parallel to crosswalk stripes to direct blind pedestrians into appropriate crosswalk.

The above notes are applicable to figures 2-71-3A to 2-71-3E.

Pedestrian Grade Separations (Overpasses and Underpasses)

Sec. 2-7104

- (a) Pedestrian ramps on pedestrian grade separations shall comply with the requirements of Section 2-3307 for ramps.

Cross slopes of walking surfaces shall be the minimum possible and shall not exceed 1/4-inch per foot (2.083% gradient). The slope of any appreciably warped walking surface shall not exceed 1 vertical in 12 horizontal in any direction. Where pedestrian grade separations cross streets or other vehicular traffic ways, and where a street level crossing can reasonably and safely be used by handicapped persons, there shall be provided conforming curb ramps and a usable pathway.

People with disabilities cross the street just like the able-bodied do. In some cases, crossing the street means using a pedestrian grade separation which may be either elevated or depressed. See also sections regarding walks and sidewalks, Chapter 2-33.

EXCEPTION NO. 1: When the grade differential of the walking surface of a pedestrian grade separation exceeds 14 ft. due to required height clearance and grade conditions, and the enforcing agency finds that because of right-of-way restrictions, topography or natural barriers, wheelchair accessibility or equivalent facilitation would create an unreasonable hardship, such accessibility need not be provided. However, the requirements in these regulations relating to other types of mobility shall be complied with.

Obviously at some point, pedestrian grade separations will become too monumental to attempt. The State Architect's regulations define that point as 14 feet in height. If the grade separation exceeds 14 feet of vertical rise because of right-of-way restrictions, topography or natural barriers, etc., and where providing equivalent facilitation would create an unreasonable hardship then such accessibility need not be provided.

EXCEPTION NO. 2: For existing facilities, this section shall not apply where due to legal or physical constraints, the site of the project will not allow compliance with these regulations or equivalent facilitation without creating an unreasonable hardship.

NOTE: See Section 2-110(b)11D.

Again on existing pedestrian grade separations, when the site of the project would not allow compliance with these regulations or equivalent facilitation, and it is determined that there is an unreasonable hardship, and you receive concurrence from an appeals board as specified in Section 2-110(b)11D, then this section of the regulations need not apply.

Chapter 2-72
PROTECTIVE SIGNALING SYSTEMS

NOTE: This is a new chapter which has no corresponding provisions in the UBC.
Adoption Table No. 2-72A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHR	DOT	AGR	YA	BOC	DOE	CA
Entire Chapter 2-72.	-	-	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-
2-7201.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-7202.....	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-7203(a)....	-	-	-	79	-	79	-	-	-	-	-	-	-	-	-	-	-
2-7203(b)...	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-	-	-
2-7204.....	-	-	-	-	-	79	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 2-110 and 2-111 for explanation of this Table.

NOTE 2. See State Building Code History Note Appendix.

Signaling Device

Sec. 2-7203

- (a) **Types of Devices.** Every alarm signaling device installed in any occupancy within the scope of these regulations shall be of the same basic type (bells, horns, speakers, etc.) as all other signaling devices in the facility.

EXCEPTION: Any signaling devices required for the deaf.

Alarms

Sec. 2-7204.

- (a) **Emergency Warning Systems.** If emergency warning systems are required they shall activate a means of warning the hearing impaired. Flashing visual warning shall have a frequency of not more than 60 flashes per minute.

**ARTICLE 3-210
BRANCH CIRCUITS**

Adoption Table No. 3-210A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHR	DOT	AGR	YA	BQC	DOE	CA
Entire Article 210.....	-	-	78	78	78		-	-	-	-	-	-	-	-	-	-	-
Entire Article 210, except as noted below.....	84	84	-	-	-	-	-	81	-	-	-	-	-	-	-	-	-
3-210-7(a).. 210-7(b).. 3-210-7(f).. 3-210-50(d) 3-210-50(e)	- - - - 84	- - - - 84	- - - - -	- - - - -	- - - - -	- - - - 84	- - - - -	- - - 84 84	84 81 84 - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -	- - - - -

C. Required Outlets

General

Sec. 3-210-50

(e) **Installation Height.** The center of 15-, 20- and 30- ampere receptacle outlets required by Sections 210-25 (a), (b) and (c) shall be installed not less than 12 inches above the floor or working platform.

EXCEPTION NO. 1: Receptacle outlets installed as a part of permanently installed baseboard heaters are exempt.

EXCEPTION NO. 2: Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.

EXCEPTION NO. 3: Baseboard electrical outlets used in relocatable partitions window walls or other electrical convenience floor outlets are not subject to the minimum height requirements.

EXCEPTION NO. 4: This section shall not apply to existing buildings when the enforcing agency determines that compliance with these standards would create an unreasonable hardship.

As you can see we have four exceptions here. If you look at Exception No. 4, it actually allows an exemption from the regulations where it is determined that there is an unreasonable hardship. Don't forget to check the definition of unreasonable hardship in Chapter 2-4 of Part 2. In this case, what will we be looking for in the way of unreasonable hardship? It could be unreasonably difficult to relocate existing outlets in concrete walls or in structural members as an example. The best way of determining unreasonable hardship in every single case is to go back and use the five criteria as outlined in the definition of unreasonable hardship in Chapter 2-4 of Part 2. Remember we're in Part 3 now.

**ARTICLE 3-380
SWITCHES**

Adoption Table No. 3-380A

CODE SECTION	BSC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHR	DOT	AGR	YA	BOC	DOE	CA
Entire Article 380.....	-	-	78	78	78	-	81	81	-	-	-	-	-	-	-	-	-
Entire Article 380, except as noted below.....	84	84	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
380-6.....	-	-	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-
3-380-7.....	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-	-	-
380-8(a)..	-	-	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-
3-380-8(c)..	84	84	-	-	-	78	-	-	-	-	-	-	-	-	-	-	-
3-380-19....	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-	-	-

A. Installation

Accessibility and Grouping

Sec. 3-380-8

- (c) The center of the grip of the operating handle of switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances, or cooling, heating and ventilating equipment, shall be not less than 3 feet nor more than 4 feet above the floor or working platform.

EXCEPTION: This Section shall not apply to existing buildings when the enforcing agency determines that compliance with these standards would create an unreasonable hardship.

Is this requirement to be included in every room in the building?

These standards do not apply to rooms or areas that are not accessible or usable by disabled persons. Examples of non-accessible areas might include switches and controls in mechanical rooms, roof penthouses, plumbing access areas and other maintenance related facilities.

**ARTICLE 3-760
FIRE-PROTECTIVE SIGNALING SYSTEMS**

Adoption Table No. 3-760A

CODE SECTION	ESC	HCD 1	HCD 2	SFM	OSA SSS	OSA AC	OSH PD	DHS	OSHA	CEC	SHB	DOT	AGR	YA	BOC	DOE	CA
Entire Article 760.....	-	-	-	-	-	-	81	-	-	-	-	-	-	-	-	-	-
Entire Article 760, except as noted below.....	84	-	-	78	-	-	-	-	-	-	-	-	-	-	-	-	-
3-760-1.....	84	-	-	78	-	-	-	-	78	-	-	-	-	-	-	-	-
3-760-7.....	84	-	-	78	-	-	-	-	-	-	-	-	-	-	-	-	-
3-760-8.....	84	-	-	78	-	-	-	-	-	-	-	-	-	-	-	-	-
3-760-8.1....	84	84	-	78	-	78	-	-	-	-	-	-	-	-	-	-	-
3-760-9.....	84	-	-	78	-	-	-	-	-	-	-	-	-	-	-	-	-
3-760-10.....	84	-	-	78	-	-	-	-	-	-	-	-	-	-	-	-	-
3-760-41.....	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-	-	-
3-760-42.....	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-	-	-
3-760-43	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-	-	-
3-760-44	-	-	-	-	-	-	-	-	78	-	-	-	-	-	-	-	-

A. Scope and General

Installation Height of Manual Stations.

Sec. 3-760-8.1 The center of fire alarm initiating devices (boxes) shall be located 48 inches above the level of the floor, working platform, ground surface or sidewalk.

EXCEPTION: Enforcement officials shall not retroactively require fire alarm initiating devices be relocated to a 48 inch height.

Chapter 5-15
PLUMBING REQUIREMENTS FOR ACCOMODATION OF PHYSICALLY HANDICAPPED PERSONS
 This is a new chapter that has no corresponding Chapter in the UPC.
 Adoption Table No. 5-15A

<u>CODE SECTION</u>	<u>BSC</u>	<u>HCD 1</u>	<u>HCD 2</u>	<u>SFM</u>	<u>OSA SSS</u>	<u>OSA AC</u>	<u>OSH PD</u>	<u>DHS</u>	<u>OSHA</u>	<u>CEC</u>	<u>SHB</u>	<u>DOT</u>	<u>AGR</u>	<u>YA</u>	<u>BOC</u>	<u>DOE</u>	<u>CA</u>
Entire Chapter.....	-	-	-	-	-	X	-	-	-	-	-	-	-	-	-	-	-
Entire Chapter, except as noted below.....	-	X	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

NOTE 1. See Sections 5-008 and 5-009 for explanation of this Table.

NOTE 2. See State Plumbing Code History Note Appendix.

General

Sec. 5-1501 This Chapter contains building standards of the State Architect and the Department of the Housing and Community Development applicable to all buildings and facilities required to be accessible to and usable by physically disabled persons as described in Section 5-008(b)11, Application.

Here is a note of general interest to all you building code buffs. Since each part of Title 24 is basically a building code unto itself, each part therefore has its own application section. You will notice references made in this section to Section 5-008 for the application of the plumbing regulations. You will also notice that it reads just like the application section of Part 2 with appropriate references, however, for plumbing rather than building.

If you have been looking at Chapter 2-5 in Part 2, you will remember all those references to Part 5. Well, here you are now in Part 5. Just to get you oriented, Chapter 2-5 in Part 2 basically dealt with how to make sanitary facilities accessible. Part 5 deals primarily with how to make fixtures within those sanitary facilities accessible.

EXCEPTION NO. 1: In existing buildings, when the enforcing agency determines that compliance with any regulation under this chapter would create an unreasonable hardship, an exception shall be granted when equivalent facilitation is provided.

EXCEPTION NO. 2: In existing buildings, where the enforcing agency determines because of physical constraints compliance with this chapter would create an unreasonable hardship these regulations shall not apply.

NOTE: See Section 2-110-(b)11D.

Water Closets

Sec. 5-1502 The height of accessible water closets shall be a minimum of 17 inches and maximum of 19 inches measured to the top of the toilet seat. Controls shall be operable with one hand, and shall not require tight grasping, pinching, or twisting of the wrist. Controls for the flush valves shall be mounted on the wide side of toilet areas, no more than 44 inches above the floor. The force required to activate controls shall be no greater than 5 pounds per foot.

Note: See Section 2-1213 (d) , Exception 4 for water closets in living accommodations.

The average wheelchair has a seat height of between 17 inches to 19 inches. Therefore, it is not merely by coincidence that the water closet seat height as specified in this section is required to be those same dimensions. A person in a wheelchair who wishes to transfer to a toilet can simply slide over or across from one surface to another.

If I use a so-called hospital toilet fixture with a height of 18 inches, what toilet seat can I use so as not to exceed the 19-inch limit?

A very good question, but one that is not insurmountable. There are toilet seats which when used in conjunction with these hospital fixtures provides a seat height of 19-1/4 inches, and until industry catches up, (and they will catch up) this combination is workable. Another alternative is to use the 14-inch high water closet with a 3-inch lift seat.

Urinals

Sec. 5-1503

(a) Where urinals are provided, at least one with a rim projecting a minimum of 14 inches from the wall and at a maximum of 17 inches above the floor shall be provided.

5-1503(b)

- (b) Flush controls shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist and shall be mounted no more than 44 inches above the floor. The force required to activate controls shall be no greater than 5 pounds per foot.

Urinals provide a specific convenience to the able-bodied. The disabled wheelchair user needs this same type of convenience, however, in his case it is more of a necessity than a convenience.

Can we use a trough urinal or a floor mounted urinal?

Yes, a trough or floor mounted urinal is usually within 17 inches of the floor and is acceptable.

What is elongated?

It is as the name implies protruding or projecting, the opening to the basin must stick out a bit so as to allow hygienic use of the fixture.

Lavatories

Sec. 5-1504

- (a) Lavatories shall be mounted with a clearance of at least 29 inches from the floor to the bottom of the apron with knee clearance under the front lip extending a minimum of 30 inches in width with 8 inches minimum depth at the top. Toe clearance shall be the same width and shall be a minimum of 9 inches high from the floor and a minimum of 17 inches deep from the front of the lavatory.
- (b) Hot water and drain pipes under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.
- (c) Faucet 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. Lever-operated, push-type and electronically controlled mechanisms are examples of acceptable designs. Self-closing valves are allowed if the faucet remains open for at least 10 seconds.

What does all this mean?

This is actually one of our favorites, a standard which is clearly related to the real world. The space required under a lavatory is that which is needed to accommodate the person's legs in front of a wheelchair. That's not too bad is it. By keeping the front apron above the arms of a wheelchair i.e., 29 inches, the wheelchair can be positioned so as to provide the usability needed.

Why do I need to install the hot water and waste line insulation?

When an individual loses the use of his or her legs, a loss of feeling usually occurs and along with this loss of motor and sensory sensation comes circulation losses as well. All of this is the reason why the hot water pipes and waste lines must be insulated. Persons with no sensation in their lower extremities could be seriously burned without their knowledge by exposed pipes.

Is there a special lavatory model required for compliance?

5-1504(c) continued

There is no special requirement. Any model that provides 29" clear under the front and accommodates the specified faucet controls meets the requirements.

The measurement under the front apron is to be made at the front edge of the lavatory.

Since no maximum height is specified, we recommend no more than 34" to the top of the fixture.

Showers

Sec. 5-1505

- (a) Water controls of a single lever design shall be located on the side wall opposite the seat and operable with a maximum force of 5 pounds per foot. The controls shall be located 40 inches above the shower floor.
- (b) A flexible hand held shower unit with a hose at least 60 inches long shall be provided with head mounting height of 48 inches above the shower floor.
- (c) Where handicapped shower facilities are provided in areas subject to excessive vandalism, in lieu of providing the fixed flexible hose and hand-held shower head required above, two wall mounted shower heads shall be installed. Each shower head shall be controlled so that it can be operated independently of the other and shall have swivel angle adjustments, both vertically and horizontally. One shower head shall be located at a height of 40 inches above the floor.
- (d) Where, within the same functional area, two or more showers are provided for the physically handicapped, there shall be at least one shower constructed opposite hand from the other or others (i.e., one left hand controls vs. right hand controls).

Note: See Section 2-1213 (d) . Exception 2 and 3 and Section 2-511 (a) 9A, 1 through 5 and 2-511 (a) 11, 12 and 13.

Why do we need 60 inches of shower hose?

A person who uses a wheelchair for mobility often has little or no control of their trunk. Thus, their ability to move around even while sitting is limited. Therefore, as the Romans once said, if you can't bring the body to the shower, bring the shower to the body.

I notice in Item c there is an allowance for elimination of this hose in areas of high vandalism. Who determines where these high vandalism areas are?

In most cases this is fairly obvious, but the final word must be left to the enforcing authority.

Bathtubs.

Sec. 5-1506 Bathtubs shall be provided with a shower spray unit having a hose at least 60 inches long that can be used as a shower. Bathtub enclosures, if provided, shall not obstruct controls or transfer from wheelchair onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.

Note: See Section 2-1213 (d) , Exception 3 for bathtubs in living accommodations.

Drinking Fountains.

Sec. 5-1507

- (a) The drinking fountain shall be a minimum of 18 inches in depth and there shall be a clear and unobstructed knee space under the drinking fountain not less than 27 inches in height and 8 inches in depth, the depth measurement being taken from the front edge of the fountain. Additionally there shall be toe clearance of 9 inches in height above the floor, and 17 inches in depth from the front edge of the fountain. A side approach drinking fountain is not acceptable.

5-1507(b)

- (b) The bubbler shall be activated by a control which is easily operated by a handicapped person such as a hand-operated lever type control located within 6 inches of the front of drinking fountain, or a push bar control along the front of the drinking fountain etc. The bubbler outlet orifice shall be located within 6 inches of the front of the drinking fountain and shall be within 36 inches of the floor. The water stream from the bubbler shall be substantially parallel to the front edge of the drinking fountain.