

**EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
REGARDING THE ADOPTION BY REFERENCE OF THE
2009 INTERNATIONAL BUILDING CODE (IBC) WITH PROPOSED AMENDMENTS INTO THE
2010 CALIFORNIA BUILDING CODE (CBC)
CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART 2**

The Department of Housing and Community Development (HCD) proposes to adopt the 2009 edition of the International Building Code (IBC) for codification and effectiveness into the 2010 edition of the California Building Code (CBC) as presented on the following pages, including any necessary amendments. HCD further proposes to:

- Repeal the 2007 edition of the California Building Code;
 - Repeal amendments to the model code that are no longer necessary, repeal or amend building standards that are not addressed by a model code;
 - Relocate or codify existing adopted and necessary amendments to the model code into the format of the model code proposed for adoption, the action of which has no regulatory effect; adopt new necessary amendments to the model code proposed for adoption; and/or
 - Adopt new building standards that are not addressed by the model code proposed for adoption
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LEGEND FOR EXPRESS TERMS:

1. **Existing California amendments or code language being modified:** *All such language shown in italics, modified language is underlined or shown in ~~strikeout~~.*
 2. **IBC language with new California amendments:** IBC language shown in normal Arial 9 point; California amendments to IBC text shown *underlined and in italics*.
 3. **Repealed text:** All language shown in ~~strikeout~~.
 4. **Amended, adopted or repealed language after public hearing:** All such language appears in double underline or ~~double strikeout~~.
 5. **Notation:** Authority and Reference citations are provided at the end of each chapter.
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NOTE: THIS DOCUMENT IS A COMPILATION OF THE FOLLOWING ITEMS:

- 1: **STRUCTURAL STANDARDS** [Chapters 5 - 7, 9, 14 - 23]
- 2: **NON-STRUCTURAL STANDARDS** [Chapters 1 – 4, 8, 10, 12, 13, 24 – 35, Appendices A – D, F – K]
- 3: **ACCESSIBILITY STANDARDS** [Chapter 11A]

SPECIAL NOTES:

The 2009 IBC includes defined terms in *italics*. This document displays the defined terms in regular font to differentiate California amendments from model code language. The titles of model code publications, e.g., *International Building Code*, are still shown in italics in the Express Terms.

The Express Terms include amendments that correct references within the California Building Code from International Building Code to *California Building Code*. Similar amendments are also proposed for references to other International model codes adopted as California codes. These types of amendments are not specifically identified in the Matrix Adoption Tables as adopted for HCD applications.

1. HCD proposes to renumber former "(California) Chapter 1, General Code Provisions (Sections 101 – 101.12 and 108 – 108.10)" to "Chapter 1, Administration, Division I (Sections 1.1 – 1.1.12 and 1.8 – 1.8.10)" and amend as follows:

**~~(CALIFORNIA) CHAPTER 1
GENERAL CODE PROVISIONS~~**

CHAPTER 1

CALIFORNIA ADMINISTRATION

DIVISION I

**SECTION ~~401-1.1.0~~
GENERAL**

~~401-1~~ 1.1.1 *Title.* These regulations shall be known as the California Building Code, may be cited as such and will be referred to herein as "this code." The California Building Code is Part 2 of ~~42~~ twelve parts of the official compilation and publication of the adoption, amendment, and repeal of building regulations to the California Code of Regulations, Title 24, also referred to as the California Building Standards Code. This part incorporates by adoption the ~~2006~~ 2009 International Building Code of the International Code Council with necessary California amendments.

~~401-2~~ 1.1.2 *Purpose.* The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations

~~401-3~~ 1.1.3 *Scope.* The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout the State of California.

~~401-3-4~~ 1.1.3.1 *Nonstate-regulated buildings, structures, and applications.* Except as modified by local ordinance pursuant to Section ~~401-8~~ 1.1.8, the following standards in the California Code of Regulations, Title 24, Parts 2, 2.5, 3, 4, 5, 6, 9, ~~and 10~~ and 11 shall apply to all occupancies and applications not regulated by a state agency.

~~401-3-2~~ 1.1.3.2 *State-regulated buildings, structures, and applications.* The model code, state amendments to the model code, and/or state amendments where there are no relevant model code provisions shall apply to the following buildings, structures, and applications regulated by state agencies as referenced in the Matrix Adoption Tables and as specified in Sections ~~402~~ 1.2 through ~~414~~ 1.14, except where modified by local ordinance pursuant to Section ~~401-8~~ 1.1.8. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the state legislature.

Note: See Preface to distinguish the model code provisions from the California provisions.

1. State-owned buildings, including buildings constructed by the Trustees of the California State University, and to the extent permitted by California laws, buildings designed and constructed by the Regents of the University of California, and regulated by the Building Standards Commission. See Section ~~402~~ 1.2 for additional scope provisions.
2. Local detention facilities regulated by the Corrections Standards Authority. See Section ~~403~~ 1.3 for additional scope provisions.
3. Barbering, cosmetology or electrolysis establishments, acupuncture offices, pharmacies, veterinary facilities and structural pest control locations regulated by the Department of Consumer Affairs. See Section ~~404~~ 1.4 for additional scope provisions.

4. Energy efficiency standards regulated by the California Energy Commission. See Section ~~405~~ 1.5 for additional scope provisions.
5. Dairies and places of meat inspection regulated by the Department of Food and Agriculture. See Section ~~406~~ 1.6 for additional scope provisions.
6. Organized camps, laboratory animal quarters, public swimming pools, radiation protection, commissaries serving mobile food preparation vehicles and wild animal quarantine facilities regulated by the Department of ~~Public Health Services~~. See Section ~~407~~ 1.7 for additional scope provisions.
7. Hotels, motels, lodging houses, apartment houses, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilets or cooking facilities. See Section ~~408-2-1-1~~ 1.8.2.1.1 for additional scope provisions.
8. Accommodations for persons with disabilities in buildings containing newly constructed covered multifamily dwellings, new common use spaces serving existing covered multifamily dwellings, additions to existing buildings where the addition alone meets the definition of a ~~“covered multifamily dwelling”~~ “COVERED MULTIFAMILY DWELLINGS” and common-use spaces serving covered multifamily dwellings, which are regulated by the Department of Housing and Community Development. See Section ~~408-2-1-2~~ 1.8.2.1.2 for additional scope provisions.
9. Permanent buildings and permanent accessory buildings or structures constructed within mobilehome parks and special occupancy parks regulated by the Department of Housing and Community Development. See Section ~~408-2-1-3~~ 1.8.2.1.3 for additional scope provisions.
10. Accommodations for persons with disabilities regulated by the Division of the State Architect. See Section ~~409-1~~ 1.9.1 for additional scope provisions.
11. Public elementary and secondary schools, community college buildings and state-owned or state-leased essential service buildings regulated by the Division of the State Architect. See Section ~~409-2~~ 1.9.2 for additional scope provisions.
12. Qualified historical buildings and structures and their associated sites regulated by the State Historical Building Safety Board with the Division of the State Architect. See Section ~~409-3~~ 1.9.3 for additional scope provisions.
13. General acute care hospitals, acute psychiatric hospitals, skilled nursing and/or intermediate care facilities, clinics licensed by the Department of Public Health and correctional treatment centers regulated by the Office of Statewide Health Planning and Development. See Section ~~410~~ 1.10 for additional scope provisions.
14. Applications regulated by the Office of the State Fire Marshal include, but are not limited to, the following in accordance with Section ~~411~~ 1.11:
 - 44.1 Buildings or structures used or intended for use as an:
 - 44.1.1 Asylum, jail.
 - 44.1.2 Mental hospital, hospital, home for the elderly, children’s nursery, children’s home or institution , school or any similar occupancy of any capacity.
 - 44.1.3 Theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.
 - 44.1.4 Small family day care homes, large family day care homes, residential facilities and residential facilities for the elderly, residential care facilities.
 - 44.1.5 State institutions or other state-owned or state-occupied buildings.
 - 44.1.6 High rise structures.
 - 44.1.7 Motion picture production studios.
 - 44.1.8 Organized camps.
 - 44.1.9 Residential structures.

- 44.2 Tents, awnings or other fabric enclosures used in connection with any occupancy.
- 44.3. Fire alarm devices, equipment and systems in connection with any occupancy.
- 44.4. Hazardous materials, flammable and combustible liquids.
- 44.5. Public school automatic fire detection, alarm and sprinkler systems.
- 44.6. Wildland-urban interface fire areas.

15. Public libraries constructed and renovated using funds from the California Library Construction and Renovation Bond Act of 1988 and regulated by the State Librarian. See Section 442 1.12 for additional scope provisions.

16. Graywater systems regulated by the Department of Water Resources. See Section 443 1.13 for additional scope provisions.

17. For applications listed in Section 409.4 1.9.1 regulated by the Division of State Architect--Access Compliance, outdoor environments and uses shall be classified according to accessibility uses described in Chapters 11A, 11B and 11C.

18. Marine Oil Terminals regulated by the California State Lands Commission. See Section 444 1.14 for additional scope provisions.

401.4 1.1.4 Appendices. Provisions contained in the appendices of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code Section ~~18938(b)~~ 18901 et seq. for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law and Health and Safety Code Section 13869.7 for Fire Protection Districts. See Section ~~401.8~~ 1.1.8 of this code.

401.5 1.1.5 Referenced codes. 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. When this code does not specifically cover any subject related to building design and construction, recognized architectural or engineering practices shall be employed. The National Fire Codes, standards and the Fire Protection Handbook of the National Fire Protection Association are permitted to be used as authoritative guides in determining recognized fire prevention engineering practices.

401.6 1.1.6 Non-building standards, orders and regulations. Requirements contained in the International Building Code, or in any other referenced standard, code or document, which are not building standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code. For non-building standards, orders, and regulations, see other titles of the California Code of Regulations.

401.7 1.1.7 Order of precedence and use.

401.7.1 1.1.7.1 Differences. In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern.

401.7.2 1.1.7.2 Specific provisions. Where a specific provision varies from a general provision, the specific provision shall apply.

401.7.3 1.1.7.3 Conflicts. When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24, the most restrictive requirements shall prevail.

401.8 1.1.8 City, county or city and county amendments, additions or deletions.

The provisions of this code do not limit the authority of city, county or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section ~~401.8.4~~ 1.1.8.1. The effective date of amendments, additions or deletions to this code ~~of~~ by city cities, county counties or city and county counties filed pursuant to Section ~~401.8.4~~ 1.1.8.1 shall be the date filed. However, in no case shall the amendments, additions or deletions to this code be effective any sooner than the effective date of this code.

Local modifications shall comply with Health and Safety Code Section 18941.5 for Building Standards Law, Health and Safety Code Section 17958 for State Housing Law or Health and Safety Code Section 13869.7 for Fire Protection Districts.

401.8.1 1.1.8.1 Findings and filings.

1. The city, county or city and county shall make express findings for each amendment, addition or deletion based upon climatic, topographical or geological conditions.

Exception: Hazardous building ordinances and programs mitigating unreinforced masonry buildings.

2. The city, county or city and county shall file the amendments, additions or deletions expressly marked and identified as to the applicable findings. Cities, counties, cities and counties, and fire departments shall file the amendments, additions or deletions, and the findings with the California Building Standards Commission at 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833.
3. Findings prepared by fire protection districts shall be ratified by the local city, county or city and county and filed with the California Department of Housing and Community Development, Division of Codes and Standards, P.O. Box 1407, Sacramento, CA 95812-1407 at or 1800 3rd Street, Room 260, Sacramento, CA 95814 95811.

401.9 1.1.9 Effective date of this code. Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code.

401.10 1.1.10 Availability of codes. At least one ~~entire~~ complete copy each of Titles 8, 19, 20, 24 and 25 with all revisions shall be maintained in the office of the building official responsible for the administration and enforcement of this code. Each state department concerned and each city, county or city and county shall have an up-to-date copy of the code available for public inspection. See Health and Safety Code Section 18942 (d)(1) and (2).

401.11 1.1.11 Format. This part fundamentally adopts the International Building Code by reference on a chapter-by-chapter basis. Such adoption is reflected in the Matrix Adoption Table of each chapter of this part. When the Matrix Adoption Tables make no reference to a specific chapter of the International Building Code such chapter of the International Building Code is not adopted as a portion of this code.

401.12 1.1.12 Validity. 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.

**SECTION 408 1.8
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT**

408.1 1.8.1 Purpose. The purpose of this code is to establish the minimum requirements necessary to protect the health, safety and general welfare of the occupants and the public by governing accessibility, erection, construction, reconstruction, enlargement, conversion, alteration, repair, moving, removal, demolition, occupancy, use, height, court, area, sanitation, ventilation, maintenance, and safety to life and property from fire and other hazards attributed to the built environment.

**SECTION 1.8.2
AUTHORITY AND ABBREVIATIONS**

~~408.2 Authority and abbreviations.~~

408.2.1 1.8.2.1 General. The Department of Housing and Community Development is authorized by law to promulgate and adopt building standards and regulations for several types of building applications. These applications are grouped and identified by abbreviation in the Matrix Adoption Tables to show which model code sections and amendments are applicable to each application. The applications under the authority of the Department of Housing and Community Development are listed in Sections ~~408.2.1.1~~ 1.8.2.1.1 through ~~408.2.1.3~~ 1.8.2.1.3.

Note: See the California Residential Code for detached one- and two-family dwellings and townhouses.

~~108.2.1.1~~ **1.8.2.1.1 Housing construction.** Application –Hotels, motels, lodging houses, apartment houses, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities including accessory buildings, facilities, and uses thereto. Sections of this code which pertain to applications listed in this section are identified in the Matrix Adoption Table using the abbreviation “HCD 1.”

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

Authority cited–Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference–Health and Safety Code Sections 17000 through ~~47060~~ 17062.5, 17910 through ~~47990~~ 17995.5, 18200 through 18700, 18860 through 18874, and Sections 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

~~108.2.1.2~~ **1.8.2.1.2 Housing accessibility.** Application – Covered multifamily dwellings ~~units~~ as defined in Chapter 11A including, but not limited to, lodging houses, dormitories, timeshares, condominiums, shelters for homeless persons, congregate residences, apartment houses, dwellings, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilet or cooking facilities.

Sections of this code identified in the Matrix Adoption Table by the abbreviation “HCD 1-AC” require specific accommodations for ~~“Persons with physical disabilities”;~~ as defined in Chapter 11A. The application of such provisions shall be in conjunction with other requirements of this code and apply only to ~~Group R Occupancies which are~~ newly constructed “Covered multifamily dwellings” as defined in Chapter 11A of the California Building Code. “HCD 1-AC” applications include, but are not limited to, the following:

1. All newly constructed “Covered multifamily dwellings” as defined in Chapter 11A.
2. New “Common use areas” as defined in Chapter 11A serving existing covered multifamily dwellings.
3. Additions to existing buildings, where the addition alone meets the definition of a “Covered multifamily dwellings” as defined in Chapter 11A.
4. Common use areas serving covered multifamily dwellings.
5. Where any portion of a building’s exterior is preserved, but the interior of the building is removed, including all structural portions of floors and ceilings, the building is considered a new building for determining the application of Chapter 11A.

“HCD 1-AC” building standards generally do not apply to public use areas, public accommodations such as hotels and motels. Public use areas, public accommodations and housing which is publicly funded as defined in Chapters ~~2, 11A and 11B~~ of this code are subject to the Division of the State Architect (DSA-AC) and are referenced in Section ~~409.4~~ 1.9.1.

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

Authority cited–Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference–Health and Safety Code Sections 17000 through ~~47060~~ 17062.5, 17910 through ~~47990~~ 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

~~408.2.1.3~~ **1.8.2.1.3 Permanent buildings in mobilehome parks and special occupancy parks.**

Application—Permanent buildings, and permanent accessory buildings or structures, constructed within mobilehome parks and special occupancy parks that are under the control and ownership of the park operator. Sections of this code which pertain to applications listed in this section are identified in the Matrix Adoption Table using the abbreviation “HCD 2.”

Enforcing Agency—Local building department or other local agency responsible for the enforcement of Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 for mobilehome parks and Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 for special occupancy parks, or the Department of Housing and Community Development.

Authority cited—Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17821.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, and 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference—Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, and 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

**SECTION ~~408.3~~ 1.8.3
LOCAL ENFORCING AGENCY**

~~408.3.1~~ 1.8.3.1 Duties and powers. *The building department of every city, county or city and county shall enforce all the provisions of law, this code, and the other rules and regulations promulgated by the Department of Housing and Community Development pertaining to the installation, erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition or arrangement of apartment houses, hotels, motels, lodging houses and dwellings, including accessory buildings, facilities and uses thereto.*

The provisions regulating the erection and construction of dwellings and appurtenant structures shall not apply to existing structures as to which construction is commenced or approved prior to the effective date of these regulations. Requirements relating to use, maintenance and occupancy shall apply to all dwellings and appurtenant structures approved for construction or constructed before or after the effective date of this code.

For additional information regarding the use and occupancy of existing buildings and appurtenant structures, see California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Article 1, Section 1.

~~408.3.2~~ 1.8.3.2 Laws, rules and regulations. *Other than the building standards contained in this code, and notwithstanding other provisions of law, the statutory authority and location of the laws, rules, and regulations to be enforced by local enforcing agencies are listed by statute in Sections ~~408.3.2.1~~ 1.8.3.2.1 through ~~408.3.2.5~~ 1.8.3.2.5 below:*

~~408.3.2.1~~ 1.8.3.2.1 State Housing Law. *Refer to the State Housing Law, California Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, ~~Article 1,~~ commencing with Section 1, for the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, demolition or arrangement of apartment houses, hotels, motels, lodging houses and dwellings, including accessory buildings, facilities, and uses thereto.*

~~408.3.2.2~~ 1.8.3.2.2 Mobilehome Parks Act. *Refer to the Mobilehome Parks Act, California Health and Safety Code, Division 13, Part 2.1, ~~Article 1,~~ commencing with Section 18200 and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000 for mobilehome park administrative and enforcement authority, permits, plans, fees, violations, inspections and penalties both within and outside mobilehome parks.*

Exception: *Mobilehome parks where the Department of Housing and Community Development is the enforcing agency.*

~~108.3.2.3~~ **1.8.3.2.3 Special Occupancy Parks Act.** Refer to the Special Occupancy Parks Act, California Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, ~~Article 4~~, commencing with Section 2000 for special occupancy park administrative and enforcement authority, permits, fees, violations, inspections and penalties both within and outside of special occupancy parks.

Exception: Special occupancy parks where the Department of Housing and Community Development is the enforcing agency.

~~108.3.2.4~~ **1.8.3.2.4 Employee Housing Act.** Refer to the Employee Housing Act, California Health and Safety Code, Division 13, Part 1, commencing with Section 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, ~~Article 4~~, commencing with Section 600 for employee housing administrative and enforcement authority, permits, fees, violations, inspections and penalties.

~~108.3.2.5~~ **1.8.3.2.5 Factory-Built Housing Law.** Refer to the Factory-Built Housing Law, California Health and Safety Code, Division 13, Part 6, commencing with Section 19960 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, ~~Article 4~~, commencing with Section 3000 for factory-built housing administrative and enforcement authority, permits, fees, violations, inspections and penalties.

SECTION ~~108.4~~ 1.8.4 PERMITS, FEES, APPLICATIONS AND INSPECTIONS

~~108.4.1~~ **1.8.4.1 Permits.** A written construction permit shall be obtained from the enforcing agency prior to the erection, construction, reconstruction, installation, moving or alteration of any building or structure.

Exceptions:

1. Work exempt from permits as specified in ~~Appendix~~ Chapter 1, Administration, Division II, Section 105.2.
2. Changes, alterations, or repairs of a minor nature not affecting structural features, egress, sanitation, safety or accessibility as determined by the enforcing agency.

Exemptions from permit requirements shall not be deemed to grant authorization for any work to be done in any manner in violation of other provisions of law or this code.

~~108.4.2~~ **1.8.4.2 Fees.** Subject to other provisions of law, the governing body of any city, county or city and county may prescribe fees to defray the cost of enforcement of rules and regulations promulgated by the Department of Housing and Community Development. The amount of the fees shall not exceed the amount reasonably necessary to administer or process permits, certificates, forms or other documents, or to defray the costs of enforcement. For additional information, see the State Housing Law, Health and Safety Code, Division 13, Part 1.5, Section 17951 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, Article 3, commencing with Section 6.

~~108.4.3~~ **1.8.4.3 Plan review and time limitations.** Subject to other provisions of law, provisions related to plan checking, prohibition of excessive delays and contracting with or employment of private parties to perform plan checking are set forth in the State Housing Law, Health and Safety Code Section 17960.1, and for employee housing, in Health and Safety Code Section 17021.

~~108.4.3.1~~ **1.8.4.3.1 Retention of plans.** The building department of every city, county or city and county shall maintain an official copy, microfilm, electronic or other type of photographic copy of the plans of every building, during the life of the building, for which the department issued a building permit.

Exceptions:

1. Single or multiple dwellings not more than two stories and basement in height.
2. Garages and other structures appurtenant to buildings listed in Exception 1.
3. Farm or ranch buildings appurtenant to buildings listed in Exception 1.
4. Any one-story building where the span between bearing walls does not exceed 25 feet (7620 mm), except a steel frame or concrete building.

All plans for common interest developments as defined in Section 1351 of the California Civil Code shall be retained. For additional information regarding plan retention and reproduction of plans by an enforcing agency, see Health and Safety Code Sections 19850 ~~and 19854~~ through 19852.

~~408.4.4~~ **1.8.4.4 Inspections.** Construction or work for which a permit is required shall be subject to inspection by the building official and such construction or work shall remain accessible and exposed for inspection purposes until approved. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this code or other regulations of the Department of Housing and Community Development. Required inspections are listed in ~~Appendix Chapter 1, Administration, Division II, Sections 409.3.4~~ 110.3.1 through ~~409.3.6~~ 110.3.6, ~~409.3.8~~ 110.3.8, ~~409.3.9~~ 110.3.9 and ~~409.3.10~~ 110.3.10.

~~SECTION 408.5~~ **1.8.5** ~~RIGHT OF ENTRY~~ **RIGHT OF ENTRY FOR ENFORCEMENT**

~~408.5.1~~ **1.8.5.1 General.** Subject to other provisions of law, officers and agents of the enforcing agency may enter and inspect public and private properties to secure compliance with the rules and regulations promulgated by the Department of Housing and Community Development. For limitations and additional information regarding enforcement, see the following:

1. For applications subject to the State Housing Law as referenced in Section ~~408.3.2.1~~ 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Section 17910 ~~Sections 17970 through 17972~~ and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.
2. For applications subject to the Mobilehome Parks Act as referenced in Section ~~408.3.2.2~~ 1.8.3.2.2 of this code, refer to the Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200 and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000.
3. For applications subject to the Special Occupancy Parks Act as referenced in Section ~~408.3.2.3~~ 1.8.3.2.3 of this code, refer to Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.
4. For applications subject to the Employee Housing Act as referenced in Section ~~408.3.2.4~~ 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Section 17052 17000 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.
5. For applications subject to the Factory-Built Housing Law as referenced in Section ~~408.3.2.5~~ 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Sections 19960 through 19997 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.

~~SECTION 408.6~~ **1.8.6** **LOCAL MODIFICATION BY ORDINANCE OR REGULATION**

~~408.6.1~~ **1.8.6.1 General.** Subject to other provisions of law, a city, county or city and county may make changes to the provisions adopted by the Department of Housing and Community Development. If any city, county or city and county does not amend, add or repeal by local ordinances or regulations the provisions published in this code or other regulations promulgated by the Department of Housing and Community Development, those provisions shall be applicable and shall become effective 180 days after publication by the California Building Standards Commission. Amendments, additions and deletions to this code adopted by a city, county or city and county pursuant to California Health and Safety Code Sections 17958.5, 17958.7 and 18941.5, together with all applicable portions of this code, shall also become effective 180 days after publication of the California Building Standards Code by the California Building Standards Commission.

~~408.6.2~~ **1.8.6.2 Findings, filings, and rejections of local modifications.** Prior to making any modifications or establishing more restrictive building standards, the governing body shall make express findings and filings, as required by California Health and Safety Code Section 17958.7, showing that such modifications are reasonably necessary due to local climatic, geological, or topographical conditions. No modification shall become effective or operative unless the following requirements are met:

1. The express findings shall be made available as a public record.
2. A copy of the modification and express finding, each document marked to cross-reference the other, shall be filed with the California Building Standards Commission for ~~cities, counties or cities and counties,~~ a city, county or city and county and with the Department of Housing and Community Development for fire protection districts.
3. The California Building Standards Commission has not rejected the modification or change.

Nothing in this section shall limit the authority of fire protection districts pursuant to California Health and Safety Code Section 13869.7(a).

**SECTION ~~408.7~~ 1.8.7
ALTERNATE MATERIALS, DESIGNS, TESTS AND METHODS OF CONSTRUCTION**

~~408.7.1~~ **1.8.7.1 General.** The provisions of this code, as adopted by the Department of Housing and Community Development are not intended to prevent the use of any alternate material, appliance, installation, device, arrangement, ~~method~~-design or method of construction not specifically prescribed by this code. Consideration and approval of alternates shall comply with Section ~~408.7.2~~ **1.8.7.2** for local building departments and Section ~~408.7.3~~ **1.8.7.3** for the Department of Housing and Community Development.

~~408.7.2~~ **1.8.7.2 Local building departments.** The building department of any city, county or city and county may approve alternates for use in the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal, ~~or demolition~~ or arrangement of an apartment house, hotel, motel, lodging house, dwelling, or an accessory structure, except for the following:

1. Structures located in mobilehome parks as defined in California Health and Safety Code Section 18214.
2. Structures located in special occupancy parks as defined in California Health and Safety Code Section 18862.43.
3. Factory-built housing as defined in California Health and Safety Code Section 19971.

~~408.7.2.1~~ **1.8.7.2.1 Approval of alternates.** The consideration and approval of alternates by a local building department shall comply with the following procedures and limitations:

1. The approval shall be granted on a case-by-case basis.
2. Evidence shall be submitted to substantiate claims that the proposed alternate, in performance, safety and protection of life and health, conforms to, or is at least equivalent to, the standards contained in this code and other rules and regulations promulgated by the Department of Housing and Community Development.
3. The local building department may require tests performed by an approved testing agency at the expense of the owner or owner's agent as proof of compliance.
4. If the proposed alternate is related to accessibility in covered multifamily dwellings or in facilities serving "Covered multifamily dwellings" as defined in Chapter 11A, the proposed alternate must also meet the threshold set for "Equivalent Facilitation" as defined in Chapter 11A.

For additional information regarding approval of alternates by a building department pursuant to the State Housing Law, see California Health and Safety Code Section 17951(e) and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1.

~~408.7.3~~ **1.8.7.3 Department of Housing and Community Development.** The Department of Housing and Community Development may approve alternates for use in the erection, construction, reconstruction, movement, enlargement, conversion, alteration, repair, removal or demolition of an apartment house, hotel, motel, lodging house, dwelling or an accessory thereto. The consideration and approval of alternates shall comply with the following:

1. The department may require tests at the expense of the owner or owner's agent to substantiate compliance with the California Building Standards Code.
2. The approved alternate shall, for its intended purpose, be at least equivalent in performance and safety to the materials, designs, tests or methods of construction prescribed by this code.

**SECTION ~~408.8~~ 1.8.8
APPEALS BOARD**

~~408.8.1~~ 1.8.8.1 General. Every city, county or city and county shall establish a local appeals board and a housing appeals board. The local appeals board and housing appeals board shall each be comprised of at least five voting members that shall serve at the pleasure of the city, county or city and county. ~~Appointments~~ Appointees shall not be employees of the jurisdiction and shall ~~be consist of members who~~ are qualified and specifically knowledgeable in the California Building Standards Codes and applicable local ordinances.

~~408.8.2~~ 1.8.8.2 Definitions. The following terms shall for the purposes of this section have the meaning shown.

HOUSING APPEALS BOARD. The board or agency of a city, county or city and county which is authorized by the governing body of the city, county or city and county to hear appeals regarding the requirements of the city, county or city and county relating to the use, maintenance and change of occupancy of buildings and structures, including requirements governing alteration, additions, repair, demolition and moving. In any area in which there is no such board or agency, "Housing appeals board" means the local appeals board having jurisdiction over the area.

LOCAL APPEALS BOARD. The board or agency of a city, county or city and county which is authorized by the governing body of the city, county or city and county to hear appeals regarding the building requirements of the city, county or city and county. In any area in which there is no such board or agency, "Local appeals board" means the governing body of the city, county or city and county having jurisdiction over the area.

~~408.8.3~~ 1.8.8.3 Appeals. Except as otherwise provided in law, any person, firm or corporation adversely affected by a decision, order or determination by a city, county or city and county relating to the application of building standards published in the California Building Standards Code, or any other applicable rule or regulation adopted by the Department of Housing and Community Development, or any lawfully enacted ordinance by a city, county or city and county, may appeal the issue for resolution to the local appeals board or housing appeals board as appropriate.

The local appeals board shall hear appeals relating to new building construction and the housing appeals board shall hear appeals relating to existing buildings.

**SECTION ~~408.9~~ 1.8.9
UNSAFE BUILDINGS OR STRUCTURES**

~~408.9.1~~ 1.8.9.1 Authority to enforce. Subject to other provisions of law, the administration, enforcement, actions, proceedings, abatement, violations and penalties for unsafe buildings and structures are contained in the following statutes and regulations:

1. For applications subject to the State Housing Law as referenced in Section ~~408.3.2.4~~ 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Sections 17910 through 17995.5 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.
2. For applications subject to the Mobilehome Parks Act as referenced in Section ~~408.3.2.2~~ 1.8.3.2.2 of this code, refer to ~~the~~ Health and Safety Code, Division 13, Part 2.1, commencing with Section 18200, and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000.
3. For applications subject to the Special Occupancy Parks Act as referenced in Section ~~408.3.2.3~~ 1.8.3.2.3 of this code, refer to ~~the~~ Health and Safety Code, Division 13, Part 2.3, commencing with Section 18860, and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.

4. For applications subject to the Employee Housing Act as referenced in Section ~~408.3.2.4~~ 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Sections 17000 through 17062.5 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.

5. For applications subject to the Factory-Built Housing Law as referenced in Section ~~408.3.2.5~~ 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Sections 19960 through 19997 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.

~~408.9.2~~ 1.8.9.2 Actions and proceedings. Subject to other provisions of law, punishments, penalties and fines for violations of building standards are contained in the following statutes and regulations:

1. For applications subject to the State Housing Law as referenced in Section ~~408.3.2.1~~ 1.8.3.2.1 of this code, refer to Health and Safety Code, Division 13, Part 1.5, commencing with Sections 17910 through 17995.5 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 1, commencing with Section 1.

2. For applications subject to the Mobilehome Parks Act as referenced in Section ~~408.3.2.2~~ 1.8.3.2.2 of this code, refer to Health and Safety Code, Division 13, Part 2.1, commencing with Sections 18200 through 18700 and California Code of Regulations, Title 25, Division 1, Chapter 2, commencing with Section 1000.

3. For applications subject to the Special Occupancy Parks Act as referenced in Section ~~408.3.2.3~~ 1.8.3.2.3 of this code, refer to Health and Safety Code, Division 13, Part 2.3, commencing with Sections 18860 through 18869 and California Code of Regulations, Title 25, Division 1, Chapter 2.2, commencing with Section 2000.

4. For applications subject to the Employee Housing Act as referenced in Section ~~408.3.2.4~~ 1.8.3.2.4 of this code, refer to Health and Safety Code, Division 13, Part 1, commencing with Sections 17000 through 17062.5 and California Code of Regulations, Title 25, Division 1, Chapter 1, Subchapter 3, commencing with Section 600.

5. For applications subject to the Factory-Built Housing Law as referenced in Section ~~408.3.2.5~~ 1.8.3.2.5 of this code, refer to Health and Safety Code, Division 13, Part 6, commencing with Sections 19960 through 19997 and California Code of Regulations, Title 25, Division 1, Chapter 3, Subchapter 1, commencing with Section 3000.

SECTION ~~408.40~~ 1.8.10 OTHER BUILDING REGULATIONS

~~408.40.1~~ 1.8.10.1 Existing structures. Subject to the requirements of California Health and Safety Code Sections 17912, 17920.3, 17922~~(e)~~, 17922.3, 17958.8 and 17958.9, the provisions contained in Chapter 34 relating to existing structures shall only apply as identified in the Matrix Adoption Table under the authority of the Department of Housing and Community Development as listed in Sections ~~408.2.1.1~~ 1.8.2.1.1 through ~~408.2.1.3~~ 1.8.2.1.3 of this code.

~~408.40.2~~ 1.8.10.2 Moved structures. Subject to the requirements of California Health and Safety Code Sections 17922.3 and 17958.9, the provisions contained in Chapter 34 relating to a moved residential structure shall only apply as identified in the Matrix Adoption Table under the authority of the Department of Housing and Community Development as listed in Sections ~~408.2.1.1~~ 1.8.2.1.1 through ~~408.2.1.3~~ 1.8.2.1.3 of this code.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

1-A. HCD proposes to adopt Sections 105.2 (1) – (13), 110.3.1, 110.3.2, 110.3.3, 110.3.4, 110.3.5, 110.3.6, 110.3.8, 110.3.9 and 110.3.10 without amendments, amend the heading of former "Appendix Chapter 1, Administration," to "Administration, Division II" and amend Section 101.4 as follows:

APPENDIX CHAPTER 1

ADMINISTRATION

DIVISION II

(Chapter 1, Administration, has been relocated from Appendix Chapter 1 and renamed Division II)

*Appendix Chapter 1 is not adopted by:
California Building Standards Commission
Housing and Community Development
Office of the State Fire Marshal*

Sections adopted or amended by state agencies are ~~Except where~~ specifically indicated by an agency banner or identified in the Mmatrix Adoption Table

101.4 Referenced codes. The other codes listed in ~~Appendix Chapter 1~~, Sections 101.4.1 through 101.4.7 and referenced elsewhere in this code shall be considered part of the requirements of this code to the prescribed extent of each such reference.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

2. HCD proposes to adopt Chapter 2 with amendments as follows:

**CHAPTER 2
DEFINITIONS**

**SECTION 201
GENERAL**

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the *California Fire Code, California Mechanical Code or California Plumbing Code*, such terms shall have the meanings ascribed to them as in those codes.

**SECTION 202
DEFINITIONS**

ACCESSIBILITY. ~~[HCD 1-AC] See Chapter 11A, Section 1107A.1-A, and Chapter 11B, Section 1102B.~~

ACCESSIBLE. ~~See Section 1102.4~~ **[HCD 1-AC]** See Chapter 11A, Section 1107A.1-A, and Chapter 11B, Section 1102B.

ACCESSIBLE ROUTE. ~~See Section 1102.4~~ **[HCD 1-AC]** See Chapter 11A, Section 1107A.1-A.

ACCESSIBLE UNIT. ~~See Section 1102.4~~

ADAPTABLE DWELLING UNIT. [HCD 1-AC] See Chapter 11A, Section 1107A.1-A.
APPROVED. Acceptable to the code official or authority having jurisdiction.

[HCD 1 & HCD 2] “Approved” means meeting the approval of the enforcing agency, except as otherwise provided by law, when used in connection with any system, material, type of construction, fixture or appliance as the result of investigations and tests conducted by the agency, or by reason of accepted principles or tests by national authorities or technical, health or scientific organizations or agencies.

Notes: [HCD 1 & HCD 2]

1. See Health and Safety Code Section 17920 for “Approved” as applied to residential construction and buildings or structures accessory thereto, as referenced in Section ~~408-2-1-4~~ 1.8.2.1.1.
2. See Health and Safety Code Section 17921.1 for “Approved” as applied to the use of hotplates in residential construction referenced in Section ~~408-2-1-4~~ 1.8.2.1.1.
3. See Health and Safety Code Section 17921.3 for “Approved” as applied to low-flush water closets in residential construction, as referenced in Section ~~408-2-1-4~~ 1.8.2.1.1.
4. See Health and Safety Code Section 19966 for “Approved” as applied to factory-built housing as referenced in Section ~~408-3-2-5~~ 1.8.3.2.5.
5. See Health and Safety Code Section 18201 for “Approved” as applied to mobilehome parks as referenced in Section ~~408-2~~ 1.8.2.1.3.
6. See Health and Safety Code Section 18862.1 for “Approved” as applied to special occupancy parks as referenced in Section ~~408-2~~ 1.8.2.1.3.

APPROVED LISTING AGENCY. [HCD 1 & HCD 2] is ~~a~~ Any agency approved by the enforcing agency, unless otherwise provided by ~~statute law~~, 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. [HCD 1 & HCD 2] is ~~a~~ Any agency, which is determined by the enforcing agency, except as otherwise provided by ~~statute law~~, to have adequate personnel and expertise to carry out the testing of systems, materials, types of construction, fixtures or appliances.

ASSISTIVE DEVICE. [HCD 1-AC] See Chapter 11A, Section 1107A.1-A.

AUTOMATIC DOOR. [HCD 1-AC] See Chapter 11A, Section 1107A.1-A, and Chapter 11B, Section 1102B.

BATHROOM. [HCD 1-AC] See Chapter 11A, Section 1107A.2-B.

BUILDING. Any structure used or intended for supporting or sheltering any use or occupancy.

Exception: [HCD 1, HCD 2 & HCD 1-AC] For applications listed in Section ~~408-2~~ 1.8.2 regulated by the Department of Housing and Community Development, “Building” shall not include the following:

1. Any mobilehome as defined in Health and Safety Code Section 18008.
2. Any manufactured home as defined in Health and Safety Code Section 18007.
3. Any commercial modular as defined in Health and Safety Code Section 18001.8 or any special purpose commercial modular as defined in Section 18012.5.
4. Any recreational vehicle as defined in Section Health and Safety Code 18010.
5. Any ~~multi-unit~~ multifamily manufactured ~~housing~~ home as defined in Health and Safety Code Section 18008.7.

For additional information, see Health and Safety Code Section 18908.

BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE. [HCD 1-AC] See Chapter 11A, Section 1107A.2-B.

BUILDING, EXISTING. [HCD 1 & HCD 2] ~~is a~~ building erected prior to the adoption of this code, or one for which a legal building permit has been issued.

CELLULAR CONCRETE. [HCD 1 & HCD 2] ~~is a~~ lightweight product consisting of portland cement and selected gas-forming chemicals or foaming agents which create homogeneous voids in the hardened concrete.

CIRCULATION PATH. ~~See Section 1102.4~~ **[HCD 1-AC].** See Chapter 11B, Section 1102B.

COMMON USE. ~~See Section 1102.1.~~

COMMON USE AREAS. [HCD 1-AC] See Chapter 11A, Section 1107A.3-C, and Chapter 11B, Section 1102B.

CONCRETE, CELLULAR. See Section 721.1.1. **[HCD 1 & HCD 2]** See "Cellular concrete."

COVERED MULTIFAMILY DWELLINGS. [HCD 1-AC] See Chapter 11A, Section 1107A.3-C.

CROSS SLOPE. [HCD 1-AC] See Chapter 11A, Section 1107A.3-C, and Chapter 11B, Section 1102B.

CURB CUT. [HCD 1-AC] See Chapter 11A, Section 1107A.3-C, and Chapter 11B, Section 1102B.

CURB RAMP. [HCD 1-AC] See Chapter 11A, Section, 1107A.3-C, and Chapter 11B, Section 1102B.

DEPARTMENT. [HCD 1 & HCD 2] ~~is t~~he Department of Housing and Community Development.

DETACHED SINGLE-FAMILY DWELLING. [HCD 1 & HCD 2] ~~is a~~Any single-family dwelling which is separated from adjacent property lines by 3 feet (914 mm) or more or is separated from adjacent buildings by 6 feet (1829 mm) or more.

DETECTABLE WARNING DETECTABLE WARNING. ~~See Section 1102.4.~~ **[HCD 1-AC]** See Chapter 11A, Section 1107A.4-D, and Chapter 11B, Section 1102B.

DIRECTIONAL SIGN. [HCD 1 & HCD 2] ~~is a~~ publicly displayed notice which indicates by use of words or symbols a recommended direction or route of travel.

DWELLING UNIT. A single unit providing complete, independent living facilities for one or more persons, including permanent provisions for living, sleeping, eating, cooking and sanitation.

[HCD 1- AC] See Chapter 11A, Section 1107A.4-D, and Chapter 11B, Section 1102B.

DWELLING UNIT OR SLEEPING UNIT, MULTISTORY. ~~See Section 1102.1.~~

DWELLING UNIT OR SLEEPING UNIT, TYPE A. ~~See Section 1102.1.~~

DWELLING UNIT OR SLEEPING UNIT, TYPE B. ~~See Section 1102.1.~~

EFFICIENCY DWELLING UNIT. [HCD 1] ~~is a~~ dwelling unit containing only one habitable room and includes an efficiency unit as defined by Health and Safety Code Section 17958.1. See Section 1208.4.

ELEVATOR, PASSENGER. [DSA-AC] See Chapter 11B, Section 1102B. **[HCD 1 & HCD 2]** See "PASSENGER ELEVATOR."

ENFORCEMENT. [HCD 1 & HCD 2] The applicable section of the Health and Safety Code is repeated here for clarity and reads as follows:

Section 17920. "Enforcement" means diligent effort to secure compliance, including review of plans and permit applications, response to complaints, citation of violations, and other legal process. Except as otherwise provided in this part, "Enforcement" may, but need not, include inspections of existing buildings on which no complaint or permit application has been filed, and effort to secure compliance as to these existing buildings.

ENFORCING AGENCY. ~~[HCD 1 & HCD 2] is~~ [HCD 1 & HCD 2] ~~is~~ The designated department or agency as specified by statute or regulation.

EQUIVALENT FACILITATION. **[HCD 1-AC]** See Chapter 11A, Section 1107A.5-E, and Chapter 11B, Section 1102B.

FACILITY. ~~See Section 1102.1~~

FACILITY (OR FACILITIES). **[HCD 1-AC]** See Chapter 11A, Section 1107A.6-F, and Chapter 11B, Section 1102B.

FAMILY. [HCD 1] is ~~a~~ An individual or two or more persons who are related by blood or marriage; or otherwise, live together in a dwelling unit.

GRAB BAR. **[HCD 1-AC]** See Chapter 11A, Section 1107A.7-G, and Chapter 11B, Section 1102B.

GRADE (Adjacent Ground Elevation) **[HCD 1-AC]** *is the lowest point of elevation of the finished surface of the ground, paving or sidewalk within the area between the building and the property line or, when the property line is more than 5 feet (1524 mm) from the building, between the building and a line 5 feet (1524 mm) from the building. See Health and Safety Code Section 19955.3 (d).*

GROUND FLOOR. **[HCD 1-AC]** See Chapter 11A, Section 1107A.7-G.

GUARD **[HCD 1 & HCD 2]** ~~or~~ OR GUARDRAIL. See Section 1002.1.

IMPACT INSULATION CLASS (IIC). See Chapter 12, Section 1207.2.

INTENDED TO BE OCCUPIED AS A RESIDENCE. ~~See Section 1102.1.~~

INTERNATIONAL SYMBOL OF ACCESSIBILITY. **[HCD 1-AC]** See Chapter 11A, Section 1107A.9-I, and Chapter 11B, Section 1102B.

KICK PLATE. **[HCD 1-AC]** See Chapter 11A, Section 1107A.11-K, and Chapter 11B, Section 1102B.

LABELED. Equipment, materials or products to which have been affixed a label, seal, symbol or other identifying mark of a nationally recognized testing laboratory, inspection agency or other organization concerned with product evaluation that maintains periodic inspection of the production of the above-labeled items and whose labeling indicates either that the equipment, material or product meets identified standards or has been tested and found suitable for a specified purpose.

[HCD 1 & HCD 2] “Labeled” means equipment or materials to which has been attached a label, symbol or other identifying mark of an organization, approved by the Department, that maintains a periodic inspection program of production of labeled products, installations, equipment, or materials and by whose labeling the manufacturer indicates compliance with appropriate standards or performance in a specified manner.

LEVEL AREA. **[HCD 1-AC]** See Chapter 11A, Section 1107A.12-L, and Chapter 11B, Section 1102B.

LIFT, PLATFORM (WHEELCHAIR). **[HCD 1-AC]** See “Platform (Wheelchair) Lift” Chapter 11A, Section 1107A.16-P, and Chapter 11B, Section 1102B.

LISTED. Equipment, materials, products or services included in a list published by an organization acceptable to the code official and concerned with evaluation of products or services that maintains periodic inspection of production of listed equipment or materials or periodic evaluation of services and whose listing states either that the equipment, material, product or service meets identified standards or has been tested and found suitable for a specified purpose.

[HCD 1 & HCD 2] “Listed” means all products that appear in a list published by an approved testing or listing agency. For additional information, see Health and Safety Code Section 17920(h).

LISTING AGENCY. ~~[HCD 1 & HCD 2] means a~~An agency approved by the department that is in the business of listing and labeling products, materials, equipment and installations tested by an approved testing agency, and that maintains a periodic inspection program on current production of listed products, equipment and installations, and that, at least annually, makes available a published report of these listings. For additional information, see Health and Safety Code Section 17920(i).

LOBBY. ~~[HCD 1 & HCD 2] is a~~An area not defined as a waiting room at the entrance of a building through which persons must pass.

LODGING HOUSE. ~~[HCD 1] is a~~Any building or portion thereof containing not more than five guest rooms where rent is paid in money, goods, labor or otherwise.

MARKED CROSSING. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.13-M, and Chapter 11B, Section 1102B.

MULTILEVEL ASSEMBLY SEATING. ~~See Section 1102.1.~~

MULTISTORY DWELLING UNIT. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.13-M.

MULTISTORY UNITS. ~~See Section 1102.1.~~

NEWLY CONSTRUCTED. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.14-N.

NORMAL. ~~[HCD 1 & HCD 2] shall mean a~~Conforming to a pattern or standard regarded as usual or typical.

NOSING (or NOSE OR NOSE). See Section 1002.1. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.14-N, and Chapter 11B, Section 1102B.

OPEN RISER. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.15-O, and Chapter 11B, Section 1102B.

PASSAGE DOOR. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.16-P, and Chapter 11B, Section 1102B.

PASSENGER ELEVATOR. ~~[HCD 1 & HCD 2] "Passenger Elevator" is an elevator used primarily to carry persons. For additional information, see California Code of Regulations, Title 24, Part 7, Article 7-6, Section 3009 of the 2001 California Building Code Title 8, Division 1, Chapter 4.~~

PASSIVE SOLAR ENERGY COLLECTOR. ~~[HCD 1 & HCD 2] u~~Uses architectural components, rather than mechanical components, to provide heating or cooling for a building interior.

PEDESTRIAN. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.16-P, and Chapter 11B, Section 1102B.

PEDESTRIAN RAMP. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.16-P, and Chapter 11B, Section 1102B.

PEDESTRIAN WAY. ~~[HCD 1-AC]~~ See Chapter 11A, Section ~~1107A, 16-P~~1107A.16-P, and Chapter 11B, Section 1102B.

PERSONS WITH DISABILITIES. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.16-P.

PLATFORM (WHEELCHAIR) LIFT. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.16-P, and Chapter 11B, Section 1102B.

POWDER ROOM. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.16-P.

PRIMARY ENTRY. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.16-P.

PRIMARY ENTRY LEVEL. ~~[HCD 1-AC]~~ See Chapter 11A, Section 1107A.16-P.

PUBLIC ACCOMMODATION ~~[HCD 1 & HCD 2]~~ includes, but is not limited to, any public use building or facility that may be classified into one or more of the following categories:

1. *Places of public lodging.*
2. *Establishments serving food or drink open to public use.*
3. *Places of exhibition or entertainment open to public use.*
4. *Places of public gathering.*
5. *Sales or rental establishments open to public use.*
6. *Service establishments open to public use.*
7. *Stations used for public transportation.*
8. *Places of public display or collection.*
9. *Places of public recreation.*
10. *Places of public education.*
11. *Social service center establishments open to public use.*
12. *Places of exercise or recreation open to public use.*

Examples of public accommodations for purposes of this code shall include, but not be limited to, the following private entities:

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

PUBLIC ENTRANCE. ~~See Section 1102.1.~~ **[HCD 1-AC]** ~~is a~~ *An entrance that is not a service entrance or a restricted entrance.*

PUBLIC-USE AREAS. ~~See Section 1102.1.~~ **[HCD 1-AC]** *See Chapter 11A, Section 1107A.16-P, and Chapter 11B, Section 1102B.*

PUBLICLY FUNDED. **[HCD 1 & HCD 2]** ~~f~~*For the purpose of housing, all buildings, structures, sidewalks, curbs and related facilities constructed in the state and used or intended to be used as a public use area, as defined in Section 1107A.16-P, shall comply with the accessibility standards of Chapter 11B of this code when state, county or municipal funds, or funds of any political subdivision of the state are used.*

RAMP. See Section 1002.1 **[HCD 1-AC]** *See Chapter 11A, Section 1107A.18-R, and Chapter 11B, Section 1102B.*

RECOMMEND. **[HCD 1 & HCD 2]** ~~d~~*Does not require mandatory acceptance, but identifies a suggested action that shall be considered for the purpose of providing a greater degree of accessibility to persons with disabilities.*

RESTRICTED ENTRANCE. ~~See Section 1102.1.~~ **[HCD 1, HCD 2 & HCD 1-AC]** ~~is a~~ *An entrance that is made available for common use on a controlled basis, but is not public use, and that is not a service entrance.*

RISER. [~~HCD 1 & HCD 2~~ **HCD 1-AC**] See Chapter 11A, Section 1107A.18-R, and Chapter 11B, Section 1102B.

SANITARY FACILITY. [~~HCD 1 & HCD 2~~] is a Any single water closet, urinal, lavatory, bathtub or shower, or a combination thereof, together with the room or space in which they are housed.

SELF-SERVICE STORAGE FACILITY. See Section 1102.1.

SERVICE ENTRANCE. See Section 1102.1 [~~HCD 1-AC~~] is a An entrance intended primarily for the delivery of goods or services.

SHOPPING CENTER (or OR SHOPPING MALL). [~~HCD 2~~] See Chapter 11B, Section 1102B.

SHOULD. [~~HCD 1 & HCD 2~~] See "Recommend."

SIDEWALK. [~~HCD 1-AC~~] is a A surfaced pedestrian way contiguous to a street used by the public. (As differentiated from the definition of "Walk" in Chapter 11A, Section 1107A.23-W, and Chapter 11B, Section 1102B.)

SINGLE-ACCOMMODATION SANITARY FACILITY. [~~HCD 1 & HCD 2~~ **HCD 1-AC**] is a 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.

SITE. See Section 1102.1. [~~HCD 1 & HCD 2~~] is a A parcel of land bounded by a property line or a designated portion of a public right-of-way.

SITE DEVELOPMENT. [~~HCD 1-AC~~] is a "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.

SLEEPING ACCOMMODATIONS. [~~HCD 1-AC~~] See Chapter 11A, Section 1107A.19-S, and Chapter 11B, Section 1102B.

SLOPE. [~~HCD 1-AC~~] See Chapter 11A, Section 1107A.19-S.

SOUND TRANSMISSION CLASS (STC). [~~HCD 1 & HCD 2~~] See Chapter 12, Section 1207.2.

SPACE. [~~HCD 2~~] is a A definable area, e.g., a room, toilet room, hall, assembly area, entrance, storage room, alcove, courtyard, or lobby.

TACTILE. [~~HCD 2~~ **HCD 1-AC**] Describes an object that can be perceived using the sense of touch.

TESTING AGENCY. [~~HCD 1 & HCD 2~~] means a An agency approved by the department as qualified and equipped for testing of products, materials, equipment and installations in accordance with nationally recognized standards. For additional information, see Health and Safety Code Section 17920(m).

TRANSIENT LODGING. [~~HCD 1-AC~~] See Chapter 11A, Section 1107A.20-T, and Chapter 11B, Section 1102B and Chapter 11A, Section 1107A.20-T.

TREAD. [~~HCD 1-AC~~] See Chapter 11A, Section 1107A.20-T, and Chapter 11B, Section 1102B.

TREAD DEPTH. [~~HCD 1-AC~~] See Chapter 11A, Section 1107A.20-T, and Chapter 11B, Section 1102B.

TREAD RUN. [~~HCD 1-AC~~] See Chapter 11A, Section 1107A.20-T, and Chapter 11B, Section 1102B.

TYPE A UNIT. See Section 1102.1.

TYPE B UNIT. See Section 1102.1.

VEHICULAR OR PEDESTRIAN ARRIVAL POINTS VEHICULAR OR PEDESTRIAN ARRIVAL POINTS. [~~HCD 1-AC~~] See Chapter 11A, Section 1107.22-V.

WALK. [~~HCD 1-AC~~] See Chapter 11A, Section 1107A.23-W, and Chapter 11B, Section 1102B.

WHEELCHAIR. ~~[HCD 1-AC] 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 SPACE. ~~See Section 1102.4 [HCD 1-AC] is s~~Space for a single wheelchair and its occupant.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

3. HCD proposes to adopt Chapter 3 with amendments as follows:

CHAPTER 3

USE AND OCCUPANCY CLASSIFICATION

SECTION 302 CLASSIFICATION

302.1 General. Structures or portions of structures shall be classified with respect to occupancy in one or more of the groups listed below. A room or space that is intended to be occupied at different times for different purposes shall comply with all of the requirements that are applicable to each of the purposes for which the room or space will be occupied. Structures with multiple occupancies or uses shall comply with Section 508. Where a structure is proposed for a purpose that is not specifically provided for in this code, such structure shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard involved.

1. Assembly (see Section 303): Groups A-1, A-2, A-3, A-4 and A-5
2. Business (see Section 304): Group B
3. Educational (see Section 305): Group E
4. Factory and Industrial (see Section 306): Groups F-1 and F-2
5. High Hazard (see Section 307): Groups H-1, H-2, H-3, H-4 and H-5
6. Institutional (see Section 308): Groups I-1, I-2, I-3 and I-4
7. Mercantile (see Section 309): Group M
8. Residential (see Section 310): Groups R-1, R-2, R-3, R-3.1 and R-4
9. Storage (see Section 311): Groups S-1 and S-2
10. Utility and Miscellaneous (see Section 312): Group U

SECTION 308 INSTITUTIONAL GROUP I

308.2 Group I-1. This occupancy shall include buildings, structures or parts thereof housing more than 16 persons, on a 24-hour basis, who because of age, mental disability or other reasons, live in a supervised residential environment that provides personal care services. The occupants are capable of responding to an emergency situation without physical assistance from staff. This group shall include, but not be limited to, the following:

Alcohol and drug centers
Assisted living facilities
Congregate care facilities
Convalescent facilities
Group homes
Halfway houses
Residential board and care facilities
Social rehabilitation facilities

A facility such as the above with five or fewer persons shall be classified as a Group R-3 or shall comply with the ~~International~~ *California* Residential Code ~~in accordance with Section 101.2~~. A facility such as above, housing at least six and not more than 16 persons, shall be classified as Group R-4.

308.5 Group I-4, day care facilities. This group shall include buildings and structures occupied by persons of any age who receive custodial care for less than 24 hours by individuals other than parents or guardians, relatives by blood, marriage or adoption, and in a place other than the home of the person cared for. A facility such as the above with ~~five~~ six or fewer persons shall be classified as a Group R-3 or shall comply with the ~~International~~ *California* Residential Code ~~in accordance with Section 101.2~~. Places of worship during religious functions are not included.

SECTION 310 RESIDENTIAL GROUP R

310.1 Residential Group R. Residential Group R includes, among others, the use of a building or structure, or a portion thereof, for sleeping purposes when not classified as an Institutional Group I or when not regulated by the ~~International~~ *California* Residential Code ~~in accordance with Section 101.2~~. Residential occupancies shall include the following:

R-1 Residential occupancies containing sleeping units where the occupants are primarily transient in nature, including:

Boarding houses (transient)
Hotels (transient)
Motels (transient)
[HCD 1] Efficiency dwelling units (transient)

Congregate living facilities (transient) with 10 or fewer occupants are permitted to comply with the construction requirements for Group R-3

R-2 Residential occupancies containing sleeping units or more than two dwelling units where the occupants are primarily permanent in nature, including:

Apartment houses
Boarding houses (not transient)
Convents
Dormitories
Fraternities and sororities
Hotels (nontransient)
Live/work units
Monasteries
Motels (nontransient)
Vacation timeshare properties
[HCD 1] Efficiency dwelling units (nontransient)

Congregate living facilities with 16 or fewer occupants are permitted to comply with the construction requirements for Group R-3.

R-3 Residential occupancies where the occupants are primarily permanent in nature and not classified as Group R-1, R-2, R-3.1, R-4 or I, including:

Buildings ~~other than townhouses~~ that do not contain more than two dwelling units.

~~Townhouses not more than three stories above grade in height with a separate means of egress.~~

Adult care facilities that provide accommodations for ~~five or fewer persons~~ clients of any age for less than 24-hours. *Licensing categories that may use this classification include, but are not limited to: Adult Day-care Facilities, Adult Day-support Center.*

Child care facilities that provide accommodations for ~~five or fewer persons~~ clients of any age for less than 24-hours. *Licensing categories that may use this classification include, but are not limited to: Family Day-care Homes, Day-care Center for Mildly Ill Children, Infant Care Center and School Age Child Day-care Center.*

Congregate living facilities with 16 or fewer persons.

Adult care and child care facilities that are within a single-family home are permitted to comply with the *International Residential Code*.

R-3.1 [HCD 1] *This occupancy group may include facilities licensed by a governmental agency for a residentially based 24-hour care facility providing accommodations for six or fewer clients of any age. Clients may be classified as ambulatory, nonambulatory or bedridden. A Group R-3.1 occupancy shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in Section 425, Special Provisions for Licensed 24-Hour Care Facilities in a Group I-1, R-3.1 or R-4 Occupancy.*

R-4 Residential occupancies shall include buildings arranged for occupancy as residential care/assisted living facilities including more than ~~five six but not more than 16~~ ambulatory occupants clients, excluding staff.

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the ~~International~~ *California Residential Code* provided the building is protected by an automatic sprinkler system installed in accordance with Section 903.2.7.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

4. HCD proposes to adopt Chapter 4 with amendments as follows:

CHAPTER 4

SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

SECTION 406

MOTOR-VEHICLE-RELATED OCCUPANCIES

406.1.5 Automatic garage door openers. Automatic garage door openers, if provided, shall be listed in accordance with UL 325. *See Health and Safety Code Sections 19890 and 19891 for additional provisions for residential garage door openers.*

406.2.2 Clear height. The clear height of each floor level in vehicle and pedestrian traffic areas shall not be less than 7 feet (2134 mm). ~~Vehicle and pedestrian areas accommodating van accessible parking required by Section 1106.5 shall conform to ICC A117.1~~ **[HCD 1-AC]** The clear height of vehicle and pedestrian areas required to be accessible shall comply with Chapter 11A or Chapter 11B, as applicable.

406.4.2 Ventilation. A mechanical ventilation system shall be provided in accordance with the ~~International~~ California Mechanical Code.

406.6.3 Ventilation.

Repair garages shall be mechanically ventilated in accordance with the ~~International~~ California Mechanical Code. The ventilation system shall be controlled at the entrance to the garage

406.6.5 Heating equipment.

Heating equipment shall be installed in accordance with the ~~International~~ California Mechanical Code.

**SECTION 409
MOTION PICTURE PROJECTION ROOMS**

409.3 Projection room and equipment ventilation. Ventilation shall be provided in accordance with the ~~International~~ California Mechanical Code.

**SECTION 414
HAZARDOUS MATERIALS**

414.1.2 Materials. The safe design of hazardous material occupancies is material dependent. Individual material requirements are also found in Sections 307 and 415, and in the ~~International~~ California Mechanical Code and the International Fire Code.

414.3 Ventilation. Rooms, areas or spaces of Group H in which explosive, corrosive, combustible, flammable or highly toxic dusts, mists, fumes, vapors or gases are or may be emitted due to the processing, use, handling or storage of materials shall be mechanically ventilated as required by the International Fire Code and the ~~International~~ California Mechanical Code.

Ducts conveying explosives or flammable vapors, fumes or dusts shall extend directly to the exterior of the building without entering other spaces. Exhaust ducts shall not extend into or through ducts and plenums.

Exception: Ducts conveying vapor or fumes having flammable constituents less than 25 percent of their lower flammable limit (LFL) are permitted to pass through other spaces.

Emissions generated at workstations shall be confined to the area in which they are generated as specified in the International Fire Code and the ~~International~~ California Mechanical Code.

The location of supply and exhaust openings shall be in accordance with the ~~International~~ California Mechanical Code. Exhaust air contaminated by highly toxic material shall be treated in accordance with the International Fire Code.

A manual shutoff control for ventilation equipment required by this section shall be provided outside the room adjacent to the principal access door to the room. The switch shall be of the break-glass type and shall be labeled: VENTILATION SYSTEM EMERGENCY SHUTOFF.

414.5.4 Standby or emergency power. Where mechanical ventilation, treatment systems, temperature control, alarm, detection or other electrically operated systems are required, such systems shall be provided with an emergency or standby power system in accordance with ~~Chapter 27~~ the California Electrical Code.

Exceptions:

1. Mechanical ventilation for storage of Class IB and Class IC flammable and combustible liquids in closed containers not exceeding 6.5 gallons (25 L) capacity.
2. Storage areas for Class 1 and 2 oxidizers.

3. Storage areas for Class II, III, IV and V organic peroxides.
4. Storage, use and handling areas for asphyxiant, irritant and radioactive gases.
5. For storage, use and handling areas for highly toxic or toxic materials, see Sections 3704.2.2.8 and 3704.3.4.2 of the *International Fire Code*.
6. Standby power for mechanical ventilation, treatment systems and temperature control systems shall not be required where an approved fail-safe engineered system is installed.

**SECTION 415
GROUPS H-1, H-2, H-3, H-4 AND H-5**

415.6.1.4 Explosion control. Explosion control shall be provided as specified in the *International Fire Code*, or spaces shall be equipped with the equivalent mechanical ventilation complying with the ~~International~~ *California Mechanical Code*.

415.6.2 Flammable and combustible liquids. The storage, handling, processing and transporting of flammable and combustible liquids in Group H-2 and H-3 occupancies shall be in accordance with Sections 415.6.2.1 through 415.6.2.10, the ~~International~~ *California Mechanical Code* and the *International Fire Code*.

415.6.2.8 Room ventilation. Storage tank areas storing Class I, II or IIIA liquids shall be provided with mechanical ventilation. The mechanical ventilation system shall be in accordance with the ~~International~~ *California Mechanical Code* and the *International Fire Code*.

415.6.3 Liquefied petroleum gas facilities. The construction and installation of liquefied petroleum gas facilities shall be in accordance with the requirements of this code, the *International Fire Code*, the ~~International~~ *California Mechanical Code*, the California Plumbing Code, ~~the International Fuel Gas Code~~ and NFPA 58.

415.6.4 Dry cleaning plants. The construction and installation of dry cleaning plants shall be in accordance with the requirements of this code, the ~~International~~ *California Mechanical Code*, the ~~International~~ *California Plumbing Code* and NFPA 32. Dry cleaning solvents and systems shall be classified in accordance with the *International Fire Code*.

415.8.11.1 Exhaust ducts for HPM. An approved automatic sprinkler system shall be provided in exhaust ducts conveying gases, vapors, fumes, mists or dusts generated from HPM in accordance with this section and the ~~International~~ *California Mechanical Code*.

**SECTION 416
APPLICATION OF FLAMMABLE FINISHES**

416.3 Spraying spaces. Spraying spaces shall be ventilated with an exhaust system to prevent the accumulation of flammable mist or vapors in accordance with the ~~International~~ *California Mechanical Code*. Where such spaces are not separately enclosed, noncombustible spray curtains shall be provided to restrict the spread of flammable vapors.

**FORMER 2006 IBC SECTION 419
GROUP I-1, R-1, R-2, R-3**

~~**419.4 Townhouses. [HCD 1]** Each townhouse unit shall be considered a separate building and shall comply with the following:~~

- ~~1. Adjacent townhouse units shall each be provided with a 1-hour fire-resistance-rated wall assembly separating the units.~~
- ~~2. Openings are not permitted.~~
- ~~3. Penetrations shall comply with Section 712.~~

~~*Exception: In lieu of the two 1-hour walls a common 2-hour fire-resistance-rated wall shall be permitted for townhouses if such walls do not contain plumbing or mechanical equipment, ducts or vents in the cavity of the common wall. Electrical installations shall be installed in accordance with the California Electrical Code. Penetrations of electrical outlet boxes shall be in accordance with Section 712.*~~

~~For purposes of determining accessibility requirements to accommodate persons with disability, dwelling units within a single structure separated by a firewall do not constitute separate structures or buildings and are treated as a single building. For additional information, see Chapter 11A, Section 1102A.1.~~

~~**419.4.1 Continuity. [HCD 1]** The fire-resistance-rated wall or assembly separating townhouses shall be continuous from the foundation to the underside of the roof sheathing, deck or slab. The fire-resistance rating shall extend the full length of the wall or assembly, including wall extensions through and separating attached enclosed accessory structures.~~

~~**419.4.2 Parapets. [HCD 1]** Parapets constructed in accordance with Section 419.4.3 shall be constructed for townhouses as an extension of exterior walls or common walls in accordance with the following:~~

- ~~1. Where roof surfaces adjacent to the wall or walls are at the same elevation, the parapet shall extend not less than 30 inches (762 mm) above the roof surfaces.~~
- ~~2. Where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is not more than 30 inches (762 mm) above the lower roof, the parapet shall extend not less than 30 inches (762 mm) above the lower roof surface.~~

~~**Exception:** A parapet is not required in the two cases above when the roof is covered with a minimum class C roof covering, and the roof decking or sheathing is of noncombustible materials or approved fire-retardant treated wood for a distance of 4 feet (1219 mm) on each side of the wall or walls, or one layer of 5/8-inch (15.9 mm) Type X gypsum board is installed directly beneath the roof decking or sheathing, supported by a minimum of nominal 2-inch (51 mm) ledgers attached to the sides of the roof framing members, for a minimum distance of 4 feet (1220 mm) on each side of the wall or walls.~~

- ~~3. A parapet is not required where roof surfaces adjacent to the wall or walls are at different elevations and the higher roof is more than 30 inches (762 mm) above the lower roof. The common wall construction from the lower roof to the underside of the higher roof deck shall have not less than a 1-hour fire-resistance rating. The wall shall be rated for exposure from both sides.~~

~~**419.4.3 Parapet Construction. [HCD 1]** Parapets shall have the same fire-resistance rating as that required for the supporting wall or walls. On any side adjacent to a roof surface, the parapet shall have noncombustible faces for the uppermost 18 inches (457 mm), to include counterflashing and coping materials. Where the roof slopes toward a parapet at slopes greater than two units vertical in 12 units horizontal (16.7-percent slope), the parapet shall extend to the same height as any portion of the roof within a distance of 3 feet (914 mm), but in no case shall the height be less than 30 inches (762 mm).~~

~~**419.4.4 Structural Independence. [HCD 1]** Each individual townhouse shall be structurally independent.~~

~~**Exceptions:**~~

- ~~1. Foundations supporting exterior walls or common walls.~~
- ~~2. Structural roof and wall sheathing from each unit may fasten to the common wall framing.~~
- ~~3. Nonstructural wall coverings.~~
- ~~4. Flashing at termination of roof covering over common wall.~~
- ~~5. Townhouses separated by a common 2-hour fire-resistance-rated wall as provided in Section 419.4.~~

**SECTION 419
LIVE/WORK UNITS**

419.7 Accessibility. Accessibility shall be designed in accordance with Chapters 11A and 11B, when applicable.

419.8 Ventilation. The applicable requirements of the *International California Mechanical Code* shall apply to each area within the live/work unit for the function within that space.

**SECTION 420
GROUPS I-1, R-1, R-2, R-3**

420.4 Carbon monoxide alarms. [HCD 1, HCD 2 & HCD 1-AC]

420.4.1 Carbon monoxide alarms. *For new construction, an approved carbon monoxide alarm shall be installed in dwelling units and in sleeping units within which fuel-burning appliances are installed; and in dwelling units that have attached garages.*

420.4.1.1 Power supply. *For new construction, required carbon monoxide alarms shall receive their primary power from the building wiring where such wiring is served from a commercial source and shall be equipped with a battery back-up. Alarm wiring shall be directly connected to the permanent building wiring without a disconnecting switch other than as required for overcurrent protection.*

Exceptions:

1. *In dwelling units where there is no commercial power supply, the carbon monoxide alarm may be solely battery operated.*
2. *In existing dwelling units, a carbon monoxide alarm is permitted to be solely battery operated where repairs or alterations do not result in the removal of wall and ceiling finishes or there is no access by means of attic, basement or crawl space.*
3. *Other power sources recognized for use by NFPA 720.*

420.4.1.2 Interconnection. *Where more than one carbon monoxide alarm is required to be installed within the dwelling unit or within a sleeping unit, the alarm shall be interconnected in a manner that activation of one alarm shall activate all of the alarms in the individual unit.*

Exception:

1. *Interconnection is not required in existing dwelling units or within sleeping units where repairs do not result in the removal of wall and ceiling finishes, there is no access by means of attic, basement or crawl space, and no previous method for interconnection existed.*

420.4.2 Where required in existing dwellings or sleeping units. *Where work requiring a permit occurs in existing dwellings that have attached garages, or in existing dwellings or sleeping units within which fuel-burning appliances exist, carbon monoxide alarms shall be provided in accordance with Section 420.4.1. Carbon monoxide alarms shall only be required in the specific dwelling unit or sleeping unit for which the permit was obtained.*

420.4.3 Alarm requirements. *Single- and multiple-station carbon monoxide alarms shall be listed as complying with the requirements of UL 2034 for equipment performance, and installed in accordance with this code, the current edition of NFPA 720 for "Single- and Multiple-Station Alarms and Household Carbon Monoxide Detection Systems," and the manufacturer's installation instructions. Other carbon monoxide alarm and detection devices as recognized in NFPA 720 are also acceptable.*

Carbon monoxide alarms required by Sections 420.4.1 and 420.4.2 shall be installed in the following locations:

1. *Outside of each separate dwelling unit sleeping area in the immediate vicinity of the bedroom(s).*
2. *On every level of a dwelling unit including basements.*
3. *For R-1 only.*
 - a. *On the ceiling of sleeping units with permanently installed fuel-burning appliances.*

420.4.3.1 Multi-purpose alarms. *When a carbon monoxide alarm is combined with a smoke alarm, in addition to the requirements of Section 420.4, all applicable standards described in Chapter 9 for smoke alarms shall apply.*

420.4.4 Visual alarms. *In buildings meeting the definition of "COVERED MULTIFAMILY DWELLINGS" in accordance with Chapter 11A, all required carbon monoxide alarms shall be provided with the capability to support visible alarm notification appliances in accordance with NFPA 720 and Chapter 11B.*

SECTION 424
SPECIAL PROVISIONS FOR RESIDENTIAL HOTELS (HCD 1 & HCD 1-AC)

424.1 Locking mail receptacles. *A locking mail receptacle for each residential unit shall be provided in all residential hotels pursuant to the requirements specified in Health and Safety Code Section 17958.3.*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

5. HCD proposes to adopt Chapter 5 with amendments as follows:

CHAPTER 5

GENERAL BUILDING HEIGHTS AND AREAS

SECTION 503

GENERAL BUILDING HEIGHT AND AREA LIMITATIONS

503.1 General. The building height and area shall not exceed the limits specified in Table 503 based on the type of construction as determined by Section 602 and the occupancies as determined by Section 302 except as modified hereafter. Each portion of a building separated by one or more fire walls complying with Section 706 shall be considered to be a separate building.

***Exception: [HCD 1]** Limited-density owner-built rural dwellings may be of any type of construction which will provide for a sound structural condition. Structural hazards which result in an unsound condition and which may constitute a substandard building are delineated by Section 17920.3 of the Health and Safety Code.*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

6. HCD proposes to adopt Chapter 6 with amendments as follows:

CHAPTER 6

TYPES OF CONSTRUCTION

SECTION 602

CONSTRUCTION CLASSIFICATION

**TABLE 602
FIRE RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE
SEPARATION DISTANCE^{a, e}**

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H ^f	OCCUPANCY GROUP F-1, M, S-1 ^g	OCCUPANCY GROUP A, B, E, F-2, I, R ^{f,h} , S-2 ^g , U ^{b,f,h}
X < 5 ^c	All	3	2	1
5 ≤ X < 10	IA	3	2	1
	Others	2	1	1
10 ≤ X < 30	IA, IB	2	1	1 ^d
	IIB, VB	1	0	0
	Others	1	1	1 ^d
X ≥ 30	All	0	0	0

For SI: 1 foot = 304.8 mm.

- Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
- For special requirements for Group U occupancies, see Section 406.1.2.
- See Section 706.1.1 for party walls.
- Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
- The fire-resistance rating of an exterior wall is determined based upon the fire separation distance of the exterior wall and the story in which the wall is located.
- For special requirements for Group H occupancies, see Section 415.3.
- For special requirements for Group S aircraft hangers, see Section 412.4.1.

f, h. Group R-3 and Group U, when used as accessory to Group R-3, shall not be required to have a fire-resistance rating where the fire separation distance is 5 3 feet or more.

**SECTION 603
COMBUSTIBLE MATERIAL IN TYPE I AND II CONSTRUCTION**

603.1 Allowable materials. Combustible materials shall be permitted in buildings of Type I or Type II construction in the following applications and in accordance with Sections 603.1.1 through 603.1.3:

- Thermal and acoustical insulation, other than foam plastics, having a flame spread index of not more than 25.

Exceptions:

- Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a flame spread index of not more than 100.
- Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a flame spread index of not more than 200.
- Foam plastics in accordance with Chapter 26.
- Roof coverings that have an A, B or C classification.
- Interior floor finish and floor covering materials installed in accordance with Section 804.
- Millwork such as doors, door frames, window sashes and frames.
- Interior wall and ceiling finishes installed in accordance with Sections 801 and 803.
- Trim installed in accordance with Section 806.
- Where not installed over 15 feet (4572 mm) above grade, show windows, nailing or furring strips and wooden bulkheads below show windows, including their frames, aprons and show cases.
- Finish flooring in accordance with Section 805.
- Partitions dividing portions of stores, offices or similar places occupied by one tenant only and that do not establish a corridor serving an occupant load of 30 or more shall be permitted to be constructed of fire-retardant-treated wood, 1-hour fire-resistance-rated construction or of wood panels or similar light construction up to 6 feet (1829 mm) in height.
- Stages and platforms constructed in accordance with Sections 410.3 and 410.4, respectively.
- Combustible exterior wall coverings, balconies and similar projections and bay or oriel windows in accordance with Chapter 14.
- Blocking such as for handrails, millwork, cabinets and window and door frames.
- Light-transmitting plastics as permitted by Chapter 26.
- Mastics and caulking materials applied to provide flexible seals between components of exterior wall construction.

16. Exterior plastic veneer installed in accordance with Section 2605.2.
17. Nailing or furring strips as permitted by Section ~~803.4~~ 803.11.
18. Heavy timber as permitted by Note c to Table 601 and Sections 602.4.7 and 1406.3.
19. Aggregates, component materials and admixtures as permitted by Section 703.2.2.
20. Sprayed fire-resistant materials and intumescent and mastic fire-resistant coatings, determined on the basis of fire-resistance tests in accordance with Section 703.2 and installed in accordance with Section 1704.12 and 1704.13, respectively.
21. Materials used to protect penetrations in fire-resistance-rated assemblies in accordance with Section 713.
22. Materials used to protect joints in fire-resistance-rated assemblies in accordance with Section 714.
23. Materials allowed in the concealed spaces of buildings of Type I and II construction in accordance with Section 717.5.
24. Materials exposed within plenums complying with Section 602 of the ~~International~~ California Mechanical Code.
25. Fire-retardant-treated wood shall be permitted in:
 - 25.1 Nonbearing partitions where the required fire-resistance rating is 2 hours or less.
 - 25.2 Nonbearing exterior walls where no fire rating is required.
 - 25.3 Roof construction, including girders, trusses, framing and decking.

Exception: In buildings of Type IA construction exceeding two stories above grade plane, fire-retardant-treated wood is not permitted in roof construction when the vertical distance from the upper floor to the roof is less than 20 feet (6096 mm).

603.1.1 Ducts. The use of nonmetallic ducts shall be permitted when installed in accordance with the limitations of the ~~International~~ California Mechanical Code.

603.1.2 Piping. The use of combustible piping materials shall be permitted when installed in accordance with the limitations of the ~~International~~ California Mechanical Code and the ~~International~~ California Plumbing Code.

603.1.3 Electrical. The use of electrical wiring methods with combustible insulation, tubing, raceways and related components shall be permitted when installed in accordance with the limitations of ~~this code~~ the California Electrical Code.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

7. HCD proposes to adopt Chapter 7 with amendments as follows:

CHAPTER 7

FIRE AND SMOKE PROTECTION FEATURES

SECTION 708 SHAFT ENCLOSURES

708.2 Shaft enclosure required. Openings through a floor/ceiling assembly shall be protected by a shaft enclosure complying with this section.

Exceptions:

1. A shaft enclosure is not required for openings totally within an individual residential dwelling unit and connecting four stories or less.

2. A shaft enclosure is not required in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 for an escalator opening or stairway that is not a portion of the means of egress protected according to Item 2.1 or 2.2.
 - 2.1. Where the area of the floor opening between stories does not exceed twice the horizontal projected area of the escalator or stairway and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Groups B and M, this application is limited to openings that do not connect more than four stories.
 - 2.2. Where the opening is protected by approved power-operated automatic shutters at every penetrated floor. The shutters shall be of noncombustible construction and have a fire-resistance rating of not less than 1.5 hours. The shutter shall be so constructed as to close immediately upon the actuation of a smoke detector installed in accordance with Section 907.3 and shall completely shut off the well opening. Escalators shall cease operation when the shutter begins to close. The shutter shall operate at a speed of not more than 30 feet per minute (152.4 mm/s) and shall be equipped with a sensitive leading edge to arrest its progress where in contact with any obstacle, and to continue its progress on release therefrom.
3. A shaft enclosure is not required for penetrations by pipe, tube, conduit, wire, cable and vents protected in accordance with Section 713.4.
4. A shaft enclosure is not required for penetrations by ducts protected in accordance with Section 716.6. Grease ducts shall be protected in accordance with the ~~International~~ *California Mechanical Code*.
5. In other than Group H occupancies, a shaft enclosure is not required for floor openings complying with the provisions for atriums in Section 404.
6. A shaft enclosure is not required for approved masonry chimneys where annular space is fireblocked at each floor level in accordance with Section 717.2.5.
7. In other than Groups I-2 and I-3, a shaft enclosure is not required for a floor opening or an air transfer opening that complies with the following:
 - 7.1. Does not connect more than two stories.
 - 7.2. Is not part of the required means of egress system.
 - 7.3. Is not concealed within the construction of a wall or a floor/ceiling assembly.
 - 7.4. Is not open to a corridor in Group I and R occupancies.
 - 7.5. Is not open to a corridor on nonsprinklered floors in any occupancy.
 - 7.6. Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.
 - 7.7. Is limited to the same smoke compartment.
8. A shaft enclosure is not required for automobile ramps in open and enclosed parking garages constructed in accordance with Sections 406.3 and 406.4, respectively.
9. A shaft enclosure is not required for floor openings between a mezzanine and the floor below.
10. A shaft enclosure is not required for joints protected by a fire-resistant joint system in accordance with Section 714.
11. A shaft enclosure shall not be required for floor openings created by unenclosed stairs or ramps in accordance with Exception 3 or 4 in Section 1016.1.

12. Floor openings protected by floor fire doors in accordance with Section 712.8.
13. In Group I-3 occupancies, a shaft enclosure is not required for floor openings in accordance with Section 408.5.
14. A shaft enclosure is not required for elevator hoistways in open or enclosed parking garages that serve only the parking garage.
15. In open or enclosed parking garages a shaft enclosure is not required to enclose mechanical exhaust or supply duct systems when such duct system is contained within and serves only the parking garage.
16. Where permitted by other sections of this code.

SECTION 709 FIRE PARTITIONS

709.4 Continuity. Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, slab or deck above or to the fire-resistance-rated floor/ceiling or roof/ceiling assembly above, and shall be securely attached thereto. If the partitions are not continuous to the sheathing, deck or slab, and where constructed of combustible construction, the space between the ceiling and the sheathing, deck or slab above shall be fireblocked or draftstopped in accordance with Sections 717.2 and 717.3 at the partition line. The supporting construction shall be protected to afford the required fire-resistance rating of the wall supported, except for walls separating tenant spaces in covered mall buildings, walls separating dwelling units, walls separating sleeping units and corridor walls in buildings of Types IIB, IIIB and VB construction.

Exceptions:

1. The wall need not be extended into the crawl space below where the floor above the crawl space has a minimum 1-hour fire-resistance rating.
2. Where the room-side fire-resistance-rated membrane of the corridor is carried through to the underside of the floor or roof sheathing, deck or slab of a fire-resistance-rated floor or roof above, the ceiling of the corridor shall be permitted to be protected by the use of ceiling materials as required for a 1-hour fire-resistance-rated floor or roof system.
3. Where the corridor ceiling is constructed as required for the corridor walls, the walls shall be permitted to terminate at the upper membrane of such ceiling assembly.
4. The fire partitions separating tenant spaces in a covered mall building, complying with Section 402.7.2, are not required to extend beyond the underside of a ceiling that is not part of a fire-resistance-rated assembly. A wall is not required in attic or ceiling spaces above tenant separation walls.
5. Fireblocking or draftstopping is not required at the partition line in Group R-2 buildings that do not exceed four stories above grade plane, provided the attic space is subdivided by draftstopping into areas not exceeding 3,000 square feet (279 m²) or above every two dwelling units, whichever is smaller.
6. Fireblocking or draftstopping is not required at the partition line in buildings equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1 or 903.3.1.2, provided that automatic sprinklers are installed in combustible floor/ceiling and roof/ceiling spaces.
- ~~7. [HCD 1] Wall assemblies in two family dwellings need not extend through attic spaces when the ceiling is protected by not less than ⁵/₈ inch (15.9 mm) Type X gypsum board, and an attic draftstop constructed as specified in Section 717.3.1 is provided above and along the wall assembly separating the dwellings. The structural framing supporting the ceiling shall also be protected by not less than ¹/₂ inch (12.7 mm) gypsum board or equivalent.~~

709.8 Joints. Joints made in or between fire partitions shall comply with Section 714.

Exception: ~~[HCD 1] Fire-resistance-rated wall assemblies in two family dwellings which extend to and are tight against the exterior wall, the ceiling as permitted in Section 708.4 or the underside of the roof sheathing.~~

SECTION 716
DUCTS AND AIR TRANSFER OPENINGS

716.2.2 Hazardous exhaust ducts. Fire dampers for hazardous exhaust duct systems shall comply with the *International California Mechanical Code*.

716.5.3 Shaft enclosures. Shaft enclosures that are permitted to be penetrated by ducts and air transfer openings shall be protected with approved fire and smoke dampers installed in accordance with their listing.

Exceptions:

1. Fire dampers are not required at penetrations of shafts where:
 - 1.1. Steel exhaust subducts are extended at least 22 inches (559 mm) vertically in exhaust shafts, provided there is a continuous airflow upward to the outside; or
 - 1.2. Penetrations are tested in accordance with ASTM E119 or UL 263 as part of the fire-resistance rated assembly; or
 - 1.3. Ducts are used as part of an approved smoke control system designed and installed in accordance with Section 909 and where the fire damper will interfere with the operation of the smoke control system; or
 - 1.4. The penetrations are in parking garage exhaust or supply shafts that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.
2. In Group B and R occupancies, equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, smoke dampers are not required at penetrations of shafts where:
 - 2.1. Kitchen, clothes dryer, bathroom and toilet room exhaust openings are installed with steel exhaust subducts, having a minimum wall thickness of at least 0.187-inch (0.4712 mm) (No. 26 gage).
 - 2.2. The subducts extend at least 22 inches (559 mm) vertically; and
 - 2.3. An exhaust fan is installed at the upper terminus of the shaft that is powered continuously in accordance with the provisions of Section 909.11, so as to maintain a continuous upward airflow to the outside.
3. Smoke dampers are not required at penetration of exhaust or supply shafts in parking garages that are separated from other building shafts by not less than 2-hour fire-resistance-rated construction.
4. Smoke dampers are not required at penetrations of shafts where ducts are used as part of an approved mechanical smoke control system designed in accordance with Section 909 and where the smoke damper will interfere with the operation of the smoke control system.
5. Fire dampers and combination fire/smoke dampers are not required in kitchen and clothes dryer exhaust systems when installed in accordance with the *International California Mechanical Code*.

716.5.4 Fire partitions. Ducts and air transfer openings that penetrate fire partitions shall be protected with listed fire dampers installed in accordance with their listing.

Exceptions: In occupancies other than Group H, fire dampers are not required where any of the following apply:

1. Corridor walls in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and the duct is protected as a through penetration in accordance with Section 713.
2. Tenant partitions in covered mall buildings where the walls are not required by provisions elsewhere in the code to extend to the underside of the floor or roof sheathing, slab or deck above.

3. The duct system is constructed of approved materials in accordance with the ~~International~~ *California Mechanical Code* and the duct penetrating the wall complies with all of the following requirements:

- 3.1. The duct shall not exceed 100 square inches (0.06 m²).
- 3.2. The duct shall be constructed of steel a minimum of 0.0217 inch (0.55 mm) in thickness.
- 3.3. The duct shall not have openings that communicate the corridor with adjacent spaces or rooms.
- 3.4. The duct shall be installed above a ceiling.
- 3.5. The duct shall not terminate at a wall register in the fire-resistance-rated wall.
- 3.6. A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening. The sleeve shall be secured to both sides of the wall and all four sides of the sleeve with minimum 1 1/2-inch by 1 1/2-inch by 0.060-inch (38 mm by 38 mm by 1.52 mm) steel retaining angles. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws. The annular space between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.

716.6.1 Through penetrations. In occupancies other than Groups I-2 and I-3, a duct constructed of approved materials in accordance with the ~~International~~ *California Mechanical Code* that penetrates a fire-resistance-rated floor/ceiling assembly that connects not more than two stories is permitted without shaft enclosure protection, provided a listed fire damper is installed at the floor line or the duct is protected in accordance with Section 713.4. For air transfer openings, see Exception 7 to Section 708.2.

Exception: A duct is permitted to penetrate three floors or less without a fire damper at each floor, provided it meets all of the following requirements:

1. The duct shall be contained and located within the cavity of a wall and shall be constructed of steel having a minimum wall thickness of 0.187-inch (0.4712 mm) (No. 26 gage).
2. The duct shall open into only one dwelling or sleeping unit and the duct system shall be continuous from the unit to the exterior of the building.
3. The duct shall not exceed 4-inch (102 mm) nominal diameter and the total area of such ducts shall not exceed 100 square inches (0.065 m²) in any 100 square feet (9.3 m²) of floor area.
4. The annular space around the duct is protected with materials that prevent the passage of flame and hot gases sufficient to ignite cotton waste where subjected to ASTM E 119 or UL 263 time-temperature conditions under a minimum positive pressure differential of 0.01 inch (2.49 Pa) of water at the location of the penetration for the time period equivalent to the fire-resistance rating of the construction penetrated.
5. Grille openings located in a ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with a listed ceiling radiation damper installed in accordance with Section 716.6.2.1.

716.6.2 Membrane penetrations. Ducts and air transfer openings constructed of approved materials in accordance with the ~~International~~ *California Mechanical Code* that penetrate the ceiling membrane of a fire-resistance-rated floor/ceiling or roof/ceiling assembly shall be protected with one of the following:

1. A shaft enclosure in accordance with Section 708.
2. A listed ceiling radiation damper installed at the ceiling line where a duct penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly.
3. A listed ceiling radiation damper installed at the ceiling line where a diffuser with no duct attached penetrates the ceiling of a fire-resistance-rated floor/ceiling or roof/ceiling assembly.

716.6.3 Nonfire-resistance-rated floor assemblies. Duct systems constructed of approved materials in accordance with the ~~International~~ *California Mechanical Code* that penetrate nonfire-resistance-rated floor assemblies shall be protected by any of the following methods:

1. A shaft enclosure in accordance with Section 708.
2. The duct connects not more than two stories, the annular space around the penetrating duct is protected with an approved noncombustible material that resists the free passage of flame and the products of combustion.
3. The duct connects not more than three stories, the annular space around the penetrating duct is protected with an approved noncombustible material that resists the free passage of flame and the products of combustion and a fire damper is installed at each floor line.

Exception: Fire dampers are not required in ducts within individual residential dwelling units.

SECTION 717 CONCEALED SPACES

717.5 Combustible materials in concealed spaces in Type I or II construction. Combustible materials shall not be permitted in concealed spaces of buildings of Type I or II construction.

Exceptions:

1. Combustible materials in accordance with Section 603.
2. Combustible materials exposed within plenums complying with Section 602 of the ~~International~~ *California Mechanical Code*.
3. Class A interior finish materials classified in accordance with Section 803.
4. Combustible piping within partitions or shaft enclosures installed in accordance with the provisions of this code.
5. Combustible piping within concealed ceiling spaces installed in accordance with the ~~International~~ *California Mechanical Code* and the ~~International~~ *California Plumbing Code*.
6. Combustible insulation and covering on pipe and tubing, installed in concealed spaces other than plenums, complying with Section 719.7.

SECTION 719 THERMAL- AND SOUND-INSULATING MATERIALS

719.1 General. Insulating materials, including facings such as vapor retarders and vapor-permeable membranes, similar coverings and all layers of single and multilayer reflective foil insulations, shall comply with the requirements of this section. Where a flame spread index or a smoke-developed index is specified in this section, such index shall be determined in accordance with ASTM E 84 or UL 723. Any material that is subject to an increase in flame spread index or smoke-developed index beyond the limits herein established through the effects of age, moisture or other atmospheric conditions shall not be permitted.

Exceptions:

1. Fiberboard insulation shall comply with Chapter 23.
2. Foam plastic insulation shall comply with Chapter 26.
3. Duct and pipe insulation and duct and pipe coverings and linings in plenums shall comply with the ~~International~~ *California Mechanical Code*.
4. All layers of single and multilayer reflective plastic core insulation shall comply with Section 2613.

719.7 Insulation and covering on pipe and tubing. Insulation and covering on pipe and tubing shall have a flame spread index of not more than 25 and a smoke-developed index of not more than 450.

Exception: Insulation and covering on pipe and tubing installed in plenums shall comply with the ~~International~~ California Mechanical Code.

SECTION 720 PRESCRIPTIVE FIRE RESISTANCE

720.2 Cellular concrete. [HCD 1 & HCD 2]

720.2.1 Use and application [HCD 1 & HCD 2] Controlled-density cellular concrete, when used or applied, shall be in accordance with the use of materials in Bulletin No. 65 of the Federal Housing Administration, United States Department of Housing and Urban Development.

Exceptions:

1. Regardless of the provisions of Subsections 3.2, 3.3, 3.4 and 3.6 in Section 3, Bulletin No. 65 provisions relating to proportioning, mixing and testing, in the following shall apply to this chapter.
 - 1.1 Field-control weighings for control of the wet-unit weight shall be made. The design wet-unit weight for field control of the concrete shall be based on previously established data for the relation between the wet-unit weight and the air-dry unit weight at 28 days for the mix being placed. Field-control weighings for determining the wet-unit weight shall be made at the mixer discharge and at the point of deposit. There should be one pair of weighings per batch for batch-type mixers unless equipment is provided with scales allowing the operator to adequately weigh materials. For continuous weight- instrumented batch mixers, there should be one pair of weighings per 10 cubic yards (7.65 m³). The gain in unit weight between the mixer discharge and point of deposit shall not exceed 5 percent. The wet-unit weight at the point of deposit of the concrete shall not exceed plus 5 percent of the design wet-unit weight. A variation exceeding plus 5 percent of the design wet-unit weight shall require a modification of the mix proportions, a change of materials, or a change in the mixing procedure.
 - 1.2 When tests are required by the enforcing agency, they shall be performed in the following manner: Two test cylinders, for compressive strength tests, shall be made for each 8,000 square feet (743 m²) of surface area placed. A minimum of two test cylinders shall be made each day. Each strength test result shall be the average of two cylinders from the same sample tested at 28 days or at a specified earlier date.
 - 1.3 The minimum air-dry density shall be 90 pounds per cubic foot (1,440 kg/m³). The minimum design compressive strength shall be 1,000 psi (6,890 kPa) when the curing procedure specified herein is applied. The minimum design compressive strength shall be 1,250 psi (8,619 kPa) if the slab is placed in a covered area of a building and a specified curing medium is not applied. The specified design compressive strength shall be increased 20 percent when the specified strength is greater than 1,000 psi (6,890 kPa) and the slab is placed in a covered area of a building and a specified curing medium is not applied.
 - 1.4 The cellular concrete shall be sampled at the point of deposit in accordance with the applicable procedures of ASTM C 172, Sampling Fresh Concrete. Cylinder molds shall be either 3 inches by 6 inches (76 mm by 152 mm) or 6 inches by 12 inches (152 mm by 305 mm). Lightly tap the sides of the mold with a rubber hammer while filling the mold instead of rodding the mix. Moist cure the specimens for seven days at 73.4°F (40.8°C) plus or minus 3°F (1.7°C). At the age of seven days, remove the specimens from the moist condition and store in a temperature of 73.4°F (40.8°C) plus or minus 3°F (1.7°C) and a relative humidity of 50 plus or minus 10 percent for 21 days; remove and air dry until the time of test at 28 days. The compressive strength test shall be in accordance with ASTM C 39, Compressive Strength of Cylindrical Concrete Specimens. Determine the air-dry unit weight at 28 days.
2. Regardless of the provisions of Subsections 4.1 and 4.2 in Section 4, of Bulletin No. 65, relating to placing, finishing and curing, the following shall apply to these regulations:
 - 2.1 The concrete shall be placed, finished and cured to produce a level, smooth surface. The concrete shall be placed in a single layer to a minimum thickness of 1-1/2 inches (38 mm). The deviation from a plan shall not exceed 1/4 inch (6 mm) in any 10 feet (3,048 mm). The final

finish of the concrete shall be suitable for the application of the specified wear- resistant covering. Cracks wider than 1/8 inch (3 mm) shall be repaired.

2.2 *Install a water-resistant membrane between wood or plywood subfloors and the cellular concrete to prevent leakage of the concrete and wetting of the subfloor. The membrane shall consist of waterproof paper or plastic sheets conforming to ASTM C 171, Sheet Materials for Curing Concrete, or Type 15 roofing felt conforming to ASTM D 226, D 250 or D 227, or Federal Specification UUB790, Building Paper Vegetable Fiber: (Kraft, Waterproofed, Water Repellent and Fire-resistant) Type 1, Grade B. The sheets shall be securely fastened to the subfloor.*

3. *Regardless of the provisions of Subsections 6.1 and 6.2 in Section 6, of Bulletin No. 65, relating to applicator qualifications and warranty, these subsections are omitted from this chapter.*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

7-A. HCD proposes to bring forward Chapter 7A from the 2007 California Building Code without amendment:

CHAPTER 7A

MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

8. HCD proposes to adopt Chapter 8 without amendment:

CHAPTER 8

INTERIOR FINISHES

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

9. HCD proposes to adopt Chapter 9 with amendments as follows:

CHAPTER 9 FIRE PROTECTION SYSTEMS

SECTION 903 AUTOMATIC SPRINKLER SYSTEMS

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all buildings with a Group R fire area.

Exceptions:

~~1. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more than three stories above grade plane in height with a separate means of egress, unless specifically required by other sections of this code, or classified as Group R-4.~~

~~2. Group U private garages accessory to a Group R-3 occupancy.~~

903.2.11.4 Ducts conveying hazardous exhausts. Where required by the ~~International~~ California Mechanical Code, automatic sprinklers shall be provided in ducts conveying hazardous exhaust, or flammable or combustible materials.

Exception: Ducts in which the largest cross-sectional diameter of the duct is less than 10 inches (254 mm).

903.3.5 Water supplies. Water supplies for automatic sprinkler systems shall comply with this section and the standards referenced in Section 903.3.1. The potable water supply shall be protected against backflow in accordance with the requirements of this section and the ~~International~~ California Plumbing Code.

SECTION 904 ALTERNATIVE AUTOMATIC FIRE-EXTINGUISHING SYSTEMS

904.2.1 Commercial hood and duct systems. Each required commercial kitchen exhaust hood and duct system required by Section 609 of the ~~International Fire Code~~ or ~~Chapter 5~~ of the ~~International~~ California Mechanical Code to have a Type I hood shall be protected with an approved automatic fire-extinguishing system installed in accordance with this code.

904.11 Commercial cooking systems. The automatic fire-extinguishing system for commercial cooking systems shall be of a type recognized for protection of commercial cooking equipment and exhaust systems of the type and arrangement protected. Preengineered automatic dry- and wet-chemical extinguishing systems shall be tested in accordance with UL 300 and listed and labeled for the intended application. Other types of automatic fire-extinguishing systems shall be listed and labeled for specific use as protection for commercial cooking operations. The system shall be installed in accordance with this code, its listing and the manufacturer's installation instructions. Automatic fire-extinguishing systems of the following types shall be installed in accordance with the referenced standard indicated, as follows:

1. Carbon dioxide extinguishing systems, NFPA 12.
2. Automatic sprinkler systems, NFPA 13.
3. Foam-water sprinkler system or foam-water spray systems, NFPA 16.
4. Dry-chemical extinguishing systems, NFPA 17.
5. Wet-chemical extinguishing systems, NFPA 17A.

Exception: Factory-built commercial cooking recirculating systems that are tested in accordance with UL 710B and listed, labeled and installed in accordance with ~~Section 304.4~~ Chapter 3 of the ~~International~~ California Mechanical Code.

907.5.2.3.4 Group R-2. In Group R-2 occupancies required by Section 907 to have a fire alarm system, all dwelling units and sleeping units shall be provided with the capability to support visible alarm notification appliances in accordance with ~~ICC-A117.1~~ Chapter 11B, Section 1111B.4.5.

**SECTION 908
EMERGENCY ALARM SYSTEMS**

908.6 Refrigerant detector. Machinery rooms shall contain a refrigerant detector with an audible and visual alarm. The detector, or a sampling tube that draws air to the detector, shall be located in an area where refrigerant from a leak will concentrate. The alarm shall be actuated at a value not greater than the corresponding TLV-TWA values for the refrigerant classification indicated in the ~~International~~ *California Mechanical Code*. Detectors and alarms shall be placed in approved locations.

**SECTION 909
SMOKE CONTROL SYSTEMS**

909.1 Scope and purpose. This section applies to mechanical or passive smoke control systems when they are required by other provisions of this code. The purpose of this section is to establish minimum requirements for the design, installation and acceptance testing of smoke control systems that are intended to provide a tenable environment for the evacuation or relocation of occupants. These provisions are not intended for the preservation of contents, the timely restoration of operations or for assistance in fire suppression or overhaul activities. Smoke control systems regulated by this section serve a different purpose than the smoke- and heat-venting provisions found in Section 910. Mechanical smoke control systems shall not be considered exhaust systems under Chapter 5 of the ~~International~~ *California Mechanical Code*.

909.10.2 Ducts. Duct materials and joints shall be capable of withstanding the probable temperatures and pressures to which they are exposed as determined in accordance with Section 909.10.1. Ducts shall be constructed and supported in accordance with the ~~International~~ *California Mechanical Code*. Ducts shall be leak tested to 1.5 times the maximum design pressure in accordance with nationally accepted practices. Measured leakage shall not exceed 5 percent of design flow. Results of such testing shall be a part of the documentation procedure. Ducts shall be supported directly from fire-resistance-rated structural elements of the building by substantial, noncombustible supports.

Exception: Flexible connections (for the purpose of vibration isolation) complying with the ~~International~~ *California Mechanical Code*, that are constructed of approved fire-resistance-rated materials.

**SECTION 912
FIRE DEPARTMENT CONNECTIONS**

912.5 Backflow protection. The potable water supply to automatic sprinkler and standpipe systems shall be protected against backflow as required by the ~~International~~ *California Plumbing Code*.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

10. HCD proposes to adopt Chapter 10 with amendments as follows:

**CHAPTER 10
MEANS OF EGRESS**

**SECTION 1002
DEFINITIONS**

GUARD (*[HCD 1 & HCD 2]* or *GUARDRAIL*). A building component or a system of building components located at or near the open sides of elevated walking surfaces that minimizes the possibility of a fall from the walking surface to a lower level.

SECTION 1003 GENERAL MEANS OF EGRESS

1003.1 Applicability. The general requirements specified in Sections 1003 through 1013 shall apply to all three elements of the means of egress system, in addition to those specific requirements for the exit access, the exit and the exit discharge detailed elsewhere in this chapter.

[HCD 1-AC] In addition to the requirements of this chapter, means of egress, which provide access to, or egress from, buildings or facilities where accessibility is required for applications listed in Section ~~408.2.4.2~~ 1.8.2.1.2 regulated by the Department of Housing and Community Development, or Section ~~409.4~~ 1.9.1 regulated by the Division of the State Architect--Access Compliance, shall also comply with Chapter 11A or Chapter 11B, as applicable.

1003.2 Ceiling height. The means of egress shall have a ceiling height of not less than 7 feet 6 inches (2286 mm).

Exceptions:

1. Sloped ceilings in accordance with Section 1208.2.
2. Ceilings of dwelling units and sleeping units within residential occupancies in accordance with Section 1208.2.
3. Allowable projections in accordance with Section 1003.3.
4. Stair headroom in accordance with Section 1009.2.
5. Door height in accordance with Section 1008.1.1.
6. Ramp headroom in accordance with Section 1010.5.2.
7. The clear height of floor levels in vehicular and pedestrian traffic areas in parking garages in accordance with Section 406.2.2. *[HCD 1-AC] The clear height of vehicle and pedestrian areas required to be accessible shall comply with Chapter 11A or Chapter 11B, as applicable.*
8. Areas above and below mezzanine floors in accordance with Section 505.1.

1003.3.4 Clear width. Protruding objects shall not reduce the minimum clear width of accessible routes as required in Chapter 11A or Chapter 11B, Section 1133B.8.6.

1003.5 Elevation Change. Where changes in elevation of less than 12 inches (305 mm) exist in the means of egress, sloped surfaces shall be used. Where the slope is greater than one unit vertical in 20 units horizontal (5-percent slope), ramps complying with Section 1010 shall be used. Where the difference in elevation is 6 inches (152 mm) or less, the ramp shall be equipped with either handrails or floor finish materials that contrast with adjacent floor finish materials.

Exceptions:

1. A single step with a maximum riser height of 7 inches (178 mm) is permitted for buildings with occupancies in Groups F, H, R-2, R-3, S and U at exterior doors not required to be accessible by ~~Chapter 11~~ Chapter 11A or 11B.
2. A stair with a single riser or with two risers and a tread is permitted at locations not required to be accessible by ~~Chapter 11~~ Chapter 11A or 11B, provided that the risers and treads comply with Section 1009.4, the minimum depth of the tread is 13 inches (330 mm) and at least one handrail complying with Section 1012 is provided within 30 inches (762 mm) of the centerline of the normal path of egress travel on the stair.

3. A step is permitted in aisles serving seating that has a difference in elevation less than 12 inches (305 mm) is permitted at locations not required to be accessible by ~~Chapter 11A or 11B~~, provided that the risers and treads comply with Section 1028.11 and the aisle is provided with a handrail complying with Section 1028.13.

Throughout a story in a Group I-2 occupancy, any change in elevation in portions of the exit access that serve nonambulatory persons shall be by means of a ramp or sloped walkway.

SECTION 1007 ACCESSIBLE MEANS OF EGRESS

1007.1 Accessible means of egress required. Accessible means of egress shall comply with this section. Accessible spaces shall be provided with not less than one accessible means of egress. Where more than one means of egress is required by Section 1015.1 or 1021.1 from any accessible space, each accessible portion of the space shall be served by ~~not less than two~~ accessible means of egress *in at least the same number as required by Section 1015.1 or ~~1019.1~~ 1021.1. In addition to the requirements of this chapter, means of egress, which provide access to, or egress from, buildings for persons with disabilities, shall also comply with the requirements of Chapter 11A or 11B, as applicable.*

Exceptions:

1. Accessible means of egress are not required in alterations to existing buildings.
2. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1007.3, 1007.4 or 1007.5 *and Chapter 11A or 11B, as applicable.*
3. In assembly areas with sloped or stepped aisles, one accessible means of egress is permitted where the common path of travel is accessible and meets the requirements in Section 1028.8 *and Chapter 11A or 11B, as applicable.*

1007.2 Continuity and components. Each required accessible means of egress shall be continuous to a public way and shall consist of one or more of the following components:

1. Accessible routes complying with ~~Section 1104~~ *Chapter 11A, Sections 1110A.1 and 1120A, or Chapter 11B, Section 1114B.1.2, as applicable.*
2. Interior exit stairways complying with Sections 1007.3, ~~and~~ 1026 *and Chapters 11A, Section 1123A, or Chapter 11B, Section 1133B.4, as applicable.*
3. Exterior exit stairways complying with Sections 1007.3, ~~and~~ 1026 *and Chapter 11A, Section 1115A, or Chapter 11B, Section 1133B.4, as applicable.*
4. Elevators complying with Section 1007.4 *and Chapter 11A, Section 1124A, or Chapter 11B, Section 1116B.1, as applicable.*
5. Platform lifts complying with Section 1007.5 *and Chapters 11A, Section 1124A, or Chapter 11B, Section 1116B.2 and 1116B.3, as applicable.*
6. Horizontal exits complying with Section 1025.
7. Ramps complying with Section 1010 *and Chapter 11A, Sections 1114A and 1122A, or Chapter 11B, Section 1333B.5, as applicable.*
8. Areas of refuge complying with Section 1007.6.

Exceptions:

1. Where the exit discharge is not accessible, an exterior area for assisted rescue must be provided in accordance with Section 1007.7.
2. Where the exit stairway is open to the exterior, the accessible means of egress shall include either an area of refuge in accordance with Section 1007.6 or an exterior area for assisted rescue in accordance with Section 1007.7.

1007.3 Stairways. In order to be considered part of an accessible means of egress, an exit access stairway as permitted by Section 1016.1 or exit stairway shall have a clear width of 48 inches (1219 mm) minimum between handrails and shall either incorporate an area of refuge within an enlarged floor-level landing or shall be accessed from either an area of refuge complying with Section 1007.6 or a horizontal exit.

[HCD 1-AC] In addition, exit stairways shall comply with Chapter 11A, Sections 1115A and 1123A, or Chapter 11B, Section 1133B.4, as applicable.

Exceptions:

1. The area of refuge is not required at open exit access or exit stairways as permitted by Sections 1016.1 and 1022.1 in buildings that are equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
2. The clear width of 48 inches (1219 mm) between handrails is not required at exit access stairway as permitted by Section 1016.1 or exit stairways in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
3. Areas of refuge are not required at exit stairways in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
4. The clear width of 48 inches (1219 mm) between handrails is not required for exit stairways accessed from a horizontal exit.
5. Areas of refuge are not required at exit stairways serving open parking garages.
6. Areas of refuge are not required for smoke protected seating areas complying with Section 1028.6.2.
7. The areas of refuge are not required in Group R-2 occupancies.

1007.5 Platform lifts. Platform (wheelchair) lifts shall not serve as part of an accessible means of egress, except where allowed as part of a required accessible route in ~~Section 1109.7, Items 1 through 9~~ Chapter 11A, Sections 1121A and 1124A.11; or Chapter 11B, Sections 1116B.2.1 through 1116B.2.4, as applicable. Standby power shall be provided in accordance with Chapter 27 for platform lifts permitted to serve as part of a means of egress.

1007.6.1 Size. Each area of refuge shall be sized to accommodate ~~one~~ two wheelchair spaces that are not less than 30 inches by 48 inches (762 mm by 1219 mm) each. The total number of such 30-inch by 48-inch (762 mm by 1219 mm) spaces per story shall be not less than one for every 200 persons of calculated occupant load served by the area of refuge. ~~for each 200 occupants or portion thereof, based on occupant load of the area of refuge and areas served by the area of refuge.~~ Such wheelchair spaces shall not reduce the required means egress width. Access to any of the required wheelchair spaces in an area of refuge shall not be obstructed by more than one adjoining wheelchair space.

Exception: The enforcing agency may reduce the size of the each required area of refuge to accommodate one wheelchair space that is not less than 30 inches by 48 inches (762 mm by 1219 mm) on floors where the occupant load is less than 200.

1007.6.3.1 Visible communication method. [HCD 1-AC] A button complying with Section 1117B.6 in the area of refuge shall activate both a light in the area of refuge indicating that rescue has been requested and a light at the central control point indicating that rescue is being requested. A button at the central control point shall activate both a light at the central control point and a light in the area of refuge indicating that the request has been received.

1007.9 Signage. Signage indicating special accessibility provisions shall be provided as shown:

1. Each door providing access to an area of refuge from an adjacent floor area shall be identified by a sign stating: AREA OF REFUGE.
2. Each door providing access to an exterior area for assisted rescue shall be identified by a sign stating: EXTERIOR AREA FOR ASSISTED RESCUE.

Signage shall comply with the ~~ICC A117.4~~ Section 1117B.5.1, Item 2, requirements for visual characters and include the International Symbol of Accessibility. Where exit sign illumination is required by Section 1011.2, the signs shall be illuminated. Additionally, tactile signage complying with ~~ICC A117.4~~ Section 1117B.5.1, Item 1, shall be located at each door to an area of refuge and exterior area for assisted rescue in accordance with Section 1011.3.

~~1007.9~~ 1007.12 **Alarms/emergency warning systems/accessibility.** *If emergency warning systems are required, they shall activate a means of warning the hearing impaired. Emergency warning systems as part of the fire-alarm system shall be designed and installed in accordance with NFPA 72 as amended in Chapter 35.*

SECTION 1008 DOORS, GATES AND TURNSTILES

1008.1.1 Size of Doors. The minimum width of each door opening shall be sufficient for the occupant load thereof and shall provide a clear width of 32 inches (813 mm). Clear openings of doorways with swinging doors shall be measured between the face of the door and the stop, with the door open 90 degrees (1.57 rad). Where this section requires a minimum clear width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a clear opening width of 32 inches (813 mm). The maximum width of a swinging door leaf shall be 48 inches (1219 mm) nominal. Means of egress doors in a Group I-2 occupancy used for the movement of beds shall provide a clear width not less than 41 1/2 inches (1054 mm). The height of doors shall not be less than 80 inches (2032 mm).

Exceptions:

1. The minimum and maximum width shall not apply to door openings that are not part of the required means of egress in Group R-2 and R-3 occupancies.
2. Door openings to resident sleeping units in Group I-3 occupancies shall have a clear width of not less than 28 inches (711 mm).
3. Door openings to storage closets less than 10 square feet (0.93 m²) in area shall not be limited by the minimum width.
4. Width of door leaves in revolving doors that comply with Section 1008.1.4.1 shall not be limited.
5. Door openings within a dwelling unit or sleeping unit shall not be less than 78 inches (1981 mm) in height.
6. Exterior door openings in dwelling units and sleeping units, other than the required exit door, shall not be less than 76 inches (1930 mm) in height.
7. In other than Group R-1 occupancies, the minimum widths shall not apply to interior egress doors within a dwelling unit or sleeping unit that is not required to be ~~an Accessible unit, Type A unit or Type B unit~~ *adaptable or accessible as specified in Chapter 11A or 11B, as applicable.*

1008.1.4.1 Revolving doors. Revolving doors shall comply with the following:

1. Each revolving door shall be capable of collapsing into a bookfold position with parallel egress paths providing an aggregate width of 36 inches (914 mm).
2. A revolving door shall not be located within 10 feet (3048 mm) of the foot of or top of stairs or escalators. A dispersal area shall be provided between the stairs or escalators and the revolving doors.
3. The revolutions per minute (rpm) for a revolving door shall not exceed those shown in Table 1008.1.4.1.
4. Each revolving door shall have a side-hinged swinging door which complies with Section 1008.1 in the same wall and within 10 feet (3048 mm) of the revolving door.
5. Revolving doors shall not be part of an accessible route required by Section 1007, ~~and~~ Chapter 11A or Chapter 11B.

1008.1.5 Floor elevation. There shall be a floor or landing on each side of a door. Such floor or landing shall be at the same elevation on each side of the door. Landings shall be level except for exterior landings, which are permitted to have a slope not to exceed 0.25 unit vertical in 12 units horizontal (2-percent slope).

Exceptions:

1. Doors serving individual dwelling units in Groups R-2 and R-3 where the following apply:
 - 1.1. A door is permitted to open at the top step of an interior flight of stairs, provided the door does not swing over the top step.
 - 1.2. Screen doors and storm doors are permitted to swing over stairs or landings.
2. Exterior doors as provided for in Section 1003.5, Exception 1, and Section 1020.2, which are not on an accessible route.
3. In Group R-3 occupancies not required to be Accessible units, Type A units or Type B units *adaptable or accessible*, the landing at an exterior doorway shall not be more than 7-3/4 inches (197 mm) below the top of the threshold, provided the door, other than an exterior storm or screen door, does not swing over the landing.
4. Variations in elevation due to differences in finish materials, but not more than 1/2 inch (12.7 mm).
5. ~~Exterior decks, patios or balconies that are part of Type B dwelling units, have impervious surfaces and that are not more than 4 inches (102 mm) below the finished floor level of the adjacent interior space of the dwelling unit.~~

1008.1.7 Thresholds. Thresholds at doorways shall not exceed 3/4 inch (19.1 mm) in height for sliding doors serving dwelling units or 1/2 inch (12.7 mm) for other doors. Raised thresholds and floor level changes greater than 1/4 inch (6.4 mm) at doorways shall be beveled with a slope not greater than one unit vertical in two units horizontal (50-percent slope).

Exception: The threshold height shall be limited to 7-3/4 inches (197 mm) where the occupancy is Group R-2 or R-3; the door is an exterior door that is not a component of the required means of egress; the door, other than an exterior storm or screen door, does not swing over the landing or step; and the doorway is not on an accessible route as required by Chapter 11A or 11B and is not part of an Accessible unit, Type A unit or Type B unit *adaptable or accessible dwelling unit*.

1008.1.8 Door arrangement. Space between two doors in a series shall be 48 inches (1219 mm) minimum plus the width of a door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between doors.

Exceptions:

1. The minimum distance between horizontal sliding power-operated doors in a series shall be 48 inches (1219 mm).
2. Storm and screen doors serving individual dwelling units in Groups R-2 and R-3 need not be spaced 48 inches (1219 mm) from the other door.
3. Doors within individual dwelling units in Groups R-2 and R-3 occupancies other than ~~within Type A dwelling units~~ *adaptable or accessible dwelling units*.

1008.1.9.1 Hardware. Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter 11A or Chapter 11B shall not require tight grasping, tight pinching or twisting of the wrist to operate.

SECTION 1009 STAIRWAYS

1009.4.2 Riser height and tread depth. Stair riser heights shall be 7 inches (178 mm) maximum and 4 inches (102 mm) minimum. The riser height shall be measured vertically between the leading edges of adjacent treads. Rectangular stair tread depths shall be 11 inches (279 mm) minimum measured horizontally between the vertical planes of the foremost projection of adjacent treads and at a right angle to the tread's leading edge. Winder treads shall have a minimum tread depth of 11 inches (279 mm) measured between the vertical planes of the foremost projection of adjacent treads at the intersections with the walkline and a minimum tread depth of 10 inches (254 mm) within the clear width of the stair.

Exceptions:

1. Alternating tread devices in accordance with Section 1009.10.
2. Ship ladders in accordance with Section 1009.11.
3. Spiral stairways in accordance with Section 1009.9.
4. Aisle stairs in assembly seating areas where the stair pitch or slope is set, for sightline reasons, by the slope of the adjacent seating area in accordance with Section 1028.11.2.
5. In Group R-3 occupancies; within dwelling units in Group R-2 occupancies; and in Group U occupancies that are accessory to a Group R-3 occupancy or accessory to individual dwelling units in Group R-2 occupancies; the maximum riser height shall be 7-3/4 inches (197 mm); the minimum tread depth shall be 10 inches (254 mm); the minimum winder tread depth at the walkline shall be 10 inches (254 mm); and the minimum winder tread depth shall be 6 inches (152 mm). A nosing not less than 3/4 inch (19.1 mm) but not more than 1-1/4 inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).
6. See the Section 3404.1 for the replacement of existing stairways. **[HCD 1]** See Chapter 34, Section ~~3403.4 3401.4.3-Exception 2~~ for additions, alterations, or repairs to existing buildings.
7. In Group I-3 facilities, stairways providing access to guard towers, observation stations and control rooms, not more than 250 square feet (23 m²) in area, shall be permitted to have a maximum riser height of 8 inches (203 mm) and a minimum tread depth of 9 inches (229 mm).

1009.5 Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings shall not be less than the width of stairways they serve. Every landing shall have a minimum dimension measured in the direction of travel equal to the width of the stairway. Such dimension need not exceed 48 inches (1219 mm) where the stairway has a straight run. Doors opening onto a landing shall not reduce the landing to less than one-half the required width. When fully open, the door shall not project more than 7 inches (178 mm) into a landing. When wheelchair spaces are required on the stairway landing in accordance with Section 1007.6.1, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exception: Aisle stairs complying with Section 1028.

~~3. **[HCD 1]** In Group R-3 occupancies, a floor or landing is not required at the top of an interior flight of stairs, including stairs in an enclosed garage, provided a door does not swing over the stairs.~~

1009.12 Handrails. Stairways shall have handrails on each side and shall comply with Section 1012. Where glass is used to provide the handrail, the handrail shall also comply with Section 2407.

Exceptions:

1. Handrails for aisle stairs are not required where permitted by Section 1028.13.
2. Stairways within dwelling units, spiral stairways and aisle stairs serving seating only on one side are permitted to have a handrail on one side only.

3. Decks, patios and walkways that have a single change in elevation where the landing depth on each side of the change of elevation is greater than what is required for a landing do not require handrails.
4. ~~[HCD 1]~~ In Group R-3 occupancies, a change in elevation consisting of a single riser at an entrance or egress door does not require handrails ~~a continuous run of treads or flight of stairs with fewer than four risers does not require handrails.~~
5. Changes in room elevations of three or fewer risers within dwelling units and sleeping units in Group R-2 and R-3 do not require handrails.

SECTION 1010 RAMPS

1010.1 Scope. The provisions of this section shall apply to ramps used as a component of a means of egress.

Exceptions:

1. Other than ramps that are part of the accessible routes providing access in accordance with ~~Sections 1108.2 through 1108.2.4 and 1108.2.6 Chapter 11A or 11B~~, ramped aisles within assembly rooms or spaces shall conform with the provisions in Section 1028.11.
2. Curb ramps shall comply with ~~ICC A117.1 Chapter 11A or 11B~~, Section 1127B.5, as applicable.
3. Vehicle ramps in parking garages for pedestrian exit access shall not be required to comply with Sections 1010.3 through 1010.9 when they are not an accessible route serving accessible parking spaces, other required accessible elements or part of an accessible means of egress.

1010.6.3 Length. The landing length shall be 60 inches (1525 mm) minimum.

Exceptions:

1. In Group R-2 and R-3 individual dwelling and sleeping units that are not required to be ~~Accessible units, Type A units or Type B units~~ in accordance with ~~Section 1107 Chapter 11A~~, landings are permitted to be 36 inches (914 mm) minimum.
2. Where the ramp is not a part of an accessible route, the length of the landing shall not be required to be more than 48 inches (1220 mm) in the direction of travel.

1010.6.4 Change in direction. Where changes in direction of travel occur at landings provided between ramp runs, the landing shall be 60 inches by 60 inches (1524 mm by 1524 mm) minimum.

Exception: In Group R-2 and R-3 individual dwelling or sleeping units that are not required to be ~~Accessible units, Type A units or Type B units~~ in accordance with ~~Section 1107 Chapter 11A~~, landings are permitted to be 36 inches by 36 inches (914 mm by 914 mm) minimum.

1010.6.5 Doorways. Where doorways are located adjacent to a ramp landing, maneuvering clearances required by ~~ICC A117.1 for accessibility~~ are permitted to overlap the required landing area as specified in Chapter 11A or 11B, Section 1133B.5.

1010.9 Edge protection. Edge protection complying with Section 1010.9.1 or 1010.9.2 shall be provided on each side of ramp runs and at each side of ramp landings. **[HCD 1-AC]** See Chapter 11A, Sections 1114A.7 and 1122A.6, for curb and wheel guide requirements.

Exceptions:

1. Edge protection is not required on ramps that are not required to have handrails, provided they have flared sides that comply with ~~the ICC A117.1 curb ramp provisions~~ Chapter 11A or Chapter 11B, Section 1127B.5.
2. Edge protection is not required on the sides of ramp landings serving an adjoining ramp run or stairway.

3. Edge protection is not required on the sides of ramp landings having a vertical drop off of not more than 1/2 inch (12.7 mm) within 10 inches (254 mm) horizontally of the required landing area.
4. In assembly spaces with fixed seating, edge protection is not required on the sides of ramps where the ramps provide access to the adjacent seating and aisle accessways.

SECTION 1011 EXIT SIGNS

1011.3 Tactile exit signs. A tactile sign stating EXIT and complying with ~~ICC A117.4~~ Section 1117B.5, Item 1, shall be provided adjacent to each door to an area of refuge, an exterior area for assisted rescue, an exit stairway, and exit ramp, an exit passageway and the exit discharge.

1011.4 Internally illuminated exit signs. Electrically powered, self-luminous and photoluminescent exit signs shall be listed and labeled in accordance with UL 924 and shall be installed in accordance with the manufacturer's instructions and ~~Chapter 27~~ the California Electrical Code. Exit signs shall be illuminated at all times.

SECTION 1014 EXIT ACCESS

1014.2 Egress through intervening spaces. Egress through intervening spaces shall comply with this section.

1. Egress from a room or space shall not pass through adjoining or intervening rooms or areas, except where such adjoining rooms or areas and the area served are accessory to one or the other, are not a Group H occupancy and provide a discernible path of egress travel to an exit.

Exception: Means of egress are not prohibited through adjoining or intervening rooms or spaces in a Group H, S or F occupancy when the adjoining or intervening rooms or spaces are the same or a lesser hazard occupancy group

2. An exit access shall not pass through a room that can be locked to prevent egress.
3. ~~[HCD 1] Except for one and two family dwellings and townhouses, means~~ Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.
4. Egress shall not pass through kitchens, storage rooms, closets or spaces used for similar purposes.

Exceptions:

1. Means of egress are not prohibited through a kitchen area serving adjoining rooms constituting part of the same dwelling unit or sleeping unit.
2. Means of egress are not prohibited through stockrooms in Group M occupancies when all of the following are met:
 - 2.1. The stock is of the same hazard classification as that found in the main retail area;
 - 2.2. Not more than 50 percent of the exit access is through the stockroom;
 - 2.3. The stockroom is not subject to locking from the egress side; and
 - 2.4. There is a demarcated, minimum 44-inch-wide (1118 mm) aisle defined by full- or partial-height fixed walls or similar construction that will maintain the required width and lead directly from the retail area to the exit without obstructions.

~~5. [HCD 1] For one and two family dwellings and townhouses, means of egress is allowed to pass through rooms and intervening spaces except garages.~~

**SECTION 1015
EXIT AND EXIT ACCESS DOORWAYS**

1015.5 Refrigerated rooms or spaces. Rooms or spaces having a floor area larger than 1,000 square feet (93 m²), containing a refrigerant evaporator and maintained at a temperature below 68°F (20°C), shall have access to not less than two exits or exit access doors.

Travel distance shall be determined as specified in Section 1016.1, but all portions of a refrigerated room or space shall be within 150 feet (45 720 mm) of an exit or exit access door where such rooms are not protected by an approved automatic sprinkler system. Egress is allowed through adjoining refrigerated rooms or spaces.

Exception: Where using refrigerants in quantities limited to the amounts based on the volume set forth in the *International California Mechanical Code*.

**SECTION 1018
CORRIDORS**

1018.5.1 Corridor ceiling. Use of the space between the corridor ceiling and the floor or roof structure above as a return air plenum is permitted for one or more of the following conditions:

1. The corridor is not required to be of fire-resistance-rated construction;
2. The corridor is separated from the plenum by fire-resistance-rated construction;
3. The air-handling system serving the corridor is shut down upon activation of the air-handling unit smoke detectors required by the *International California Mechanical Code*.
4. The air-handling system serving the corridor is shut down upon detection of sprinkler waterflow where the building is equipped throughout with an automatic sprinkler system; or
5. The space between the corridor ceiling and the floor or roof structure above the corridor is used as a component of an approved engineered smoke control system.

**SECTION 1022
EXIT ENCLOSURES**

1022.8 Floor identification signs. A sign shall be provided at each floor landing in exit enclosures connecting more than three stories designating the floor level, the terminus of the top and bottom of the exit enclosure and the identification of the stair or ramp. The signage shall also state the story of, and the direction to, the exit discharge and the availability of roof access from the enclosure for the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions. Floor level identification signs in tactile characters complying with ICC-A117.1 Chapter 11A or Chapter 11B, Section 1117B.5.1, Item 1, shall be located at each floor level landing adjacent to the door leading from the enclosure into the corridor to identify the floor level.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

11. HCD proposes to not adopt Chapter 11 and remove it from the printed California Building Code.

CHAPTER 11 ACCESSIBILITY

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

11-A. HCD proposes to bring forward Chapter 11A from the 2007 California Building Code with amendments as follows:

CHAPTER 11A HOUSING ACCESSIBILITY

NOTE: Dwelling units constructed as senior citizen housing may also be subject to the Unruh Civil Rights Act. Refer to Division I, Part 2 of the California Civil Code. For additional information regarding application, interpretation and enforcement, contact the California Department of Fair Employment and Housing.

Division I — APPLICATION, GENERAL PROVISIONS, AND DEFINITIONS

Division I Table of Contents

Section 1101A Application
Section 1102A Building Accessibility
Section 1103A Design and Construction
Section 1104A Covered Multifamily Dwellings
Section 1105A Garages, Carports and Parking Facilities
Section 1106A Site and Building Characteristics
Section 1107A Definitions

SECTION 1101A APPLICATION

1101A.1 Scope. The application and authority of this chapter are identified and referenced in Sections 1.8.2.1.2 ~~408-2.1-2~~ and 1102A for the Department of Housing and Community Development. Applicable sections are identified in the Matrix Adoption Tables of this code under the abbreviation HCD 1-AC. The provisions of this chapter shall apply to the following:

1. All newly-constructed covered multifamily dwellings.
2. New common use spaces serving existing covered multifamily dwellings.
3. Additions to existing buildings, where the addition alone meets the definition of a covered multifamily dwelling.
4. Common use areas serving covered multifamily dwellings.
5. Where any portion of a building's exterior is preserved, but the interior of the building is removed, including all structural portions of floors and ceilings, the building is considered a new building for determining the application of this chapter.

These building standards generally do not apply to public accommodations such as hotels and motels. Public use areas, public accommodations and housing which is publicly funded as defined in Chapter 2, Chapter 11A, and Chapter 11B of this Code are subject to provisions of the Division of the State Architect (DSA/AC) (DSA-AC) and are referenced in Section 109.1.1 1.9.1.1.

SECTION 1102A BUILDING ACCESSIBILITY

1102A.1 Where required. Buildings or portions of buildings and facilities within the scope of this chapter shall be accessible to persons with disabilities. Each building on a building site shall be considered separately when determining the requirements contained in this chapter, except when calculating the number of units which must comply with Section 1102A.3.1. Dwelling units within a single structure separated by firewalls do not constitute separate buildings

Newly-constructed covered multifamily dwellings as defined in this chapter, include, but are not limited to, the following:

1. Apartment buildings with 3 or more dwelling units including timeshare apartments not considered a place of public accommodation or transient lodging as defined in Health and Safety Code Section 19955 (a), and Chapter 2 of the California Building Code.
2. Condominiums with 4 or more dwelling units including timeshare condominiums not considered a place of public accommodation or transient lodging as defined in Health and Safety Code Section 19955 (a), and Chapter 2 of the California Building Code.
3. Lodging houses, as defined in Chapter 2 of the California Building Code, used as a residence with more than 3 but not more than 5 guest rooms.
4. Congregate residences, as defined in Chapter 2 of the California Building Code.
5. Dwellings with 3 or more efficiency units, as defined in Chapter 2 of this code, or Section 17958.1 of the California Health and Safety Code.
6. Shelters for homeless persons, not otherwise subject to the disabled access provisions of the Division of the State Architect, Access Compliance (DSA-AC).
7. Dormitories, as defined in Chapter 2 of this code, with 3 or more guest rooms as defined in Chapter 2 of the California Building Code.
8. Timeshare dwellings with 3 or more units, not considered a place of public accommodations or transient lodging as defined in Health and Safety Code Section 19955 (a), and Chapter 2 of the California Building Code.
9. Other Group R Occupancies in covered multifamily dwellings which are regulated by the Office of the State Fire Marshal. See Section 1.11 444.
10. Housing which is publicly funded as defined in Chapter 2 of this code is subject to provisions of the Division of the State Architect (DSA-AC). See Section 1111 B.5.

1102A.2 Existing buildings. The building standards contained in this chapter do not apply to the alteration, repair, rehabilitation or maintenance of multifamily dwellings Group R Occupancies constructed for first occupancy prior to March 13, 1991. Housing which is publicly funded as defined in Chapter 2 of this code are is subject to provisions of the Division of the State Architect (DSA-AC). See Section 1111 B.5.

Covered multifamily dwellings shall be maintained in compliance with the accessibility standards in effect at the time of construction. Apartments constructed prior to March 13, 1991, shall be maintained in compliance with the accessibility standards in effect at the time of construction.

Additions to Group R occupancies shall be subject to the requirements of this chapter, provided the addition, when considered alone, meets the definition of a covered multifamily dwelling, as defined in this chapter.

New common use spaces serving existing covered multifamily dwellings shall be subject to the requirements of this chapter.

Note: For all existing public use areas, public accommodations, and housing which is publicly funded, see Chapter 11B, Division IV, Section 1134B, for provisions of the Division of the State Architect, Access Compliance (DSA-AC).

1102A.3 Multistory dwellings.

1102A.3.1 Multistory apartment or condominium dwellings in buildings with no elevator. This section shall apply to multistory dwelling units on the ground floor of buildings without elevators for which an application for a construction permit is submitted on or after July 1, 2005.

Exception: Carriage units as defined in Section 1107A.3-C and regulated only by the Department of Housing and Community Development as referenced in Section ~~1.8.2.1.2~~ ~~108-2-1-2~~.

At least 10 percent but not less than one of the multistory dwellings in apartment buildings with 3 or more dwelling units and/or condominiums with 4 or more dwelling units shall comply with the following:

1. The primary entry to the dwelling unit shall be on an accessible route unless exempted by site impracticality tests in Section 1150A.
2. At least one powder room or bathroom shall be located on the primary entry level, served by an accessible route and shall comply with the provisions in Division IV.
3. All rooms or spaces located on the primary entry level shall be served by an accessible route and shall comply with the provisions in Division IV. Rooms and spaces located on the primary entry level and subject to this chapter may include but are not limited to kitchens, powder rooms, bathrooms, living rooms, bedrooms, or hallways.
4. Common use areas covered by this section shall be accessible as required by this chapter. Public use areas as defined in Chapter 2, Chapter 11A, and Chapter 11B of this code are subject to provisions of the Division of the State Architect (DSA-AC) and are referenced in Section ~~1.9.1.1~~ ~~109-1-1~~.

The minimum number of multifamily dwelling units which must comply with this section shall be calculated using the total number of all multistory dwelling units in buildings on a site which are subject to this section. Any fraction thereof shall be rounded to next highest whole number.

1102A.3.2 Multistory dwelling units in buildings with one or more elevators. Multistory dwelling units contained in buildings with elevators shall comply with this section. For multistory dwelling units in buildings with elevators, the story of the unit that is served by the building elevator is considered a ground floor and the primary entry floor to the unit and shall comply with the following:

1. At least 1 powder room or bathroom shall be located on the primary entry level.
2. All rooms or spaces located on the primary entry level shall be served by an accessible route and shall comply with Division IV.

1102A.4 Participation areas. Access shall be provided to elements listed in Section 1104B.4.3, "Participation areas".

1102A.5 Swimming pools. Swimming pools and spas required to be accessible shall comply with the provisions of Section 1141A.

1102A.6 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 persons with disabilities.

**SECTION 1103A
DESIGN AND CONSTRUCTION**

1103A.1 General.

1103A.1.1 When buildings are required to be accessible, they shall be designed and constructed as provided in this chapter.

Note: Public use areas, public accommodations, and housing which is publicly funded as defined in Chapter 2, ~~Chapter 11A, and Chapter 11B~~ of this code are subject to provisions of the Division of the State Architect (DSA-AC) and are referenced in Section 1.9.1.1 ~~109-1.1~~.

**SECTION 1104A
COVERED MULTIFAMILY DWELLINGS**

1104A.1 General. All ground-floor dwelling units in nonelevator buildings shall be adaptable and on an accessible route, unless an accessible route is not required as determined by site impracticality provisions in Section 1150A. For buildings with elevators, see Section 1106A.

Multistory dwellings **s** units shall comply with Section 1102A.3.

1104A.2 Ground floors above grade. Where the first floor containing dwelling units in a building is above grade, all units on that floor shall be served by an accessible route. This floor will be considered a ground floor and all dwelling units are considered covered multifamily dwelling units.

Exception: Carriage units as defined in Section 1107A.3.C and regulated only by the Department of Housing and Community Development as referenced in Section 1.8.2.1.2 ~~108-2-1.2~~.

Multistory dwellings **s** units shall comply with Section 1102A.3.

**SECTION 1105A
GARAGES, CARPORTS AND PARKING FACILITIES**

1105A.1 General. Garages, carports and other parking facilities, which are accessory to covered multifamily dwelling units, shall be accessible as required in Section 1109A.

**SECTION 1106A
SITE AND BUILDING CHARACTERISTICS**

1106A.1 General. Covered multifamily dwellings with elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route, regardless of terrain or unusual characteristics of the site. Covered multifamily dwellings without elevators shall be designed and constructed to provide at least one accessible entrance on an accessible route unless terrain or unusual characteristics of the site prevent an accessible route based on the conditions listed below:

1. **Accessible Entrance.** Regardless of site considerations described in Section 1150A, an accessible entrance on an accessible route is required when there is an elevator connecting the parking area with the dwelling units on a ground floor. (In this case, those dwelling units on the ground floor served by an elevator, and at least one of each type of public- and common-use areas, would be subject to these requirements.)
2. **Elevator Building.** When a building elevator or elevators are provided as a means of access to dwelling units other than dwelling units on a ground floor (see Section 1104A.2), the building is an elevator building. All dwelling units become covered multifamily dwellings in that building. The elevator in that building must provide accessibility to all dwelling units in the building, regardless of the slope of the natural terrain. For multistory dwelling units in buildings **s** with one or more elevators, see Section 1102A.3.2.

Note: Where a building elevator is provided only as means of creating an accessible route to covered multifamily dwelling units on a ground floor, the building is not considered to be an elevator building, only dwelling units located on the ground floor shall be required to comply with this chapter.

3. *Elevated Walkway.* When an elevated walkway is planned between a building entrance and a vehicular or pedestrian arrival point, and the planned walkway has a slope no greater than 10 percent (1 unit vertical in 10 units horizontal), the floor being served by the elevated walkway becomes a ground floor and accessibility to all dwellings on that ground floor is required.

Note: Since the planned walkway meets the 10 percent slope criterion, it is required to provide an accessible route to the entrance, and the slope of the walkway must be reduced to 1 unit vertical in 12 units horizontal (8.33 percent slope) maximum.

1106A.2 Site impracticality. For tests to determine site impracticality due to terrain considerations in non-elevator buildings, see Section 1150A.

SECTION 1107A DEFINITIONS

For the purpose of this chapter, certain terms are defined as follows:

1107A.1-A

ACCESSIBLE for covered multifamily dwellings is the public- or common-use areas of the building that can be approached, entered and used by persons with disabilities.

ACCESSIBLE ROUTE is a continuous and unobstructed path connecting all accessible elements and spaces in a building or within a site that can be negotiated by a person with a disability using a wheelchair, and that is also safe for and usable by persons with other disabilities. Interior accessible routes may include corridors, hallways, floors, ramps, elevators, and lifts. Exterior accessible routes may include parking access aisles, curb ramps, crosswalks at vehicular ways, walks, ramps, and lifts.

ACCESSIBILITY is the combination of various elements in a building or area which allows access, circulation and the full use of the building and facilities by persons with disabilities.

ADAPTABLE DWELLING UNIT is an accessible dwelling unit within a covered multifamily building as designed with elements and spaces allowing the dwelling unit to be adapted or adjusted to accommodate the user. See Division IV.

ASSISTIVE DEVICE is an aid, tool or instrument used by persons with disabilities to assist in activities of daily living.

AUTOMATIC DOOR is a door equipped with a power-operated mechanism and controls that open and close the door automatically upon receipt of a momentary actuating signal. The switch that begins the automatic cycle may be a photoelectric device, floor mat, or manual switch.

1107A.2-B

BATHROOM is, for the purposes of this chapter, a room which includes a water closet (toilet), lavatory (sink), and a bathtub and/or a shower. It does not include single-fixture facilities or those with only a water closet and lavatory. It does include a compartmented bathroom. A compartmented bathroom is one in which the fixtures are distributed among interconnected rooms. A compartmented bathroom is considered a single unit and is subject to the requirements of this chapter.

BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE is an accessible entrance to a building that is connected by an accessible route to public transportation stops, to parking or passenger loading zones, or to public streets or sidewalks, if available.

1107A.3-C

CARRIAGE UNIT is a dwelling unit with living space on one or more floors immediately above a Group U, Division 1, private garage or garages. The footprint of the garage or garages is used as the footprint for the remaining floor or floors of the units above and the garage level contains no habitable space.

Note: Dwelling units located over a common garage shall not be considered carriage units.

COMMON USE AREAS are private use areas within multifamily residential facilities where the use of these areas is limited exclusively to owners, residents, and their guests. The areas may be defined as rooms or spaces or elements inside or outside of a building.

COVERED MULTIFAMILY DWELLINGS are dwelling units in buildings consisting of 3 or more dwelling units or 4 or more condominium units. Covered multifamily dwellings include dwelling units listed in Section 1102A.1. Dwelling units within a single structure separated by firewalls do not constitute separate buildings.

Note: For buildings or complexes containing publicly funded dwelling units, see Chapter 11B, Section 1111B.5 for provisions of the Division of the State Architect, ~~Access Compliance (DSA-AC).~~

CROSS SLOPE is the slope that is perpendicular to the direction of travel.

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 and a surface located above or below an adjacent curb face.

1107A.4-D

DETECTABLE WARNING is a standardized surface or feature built into or applied to walking surfaces or other elements to warn visually impaired persons of hazards in the path of travel. Only approved ~~DSA/AG~~ DSA-AC detectable warning products and directional surfaces shall be installed as provided in the CCR, Title 24, Part ~~1~~ 1, Articles 2, 3, and 4. Refer to CCR, Title 24, Part 12, Chapter 12-11A and B for building and ~~facilities~~ facility access specifications for product approval for detectable warning products and directional surfaces.

~~**Note:** Detectable warning products and directional surfaces installed after January 1, 2001, shall be evaluated by an independent entity, selected by the Department of General Services, Division of the State Architect – Access Compliance, for all occupancies, including transportation and other outdoor environments, except that when products and surfaces are for use in residential housing, evaluation shall be in consultation with the Department of Housing and Community Development. See Government Code Section 4460.~~

DWELLING UNIT is a single unit of residence for a family of one or more persons. Examples of dwelling units covered by this chapter include condominiums, an apartment unit within an apartment building, and other types of dwellings in which sleeping accommodations are provided but toileting or cooking facilities are shared by occupants of more than one room or portion of the dwelling. Examples of the latter include dormitory rooms and sleeping accommodations in shelters intended for occupancy as residences for homeless persons.

1107A.5-E

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

Notes:

1. See Section ~~1.8.1 108-1~~, Purpose.
2. In determining equivalent facilitation, consideration shall be given to means that provide for the maximum independence of persons with disabilities while presenting the least risk of harm, injury or other hazard to such persons or others.

1107A.6-F

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.

1107A.7-G

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

GROUND FLOOR is the floor of a building with a building entrance on an accessible route. A building may have one or more ground floors.

1107A.8-H (No definitions)

1107A.9-I

INDEPENDENT ENTITY. See Chapter 2, Section 202

INTERNATIONAL SYMBOL OF ACCESSIBILITY is that symbol adopted by Rehabilitation International's 11th World Congress for the purpose of indicating that buildings and facilities are accessible to persons with disabilities. See Chapter 11A, Figure 11A-1A.

1107A.10-J (No definitions)

1107A.11-K

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

1107A.12-L

LEVEL AREA is a specified surface that does not have a slope in any direction exceeding 1/4 inch (6.4 mm) in 1 foot (305 mm) from the horizontal (2.083-percent gradient).

LIFT, PLATFORM (WHEELCHAIR). See "Platform (Wheelchair) Lift."

1107A.13-M

MARKED CROSSING is a crosswalk or other identified marked path intended for pedestrian use in crossing a vehicular way.

MULTISTORY DWELLING UNIT is a dwelling unit with finished living space located on one floor and the floor or floors immediately above or below it.

1107A.14-N

NEWLY CONSTRUCTED is a building that has never before been used or occupied for any purpose.

NOSE, NOSING is that portion of a tread projecting beyond the face of the riser immediately below.

1107A.15-O

OPEN RISER is the airspace between a tread projecting beyond the face of the riser immediately below.

1107A.16-P

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

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

PEDESTRIAN RAMP is a sloping accessible route intended for pedestrian traffic and is differentiated from a curb ramp.

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

PERSONS WITH DISABILITIES, for purposes of this chapter, "persons with disabilities" includes, but is not limited to, any physical or mental disability as defined in Government Code Section 12926.

PLATFORM (WHEELCHAIR) 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 by Section 1124A.11.

POWDER ROOM is a room containing a water closet (toilet) and lavatory (sink), and which is not defined as a bathroom in Section 1107A.2-B.

PRIMARY ENTRY is the principal entrance through which most people enter the building, as designated by the building official.

PRIMARY ENTRY LEVEL is the floor or level of the building on which the primary entry is located.

PUBLIC ACCOMMODATION. See Chapter 2, Section 202.

PUBLIC USE AREAS means interior or exterior rooms or spaces of a building that are made available to the general public and does not include Common Use Areas as defined in Section 1107A.3-C. Public Use Areas may be provided at a building that is privately or publicly owned.

1107A.17-Q (No definitions)

1107A.18-R

RAMP. See "Pedestrian Ramp," Section 1107A.16-P.

RISER is the vertical distance from the top of a tread to the top of the next higher tread.

1107A.19-S

SIDEWALK. See "Sidewalk," Chapter 2, Section 202.

SLEEPING ACCOMMODATIONS are rooms in which people may sleep; for example, dormitory and hotel or motel guest rooms or suites.

SLOPE is the relative steepness of the land between two points and is calculated as follows:

The horizontal distance and elevation change between the two points (e.g., an entrance and a passenger loading zone). The difference in elevation is divided by the distance and the resulting fraction is multiplied by 100 to obtain the percentage of slope.

For example: if a principal entrance is 10 feet (3048 mm) from a passenger loading zone, and the principal entrance is raised 1 foot (305 mm) higher than the passenger loading zone, then the slope is $1/10 \times 100 = 10$ percent.

1107A.20-T

TRANSIENT LODGING is a building, facility, or portion thereof, available to the public as an inn, hotel, motel, timeshare, or place where one or more dwelling units or sleeping accommodations are provided for transient guests, excluding inpatient medical care facilities and lodging houses with 5 or less guest rooms. Transient lodging may include but is not limited to, resorts, group homes, and dormitories.

TREAD is the horizontal member of a step.

TREAD DEPTH is the horizontal distance from front to back of tread, including nosing when used.

TREAD RUN is the horizontal distance from the leading edge of a tread to the leading edge of an adjacent tread.

1107A.21-U (No definitions)

1107A.22-V

VEHICULAR OR PEDESTRIAN ARRIVAL POINTS are public or resident parking areas, public transportation stops, passenger loading zones, and public streets or sidewalks.

1107A.23-W

WALK is a surfaced pedestrian way not located contiguous to a street used by the public. (See Chapter 2, Section 202 definition for "Sidewalk.")

WHEELCHAIR. See "Wheelchair," Chapter 2, Section 202.

1107A.24-X (No definitions)

1107A.25-Y (No definitions)

1107A.26-Z (No definitions)

Division II — EXTERIOR FACILITIES

Division II Table of Contents

Section 1108A General Requirements for Accessible Parking and Exterior Routes of Travel

Section 1109A Parking Facilities

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Section 1111A Changes in Level on Accessible Routes

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Section 1113A Walks and Sidewalks on an Accessible Route

Section 1114A Exterior Ramps and Landings on Accessible Routes

Section 1115A Exterior Stairways

Section 1116A Hazards on Accessible Routes

SECTION 1108A

GENERAL REQUIREMENTS FOR ACCESSIBLE PARKING AND EXTERIOR ROUTES OF TRAVEL

Notes:

1. In addition to provisions of this division, exterior routes of travel that provide access to, or egress from, buildings for persons with disabilities shall also comply with Chapter 10.
2. Public use areas, public accommodations, and housing which is publicly funded as defined in Chapter 2, ~~Chapter 11A, and Chapter 11B~~ of this code are subject to provisions of the Division of the State Architect (DSA-AC) and are referenced in Section 1.9.1.1 ~~409.1.1~~.

**SECTION 1109A
PARKING FACILITIES**

1109A.1 Accessible parking required. Each parking facility provided for covered multifamily dwellings and facilities (e.g., swimming pools, club houses, recreation areas, and laundry rooms) that serve covered multifamily dwellings shall provide accessible parking as required by this section.

1109A.2 Parking facilities. Parking facilities shall include, but not be limited to, the following:

1. Garages.
2. Private garages.
3. Carports.
4. Off-street parking (parking lots/spaces).

1109A.2.1 Private garages. Private garages accessory to covered multifamily dwelling units shall be accessible as required in Section 1109A. Private garages include individual garages and multiple individual garages grouped together.

Exception: An attached private garage directly serving a single covered multifamily dwelling unit providing at least one of the following options:

1. A door leading directly from the covered dwelling unit which immediately enters the garage. The door shall comply on both sides with Sections 1132A.3 through 1132A.9.
2. An accessible route of travel from the covered dwelling unit to an exterior door entering the garage. See Section 1132A.1 for requirements at both exit doors.
3. An accessible route of travel from the dwelling unit's primary entry door to the vehicular entrance at the garage. See Section 1132A.1 for requirements at the primary entry door.

1109A.3 Required accessible parking spaces. Accessible parking spaces shall be provided at a minimum rate of 2 percent of the covered multifamily dwelling units. At least one space of each type of parking facility shall be made accessible even if the total number exceeds 2 percent. When assigned parking is provided, signage as required by Section 1109A.8.8 shall not be required.

1109A.4 Assigned accessible parking spaces. When assigned parking spaces are provided for a resident or a group of residents, at least 2 percent of the assigned parking spaces serving covered multifamily dwelling units shall be accessible in each type of parking facility. At least one space of each type of parking facility shall be made accessible even if the total number exceeds 2 percent. When assigned parking is provided, signage as required by Section 1109A.8.8 shall not be required.

1109A.5 Unassigned and visitor parking spaces. When parking is provided for covered multifamily dwellings and is not assigned to a resident or a group of residents at least 5 percent of the parking spaces shall be accessible and provide access to grade-level entrances of covered multifamily dwellings and facilities (e.g., swimming pools, club houses, recreation areas, and laundry rooms) that serve covered multifamily dwellings. Accessible parking spaces shall be provided with signage as required by Section 1109A.8.8. Such signage shall not be blocked from view by a vehicle parked in the space.

1109A.6 Requests for accessible parking spaces. When assigned parking is provided, designated accessible parking for the dwelling unit shall be provided on request of residents with disabilities on the same terms and with the full range of choices (e.g., off-street parking, carport or garage) that are available for other residents.

1109A.7 Location of accessible parking spaces. The location of accessible parking spaces shall comply with the following:

1. Accessible parking spaces shall be located on the shortest possible accessible route to an accessible building, or covered multifamily dwelling unit entrance. All van accessible spaces may be grouped on one level of a parking facility.
2. When parking facilities are located adjacent to a building with multiple accessible entrances, accessible parking spaces shall be dispersed and located near the accessible building entrances.
3. When practical, the accessible route shall not cross lanes for vehicular traffic. When crossing vehicle traffic lanes is necessary, the accessible route shall be designated and marked as a crosswalk.
4. Parking facilities that do not serve a particular building shall have accessible parking spaces located on the shortest possible accessible route to an accessible pedestrian entrance of the parking facility.
5. Accessible parking spaces shall be located so that persons with disabilities are not compelled to wheel or walk behind parked cars other than their own.

Exception: When the enforcement agency determines that compliance with this section or providing equivalent facilitation would create an unreasonable hardship, parking spaces may be provided which would require a person with physical disabilities to wheel or walk behind other than accessible parking spaces.

1109A.8 Design and construction. Accessible parking required by this section shall be designed and constructed in accordance with Section 1109A.

1109A.8.1 Vertical Clearances. ~~Where required to be accessible, all entrances into, and vertical clearances within parking facilities shall have a minimum vertical clearance of 8 feet 2 inches (2489 mm) from the floor to the lowest projection from the ceiling.~~ All entrances, exits, and vehicular passageways to and from required accessible parking spaces within parking facilities, shall have a minimum vertical clearance of 8 feet 2 inches (2489 mm) from the floor to the lowest projection of the ceiling. Warning signs acceptable to the local enforcement authority shall be installed at transitions from the 8 feet 2 inch ceiling to lower ceiling heights in the same parking level.

1109A.8.2 Arrangement of parking spaces. Parking spaces shall be arranged to comply with the following:

1. In each parking area, a bumper or curb shall be provided and located to prevent encroachment of cars over the required width of walkways.
2. Ramps, including curb ramps, shall not encroach into any accessible parking space or the adjacent loading and unloading access aisle.

1109A.8.3 Slope of accessible parking spaces and access aisles. Surface slopes of accessible parking spaces and access aisles shall be the minimum possible and shall not exceed 1/4 inch (6.35 mm) per foot (2.083-percent gradient) in any direction.

1109A.8.4 Accessible parking space size. Accessible parking spaces shall comply with Sections 1109A.8.5 and 1109A.8.6.

1109A.8.5 Accessible single parking space. Where accessible single spaces are provided, they shall be constructed in accordance with the following:

1. Single spaces shall be 14 feet (4267 mm) wide and lined to provide a 9-foot (2743 mm) wide parking area and a 5-foot (1524 mm) wide loading and unloading access aisle on the passenger side of the vehicle (see Figure 11A-2B) with the vehicle parked in the forward position.
2. When more than one space is provided, two 9-foot (2743 mm) wide parking spaces may be lined on each side of a 5-foot (1524 mm) wide loading and unloading access aisle (see Figure 11A-2A, and 11A-2C).
3. The minimum length of each parking space shall be 18 feet (5486 mm).
4. The loading and unloading access aisle shall be marked by a border painted blue. Within the blue border, hatched lines a maximum of 36 inches (914 mm) on center shall be painted a color contrasting with the parking surface, preferably blue or white. The words "NO PARKING" shall be painted on the ground within each 5-foot (1524 mm) wide loading and unloading access aisle. This notice shall be painted in white letters no less than 12 inches (305 mm) high and located so that it is visible to traffic enforcement officials (see Figures 11A-2A, 11A-2B, and 11A-2C).

1109A.8.6 Van accessible parking space. One in every eight accessible spaces, but not less than one, shall be van accessible and shall be constructed in accordance with the following:

1. Each space shall be served by a loading and unloading access aisle at least 8 feet (2438 mm) wide, placed on the passenger side with the vehicle parked in the forward position.
2. The minimum length of each space shall be 18 feet (5486 mm).
3. Each space shall be designated "van accessible" as required by 1109A.8.8.
4. All van accessible spaces may be grouped on one level of a parking facility.
5. The loading and unloading access aisle shall be marked by a border painted blue. Within the blue border, hatched lines a maximum of 36 inches (914 mm) on center shall be painted a color contrasting with the parking surface, preferably blue or white. The words "NO PARKING" shall be

painted on the ground within each 8-foot (2438 mm) wide loading and unloading access aisle. This notice shall be painted in white letters no less than 12 inches (305 mm) high and located so that it is visible to traffic enforcement officials.

Note: See Figures 11A-2A, 11A-2B, and 11A-2C.

1109A.8.7 Adjacent parking. Parking spaces adjacent to accessible parking spaces shall not be considered as loading and unloading access aisles.

1109A.8.8 Parking signage. Each accessible parking space reserved for persons with disabilities shall be identified by a reflective sign permanently posted immediately adjacent to and visible from each stall or space consisting of the "International Symbol of Accessibility" in white on a dark blue background. The sign shall not be smaller than 70 square inches (4516 mm²) in area and, when in a path of travel, shall be posted at a minimum height of 80 inches (2032 mm) from the bottom of the sign to the parking space finished grade. Signs may also be centered on the wall at the interior end of the parking space at a minimum height of 36 inches (914 mm) from the parking space finished grade, ground or sidewalk. Van accessible spaces shall comply with Section 1109A.8.6 and shall have an additional sign or additional language stating "Van Accessible" below the symbol of accessibility.

Note: When assigned resident parking is provided, signage is not required except for unassigned or visitor parking spaces.

An additional sign shall also be posted in a conspicuous place at each entrance to off-street parking facilities or immediately adjacent to and visible from each accessible stall or space. The sign shall not be less than 17 inches (432 mm) by 22 inches (559 mm) in size with lettering not less than 1 inch (25.4 mm) in height, and shall clearly and conspicuously state the following:

"Unauthorized vehicles parked in designated accessible spaces not displaying distinguishing placards or license plates issued for persons with disabilities may be towed away at owner's expense. Towed vehicles may be reclaimed at _____ or by telephoning _____."

Blank spaces are to be filled in with appropriate information as a permanent part of the sign.

In addition to the above requirements, the surface of each accessible parking space shall have a surface identification duplicating either of the following schemes:

1. By outlining or painting the stall or space in blue and outlining on the ground in the stall or space in white or suitable contrasting color the "International Symbol of Accessibility"; or,
2. By outlining the "International Symbol of Accessibility" in white on blue background. The "International Symbol of Accessibility" shall be located so that it is visible to a traffic enforcement officer when a vehicle is properly parked in the space and shall be 36 inches high by 36 inches wide (914 mm by 914 mm).

Note: See Figures 11A-2A, 11A-2B, and 11A-2C.

SECTION 1110A EXTERIOR ROUTES OF TRAVEL

1110A.1 Exterior accessible route. When a building or portion of a building is required to be accessible or adaptable, an accessible route shall be provided to all portions of the building, accessible building entrances and between the building and the public way. The accessible route shall be the most practical direct route and to the maximum extent feasible, coincide with the route for the general public and building residents. Exterior accessible routes shall be provided as follows:

1. Where more than one route of travel is provided, all routes shall be accessible.
2. At least one accessible route within the boundary of the site shall be provided from public transportation stops, accessible parking and accessible passenger loading and unloading zones, and public streets or sidewalks to the accessible building entrance they serve.

3. *At least one accessible route shall connect accessible buildings, facilities, elements and spaces that are on the same site. Accessible routes shall be provided between accessible buildings and accessible site facilities when more than one building or facility is located on a site.*
4. *At least one accessible route shall connect accessible building or facility entrances with all accessible spaces, elements, and covered multifamily dwelling units.*
5. *An accessible route shall connect at least one accessible entrance of each covered multifamily dwelling unit with exterior spaces and facilities that serve the dwelling unit.*
6. *Where elevators are provided for vertical access, all elevators shall be accessible. See Section 1124A.*

Note: *If the slope of the finished grade between covered multifamily dwellings and a public use or common use facility (including parking) exceeds 1 unit vertical in 12 units horizontal (8.33-percent slope), or where other physical barriers (natural or artificial) or legal restrictions, all of which are outside the control of the owner, prevent the installation of an accessible route, an acceptable alternative is to provide access by a vehicular route, provided:*

1. *There is accessible parking on an accessible route for at least 2 percent of the covered multifamily dwelling units, and*
2. *Necessary site provisions such as parking spaces and curb ramps are provided at the public use or common use facility.*

1110A.2 Signs. *At every primary public entrance and at every major junction where the accessible route diverges from the circulation path along or leading to an accessible route, entrance or facility, there shall be a sign displaying the "International Symbol of Accessibility." Signs shall indicate the direction to accessible building entrances and facilities and shall comply with the requirements found in Section 1143A.2.*

1110A.3 Flooring. *If carpet or carpet tile is used in a common-use area or public-use area on a ground or floor surface, it shall have firm backing or no backing. The maximum pile height shall be ½ inch (12.7 mm). Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 1111A requirements for changes in level.*

1110A.3.1 Recessed doormats. *Recessed doormats shall be adequately anchored to prevent interference with wheelchair traffic.*

SECTION 1111A CHANGES IN LEVEL ON ACCESSIBLE ROUTES

1111A.1 Changes in level not exceeding 1/2 inch. *Abrupt changes in level along any accessible route shall not exceed ½ inch (12.7 mm). When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50-percent slope). Changes in level not exceeding ¼ inch (6.35 mm) may be vertical.*

1111A.2 Changes greater than 1/2 inch. *Changes in level greater than 1/2 inch (12.7 mm) shall be made by means of a sloped surface not greater than 1 unit vertical in 20 units horizontal (5-percent slope), or a curb ramp, ramp, elevator or platform (wheelchair) lift. Stairs shall not be part of an accessible route. When stairs are located along or adjacent to an accessible route they shall comply with Section 1115A for exterior stairways.*

SECTION 1112A CURB RAMPS ON ACCESSIBLE ROUTES

1112A.1 General. *Curb ramps within the boundary of the site 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, the street surfaces shall be marked to identify pedestrian crosswalks, and the lower end of the curb ramp shall terminate within such crosswalk areas. Curb ramps do not require handrails.*

1112A.2. Obstructions. Curb ramps shall be located or protected to prevent obstruction by parked cars. Built-up curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces, or the adjacent loading and unloading access aisle.

1112A.3 Width of curb ramps. Curb ramps shall be a minimum of 48 inches (1219 mm) in width.

1112A.4 Diagonal curb ramps. If diagonal (or corner-type) curb ramps have returned curbs or other well-defined edges, such edges shall be parallel to the direction of pedestrian flow. The bottom of diagonal curb ramps shall have a 48-inch (1219 mm) minimum clear space as shown in Figures 11A-3A through 11A-3M. If diagonal curb ramps are provided at marked crossings, the 48-inch (1219 mm) clear space shall be within the markings (see Figures 11A-3A through 11A-3M). If diagonal curb ramps have flared sides, they shall also have at least a 24-inch-long (610 mm) segment of straight curb located on each side of the curb ramp and within the marked crossing. See Figures 11A-3A through 11A-3M.

1112A.5 Slope of curb ramps. The slope of curb ramps shall not exceed 1 unit vertical to 12 units horizontal (8.33-percent slope) and shall lie, generally, in a single sloped plane. Transitions from ramps to walks, gutters, or streets shall be flush and free of abrupt changes. Maximum slopes of adjoining gutters, road surface immediately adjacent to the curb ramp, or accessible route shall not exceed 1 unit vertical to 20 units horizontal (5-percent slope) within 4 feet (1219 mm) of the top and bottom of the curb ramp.

If a curb ramp is located where pedestrians must walk across the ramp, then it shall have flared sides; the maximum slope of the flare shall be 1 unit vertical in 10 units horizontal (10-percent slope). Curb ramps with returned curbs may be used where pedestrians would not normally walk across the ramp. See Figures 11A-3A through 11A-3M.

1112A.6 Level landing. A level landing 48 inches (1219 mm) 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 flared or flared sides of the curb ramp, shall not exceed 1 unit vertical to 12 units horizontal (8.33-percent slope).

1112A.7 Finish. The surface of each curb ramp and its flared sides shall be stable, firm and slip-resistant and shall be of contrasting finish from that of the adjacent sidewalk.

1112A.8 Border. All curb ramps shall have a grooved border 12 inches (305 mm) wide at the level surface of the sidewalk along the top and each side approximately 3/4 inch (19 mm) 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. See Figures 11A-3A through 11A-3K.

1112A.9 Detectable warnings. See Chapter 11B, Section 1127B.5, Item 7.

SECTION 1113A WALKS AND SIDEWALKS ON AN ACCESSIBLE ROUTE

1113A.1 Width and continuous surface. Walks and sidewalks subject to this chapter shall have a continuous common surface, not interrupted by steps or by abrupt changes in level exceeding 1/2 inch (12.7 mm). (See Section 1111A.3).

1113A.1.1 Width. Walks and sidewalks shall be a minimum of 48 inches (1219 mm) in width, except that walks serving an individual dwelling unit in covered multifamily buildings may be reduced to 36 inches (914 mm) in clear width except at doors.

1113A.1.2 Surfaces. Surfaces shall be slip-resistant as follows:

1. 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. Surfaces with a slope of 6 percent or greater gradient shall be slip-resistant.

1113A.1.3 Surface cross slopes. Surface cross slopes shall not exceed 1/4 inch (6.35 mm) per foot (2.083-percent slope) except when the enforcing agency finds that due to local conditions it creates an unreasonable hardship, the cross slope may be increased to a maximum of 1/2 inch (12.7 mm) per foot (4.2-percent slope) for distances not to exceed 20 feet (6096 mm).

1113A.2 Walks with continuous gradients. All walks on an accessible route with continuous gradients shall have level areas at least 60 inches (1524 mm) in length at intervals of at least every 400 feet (122 m).

1113A.3 Five percent gradient. When the slope in the direction of travel of any walk on an accessible route exceeds 1 unit vertical in 20 units horizontal (5-percent slope), it shall comply with the ramp provisions of Section 1114A.

1113A.4 Level areas. Walks on an accessible route shall be provided with a level area not less than 60 inches by 60 inches (1524 mm by 1524 mm) at a door or gate that swings toward the walk, and not less than 48 inches wide by 44 inches (1219 mm by 1118 mm) deep at a door or gate that swings away from the walk. See Section 1126A.3.2 for strike edge maneuvering space at doors or gate.

1113A.5 Smooth surface. The bottom 10 inches (254 mm) of all doors and/or gates except automatic and sliding doors or gates shall have a smooth, uninterrupted surface to allow the door or gate to be opened by a wheelchair footrest without creating a trap or hazardous condition. Where narrow frame doors are used, a 10-inch (254 mm) 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.

1113A.6 Gratings. Walks, sidewalks and pedestrian ways on an accessible route shall be free of gratings whenever possible. Gratings located in the surface of any of these areas, grid openings in gratings shall be limited to 1/2 inch (12.7 mm) in the direction of traffic flow.

Exceptions:

1. Where the enforcement agency determines that compliance with this section would create an unreasonable hardship, an exception may be granted when equivalent ~~facilities are~~ facilitation is provided.
2. This section shall not apply in those conditions where, due to legal or physical constraints, all or portions of the site of the project will not allow compliance with these building standards or equivalent facilitation on all or portions of one site without creating an unreasonable hardship.

**SECTION 1114A
EXTERIOR RAMPS AND LANDINGS ON ACCESSIBLE ROUTES**

1114A.1 Width. The width of ramps shall be consistent with the requirements for exits in Chapter 10 of this code, but in no case shall the ramp width be less than the following:

1. Ramps serving accessible entrances to covered multifamily buildings where the ramp is the only exit discharge path and serves an occupant load of 300 or more shall have a minimum clear width of 60 inches (1524 mm).
2. Ramps serving accessible entrances of covered multifamily dwellings in Group R Occupancies with an occupant load of 10 or less may be 36 inches (914 mm) in clear width.
3. All other ramps shall have a minimum clear width of 48 inches (1219 mm).
4. Handrails, curbs, wheel guides and/or appurtenances shall not project into the required clear width of a ramp.

Note: See Section 1114A.6.2.4 for handrail projections.

1114A.2 Slope. The maximum slope of ramps on an accessible route shall be no greater than 1 unit vertical in 12 units horizontal (8.33-percent slope). Transitions from ramps to walks, gutters or streets shall be flush and free of abrupt changes.

Exception: Ramps serving decks, patios or balconies as specified in Section 1132A.4.

1114A.2.1 Cross slope. The cross slope of ramp surfaces shall be no greater than 1/4 inch (6.35 mm) per foot (2.083-percent slope).

1114A.3 Outdoor ramps. Outdoor ramps, ramp landings and their approaches shall be designed so that water will not accumulate on the walking surface.

1114A.4 Landings. Ramp landings shall be level and comply with this section.

1114A.4.1 Location of landings. Landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30 inches (762 mm) 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 (GRADING %)	MAXIMUM RISE (Inches)	MAXIMUM HORIZONTAL PROJECTION (FEET) (Feet)
	(x 25.4 for mm)	(x 304.8) for mm)
1:12 (8.33%)	30	30
1:15 (6.67%)	30	37.5
1:16 (6.25%)	30	40
1:20 (5.00%)	30	50

1114A.4.2 Size of top landings. Top landings shall not be less than 60 inches (1524 mm) wide. Top landings shall have a minimum length of not less than 60 inches (1524 mm) in the direction of the ramp run. See Section 1126A.3 for maneuvering clearances at doors.

1114A.4.3 Landing width. The minimum width of bottom and intermediate landings shall not be less than the width of the ramp.

1114A.4.4 Encroachment of doors. Doors in any position shall not reduce the minimum dimension of the landing to less than 42 inches (1067 mm) and shall not reduce the required width by more than 3 inches (76.2 mm) when fully open. (See Figure 11A-6D).

1114A.4.5 Strike edge extension. The width of the landing shall comply with Section 1126A.3 for strike edge extension and maneuvering space at doors.

1114A.4.6 Change of direction. Intermediate and bottom landings at a change of direction in excess of 30 degrees shall have a length in the direction of ramp run of not less than 72 inches (1829 mm). (See Figures 11A-6C and 11A-6D).

1114A.4.7 Other intermediate landings. Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60 inches (1524 mm). (See Figure 11A-6C).

1114A.5 Ramp height. Ramps more than 30 inches (762 mm) above the adjacent floor or ground and open on one or both sides shall be provided with guardrails as required by Section 1013 509. Guardrails shall be continuous from the top of the ramp to the bottom of the ramp.

1114A.6 Ramp handrails.

1114A.6.1 Where required. Handrails shall be provided at each side of ramps when the slope exceeds 1 unit vertical in 20 units horizontal (5%-percent slope). Handrails on all ramps shall be continuous.

Exceptions:

1. Curb ramps.
2. Ramps that serve an individual dwelling unit may have one handrail, except that ramps open on one or both sides shall have handrails provided on the open side or sides.
3. Ramps at exterior door landings with less than 6 inches (152 mm) rise or less than 72 inches (1829 mm) in length.

1114A.6.2 Handrail configuration.

1114A.6.2.1 Handrail heights. The top of handrails shall be 34 to 38 inches (864 to 965 mm) above the ramp surface.

1114A.6.2.2 Handrail ends. Handrail ends shall be returned.

1114A.6.2.3 Handrail extension. Handrails shall extend a minimum of 12 inches (305 mm) beyond the top and bottom of the ramp. Where the extension creates a hazard, the termination of the extension shall be rounded or returned smoothly to floor, wall or post. (See Figure 11A-5A).

1114A.6.2.4 Handrail projections. Handrails projecting from a wall shall have a space of 1½ inches (38.1 mm) between the wall and the handrail. Handrails shall not reduce the required minimum clear width of ramps.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76.2 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. (See Figure 11A-6B).

1114A.6.2.5 Handrail grips. The handgrip portion of handrails shall not be less than 1¼ inches (31.75 mm) nor more than 2 inches (50.8 mm) in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Edges shall have a minimum radius of 1/8 inch (3.17 mm). Handrails shall not rotate within their fittings. (See Figure 11A-6B).

Note: For public use areas, public accommodations, and housing which is publicly funded, see Chapter 11B, Division III, Section 1133B.5.5 for provisions of the Division of the State Architect--Access Compliance (DSA-AC).

1114A.7 Curbs and wheel guides. Ramps exceeding 10 feet (3048 mm) in length and ramp landings having a vertical drop exceeding 4 inches (101.6 mm), shall be provided with one of the following:

1. Guide curbs a minimum of 2 inches (50.8 mm) in height at each side; or
2. Wheel guide rails at each side, centered 2 to 4 inches (50.8 to 101.6 mm) above the surface of the ramp or ramp landing.

Exception: Ramps or ramp landings bounded by a wall or fence.

Note: See Figure 11A-5A

**SECTION 1115A
EXTERIOR STAIRWAYS**

1115A.1 General. Exterior stairways serving buildings on a site containing covered multifamily dwelling units shall comply with this section.

1115A.2 Open risers. Open risers are not permitted on exterior stairways.

Exceptions:

1. An opening of not more than ½ inch (12.7 mm) may be permitted between the base of the riser and the tread.
2. Risers constructed of grating containing openings of not more than ½ inch (12.7 mm) may be permitted.

1115A.3 Treads. All tread surfaces shall be slip resistant. Treads shall have smooth, rounded or chamfered exposed edges, and no abrupt edges at the nosing (lower front edge).

1115A.4 Nosing. Nosing shall not project more than 1¼ inches (31.8 mm) past the face of the riser below. Risers shall be sloped or the underside of the nosing shall have an angle not more than 30 degrees (0.52 rad) from the vertical. (See Figure 11A-6A).

1115A.5 Striping for the visually impaired. Exterior stairs serving buildings on a site containing multifamily dwelling units shall have the upper approach and all treads marked by a stripe providing clear visual contrast.

The stripe shall be a minimum of 2 inches (50.8 mm) wide to a maximum of 4 inches (101.6 mm) wide placed parallel to, and not more than 1 inch (25.4 mm) from, the nose of the step or upper approach. The stripe shall extend the full width of the step or upper approach and shall be of material that is at least as slip resistant as the other treads of the stair. A painted stripe shall be acceptable.

1115A.6 Exterior stairway handrails.

1115A.6.1 Where required. Stairways shall have handrails on each side. Intermediate handrails shall be located equidistant from the sides of the stairway and comply with Section ~~4042-8~~ 1012.9.

Exception: Stairways serving an individual dwelling unit may have one handrail, except that stairways open on one or both sides shall have handrails on the open side or sides.

1115A.6.2 Handrail configuration.

1115A.6.2.1 Handrail heights. The top of handrails shall be 34 to 38 inches (864 to 965 mm) above the nosing of the treads.

1115A.6.2.2 Handrail ends. Ends shall be returned or shall terminate in newel posts or safety terminals.

1115A.6.2.3 Handrail extension. Handrails shall extend a minimum of 12 inches (305 mm) beyond the top nosing and 12 inches (305 mm), plus the tread width, beyond the bottom nosing.

Where the extension creates a hazard, the termination of the extension shall be rounded or returned smoothly to floor, wall or post. Where the stairs are continuous from landing to landing, the inner rail shall be continuous and need not extend out into the landing. (See Figures 11A-6A and 11A-6E).

1115A.6.2.4 Handrail projections. Handrails projecting from a wall shall have a space of 1½ inches (38.1 mm) between the wall and the handrail.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76.2 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. (See Figure 11A-6B).

1115A.6.2.5 Handrail grips. The handgrip portion of handrails shall not be less than 1¼ inches (31.75 mm) nor more than 2 inches (50.8 mm) in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Edges shall have a minimum radius of 1/8 inch (3.17 mm). Handrails shall not rotate within their fittings. (See Figure 11A-6B).

Note: For public use areas, public accommodations, and housing which is publicly funded, see Chapter 11B, Division III, Section 1133B.4.2.6 for provisions of the Division of the State Architect--Access Compliance (DSA-AC).

**SECTION 1116A
HAZARDS ON ACCESSIBLE ROUTES**

1116A.1 Warning curbs. Abrupt changes in level exceeding 4 inches (101.6 mm) in vertical dimension, such as changes in level at planters or fountains located in or adjacent to walks, sidewalks, or other pedestrian ways shall be identified by curbs or other approved barriers projecting at least 6 inches (152.4 mm) in height above the walk or sidewalk surface to warn the blind of a potential drop-off.

Exceptions:

1. Between a walk or sidewalk and an adjacent street or driveway.
2. When a guardrail or handrail is provided with a wheel guide centered 2 to 4 inches (50.8 to 101.6 mm) above the surface of the walk or sidewalk.

1116A.2 Headroom clearance. Walks, pedestrian ways, and other circulation spaces which are part of the required egress system shall have a minimum clear headroom of 84 inches (2134 mm). Other walks, pedestrian ways, and circulation spaces shall have a minimum clear headroom of 80 inches (2032 mm). If the vertical clearance of an area adjoining an accessible route is reduced to less than 80 inches (2032 mm) nominal dimension, a guardrail or other barrier having its leading edge at or below 27 inches (686 mm) above the finished floor shall be provided. (See Figure 11A-1B).

Exception: Doorways and archways less than 24 inches (610mm) in depth may have a minimum clear headroom of 80 inches (2032 mm) nominal. See Section 1126A.

1116A.3 Overhanging obstructions. Any obstruction that overhangs a pedestrian way shall be a minimum of 80 inches (2032 mm) above the walking surface as measured from the bottom of the obstruction. Where a guy support is used parallel to a path of travel, including, but not limited to, sidewalks, a guy brace, sidewalk guy or similar device shall be used to prevent an overhanging obstruction (see Section 1116A.2 for required headroom clearance).

1116A.4 Free-standing signs. Wherever signs mounted on posts or pylons protrude from the post or pylons and the bottom edge of the sign is at less than 80 inches (2032 mm) above the finished floor or ground level, the edges of such signs shall be rounded or eased and the corners shall have a minimum radius of 0.125 inches (see Section 1116A.2 for required headroom clearance).

Division III — BUILDING FEATURES

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**SECTION 1117A
GENERAL REQUIREMENTS FOR ACCESSIBLE ENTRANCES, EXITS, INTERIOR ROUTES OF
TRAVEL AND FACILITY ACCESSIBILITY**

Note: In addition to provisions of this division, interior routes of travel that provide access to, or egress from, buildings for persons with disabilities shall also comply with Chapter 10.

1117A.1 General. When buildings are required to be accessible, building facilities shall be accessible as provided in this division. Where specific floors of a building are required to be accessible, the requirements of this division shall apply only to the facilities located on accessible floors.

1117A.2 Primary entrances and exterior exit doors. All primary entrances and exterior ground floor exit doors to buildings and facilities on accessible routes shall be accessible to persons with disabilities.

1117A.3 Separate dwelling unit entrances. When a ground-floor dwelling unit of a building has a separate entrance, each such ground-floor dwelling unit shall be served by an accessible route, except where the terrain or unusual characteristics of the site prohibit an accessible route. (See Section 1150A for site impracticality tests).

1117A.4 Multiple entrances. Only one entrance to covered multifamily buildings is required to be accessible to any one ground floor of a building, except in cases where an individual dwelling unit has a separate exterior entrance. Where the building contains clusters of dwelling units with each cluster sharing a different exterior entrance, more than one entrance may be required to be accessible, as determined by analysis of the site. In every case, the accessible entrance shall be on an accessible route to the covered dwelling units it serves.

SECTION 1118A EGRESS AND AREAS OF REFUGE

1118A.1 General. Including but not limited to the requirements contained in this chapter for accessible routes, signage and emergency warning systems in buildings or portions of buildings required to be accessible shall be provided with accessible means of egress as required by Chapter 10. (See Section 1007.)

SECTION 1119A INTERIOR ROUTES OF TRAVEL

1119A.1 General. When a building or portion of a building is required to be accessible or adaptable, an accessible route shall be provided to all portions of the building, accessible building entrances and to covered multifamily dwelling units. The accessible route shall, to the maximum extent feasible, coincide with the route for the general public and other building residents. Accessible routes shall not pass through kitchens, storage rooms, restrooms, closets or other spaces used for similar purposes except within an individual dwelling unit. Accessible routes shall be provided as follows:

1. Where more than one route of travel is provided, all routes shall be accessible.
2. At least one accessible route shall connect accessible building or facility entrances with all accessible spaces, elements and covered multifamily dwelling units.
3. An accessible route shall connect at least one accessible primary entrance of each covered multifamily dwelling unit with interior and exterior spaces and facilities that serve the unit.
4. Where elevators are provided for vertical access, all elevators shall be accessible.

1119A.2 Flooring. If carpet or carpet tile is used in a common use area or public use area on a ground or floor surface, it shall have firm backing or no backing. The maximum pile height shall be ½ inch (12.7 mm). Exposed edges of carpet shall be fastened to floor surfaces and have trim along the entire length of the exposed edge. Carpet edge trim shall comply with Section 1111A requirements for changes in level.

1119A.2.1 Recessed doormats. Recessed doormats shall be adequately anchored to prevent interference with wheelchair traffic.

SECTION 1120A INTERIOR ACCESSIBLE ROUTES

Note: For the purpose of this section, interior accessible routes shall include but not be limited to corridors, hallways, exit balconies and covered or enclosed walkways.

1120A.1 Widths. Interior accessible routes serving an occupant load of 10 or more shall not be less than 44 inches (1118 mm) in width. Interior accessible routes serving an occupant load of less than 10 shall not be less than 36 inches (914 mm) in width.

If a person in a wheelchair must make a turn around a corner or an obstruction, the minimum clear width of the accessible route shall be as shown in Figure 11A-1C.

1120A.2 Interior accessible routes over 200 feet (60960 mm). Interior accessible routes that exceed 200 feet (60960 mm) in length shall:

1. Have minimum clear width of 60 inches (1524 mm); or
2. Have at a central location a 60-inch by 60-inch (1524 mm by 1524 mm) minimum wheelchair turning space or passing alcove; or
3. Have at a central location an intervening cross or tee that is a minimum of 44 inches (1118 mm) in width.

Note: See Figure 11A-1L.

1120A.3 Changes in elevation. Interior accessible routes which have changes in elevation shall be transitioned and comply with Sections 1121A or 1122A.

Exception: Doors and thresholds as provided in Section 1126A.

SECTION 1121A CHANGES IN LEVEL ON ACCESSIBLE ROUTES

1121A.1 Changes in level not exceeding ½ inch. Abrupt changes in level along any accessible route shall not exceed ½ inch (12.7 mm). When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50-percent slope). Changes in level not exceeding ¼ inch (6.35 mm) may be vertical.

1121A.2 Changes greater than one-half ½ inch. Changes in level greater than 1/2 inch (12.7 mm) shall be made by means of a sloped surface not greater than 1 unit vertical in 20 units horizontal (5-percent slope), or a curb ramp, ramp, elevator or platform (wheelchair) lift. When stairs are located along or adjacent to an accessible route they shall comply with Section 1123A for interior stairways.

SECTION 1122A INTERIOR RAMPS AND LANDINGS ON ACCESSIBLE ROUTES

1122A.1 Width. The width of ramps shall be consistent with the requirements for exits in Chapter 10 of this code, but in no case shall the ramp width be less than the following:

1. Ramps serving accessible entrances to covered multifamily buildings where the ramp is the only exit discharge path and serves an occupant load of 300 or more shall have a minimum clear width of 60 inches (1524 mm).
2. Ramps serving accessible entrances to covered multifamily dwellings in Group R Occupancies with an occupant load of 10 or less may be 36 inches (914 mm) in clear width.
3. All other ramps shall have a minimum clear width of 48 inches (1219 mm).
4. Handrails, curbs, wheel guides and/or appurtenances shall not project into the required clear width of a ramp.

Note: See Section 1122A.5.2.4 for handrail projections.

1122A.2 Slope. The maximum slope of ramps on an accessible route shall be no greater than 1 unit vertical in 12 units horizontal (8.33-percent slope).

1122A.2.1 Cross slope. The cross slope of ramp surfaces shall not exceed 1/4 inch (6.35 mm) per foot (2.083-percent slope).

1122A.3 Landings. Ramp landings shall be level and comply with this section.

1122A.3.1 Location of landings. Landings shall be provided at the top and bottom of each ramp. Intermediate landings shall be provided at intervals not exceeding 30 inches (762 mm) 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 (GRADING %)	MAXIMUM RISE (INCHES) <i>Inches</i>	MAXIMUM HORIZONTAL PROJECTION (FEET) <i>Feet</i>
	(x 25.4 for mm)	(x 304.8 for mm)
1:12 (8.33%)	30	30
1:15 (6.67%)	30	37.5
1:16 (6.25%)	30	40
1:20 (5.00%)	30	50

1122A.3.2 Size of top landings. Top landings shall not be less than 60 inches (1524 mm) wide. Top landings shall have a minimum length of not less than 60 inches (1524 mm) in the direction of the ramp run. See Section 1126A.3 for maneuvering clearances at doors. (See Figure 11A-6C).

1122A.3.3 Landing width. The minimum width of bottom and intermediate landings shall not be less than the width of the ramp.

1122A.3.4 Encroachment of doors. Doors in any position shall not reduce the minimum dimension of the landing to less than 42 inches (1067 mm) and shall not reduce the required width by more than 3 inches (76.2 mm) when fully open. (See Figure 11A-6C and 11A-6D).

1122A.3.5 Strike edge extension. The width of the landing shall comply with Section 1126A.3 for maneuvering clearances at doors.

1122A.3.6 Change of direction. Intermediate and bottom landings at a change of direction in excess of 30 degrees shall have a length in the direction of ramp run of not less than 72 inches (1829 mm). (See Figures 11A-6C and 11A-6D).

1122A.3.7 Other intermediate landings. Other intermediate landings shall have a dimension in the direction of ramp run of not less than 60 inches (1524 mm). (See Figure 11A-6C).

1122A.4 Ramp height. Ramps more than 30 inches (762 mm) above the adjacent floor or ground and open on one or both sides shall be provided with a guardrails as required by Section 1013.509. Guardrails shall be continuous from the top of the ramp to the bottom of the ramp.

1122A.5 Ramp handrails.

1122A.5.1 Where required. Handrails shall be provided at each side of ramps when the slope exceeds 1 unit vertical in 20 units horizontal (5-percent slope). Handrails on all ramps shall be continuous.

Exceptions:

1. Curb ramps.
2. Ramps that serve an individual dwelling unit may have one handrail, except that ramps open on one or both sides shall have handrails provided on the open side or sides.

1122A.5.2 Handrail configuration.

1122A.5.2.1 Handrail heights. The top of handrails shall be 34 to 38 inches (864 to 965 mm) above the ramp surface.

1122A.5.2.2 Handrail ends. Handrail ends shall be returned.

1122A.5.2.3 Handrail extension. Handrails shall extend a minimum of 12 inches (305 mm) beyond the top and bottom of the ramp. Where the extension creates a hazard, the termination of the extension shall be rounded or returned smoothly to floor, wall or post. (See Figure 11A-5A).

1122A.5.2.4 Handrail projections. Handrails projecting from a wall shall have a space of 1½ inches (38.1 mm) between the wall and the handrail.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76.2 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. (See Figure 11A-6B).

1122A.5.2.5 Handrail grips. The handgrip portion of handrails shall not be less than 1¼ inches (31.75 mm) nor more than 2 inches (50.8 mm) in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Edges shall have a minimum radius of 1/8 inch (3.17 mm). Handrails shall not rotate within their fittings. (See Figure 11A-6B).

Note: For public use areas, public accommodations, and housing which is publicly funded, see Chapter 11B, Division III, Section 1133B.5.5 for provisions of the Division of the State Architect--Access Compliance (DSA-AC).

1122A.6 Curbs and wheel guides. Ramps exceeding 10 feet (3048 mm) in length, and ramp landings having a vertical drop exceeding 4 inches, shall be provided with one of the following:

1. Guide curbs a minimum of 2 inches (50.8 mm) in height at each side; or
2. Wheel guide rails at each side, centered 2 to 4 inches (50.8 to 101.6 mm) above the surface of the ramp or ramp landing.

Exception: Ramps or ramp landings bounded by a wall or fence.

Note: See Figure 11A-5A.

**SECTION 1123A
INTERIOR STAIRWAYS**

1123A.1. General. Interior stairways serving buildings containing covered multifamily dwelling units shall comply with this section.

~~**Note:** This section shall not apply to interior stairways serving floors or dwelling units not required to be accessible.~~

1123A.2 Open risers. Open risers shall not be permitted on interior stairways.

Exception: Stairways within an individual dwelling unit.

1123A.3 Treads. All tread surfaces shall be slip resistant. Treads shall have smooth, rounded or chamfered exposed edges and no abrupt edges at the nosing (lower front edge).

1123A.4 Nosing. Nosing shall not project more than 1¼ inches (31.8 mm) past the face of the riser below. Risers shall be sloped or the underside of the nosing shall have an angle not more than 30 degrees (0.52 rad) from the vertical. (See Figure 11A-6A).

1123A.5 Striping for the visually impaired. Interior stairs shall have the upper approach and lower tread marked by a stripe providing clear visual contrast.

Exception: Stairways within an individual dwelling unit.

The stripe shall be a minimum of 2 inches (50.8 mm) wide to a maximum of 4 inches (101.6 mm) wide placed parallel to, and not more than 1 inch (25.4 mm) from, the nose of the step or upper approach. The stripe shall extend the full width of the step or upper approach and shall be of material that is at least as slip resistant as the other treads of the stair. A painted stripe shall be acceptable.

1123A.6 Interior stairway handrails.

1123A.6.1 Where required. Stairways shall have handrails on each side. Intermediate handrails shall be located equidistant from the sides of the stairway and comply with Section ~~1012.8~~ 1012.9.

Exception: Stairways serving an individual dwelling unit may have one handrail, except that stairways open on one or both sides shall have handrails on the open side or sides.

1123A.6.2 Handrail configuration.

1123A.6.2.1 Handrail heights. The top of handrails shall be 34 to 38 inches (864 to 965 mm) above the nosing of the treads.

1123A.6.2.2 Handrail ends. Ends shall be returned or shall terminate in newel posts or safety terminals.

1123A.6.2.3 Handrail extension. Handrails shall extend a minimum of 12 inches (305 mm) beyond the top nosing and 12 inches (305 mm), plus the tread width, beyond the bottom nosing. Where the extension creates a hazard, the termination of the extension shall be rounded or returned smoothly to floor, wall or post. Where the stairs are continuous from landing to landing, the inner rail shall be continuous and need not extend out into the landing. (See Figures 11A-6A and 11A-6E).

Exception: Stairways within an individual dwelling unit.

1123A.6.2.4 Handrail projections. Handrails projecting from a wall shall have a space of 1½ inches (38.1 mm) between the wall and the handrail.

Handrails may be located in a recess if the recess is a maximum of 3 inches (76.2 mm) deep and extends at least 18 inches (457 mm) above the top of the rail. Any wall or other surface adjacent to the handrail shall be free of sharp or abrasive elements. (See Figure 11A-6B).

1123A.6.2.5 Handrail grips. The handgrip portion of handrails shall not be less than 1¼ inches (31.75 mm) nor more than 2 inches (50.8 mm) in cross-sectional dimension or the shape shall provide an equivalent gripping surface. The handgrip portion of handrails shall have a smooth surface with no sharp corners. Edges shall have a minimum radius of 1/8 inch (3.17 mm). Handrails shall not rotate within their fittings. (See Figure 11A-6B).

Note: For public use areas, public accommodations, and housing which is publicly funded see Chapter 11B, Division III, Section 1133B.4.2.6 for provisions of the Division of the State Architect-Access Compliance (DSA-AC).

SECTION 1124A ELEVATORS AND PLATFORM (WHEELCHAIR) LIFTS

1124A.1 General. Elevators provided in covered multifamily buildings shall be accessible. Elevators required to be accessible shall and comply with this chapter, ASME A17.1, Safety Code for Elevators and Escalators, Title 8, 24, Part 7 of the California Code of Regulations, under "Elevator Safety Orders," and any other applicable safety regulations of other administrative authorities having jurisdiction.

Exception: Private elevators serving only one dwelling unit.

1124A.2 Location. Passenger elevators shall be located on a major accessible route and provisions shall be made to ensure that they remain accessible and usable at all times that the building is occupied.

1124A.3 Size of cab and control locations.

1124A.3.1 General. Elevators serving covered multifamily buildings shall be sized to accommodate a wheelchair in accordance with this section.

Exception: When the enforcing agency determines that compliance with any requirement of this section would create an unreasonable hardship, an exception to the requirement shall be granted when equivalent facilitation is provided, and where it can be demonstrated that a person using a wheelchair can enter and operate the elevator.

1124A.3.2 Car inside. The car inside shall allow for the turning of a wheelchair. The minimum clear distance between walls or between wall and door, excluding return panels, shall not be less than 80 inches by 54 inches (2032 mm by 1372 mm) for center-opening doors, and 68 inches by 54 inches (1727 mm by 1372 mm) for side-slide opening doors. (See Figure 11A-7A). Minimum distance from wall to return panel shall not be less than 51 inches (1295 mm).

1124A.3.2.1 Door size. Elevator doors shall provide a minimum clear width of 36 inches (914 mm).

1124A.3.3 Car controls.

1124A.3.3.1 Car control location. Elevator floor buttons shall be within 54 inches (1372 mm) above the finish floor for side approach and 48 inches (1219 mm) for front approach. Except for photoelectric tube bypass 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 35 inches (889 mm) from the floor. For multiple controls only, one set must comply with these height requirements. Floor buttons shall be provided with visual indicators to show when each call is registered. The visual indicators shall be extinguished when each call is answered.

Note: Where possible, a 48-inch (1219 mm) maximum height for elevator floor buttons is preferred.

1124A.3.3.2 Car control buttons. Passenger elevator car controls shall have a minimum dimension of 3/4 inch (19.1 mm) and shall be raised 1/8 inch (3.2 mm) plus or minus 1/32 inch (0.8 mm) above the surrounding surface.

Control buttons shall be illuminated, shall have square shoulders and shall be activated by a mechanical motion that is detectable.

All control buttons shall be designated by 5/8-inch-minimum (15.9 mm) raised characters and standard raised symbols that comply with Sections 1143A.8 and 1143A.9 immediately to the left of the control button. Contracted Grade 2 Braille that conforms to Section 1143A.9 shall be located immediately below the numeral, character or symbol. A minimum clear space of 3/8 inch (9.5 mm) or other suitable means of separation shall be provided between rows of control buttons. (See Figure 11A-7B.)

The raised characters and symbols shall be white on a black 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." The call button for the main entry floor shall be designated by a raised star at the left of the floor designation.

1124A.3.4 Emergency telephone. The emergency telephone handset shall be positioned no higher than 48 inches (1219 mm) above the floor, and the handset cord shall be a minimum of 29 inches (737 mm) in length. If the telephone system is located in a closed compartment, the compartment door hardware shall be a lever type conforming to the provisions of Section ~~1003.3.1.8~~ 1126A.6.1. Emergency intercommunication shall not require voice communication.

1124A.4 Hall call buttons. Call operation buttons shall be centered 42 inches (1067 mm) above the floor. Buttons shall be a minimum of 3/4-inch (19.1 mm) in size and shall be raised 1/8-inch (3.2 mm) plus or minus 1/32-inch (0.8 mm) above the surrounding surface. The button designating the "Up" direction shall be on top.

Visual indication shall be provided to show each call registered and extinguished when answered. Objects adjacent to, and below, hall call buttons shall not project more than 4 inches (101.6 mm) from the wall. Hall call buttons shall be internally illuminated with a white light over the entire surface of the button.

1124A.5 Minimum illumination. The minimum illumination at the car controls threshold and the landing when the car and landing doors are open shall not be less than 5 foot-candles (54 lx).

1124A.6 Hall lantern. 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. The visual signal for each direction shall be a minimum of 2 1/2 inches (63.5 mm) high by 2 1/2 inches (63.5 mm) wide, and visible from the proximity of the hall call button.
2. The audible signal shall sound once for the "up" direction and twice for the "down" direction or of a configuration which distinguishes between up and down elevator travel.
3. The center line of the fixture shall be located a minimum of 6 feet (1829 mm) in height from the lobby floor.
4. The use of in-car lanterns, located in or on the car doorjamb, visible from the proximity of the hall call buttons and conforming to the above requirements of this section shall or will be acceptable.

Note: The use of arrow shapes is preferred for visible signals.

1124A.7 Door delay

1124A.7.1 Hall call. The minimum acceptable time from notification that a car is answering a call (lantern and audible signal) until the doors of the car start to close shall be calculated by the following equations but shall be no less than 5 seconds:

$$T = D / (1.5 \text{ ft/s}) \text{ or } T = D / (445 \text{ mm/s})$$

Where T is the total time in seconds and D is the distance from a point in the lobby or landing area 60 inches (1524 mm) directly in front of the farthest call button controlling that car to the centerline of its hoistway door (see Figure 11A-7D). For cars with in-car lanterns, T begins when the lantern is visible from the vicinity of hall call buttons and an audible signal is sounded.

1124A.7.2 Door delay for car calls. The minimum acceptable time for doors to remain fully open after receiving a call shall not be less than 5 seconds.

1124A.8 Doorjamb marking. All elevator hoistway entrances shall have raised floor number designations provided on both jambs. Characters shall be raised Arabic numerals a minimum of 2 inches (51 mm) in height with raised Braille symbols placed below the corresponding raised characters. The raised characters shall be on a contrasting background with the centerline of the characters 60 inches (1524 mm) from the floor. Braille symbols shall conform to Sections 1117B.5.5 and 1117B.5.6. On the grade level, a raised five-pointed star shall be placed to the left of the raised character. The outside diameter of the star shall be 2 inches (50.8 mm). Braille shall be placed below the corresponding raised characters (see Figure 11A-7C).

1124A.9 Door protective and reopening devices. Doors closed by automatic means shall be provided with a door-reopening device that will function to stop and reopen a car door and adjacent hoistway door in case the car door is obstructed while closing.

This reopening device shall also be capable of sensing an object or person in the path of a closing door without requiring contact for activation at a nominal 5 inches and 29 inches (127 mm and 737 mm) above the floor.

Door-reopening devices shall remain effective for a period of not less than 20 seconds. After such an interval, the doors may close in accordance with the requirements of ANSI 17.1-86, the American Society of Mechanical Engineers (ASME) document ASME 17.1-1990.

1124A.10 Operation and leveling. The elevator shall be automatic and be provided with a self-leveling feature that will automatically bring the car to the floor landings within a tolerance of plus or minus 1/2 inch (12.7 mm) under rated loading to zero loading conditions. This self-leveling shall, within its zone, be entirely automatic and independent of the operating device and shall correct the overtravel or undertravel. The car shall also be maintained approximately level with the landing, irrespective of load.

The clearance between the car platform sill and the edge of the hoistway landing shall be no greater than 1/4 inches (31.75 mm).

1124A.11 Platform (wheelchair) lifts. Platform (wheelchair) lifts may be provided between levels, in lieu of passenger elevators, when the vertical distance between landings, as well as the structural design and safeguards are as allowed by ASME A18.1, Safety Standard for Platform Lifts and Stairway Chair Lifts; the State of California, the Department of Industrial Relations, Division of Occupational Safety and Health, and any applicable safety regulations of other administrative authorities having jurisdiction.

If lifts are provided, they shall be designed and constructed to facilitate unassisted entry, operation, and exit from the lift, and shall comply with restrictions and enhancements of this section in conjunction with Title 8 of the California Code of Regulations.

SECTION 1125A HAZARDS ON ACCESSIBLE ROUTES

1125A.1 Warning curbs. Abrupt changes in level exceeding 4 inches (101.6 mm) in vertical dimension, such as changes in level at planters or fountains located in or adjacent to walks, halls, corridors, passageways, aisles, pedestrian ways and other circulation spaces, shall be identified by curbs projecting at least 6 inches (152.4 mm) in height above the walk or sidewalk surface to warn the blind of a potential drop-off.

Exception: When a guardrail or handrail is provided with a wheel guide centered 2 to 4 inches (50.8 to 101.6 mm) above the surface of the walk or sidewalk.

1125A.2 Headroom clearance. Walks, halls, corridors, passageways, aisles, pedestrian ways and other circulation spaces which are part of the required egress system shall have a minimum clear headroom of 84 inches (2134 mm). Other walks, pedestrian ways and circulation spaces shall have a minimum clear headroom of 80 inches (2032 mm). If the vertical clearance of an area adjoining an accessible route is reduced to less than 80 inches (2032 mm) nominal dimension, a guardrail or other barrier having its leading edge at or below 27 inches (686 mm) above the finished floor shall be provided. (See Figure 11A-1B).

Exception: Doorways and archways less than 24 inches (610 mm) in depth may have a minimum clear headroom of 80 inches (2032 mm) nominal. (See Section 1126A).

1125A.3 Overhanging obstructions. Any obstruction that overhangs a pedestrian way shall be a minimum of 80 inches (2032 mm) above the walking surface as measured from the bottom of the obstruction. Where a guy support is used parallel to a path of travel, including, but not limited to, sidewalks, a guy brace, sidewalk guy or similar device shall be used to prevent an overhanging obstruction (see Section 1125A.2 for required headroom clearance).

1125A.4 Free-standing signs. Wherever signs mounted on posts or pylons protrude from the posts or pylons and the bottom edge of the sign is less than 80 inches (2032 mm) above the finished floor or ground level, the edges of such signs shall be rounded or eased and the corners shall have a minimum radius of 0.125 inches. (See Section 1125A.2 for required headroom clearance).

SECTION 1126A DOORS

1126A.1 Width and height of doors. Doorways which provide access to common use areas or covered multifamily dwellings shall comply with the following:

1. Permit the installation of a door not less than 36 inches (914 mm) in width, not less than 80 inches (2032 mm) in height and provide a clear width of not less than 32 inches (813 mm), measured with the door positioned at an angle of 90 degrees from its closed position.
2. Be capable of opening at least 90 degrees.
3. A pair of doors, manual or automatic, must have at least one leaf which provides a clear width of not less than 32 inches (813 mm), measured with the door positioned at an angle of 90 degrees from its closed position.
4. The width of any component in the egress system shall not be less than the minimum width required by Section ~~1005.403.2-3~~.

Revolving doors shall not be used as required entrances for persons with disabilities.

1126A.2 Level floor or landing. The floor or landing on each side of an exit door shall be level. (See Chapter 10).

1126A.2.1 Thresholds and changes in elevation at doors. The floor or landing shall not be more than 1/2 inch (12.7 mm) lower than the top of the threshold of the doorway. (See Figure 11A-8I).

Changes in level between 1/4 inch (6.35 mm) and 1/2 inch (12.7 mm) shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50%~~percent~~ slope). Changes in level greater than 1/2 inch (12.7 mm) shall be accomplished by means of a ramp (see Section 1122A).

1126A.3 Maneuvering clearances at doors.

1126A.3.1 General. The level floor or landing of an exit door shall have a length in the direction of the door swing of at least 60 inches (1524 mm) and a length opposite the direction of the door swing of at least 44 inches (1118 mm) measured at right angles to the plane of the door in its closed position. (See Figures 11A-8D, 11A-8E and 11A-8F for maneuvering spaces at sliding doors).

1126A.3.2 Strike edge maneuvering space The width of the level area on the side to which the door swings shall extend at least 24 inches (610 mm) past the strike edge of the door for exterior doors and at least 18 inches (457 mm) past the strike edge for interior doors.

Note: Twenty-four inches (610 mm) is preferred for strike-side clearance.

1126A.3.2.1 Front approach. The following provisions shall apply to swinging doors with front approach:

1. For pull side approach, the level floor or landing shall extend in the direction of the door swing at least 60 inches (1524 mm). (See Figure 11A-8A).
2. For push side approach the level floor or landing shall extend opposite the direction of the door swing at least 48 inches (1219 mm). (See Figure 11A-8A).
3. Doors with push side approach having both a closer and a latch shall be provided with a clear and level area extending a minimum of 12 inches (305 mm) past the strike edge on the approach side of the door. (See Figure 11A-8A).

1126A.3.2.2 Hinge side approach. The following provisions shall apply to swinging doors with hinge side approach:

1. Doors with pull side approach shall be provided with a level floor or landing not less than 60 inches (1524 mm) in depth. A clear and level area shall extend a minimum of 36 inches (914 mm) past the strike edge on the approach side of the door. (See Figure 11A-8B).

Exception: Doors with pull side approach and a level floor or landing greater than 60 inches (1524 mm) in depth shall be provided with a clear and level area at least 24 inches (610 mm) past the strike edge of the door for exterior doors and at least 18 inches (457 mm) past the strike edge for interior doors.

2. Doors with push side approach shall have a level floor or landing not less than 44 inches (1118 mm) in depth, and shall be provided with a clear and level area extending a minimum of 54 inches (1372 mm) from the strike edge of the door jamb past the hinge side of the door. Doors with a latch and closer shall have a level floor or landing not less than 48 inches (1219 mm) depth at the push side of the door. (See Figure 11A-8B).

1126A.3.2.3 Latch side approach. The following provisions shall apply to swinging doors with latch side approach:

- 1 Doors with pull side approach shall have a level floor or landing not less than 60 inches (1524 mm) in depth, and shall be provided with a clear and level area extending a minimum of 24 inches (610 mm) past the strike edge on the approach side of the door. (See Figure 11A-8C).

Exception: Doors serving individual covered multifamily dwelling units shall have a minimum landing depth of 44 inches (1118 mm) except that doors with a closer shall have a minimum landing depth of 54 inches (1372 mm).

- 2 Doors with push side approach shall have a level floor or landing not less than 44 inches (1118 mm) in depth, and shall be provided with a clear and level area extending a minimum of 24 inches (610 mm) past the strike edge on the approach side of the door. Doors with a closer shall have a level floor or landing not less than 48 inches (1219 mm) depth at the push side of the door. (See Figure 11A-8C).

1126A.3.3 Space between consecutive doors. The minimum space between two hinged or pivoted doors in series, serving other than a required exit stairway, shall provide a minimum of 48 inches (1219 mm) plus the width of the door swinging into the space. Doors in a series shall swing either in the same direction or away from the space between the doors. (See Figure 11A-8G, and 11A-8H).

Where the door opens into a stair or smokeproof enclosure, the landing need not have a minimum length of 60 inches (1524 mm). (See Figure 11A-8H).

1126A.4 Closer-effort to operate doors. Maximum effort to operate doors shall not exceed 8½ pounds (38 N) for exterior doors and 5 pounds (22 N) 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 these standards. When fire doors are required, the maximum effort to operate the door may be increased to the minimum allowable by the appropriate enforcement agency, not to exceed 15 pounds (66.7 N).

1126A.4.1 Door closer. If the door has a closer, then the sweep period of the closer shall be adjusted so that from an open position of 70 degrees, the door will take at least 3 seconds to move to a point 3 inches (75 mm) from the latch, measured to the landing edge of the door.

1126A.5 Type of lock or latch. The type of latch and lock required for all doors shall be in accordance with Chapter 10, Section ~~1008~~ ~~1003-3.1.8~~.

1126A.6 Hand-activated door hardware. Hand-activated door latching, locking and opening hardware shall be centered between 30 inches (762 mm) and 44 inches (1118 mm) above the floor. Latching and locking doors that are hand-activated and on an accessible route shall be operable with a single effort by lever type hardware, 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 consistent with Section 1126A.4, in the direction of egress.

1126A.6.1 Lever type hardware. The lever or lever of actuated latches or locks shall be curved with a return to within 1/2 inch (12.7 mm) of the door to prevent catching on the clothing of persons during egress.

Exception: Group R and U Occupancies with an occupant load of 10 or less.

1126A.7 Smooth surface. The bottom 10 inches (254 mm) of all doors and/or gates shall have a smooth, uninterrupted surface to allow the door or gate to be opened by a wheelchair footrest without creating a trap or hazardous condition. Where narrow frame doors are used, a 10-inch (254 mm) 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. (See Figure 11A-8J).

Exception: Automatic and sliding doors or gates.

SECTION 1127A COMMON USE FACILITIES

Note: For public use facilities, see Chapter 11B of this code.

1127A.1 General. When provided, common use areas and facilities in covered multifamily housing developments shall be accessible to persons with disabilities. Common use facilities include, but are not limited to, lobbies, toilet and bathing facilities, laundry facilities, community rooms, clubhouses, health and fitness facilities, game rooms and portions of common use tenant storage. All entrances, doors, fixtures and controls shall be on an accessible route. Facilities and fixtures required to be accessible shall comply with the following provisions:

1. **Doors.** Doors to accessible bathrooms shall comply with Section 1126A. Doors shall not swing into the floor space required for any fixture.
2. **Clear Floor Space.** All fixtures and controls shall be on an accessible route. Clear floor spaces at fixtures and controls, the accessible route and the turning space may overlap. This clear space shall comply with Section 1127A.9.4 and 1127A.9.5.
3. **Water Closets.** Where a toilet stall is provided, it shall comply with Section 1127A.2.1 or 1127A.2.2, and its water closet shall comply with Section 1127A.2.3.
4. **Lavatory and Mirrors.** Where a lavatory and/or mirror is provided, it shall comply with Section 1127A.3 and/or 1127A.8.3.
5. **Controls and Dispensers.** Where controls, dispensers, receptacles, or other types of equipment are provided, at least one of each shall be on an accessible route and shall comply with Section 1127A.8 and 1127A.9.5.
6. **Bathing and Shower Facilities.** Where bathtubs or showers are provided, at least one fixture of each type provided shall be accessible per room. For bathtubs, see Section 1127A.5.2. For showers, see Section 1127A.5.3.
7. **Toilet Facilities.** Toilet facilities shall comply with Section 1127A.2.
8. **Laundry Facilities.** Laundry facilities shall comply with Section 1127A.10.
9. **Storage Facilities.** Storage facilities shall comply with Section 1127A.11.
10. **Fixed or Built-in Seating, Tables and Counters.** Fixed or built-in seating, tables, and counters shall comply with Section 1127A.12.

1127A.2 Toilet facilities. When common use toilet facilities are provided for residents or guests, at least one percent of the total number of fixtures but not less than one of each type shall comply with this section.

1127A.2.1 Multiple-accommodation toilet facilities. Multiple-accommodation toilet facilities shall have the following:

Notes:

1. See definition in Chapter 2.
2. See Figure 11A-9A.

1. **Wheelchair Clearance.** A clear space measured from the floor to a height of 27 inches (686 mm) above the floor, within the sanitary facility room, of sufficient size to inscribe a circle with a diameter not less than 60 inches (1524 mm), or a clear space 56 inches by 63 inches (1422 mm by 1600 mm) in size. Other than the door to the accessible water closet compartment, a door, in any position, may encroach into this space by not more than 12 inches (305 mm).
2. **Clear Space at Fixtures.** Doors shall not swing into the floor space required for any fixture.
3. **Accessible Water Closet Compartment.** A water closet fixture located in a compartment shall provide a minimum 28-inch-wide (711 mm) clear space from a fixture, or a minimum 32-inch-wide (813 mm) clear space from a wall at one side of the water closet. The other side of the water closet shall provide 18 inches (457 mm) from the centerline of the water closet to the wall. The stall shall be a minimum of 60 inches (1524 mm) wide. A minimum 48-inch-long (1219 mm) clear space shall be provided in front of the water closet if the compartment has an end-opening door (facing the water closet). A minimum 60-inch (1524 mm) long clear space shall be provided in a compartment with the door located at the side.
4. **Grab Bars.** Grab bars shall be installed in accordance with Section 1127A.4 and shall not project more than 3 inches (76.2 mm) into the clear spaces.
5. **Compartment Doors.** Compartment doors shall comply with the following:
 - 5.1. The 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 inches (813 mm) when located at the end and 34 inches (864 mm) when located at the side with the door positioned at an angle of 90 degrees from its closed position.
 - 5.2. When standard compartment doors are used, with a minimum 9-inch (228.6 mm) clearance for footrests underneath and a self-closing device, clearance at the strike edge as specified in Section 1126A.3.2 is not required.
 - 5.3. The inside and outside of the compartment door shall be equipped with a loop or U-shaped handle immediately below the latch. The latch shall be flip-over style, sliding, or other hardware not requiring the user to grasp or twist.
 - 5.4. Except for door-opening widths and door swings, a clear, unobstructed access of not less than 44 inches (1118 mm) shall be provided to water closet compartments designed for use by persons with disabilities, and the space immediately in front of a water closet compartment shall not be less than 48 inches (1219 mm) as measured at right angles to compartment door in its closed position.
6. **Large Toilet Rooms.** Where six or more stalls are provided within a multiple-accommodation toilet room, at least one stall shall comply with Section 1127A.2.1, Items 2 and 3. At least one additional stall shall be 36 inches (914 mm) wide with an outward swinging self-closing door and grab bars complying with Sections 1127A.4.3, 1127A.4.4 and 1127A.4.5 installed on each compartment side wall.

1127A.2.2 Single-accommodation toilet facilities. Single-accommodation toilet facilities shall comply with the following:

1. **Wheelchair Clearance.** There shall be sufficient space in the toilet room for a wheelchair measuring 30 inches (762 mm) wide by 48 inches (1219 mm) long to enter the room and permit the door to close. There shall be in the room a clear floor space of at least 60 inches (1524 mm) in diameter, or a T-shaped space complying with Figure 11A-1D.
2. **Encroachment of Doors.** Doors shall not encroach into the clear floor space specified in Item 1 of this section by more than 12 inches (305 mm), except for the panel door to any water closet compartment. (See Figure 11A-9B).
3. **Accessible Water Closet** The water closet shall be located in a space which provides a minimum 28-inch wide (711 mm) clear space from a fixture or a minimum 32-inch wide (813 mm) clear space from a wall at one side. The other side shall provide 18 inches (457 mm) from the centerline of the water closet to the wall. A minimum 48 inches (1219 mm) of clear space shall be provided in front of the water closet.

4. **Grab Bars.** Grab bars shall be installed in accordance with Section 1127A.4.
5. **Accessible Route.** All doors, fixtures and controls shall be on an accessible route. The minimum clear width of an accessible route shall be 36 inches (914 mm) except at doors. (See Section 1126A). If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as shown in Figure 11A-1C. (See also Figure 11A-9B).

1127A.2.3 Water closets. Water closets required to be accessible shall comply with the following:

1. **Height.** The height of accessible water closets shall be a minimum of 17 inches (432 mm) to a maximum of 19 inches (483 mm) measured to the top of a maximum 2-inch high (50.8 mm) toilet seat.
2. **Controls.** Controls shall be operable with one hand and shall not require tight grasping, pinching or twisting. Controls for the flush valves shall be mounted on the wide side of toilet areas, no more than 44 inches (1118 mm) above the floor. The force required to activate controls shall be no greater than 5 pound-force (lbf) (22.2 N).
3. **Toilet seats.** Seats shall not be sprung to return to a lifted position.

1127A.2.4 Accessible urinals. Urinals required to be accessible shall comply with the following:

1. **Height and Wall Projection.** Urinals shall be floor mounted or wall hung. Where one or more wall-hung urinals are provided, at least one with a rim projecting a minimum of 14 inches (356 mm) to a maximum of 17 inches (432 mm) from the wall and a maximum of 17 inches (432 mm) above the floor shall be provided.
2. **Flush Controls.** Flush controls shall be operable with one hand, shall not require tight grasping, pinching or twisting of the wrist, and shall be mounted no more than 44 inches (1118 mm) above the floor. The force required to activate controls shall be no greater than 5 pound-force (lbf) (22.2 N). Electronic automatic flushing controls are acceptable and preferable.
3. **Clear Floor Space.** Where urinals are provided, at least one shall have a clear floor space 30 inches by 48 inches (762 mm by 1219 mm) in front of the urinal to allow forward approach. This clear space shall comply with Sections 1127A.9.4 and 1127A.5.

1127A.3 Accessible lavatories. When common use lavatories are provided for residents or guests, at least one, and not less than 1 percent of all lavatories, shall comply with the following:

1. **Location.** Lavatories shall be installed with the centerline of the fixture a minimum of 18 inches (457 mm) horizontally from an adjoining wall or fixture. The top of the fixture rim shall be a maximum of 34 inches (864 mm) above the finished floor.
2. **Floor space.** A clear maneuvering space at least 30 inches by 48 inches (762mm by 1219mm) shall be provided in front of accessible lavatories to allow forward approach. Such clear floor space shall adjoin or overlap an accessible route and shall not extend into the knee and toe space underneath the lavatory more than 19 inches (483 mm). This clear space shall comply with Section 1127A.9.5 for allowable reach ranges.
3. **Knee and Toe Space.** Knee and toe space (see Figure 11A-9D) shall be provided as follows:
 - 3.1. The knee space shall be at least 30 inches (762 mm) wide and 8 inches deep (203.2 mm).
 - 3.2. The knee space shall be at least 29 inches (737 mm) high at the front face and reducing to not less than 27 inches (686 mm) at a point 8 inches (203.2 mm) back from the front edge.
 - 3.3. Knee space required by this section shall be clear and unobstructed.
 - 3.4. The toe space required in this section shall be provided as follows:
 - 3.4.1. Shall be at least 30 inches (762 mm) wide and centered on the lavatory.

3.4.2. Shall be at least 17 inches (432 mm) deep, measured from the front edge.

3.4.3. Shall be at least 9 inches (228.6 mm) high from the floor.

4. **Finished Floor.** The finished floor beneath the lavatory shall be extended to the wall.
5. **Plumbing Protection.** Hot water and drain pipes accessible under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.
6. **Lavatory Faucet Controls.** Faucet controls and operation 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 pound-force (lbf) (22.2N). 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.

1127A.4 Grab bars, tub and shower seats, fasteners and mounting devices.

1127A.4.1 General. Grab bars, tub and shower seats, fasteners and mounting devices required by this chapter shall comply with this section.

1127A.4.2 Location. Grab bars which are located on each side, or on one side and the back, of the accessible toilet stall or compartment shall be securely attached and centered 33 inches (838 mm) above and parallel to the floor, except that, where a tank-type toilet obstructs placement at 33 inches (838 mm), the grab bar may be centered as high as 36 inches (914 mm). The space between the grab bar and objects below shall be a minimum of 1 1/2 inches (38.1 mm). Grab bars shall be at least 42 inches (1067 mm) in length with the front end positioned 24 inches (610 mm) in front of the water closet stool. Grab bars at the back shall not be less than 36 inches (914 mm) in length. (See Figures 11A-9A and 11A-9B).

1127A.4.3 Diameter or width. The diameter or width of the gripping surfaces of a grab bar shall be 1 1/4 inches to 1 1/2 inches (31.75 mm to 38.1 mm) or of a shape that provides 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 1/2 inches (38.1 mm). (See Figure 11A-9C).

1127A.4.4 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 moment from the application of a 250-pound (1112 N) point load 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 a 250-pound (1112N) point load shall be less than the allowable shear stress for the material of the grab bar or seat, and if 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 a fastener or mounting device from the application of a 250-pound (1112 N) point load 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 a 250 pound (1112 N) point load, plus the maximum moment from the application of a 250-pound (1112 N) point load, shall be less than the allowable withdrawal load between the fastener and supporting structure.
5. Grab bars shall not rotate within their fittings.

1127A.4.5 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 inch (3.17 mm).

1127A.5 Bathing facilities.

1127A.5.1 General. When common use bathing facilities are provided for residents or guests, including showers, bathtubs or lockers, at least one of each type of fixture in each facility, and not less than 1 percent of all fixtures, shall comply with this section.

1127A.5.2 Bathtubs. Bathtubs required to be accessible shall comply with the following:

1. **Floor Space.** Clear floor space at bathtubs shall be as shown in Figure 11A-9E.
2. **Seat.** An in-tub seat or a seat at the head end of the tub shall be provided as shown in Figures 11A-9E and 11A-9F. The structural strength of seats and their attachments shall comply with Section 1127A.4.4. Seats shall be mounted securely and shall not slip during use.
3. **Grab Bars.** Grab bars complying with Sections 1127A.4.3, 1127A.4.4 and 1127A.4.5 shall be provided as shown in Figures 11A-9F and 11A-9G.
4. **Controls.** Faucets and other controls shall be located as shown in Figure 11A-9F. They 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 a 5 pound force (lbf) (22.2 N).
5. **Shower Spray Unit.** A shower spray unit with a hose at least 60 inches (1524 mm) long that can be used both as a fixed shower head and as a hand-held shower shall be provided.
6. **Bathtub Enclosures.** If provided, enclosures for bathtubs shall not obstruct controls or transfer from wheelchairs onto bathtub seats or into tubs. Enclosures on bathtubs shall not have tracks mounted on their rims.

1127A.5.3 Showers. Showers required to be accessible shall comply with the following:

1. **Size.** Showers shall be consistent with one of the following: (1) 60 inches (1524 mm) minimum in width between wall surfaces and 30 inches (762 mm) minimum in depth with a full opening width on the long side; or (2) 42 inches (1067 mm) in width between wall surfaces and 48 inches (1219 mm) minimum in depth with an entrance opening of 42 inches (1067 mm) ; or (3) showers 60 inches (1524 mm) minimum in width may be 36 inches (914 mm) minimum in depth as long as the entrance opening width is a minimum 36 inches (914 mm).
2. **Thresholds.** When a threshold or recessed drop is permitted, it shall be a maximum of 1/2 inch (12.7 mm) in height and shall be beveled or sloped at an angle not exceeding 45 degrees (100 percent gradient) from the horizontal.
3. **Multiple showers.** Where, within the same functional area, two or more accessible showers are provided, there shall be at least one shower constructed opposite hand from the other or others (i.e., one left-hand control versus right-hand controls).
4. **Accessories.** Shower accessories shall include:
 - 4.1. **Water Controls.** Water controls of a single-lever design shall be located on the side wall of the compartment adjacent to the seat and operable with a maximum force of 5 pounds (22.2 N), mounted at 40 inches (1016 mm) [plus or minus 1 inch (25.4 mm) tolerance] above the shower floor. The centerline of the controls shall be within a reach range of no less than 18 inches (457mm) and no more than 24 inches (610 mm) from the rear edge of the seat.
 - 4.2. **Hand-held Sprayer Unit.** A flexible hand-held sprayer unit with a hose at least 60 inches (1524 mm) long shall be provided within reach range of the seat at a distance not to exceed 27 inches (686 mm) horizontally measured from the rear seat edge to the centerline of the mounting bracket. This unit shall be mounted at a maximum height of 48 inches (1219 mm) [plus or minus 1 inch (25.4 mm) tolerance] above the shower floor.
 - 4.3. **Sprayer Unit Alternative.** Where accessible shower facilities are provided in areas subject to excessive vandalism, in lieu of providing the fixed flexible hose, two wall-mounted shower heads shall be installed. Each shower head shall be installed 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 48 inches (1219 mm) [plus or minus 1 inch (25.4 mm) tolerance] above the floor.

4.4. **Floor Slope.** The maximum slope of the floor shall be 2 percent per foot in any direction. Where drains are provided, grate openings shall be a maximum of 1/4 inch (6.35 mm) and located flush with the floor surface.

5. **Shower Fixtures.** Shower fixtures shall include:

5.1. A folding seat located within 27 inches (686 mm) of the controls, mounted 18 inches (457 mm) above the floor and with a minimum space of 1 inch (25.4 mm) and maximum space of 1½ inches (38.1 mm) allowed between the edge of the seat and any wall. When folded, the seat shall not extend more than 6 inches (152.4 mm) from the mounting wall. (See Figures 11A-9H, 11A-9I, 11A-9J, and 11A-9K).

5.2. Grab bars located on walls adjacent to and opposite the seat. Grab bars shall comply with the diameter, loading and projection requirements of Sections 1127A.4.3, 1127A.4.4 and 1127A.4.5. Grab bars shall be mounted between a minimum of 33 inches (838 mm) and a maximum of 36 inches (914 mm) above the shower floor with an L-shaped grab bar mounted on walls opposite and adjacent to the front edge of the seat, but not extended to include that portion of wall over the seat. (See Figure 11A-9H or 11A-9I).

6. **Soap Dish.** When a soap dish is provided, it shall be located on the control wall at a maximum height of 40 inches (1016 mm) above the shower floor, and within reach limits from the seat.

7. **Enclosures.** Enclosures, when provided for shower stalls, shall not obstruct transfer from wheelchairs onto shower seats.

Note: See Figures 11A-9H, 11A-9I, 11A-9J, and 11A-9K.

1127A.5.3.1 Open showers. Where no separate shower compartments are provided, the shower for persons with disabilities 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. (See Figures 11A-9H, 11A-9I, 11A-9J, and 11A-9K).

1127A.6 Lockers.

1127A.6.1 General. Where lockers are provided for residents or guests, at least one locker and not less than 1 percent of all lockers shall be accessible to persons with disabilities. A path of travel not less than 36 inches (914 mm) in clear width shall be provided to these lockers. See Section 1127A.9 for required clear space, allowable reach ranges and requirements for control and operating mechanisms.

1127A.7 Signs

1127A.7.1 General. All accessible toilet and bathing facilities shall be identified by the "International Symbol of Accessibility." Signs need not be provided for facilities within a dwelling unit or guest room.

1127A.7.2 Identification symbols. Doorways leading to sanitary facilities shall be identified by a geometric symbol in compliance with this section. Geometric symbols shall be centered horizontally on the door at a height of 60 inches (1524 mm) above the finish floor or ground surface measured to the center of the symbol. Edges of accessibility signage shall be rounded, chamfered or eased. Corners shall have a minimum radius of 1/8 inch (3.2 mm). See Section 1143A.10, Item 1, for additional signage requirements applicable to sanitary facilities.

1127A.7.2.1 Men's sanitary facilities. Men's sanitary facilities shall be identified by an equilateral triangle, ¼ inch (6.4 mm) thick with edges 12 inches (305 mm) long and a vertex pointing upward. The triangle symbol shall contrast with the door, either light on a dark background or dark on a light background.

1127A.7.2.2 Women's sanitary facilities. Women's sanitary facilities shall be identified by a circle, ¼ inch (6.4 mm) thick and 12 inches (305 mm) in diameter. The circle symbol shall contrast with the door, either light on a dark background or dark on a light background.

1127A.7.2.3 Unisex sanitary facilities. Unisex sanitary facilities shall be identified by a circle, ¼ inch (6.4 mm) thick and 12 inches (305 mm) in diameter with a ¼ inch (6.4 mm) thick triangle superimposed on the circle and within the 12-inch (305 mm) diameter. The triangle symbol shall contrast with the circle symbol, either light on a dark background or dark on a light background. The circle symbol shall contrast with the door, either light on a dark background or dark on a light background.

1127A.8 Toilet room fixtures and accessories.

1127A.8.1 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 inches (1016 mm) from the finished floor. Controls and operating mechanisms shall comply with Section 1127A.9.6.4.

1127A.8.2 Toilet tissue dispensers. Toilet tissue dispensers shall be located on the wall within 12 inches (305 mm) of the front edge of the toilet seat. Dispensers that control delivery or that do not permit continuous paper flow shall not be used. (See Figure 11A-9B).

1127A.8.3 Mirrors. Where mirrors are provided, at least one shall be accessible. Mirrors shall be mounted with the bottom edge no higher than 40 inches (1016 mm) from the floor.

1127A.9 Space allowances and reach ranges in common use areas.

1127A.9.1 Wheelchair passage width. The minimum clear width for single wheelchair passage shall be 36 inches (914 mm) continuously. (See Figure 11A-1E).

Exception: Thirty-two inches (813 mm) in width is acceptable at a point not to exceed 24 inches (610 mm) in length.

1127A.9.2 Width for wheelchair passing. The minimum width for two wheelchairs to pass is 60 inches (1524 mm) (see Figure 11A-1F).

1127A.9.3 Wheelchair turning space. The space required for a wheelchair to make a 180 degree turn is a clear space of 60 inches (1524 mm) diameter (See Figure 11A-1D(a) or a T-shaped space, see Figure 11A-1D(b)).

1127A.9.4 Clear floor or ground space for wheelchairs.

1127A.9.4.1 Size and approach. The minimum clear floor or ground space required to accommodate a single, stationary wheelchair and occupant is 30 inches by 48 inches (762 mm by 1219 mm). (See Figure 11A-1G.) The minimum clear floor or ground space for wheelchairs may be positioned for forward or parallel approach to an object (see Figure 11A-1G). Clear floor or ground space for wheelchairs may be part of the knee space required under some objects.

1127A.9.4.2 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 otherwise confined on all or a part of three sides, additional maneuvering clearances shall be provided as shown in Figure 11A-1H.

1127A.9.4.3 Surfaces of wheelchair spaces. Clear floor or ground spaces for wheelchairs shall comply with Sections 1119A.2, 1120A.3 and 1121A.

1127A.9.4.3.1 Gratings. Gratings located in ground and floor surfaces along accessible routes shall be limited to spaces no greater than ½-inch (12.7 mm) wide in one direction. If gratings have elongated openings, they shall be placed so that the long dimension is perpendicular to the ~~dominate~~ dominant direction of traffic.

1127A.9.5 Reach ranges.

1127A.9.5.1 Forward reach. If the clear floor space allows only forward approach to an object, the maximum high forward reach allowed shall be 48 inches (1219 mm) and the minimum low forward reach

shall be unobstructed and no less than 15 inches (381 mm) above the floor (see Figure 11A-1I(a)). If the high forward reach is over an obstruction, reach and clearances shall be as shown in Figure 11A-1I(b).

1127A.9.5.2 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 (1372 mm) and the low side reach shall be no less than 9 inches (228.6 mm) above the floor (see Figure 11A-1J(a) and 11A-1J(b)). If the side reach is over an obstruction, the reach and clearances shall be as shown in Figure 11A-1J(c).

1127A.9.6 Controls and operating mechanisms.

Note: See also Section 1142A, for electrical installation.

1127A.9.6.1 General. Controls and operating mechanisms in accessible spaces, along accessible routes or as part of accessible elements (e.g., light switches and dispenser controls) shall comply with this section.

1127A.9.6.2 Clear floor space. Clear floor space complying with Section 1127A.9.4 that allows a forward or parallel approach by a person using a wheelchair shall be provided at controls, dispensers, receptacles and other operable equipment.

1127A.9.6.3 Height. Controls shall be located no higher than 48 inches (1219 mm), and no lower than 15 inches (381 mm), above the finished floor measured to the center of the grip. If the reach is over an obstruction (for example, washer or dryer) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Controls that do not satisfy these specifications are acceptable, provided that comparable controls or outlets, that perform the same functions, are provided within the same area and are accessible.

1127A.9.6.4 Operation. Controls and operating mechanisms shall be operable with one hand and shall not require tight grasping, pinching or twisting of the wrist. The force required to activate controls shall be no greater than 5 pounds (22.2 N) of force.

1127A.10 Common accessible laundry rooms.

1127A.10.1 General. Where common use laundry rooms are provided, at least one of each type of appliance provided in each laundry area shall be accessible, shall be on an accessible route and shall comply with this section. Such appliances include clothes washing machines, dryers, soap dispensers and any related features such as wash sinks, tables and storage areas.

Where laundry rooms are provided on floors of an elevator building, each laundry room shall be accessible. Where there is one laundry room on a ground floor in each building, each laundry room shall be accessible. Where there is a laundry room on the ground floor of a building and another located in the basement, it is acceptable to have only the ground floor laundry room accessible.

1127A.10.2 Clear floor space. There shall be a minimum clear space 30 inches perpendicular by 48 inches parallel (762 mm by 1219 mm) in front of clothes washers and dryers required to be accessible.

There shall be a minimum clear space 30 inches by 48 inches (762mm by 1219 mm) provided for at least one of each type of fixture or appliance provided in the laundry room (e.g., soap dispensers, wash sinks, tables, storage areas).

1127A.10.3 Controls. Clothes washers and dryers including stacked clothes washers and dryers required to be accessible shall have controls (including coin slots) within the reach range of a seated user. Controls shall be located no higher than 48 inches (1219 mm), and no lower than 15 inches (381 mm), above the finished floor measured to the center of the grip. If the reach is over an obstruction (for example, washer or dryer) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach. Controls that do not satisfy these specifications are acceptable, provided that comparable controls or outlets, that perform the same functions, are provided within the same area and are accessible.

Controls shall be operable with one hand and not require tight grasping, pinching, or twisting of the wrist.

1127A.10.4 Washing machines and clothes dryers. Washing machines and clothes dryers in accessible common use laundry rooms shall be front loading.

1127A.11 Storage.

1127A.11.1 General. If fixed storage facilities such as cabinets, shelves, closets or drawers are provided where access is required by Sections ~~1.8.2.1.2~~ ~~108.2.1.2~~ and 1102A, at least one of each type of facility provided shall comply with this section. Additional storage may be provided outside of the reach ranges shown in Figure 11A-1J.

1127A.11.2 Clear floor space. A clear floor space at least 30 inches by 48 inches (762 mm by 1219 mm) complying with Section 1127A.9.4 that allows either a forward or parallel approach by a person using a wheelchair shall be provided at accessible storage facilities.

1127A.11.3 Height. Accessible storage spaces shall be within at least one of the reach ranges specified in Section 1127A.9.5. Clothes rods shall be a maximum of 54 inches (1372 mm) from the floor for a side approach (see Figure 11A-1J). Where the distance from the wheelchair to the clothes rod or shelf exceeds 10 inches (254 mm), as in closets without accessible doors, the height and depth to the rod or shelf shall comply with Figure 11A-1J.

1127A.11.4 Hardware. Hardware for accessible storage facilities shall comply with Section 1127A.9.6. Touch latches and U-shaped pulls are acceptable.

1127A.12 Fixed or built-in seating, tables and counters.

1127A.12.1 Minimum seating. Where fixed or built-in seating, tables or counters are provided for residents or guests, 5 percent, but not less than one, shall be accessible as provided in this section.

1127A.12.2 Seating. When seating spaces for persons in wheelchairs are provided at fixed tables or counters, clear floor space complying with Section 1127A.9.4 shall be provided. Such clear floor space shall not overlap knee space by more than 19 inches (483 mm). (See Figure 11A-1K).

1127A.12.3 Knee clearance. When seating for persons in wheelchairs is provided at fixed tables or counters, knee spaces at least 27 inches (686 mm) high, 30 inches (762 mm) wide and 19 inches (483 mm) deep shall be provided. (See Figure 11A-1K).

1127A.12.4 Height of work surfaces. The tops of tables and counters shall be 28 inches to 34 inches (711 mm to 864 mm) from the floor or ground.

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**SECTION 1128A
COVERED DWELLING UNITS**

1128A.1 General. Covered multifamily dwelling units shall be adaptable and accessible into and throughout the dwelling unit as provided in this division.

Note: See Sections 1101A "Application" and 1102A "Building Accessibility" for dwelling units required to comply with this division.

**SECTION 1129A
RESERVED**

**SECTION 1130A
ACCESSIBLE ROUTE WITHIN COVERED MULTIFAMILY DWELLING UNITS**

1130A.1 General. An accessible route shall be provided through all rooms and spaces of the dwelling unit. The accessible route shall pass through the primary entry door, and shall connect with all additional exterior doors, required clear floor spaces at kitchen appliances and bathroom fixtures. For the purpose of this section, "accessible routes" may include hallways, corridors and ramps.

Exception: An accessible route is not required from the interior of the unit into a basement or garage, except as provided in Section 1105A.1.

1130A.2 Width. The accessible route into and throughout covered multifamily dwelling units shall be at least 36 inches (914 mm) wide.

**SECTION 1131A
CHANGES IN LEVEL ON ACCESSIBLE ROUTES**

1131A.1 Changes in level not exceeding ½ inch. Abrupt changes in level along any accessible route shall not exceed ½ inch (12.7 mm). When changes in level do occur, they shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50-percent slope). Changes in level not exceeding ¼ inch (6.35 mm) may be vertical.

1131A.2 Changes greater than ½ inch. Changes in level greater than ½ inch (12.7 mm) shall be made by means of a ramp, elevator or platform (wheelchair) lift. See Section 1122A for ramps and Section 1124A.11 for platform (wheelchair) lifts.

**SECTION 1132A
DOORS**

1132A.1 Primary entry doors and required exit doors. The primary entry door and all required exit doors shall comply with the requirements of this section. The requirements of Sections 1126A.3 shall apply to maneuvering clearances at the side of the door exposed to common or public use spaces (e.g., entry or exit doors which open from the covered multifamily dwelling unit into a corridor, hallway or lobby, or directly to the outside).

1132A.2 Interior doors and secondary exterior doors. Except as allowed by Section 1109A.2, doors intended for user passage and secondary exterior doors shall comply with this section. The provisions of this section shall apply to the dwelling unit side of doors leading from the interior of the dwelling unit to an unfinished basement or an attached garage.

1132A.3 Width and height of doors. Doors shall comply with the following:

1. Doors shall not be less than 6 feet 8 inches (2032 mm) in height.
2. Swinging doors shall provide a net clear opening width of not less than 32 inches (813 mm), measured with the door or doors positioned at an angle of 90 degrees from the closed position. A 34-inch (864 mm) door is acceptable. The primary entry door and all required exit doors shall comply with the requirements of Section 1126A.1.
3. Swinging doors shall be capable of opening at least 90 degrees.
4. A nominal 32-inch (813 mm) clear opening provided by a standard 6-foot wide (1829 mm) sliding patio door assembly is acceptable.
5. A pair of doors, manual or automatic, must have at least one leaf which provides a clear width of not less than 32 inches (813 mm), measured with the door positioned at an angle of 90 degrees from its closed position.
6. The width of any component in the means of egress system shall not be less than the minimum width required by Section ~~1005-4003-2-3~~.

1132A.4 Level floor or landing. See also Chapter 10, ~~Section 1003.3.1.6.2~~. The floor or landing on each side of a door shall be level. Primary entry doors, required exit doors or secondary exterior doors with changes in height between the interior surface or floor level and the exterior surface or floor level shall comply with the following:

1. Exterior landings of impervious construction (e.g., concrete, brick, flagstone) serving primary entry doors and required exit doors are limited to not more than 1/2 inch (12.7 mm) of change in height between floor surfaces. Changes in level shall comply with Section 1131A.
2. Exterior landings of pervious construction (e.g., wood decking with spaces) shall be the same level as the interior landing, except that secondary exterior doors may have no more than 1/2 inch (12.7 mm) of change in height between floor surfaces. Changes in level shall comply with Section 1131A.
3. Secondary exterior doors onto decks, patios, or balcony surfaces constructed of impervious materials (e.g., concrete, brick, flagstone) may have a maximum change in height from the interior landing of 4 inches (101.6 mm). Changes in height greater than 1/2 inch (12.7 mm) shall be accomplished by means of a ramp complying with Section 1114A or by means of a platform constructed to the level of the floor as illustrated in Figure 11A-8J.
4. Secondary exterior doors onto decks, patios or balcony surfaces constructed of impervious materials (e.g., concrete, brick, flagstone) may have a maximum change in height from the interior landing of 1 inch (25.4 mm), provided a ramp with a maximum slope of 1:8 is permanently installed. (See Figure 11A-8K.)
5. In buildings containing covered multifamily dwelling units, the floor or landing immediately outside the entry may be sloped up to 1/4 inch (6.35 mm) per foot (12 inches) (305 mm), in a direction away from the primary entrance of the dwelling unit for drainage.

1132A.4.1 Thresholds. Thresholds at the primary entry and required exit doors shall be no higher than 1/2 inch (12.7 mm). Thresholds at secondary exterior doors, including sliding door tracks, shall be no higher than 3/4 inch (19.05 mm). Changes in height at interior door thresholds (e.g., floor material changes at door thresholds) shall not exceed 1/2 inch (12.7 mm). Thresholds shall comply with the following:

1. Thresholds with a change in height of not more than 1/4 inch (6.35 mm) may be vertical.
2. Thresholds with a change in height between 1/4 inch (6.35 mm) and 3/4 inch (19.05 mm) shall be beveled with a slope no greater than 1 unit vertical in 2 units horizontal (50-percent slope).

1132A.5 Maneuvering clearances at doors.

1132A.5.1 General. Maneuvering clearances at interior doors shall provide a minimum length on both sides of the door of at least 42 inches (1067 mm) measured at a right angle to the plane of the door in its closed position.

Exceptions:

1. A 39-inch (991 mm) length is acceptable when a minimum clear opening width of 34 inches (864 mm) is provided.
2. The floor or landing on the dwelling unit side of the primary entry door and any required exit door shall have a minimum length of not less than 44 inches (1118 mm). Section 1126A.3 shall apply to maneuvering clearances at the side of the door exposed to common or public use spaces.

1132A.5.2 Strike edge maneuvering space at doors. The width of the level area on the side to which the door swings shall extend 18 inches (457 mm) past the strike edge for all doors. The width of the level area at the exterior side of the primary entry door and any required exit doors shall comply with Section 1126A.

Notes:

1. See Section 1134A for bathrooms that are required to be accessible.
2. Twenty-four inches (610 mm) is preferred for strike edge clearance.

1132A.6 Closer-effort to operate doors. Maximum effort to operate doors shall not exceed 8½ pounds (38 N) for exterior doors and 5 pounds (22 N) 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 these standards. When fire doors are required, the maximum effort to operate the door may be increased to the minimum allowable by the appropriate enforcement agency, not to exceed 15 pounds (66.7 N).

1132A.7 Type of lock or latch. The type of latch and lock required for all doors shall be in accordance with Chapter 10, Section 1008.4003-3.1-8.

1132A.8 Hand-activated door hardware. Hand-activated door latching, locking and opening hardware shall be centered between 30 inches (762 mm) and 44 inches (1118 mm) above the floor. Latching and locking doors that are hand-activated and on an accessible route shall be operable with a single effort by lever-type hardware, 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 consistent with Section 1132A.6, in the direction of egress.

1132A.8.1 Lever-type hardware. The lever or lever of actuated latches or locks shall be curved with a return to within 1/2 inch of the door to prevent catching on the clothing of persons during egress in Group R and U Occupancies with an occupant load greater than 10.

1132A.9 Smooth surface. The bottom 10 inches (254 mm) of all doors 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-inch-high (254 mm) 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. ~~(See Figure 11A-8J).~~

Exception: Automatic and sliding doors.

1132A.10 Door signal devices. Every primary entrance to a covered multifamily dwelling unit shall be provided with a door buzzer, bell, chime or equivalent. The activating mechanism shall be mounted a maximum of 48 inches (1219 mm) above the floor and connected to permanent wiring.

SECTION 1133A KITCHENS

1133A.1 General. Kitchens shall be on an accessible route and shall comply with this section.

1133A.2 Clear floor space. Clear floor space at kitchens shall comply with the following:

1. A clear floor space at least ~~30 inches~~ 30 inches (762 mm) by ~~48 inches~~ 48 inches (1219 mm) that allows a parallel approach by a person in a wheelchair shall be provided at the range or cooktop.
2. A clear floor space at least 30 inches (762 mm) by 48 inches (1219 mm) that allows either a parallel or forward approach shall be provided at the kitchen sink and all other fixtures or appliances including the oven, dishwasher, refrigerator/freezer and trash compactor.
3. The centerline of the 30-inch (762 mm) by 48-inch (1219 mm) clear floor space provided for parallel or forward approach shall be aligned with the centerline of the appliance or fixture. (See Figure 11A-10A).

1133A.2.1 Clear width. Kitchens shall have a minimum clear width measured between any cabinet, countertop or the face of any appliance (excluding handles and controls) that projects into the kitchen and the opposing cabinet, countertop, appliance or wall as follows:

1. U-shaped kitchens, designed with parallel approach at a range or cooktop located at the base of the U, shall have a minimum clear width of at least 60 inches (1524 mm). (See Figure 11A-10A).
2. ~~U-shaped~~ U-shaped kitchens, designed with a cooktop or sink located at the base of the U which provides a 30-inch wide (762 mm) knee space to a height of 27 inches (686 mm) above the floor to allow for a forward approach, shall have a clear width of at least 48 inches (1219 mm). (See Figure 11A-10A).

3. All other kitchen designs shall provide a minimum clear width of at least 48 inches (1219 mm). (See Figure 11A-10A).

1133A.3 Removable base cabinets. Base cabinets directly under the kitchen sink counter area, including toeboard and shelving, shall be removable without the use of specialized tools or specialized knowledge in order to provide clearance for a wheelchair. The finish floor beneath the kitchen sink counter area shall be extended to the wall.

1133A.4 Countertops. Kitchen countertops shall comply with this section and shall be provided with the following (see Section 1133A.4.1 for repositionable countertop requirements):

1. A minimum linear length of 30 inches (762 mm) of countertop shall be provided for the kitchen sink installation.
2. A minimum linear length of 30 inches (762 mm) of countertop shall be provided for a work surface.
3. The sink and work surface may be a single integral unit a minimum of 60 inches (1524 mm) in length, or be separate components.

Exception: Two 15-inch (381 mm) minimum width breadboards may be provided in lieu of the required 30 inches (762 mm) of countertop work surface.

1133A.4.1 Repositionable countertops. Repositionable countertops shall be provided in a minimum of 5 percent of the covered multifamily dwelling units. Repositionable countertops shall comply with the following:

1. The kitchen sink and work surface space required by 1133A.4 shall be designed to enable repositioning to a minimum height of 28 inches (711 mm).
2. Base cabinets directly under the kitchen sink and work surface shall be removable to provide clearance for a wheelchair.
3. The sides of adjacent cabinets and the back wall, which may become exposed to moisture or food handling when a countertop is lowered, shall be constructed of durable, nonabsorbent materials appropriate for such uses.
4. Finished flooring shall be extended to the wall beneath the sink and work surface.

Exceptions:

1. Stone, cultured stone and tiled countertops may be used without meeting the repositioning requirements.
2. Two 15-inch (381 mm) minimum width breadboards may be provided in lieu of the required 30 inches (762 mm) of countertop work surface.

1133A.5 Lower shelving. Lower shelving and/or drawer space shall be provided in the kitchen at a height of no more than 48 inches (1219 mm) above the floor.

1133A.6 Kitchen sink faucet controls. 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 pound force (22.2N). 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.

SECTION 1134A BATHING AND TOILET FACILITIES

1134A.1 General. All bathrooms, bathing and toilet facilities within covered multifamily dwelling units shall comply with this section.

1134A.2 Number of complying bathrooms. *Bathrooms shall be designed to comply with one of the following options:*

Option 1. *All bathrooms within the dwelling unit shall be designed to comply with the following:*

1. *Toilet, bathing and shower facilities shall comply with Section 1134A.4.*
2. *Bathtubs shall comply with Section 1134A.5.*
3. *Showers shall comply with Section 1134A.6.*
4. *Water closets shall comply with Section 1134A.7.*
5. *Lavatories, vanities, mirrors and towel fixtures shall comply with 1134A.8.*
6. *Bathrooms shall be provided with an accessible route into and through the bathroom.*
7. *If a door is provided, it shall comply with the requirements of Section 1132A.5.*
8. *A minimum 18-inch (457 mm) clear maneuvering space shall be provided on the swing side of the door at the strike edge of the door.*
9. *Switches, outlets and controls shall comply with Section 1142A.*
10. *Reinforced walls to allow for the future installation of grab bars around the toilet, tub and shower shall comply with Sections 1134A.5 for bathtubs, 1134A.6 for showers and 1134A.7 for water closets. Grab bars shall comply with Section 1127A.4.*

Option 2. *Only one bathroom within the dwelling unit shall be designed to comply with the following:*

1. *Toilet, bathing and shower facilities shall comply with Section 1134A.4.*
2. *Bathtubs shall comply with Section 1134A.5.*
3. *Showers shall comply with Section 1134A.6.*
4. *Water closets shall comply with Section 1134A.7.*
5. *Lavatories, vanities, mirrors and towel fixtures shall comply with 1134A.8.*
6. *Where both a tub and shower are provided in the bathroom, at least one shall be made accessible. Additional requirements apply to dwelling units containing two or more bathrooms when a bathtub is provided as the accessible bathing fixture.*

Where two or more bathrooms are provided within the same dwelling unit and a bathtub is installed to comply with Option 2, Item 6 in one bathroom and a shower stall is provided in a subsequent bathroom, both the bathtub selected to comply with Option 2, Item 6 and at least one shower stall within the dwelling unit shall meet all the applicable accessibility requirements provided in Section 1134A. (See Section 1134A.5 for bathtubs, or Section 1134A.6 for showers.)

7. *When two or more lavatories are provided, at least one shall be made accessible and comply with Section 1134A.8.*
8. *Bathrooms shall be provided with an accessible route into and through the bathroom.*
9. *If a door is provided, it shall comply with the requirements of Section 1132A.5.*
10. *A minimum 18-inch (457 mm) clear maneuvering space shall be provided on the swing side of the door at the strike edge of the door.*
11. *Switches, outlets and controls shall comply with Section 1142A.*
12. *Reinforced walls to allow for the future installation of grab bars around the toilet, tub and shower shall comply with Sections 1134A.5 for bathtubs, 1134A.6 for showers and 1134A.7 for water closets. Grab bars shall comply with Section 1127A.4.*

When Option 2 is used, all additional bathrooms must comply with items 8 through 12 above.

1134A.3 Powder rooms. All powder rooms shall be designed to comply with Section 1134A.2, Option 2, Items 8 through 12. When the powder room is the only toilet facility located on an accessible level, it shall comply with the Option 2 Items listed above, plus all additional requirements located in Sections 1134A.4, 1134A.7 and 1134A.8.

1134A.4 Sufficient maneuvering space. Bathing and toilet facilities required to be adaptable shall provide sufficient maneuvering space for a person using a wheelchair or other mobility aid to enter and close the door, use the fixtures, reopen the door and exit.

Where the door swings into the bathroom or powder room, there shall be a clear maneuvering space outside the swing of the door of at least 30 inches by 48 inches (762 mm by 1219 mm) within the room. The clear maneuvering space shall allow the user to position a wheelchair or other mobility aid clear of the path of the door as it is closed and to permit use of fixtures.

Doors may swing into the required clear space at any fixture when a clear maneuvering space is provided outside the swing arc of the door so it can be closed.

Maneuvering spaces may include any knee space or toe space available below bathroom fixtures.

1134A.5 Bathtubs. Bathtubs required to be accessible shall comply with this section.

1. **Floor Space.** There shall be a minimum clear floor space 48 inches parallel by 30 inches perpendicular (1219 mm by 762 mm) to the side of a bathtub or bathtub-shower combination (measured from the foot or drain end of the bathtub) to provide for the maneuvering of a wheelchair and transfer to and from the bathing facilities. The area under a lavatory may be included in the clear floor space provided the knee and toe space comply with Section 1134A.8. Cabinets under lavatories and toilets shall not encroach into the clear floor space.
2. **Reinforced Walls for Grab Bars.** A bathtub installed without surrounding walls shall provide reinforced areas for the installation of floor-mounted grab bars.

Where a bathtub is installed with surrounding walls, grab bar reinforcement shall be located on each end of the bathtub, 32 inches to 38 inches (813 mm to 965 mm) above the floor, extending a minimum of 24 inches (610 mm) from the front edge of the bathtub toward the back wall of the bathtub. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height. (See Figure 11A-9G).

Grab bar reinforcement shall be installed on the back wall of the bathtub a maximum of 6 inches (152.4 mm) above the bathtub rim extending upward to at least 38 inches (965 mm) above the floor. Grab bar backing shall be installed horizontally to permit the installation of a 48-inch (1219 mm) grab bar with each end a maximum of 6 inches (152.4 mm) from the end walls of the bathtub. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height.

3. **Bathtub Controls.** Faucet controls and operation 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 pound-force (22.2N). Lever operated, push type and electronically controlled mechanisms are examples of acceptable designs.

4. **Shower Unit.** A shower spray unit is not required in bathtubs.
5. **Bathtub Enclosures.** Doors and panels of bathtub enclosures shall be substantially constructed from approved, shatter-resistant materials. Hinged doors shall open outward. Glazing used in doors and panels of 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 (3.17 mm) when fully tempered, or 1/4 inch (6.35 mm) when laminated, and shall pass the test requirements of this part, Chapter 24 Glass and Glazing. Plastics used in doors and panels of bathtub enclosures shall be of a shatter-resistant type.

1134A.6 Showers. Showers required to be accessible shall comply with this section.

1. **Size.** When one or more shower stalls are provided within the same dwelling unit, at least one shower stall shall comply with one of the following requirements.

1.1 The shower stall shall measure at least 42 inches wide by 48 inches deep (1067 mm by 1219 mm) with an entrance opening of at least 36 inches (914 mm) or;

1.2 The shower stall shall measure at least 30 inches deep by 60 inches wide (762 mm by 1524 mm) with an entrance opening of at least 60 inches (1524 mm). A water closet may project a maximum of 12 inches (305 mm) into the opening provided that a minimum of 36 inches (914 mm) clear space is maintained between the water closet and the shower wall as illustrated in Figure 11A-9L or;

1.3 Other shower stall configurations shall measure at least 36 inches deep by 60 inches wide (914 mm by 1524 mm) with an entrance opening of at least 36 inches (914 mm) when a wall is installed on the opening side.

2. **Slope.** The maximum slope of the shower floor shall be ½ inch (12.7 mm) per foot in any direction and shall slope to a drain located within 6 inches (152.4 mm) of the rear wall. The floor surfaces shall be of Carborundum or grit-faced tile or of material providing equivalent slip resistance.
3. **Floor Space.** A clear maneuvering space at least 30 inches in width by 48 inches in length (762 mm by 1219 mm) shall be located outside the shower, flush and parallel to the control wall.
4. **Reinforced Walls for Grab Bars.** Grab bar reinforcement shall be installed continuous in the walls of showers 32 inches to 38 inches (813 mm to 965 mm) above the floor. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height.

Glass-walled shower stalls shall provide reinforcement for installation of floor-mounted or ceiling-mounted grab bars.

5. **Thresholds.** When a threshold is used, it shall be a maximum of 2 inches (50.8 mm) in height and have a beveled or sloped angle not exceeding 1 unit vertical in 2 units horizontal.
6. **Shower Controls.** Faucet controls and operation 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 pound-force (22.2 N). Lever operated, push-type and electronically controlled mechanisms are examples of acceptable designs.
7. **Shower Enclosures.** Doors and panels of shower enclosures shall be substantially constructed from approved, shatter-resistant materials. Hinged shower doors shall open outward. Glazing used in doors and panels of shower 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 (3.17 mm) when fully tempered, or ¼ inch (6.35 mm) when laminated, and shall pass the test requirements of this part, Chapter 24, Glass and Glazing. Plastics used in doors and panels of showers enclosures shall be of a shatter-resistant type.

1134A.7 Water closets. Water closets in bathrooms or powder rooms required to be accessible shall comply with this section.

1. **Floor Space.** The minimum floor space provided at a water closet shall be 48 inches (1219 mm) in clear width. The clear floor space shall extend past the front edge of the water closet at least 36 inches (914 mm). See Figure 11A-9M.

Exception: The 48-inch (1219 mm) minimum clear width may be reduced to 36 inches (914 mm) for lavatories, cabinets, wing walls, or privacy walls located immediately adjacent to a water closet which extend no more than 24 inches (610 mm) in depth.

Water closets shall be located within bathrooms in a manner that permits a grab bar to be installed on one side of the fixture. In locations where water closets are adjacent to walls, vanities, lavatories or bathtubs, the centerline of the fixture shall be a minimum of 18 inches (457 mm) from the obstacle

2. **Reinforced Walls for Grab Bars.** Where the water closet is not placed adjacent to a side wall, the bathroom shall have provisions for installation of floor-mounted, foldaway or similar alternative grab bars.

Where the water closet is placed adjacent to a side wall, reinforcement shall be installed on both sides or one side and the back. If reinforcement is installed at the back, it shall be installed between 32 inches (813 mm) and 38 inches (965 mm) above the floor. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height. The backing shall be a minimum of 40 inches (1016 mm) in length.

Reinforcement installed at the side of the water closet shall be installed 32 inches to 38 inches (813 mm to 965 mm) above the floor. The reinforcement shall be installed a maximum of 12 inches (305 mm) from the rear wall and shall extend a minimum of 26 inches (660 mm) in front of the water closet. The grab bar reinforcement shall be a minimum of 6 inches (152.4 mm) nominal in height.

3. **Seat Height.** The minimum height of water closet seats shall be 15 inches (381 mm) above the floor.
4. **Water Closet Controls.** Water closet controls shall be mounted no more than 44 inches (1118 mm) above the floor. The force required to activate controls shall be no greater than 5 pound-force (22.2 N).

1134A.8 Lavatories, vanities, mirrors and towel fixtures. Bathrooms or powder rooms required to be accessible shall have at least one accessible lavatory. Where mirrors and towel fixtures are provided, at least one of each shall be accessible.

1. **Location.** Vanities and lavatories shall be installed with the centerline of the fixture a minimum of 18 inches (457 mm) horizontally from an adjoining wall or fixture to allow for forward approach. When parallel approach is provided, lavatories shall be installed with the centerline of the fixture a minimum of 24 inches (610 mm) horizontally from an adjoining wall or fixture. The top of the fixture rim shall be a maximum of 34 inches (864 mm) above the finished floor.
2. **Floor Space.** A clear maneuvering space at least 30 inches by 48 inches (762 mm by 1219 mm) shall be provided at lavatories and shall be centered on the lavatory.
3. **Cabinets.** Cabinets under lavatories are acceptable provided the bathroom has space to allow a parallel approach by a person in a wheelchair and the lavatory cabinets are designed with adaptable knee and toe space.
4. **Knee and Toe Space.** Knee and toe space shall be provided as follows:
 - 4.1. The knee space shall be at least 30 inches (762 mm) wide and 8 inches (203.2 mm) deep.
 - 4.2. The knee space shall be at least 29 inches (737 mm) high at the front face and reducing to not less than 27 inches (686 mm) at a point 8 inches (203.2 mm) back from the front edge.
 - 4.3. The knee and toe space required in this section shall be provided by one of the following:
 - 4.3.1. The space beneath the lavatory shall be left clear and unobstructed;
 - 4.3.2. Any cabinet beneath the lavatory shall be removable without the use of specialized knowledge or specialized tools; or
 - 4.3.3. Doors to the cabinet beneath the lavatory shall be removable or openable to provide the required unobstructed knee and toe space.
 - 4.4. The toe space required in this section shall be provided as follows:
 - 4.4.1. Shall be at least 30 inches (762 mm) wide and centered on the lavatory.
 - 4.4.2. Shall be at least 17 inches (432 mm) deep, measured from the front edge.
 - 4.4.3. Shall be at least 9 inches (228.6 mm) high from the floor.

5. **Finished Floor.** *The finished floor beneath the lavatory shall be extended to the wall.*
6. **Plumbing Protection.** *Hot water and drain pipes exposed under lavatories shall be insulated or otherwise covered. There shall be no sharp or abrasive surfaces under lavatories.*
7. **Lavatory Faucet Controls.** *Faucet controls and operation 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 pound-force (22.2 N). 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.

8. **Mirrors and Towel Fixtures.** *Where mirrors or towel fixtures are provided they shall be mounted with the bottom edge no higher than 40 inches (1016 mm) from the floor.*

SECTION 1135A LAUNDRY ROOMS

1135A.1 General. *If clothes washing machines and clothes dryers are provided in covered multifamily dwelling units, one of each type of appliance shall be provided. Where front-loading clothes washers are not provided, management shall provide assistive devices, on request of the occupant, to permit the use of top-loading clothes washers.*

SECTION 1136A ELECTRICAL RECEPTACLE, SWITCH AND CONTROL HEIGHTS

1136A.1 Receptacle heights. *Electrical receptacle outlets on branch circuits of 30 amperes or less and communication system receptacles shall be located no more than 48 inches (1219 mm) measured from the top of the receptacle outlet box or receptacle housing nor less than 15 inches (381 mm) measured from the bottom of the receptacle outlet box or receptacle housing to the level of the finished floor or working platform. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height measured at the box is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Obstructions shall not extend more than 25 inches (635 mm) from the wall beneath the receptacle.*

Outlets that do not satisfy these specifications are acceptable, provided that comparable outlets, that perform the same functions, are provided within the same area and are accessible.

Exceptions:

1. *Receptacle outlets installed as part of permanently installed baseboard heaters are exempt.*
2. *Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.*
3. *Baseboard electrical outlets used in relocatable partitions, window walls or other electrical convenience floor outlets are not subject to the minimum height requirements.*
4. *This section shall not apply to existing buildings when the enforcing agency determines that compliance with these standards would create an unreasonable hardship.*

Note: *The intent of the measurement is to ensure that receptacles fall within the reach range of 15 inches to 48 inches (381 to 1219 mm).*

1136A.2 Switch and control heights. *Controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances, alarms or cooling, heating and ventilating equipment shall be located no more than 48 inches (1219 mm) measured from the top of the outlet box nor less than 15 inches (381 mm) measured from the bottom of the outlet box to the level of the finished floor or working platform. If the reach is over a physical barrier or an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Physical barriers or obstructions shall not extend more than 25 inches (635 mm) from the wall beneath a control.*

Controls that do not satisfy these specifications are ~~acceptable provided~~ acceptable provided that comparable controls or outlets, that perform the same functions, are provided within the same area and are accessible.

Exception: Appliances (e.g., kitchen stoves, dishwashers, range hoods, microwave ovens and similar appliances) which have controls located on the appliance.

Division V — FEATURES COMMON TO EXTERIOR AND INTERIOR OF BUILDINGS

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Section 1142A Electrical Receptacle, Switch and Control Heights
Section 1143A Signage
Section 1144A through 1149A Reserved

SECTION 1137A OTHER FEATURES AND FACILITIES

1137A.1 General. This division shall apply to features and facilities of common use areas on accessible floors or sites.

Note: The provisions in this division are not applicable to dwelling units.

SECTION 1138A RESERVED

SECTION 1139A ACCESSIBLE DRINKING FOUNTAINS

1139A.1 General. Drinking fountains and water coolers in common use areas and/or sites shall comply with this section. A side approach drinking fountain is not acceptable.

1139A.2 Accessible route. Drinking fountains and water coolers shall be on an accessible route.

1139A.3 Design and construction. Wall-mounted and post-mounted cantilevered drinking fountains and water coolers shall be designed and constructed to comply with the following: (See Figure 11A-11A).

1. A clear floor space shall be provided in conformance with the following:
 - 1.1. A minimum clear floor space 30 inches by 48 inches (762 mm by 1219 mm) to allow a person in a wheelchair to approach the unit facing forward.
 - 1.2. A clear knee space a minimum of 30 inches (762 mm) in width.
 - 1.3. A clear knee space a minimum of 18 inches (457 mm) in depth.
 - 1.4. A clear and unobstructed knee space under the drinking fountain not less than 27 inches (686 mm) in height and 8 inches (203.2 mm) in depth, the depth measurements being taken from the front edge of the fountain.
 - 1.5. A toe clearance of 9 inches (228.6 mm) in height above the floor and 17 inches (432 mm) in depth from the front edge of the fountain.
2. Water flow shall be provided in conformance with the following:
 - 2.1. The spout shall be located within 6 inches (152.4 mm) of the front edge of the drinking fountain and within 36 inches (914 mm) of the floor.
 - 2.2. A flow of water at least 4 inches (101.6 mm) high shall be available to allow the insertion of a cup or glass under the flow of water.

- 2.3. The water stream from the bubbler shall be substantially parallel to the front edge of the drinking fountain.
- 2.4. The force required to activate controls shall be no greater than 5 pound-force (22.2 N).
- 2.5. Manually operated or electronically operated controls shall be located within 6 inches (152.4 mm) of the front edge of the fountain.

1139A.3.1 Location. 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 not be less than 32 inches (813 mm) in width and 18 inches (457 mm) in depth. Protruding objects located in alcoves or otherwise positioned so as to limit encroachment into pedestrian ways are permitted to project 4 inches (102 mm) into walks, halls, corridors, passageways or aisles. (See Figure 11A-11A).

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 (305 mm) beyond the front edge of the water fountain and shall extend 1 foot (~~305mm~~ 305 mm) 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 (152.4 mm) of the surface of the path of travel. There shall also be a minimum of 32 inches (813 mm) clear between the wing walls.

SECTION 1140A ACCESSIBLE TELEPHONES

1140A.1 General. If public telephones are provided, they shall comply with this section. On floors where public telephones are provided, at least one telephone shall be accessible. On any floor where two or more banks of multiple telephones are provided, at least one telephone in each bank shall be accessible.

1140A.2 Clear floor or ground space. A clear floor or ground space at least 30 inches by 48 inches (762 mm by 1219 mm) that allows either a forward or parallel approach by a person using a wheelchair shall be provided at telephones. Bases, enclosures and fixed seats shall not impede approaches to telephones by people who use wheelchairs. (See Figure 11A-11B).

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.

1140A.3 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.

1140A.4 Mounting height. The highest operable part of the telephone shall be within the reach ranges specified in the Figure 11A-11B. Telephones mounted diagonally in a corner that require wheelchair users to reach diagonally shall have the highest operable part no higher than 54 inches (1372 mm) above the floor. (See Figure 11A-11B).

1140A.5 Enclosures. If telephone enclosures are provided, they may overhang the clear floor space required in Sections 1140A.2 and 1140A.3 with the following limits:

1. **Side Reach Possible.** The overhang shall be no greater than 19 inches (483 mm). The height of the lowest overhanging part shall be equal to or greater than 27 inches (686 mm) above the floor.
2. **Full-height Enclosures.** Entrances to full-height enclosures shall be a minimum of 30 inches (762 mm) in width.

3. **Forward Reach Required.** *If the overhang is greater than 12 inches (305 mm), then the clear width of the enclosure shall be 30 inches (762 mm) minimum; if the clear width of the enclosure is less than 30 inches (762 mm), then the height of the lowest overhanging part shall be equal to or greater than 27 inches (686 mm).*

1140A.6 Equipment for hearing impaired people. *Telephones shall be equipped with a receiver that generates a magnetic field in the area of the receiver cap. A reasonable number of the public telephones provided, but always at least one on each floor or in each bank, whichever is more, in a building or facility, shall be equipped with a volume control. Such telephones shall be capable of a minimum of 12 dbA and a maximum of 18 dbA above normal. If an automatic reset is provided, 18 dbA may be exceeded. Public telephones with volume control shall be hearing aid compatible and shall be identified by a sign containing a depiction of a telephone handset with radiating sound waves. (See Figure 11A-11D).*

1140A.7 Text telephones. *If a total of four or more public pay telephones are provided at the interior and exterior of a site, and if at least one of the total number provided is located in an interior location, at least one interior public text telephone shall be provided.*

1140A.7.1 Signage. *Text telephones shall be identified by the International TTY symbol (see Figure 11A-11C). If a facility has a public text telephone, directional signage indicating the location of the nearest such telephone shall be placed adjacent to all banks of telephones that do not contain a text telephone. Such directional signage shall include the International TTY symbol. If a facility has no banks of telephones, the directional signage shall be provided at the entrance or in a building directory.*

1140A.8 Controls. *Telephones shall have push-button controls where service for such equipment is available.*

1140A.9 Cord length. *The cord from the telephone to the handset shall be at least 29 inches (737 mm) long.*

1140A.10 Telephone books. *If telephone books are provided, they shall be located in a position that complies with the reach ranges in Figures 11A-1I, and 11A-1J.*

SECTION 1141A ACCESSIBLE SWIMMING POOLS

1141A.1 General. *Swimming pools in common use areas shall comply with the provisions of this section and Chapter 31B.*

1141A.2 Swimming pool deck areas. *Swimming pool deck areas must be accessible, and a mechanism to assist persons with disabilities gain entry into the pool and exit from the pool shall be provided. Such a mechanism may consist of a swimming pool lift device as long as the device meets all of the following criteria:*

1. *Has a seat that meets all of the following:*
 - 1.1. *The seat must be rigid;*
 - 1.2. *The seat must be not less than 17 inches (432 mm) and not more than 19 inches (483 mm), inclusive of any cushioned surface that might be provided, above the pool deck;*
 - 1.3. *The seat must have two armrests. The armrest on the side of the seat by which access is gained shall be either removable or fold clear of the seat;*
 - 1.4. *The seat must have a back support that is at least 12 inches (305 mm) tall; and*
 - 1.5. *The seat must have an occupant restraint for use by the occupant of the seat and the restraint must meet the standards for operable controls in compliance with Section 1127A.9.6.4.*
2. *Be capable of unassisted operation from both the deck and water levels.*
3. *Be stable and not permit unintended movement when a person is getting into or out of the seat*
4. *Be designed to have a live-load capacity of not less than 300 pounds*

5. Be positioned so that, if the pool has water of different depths, it will place the operator into water that is at least three feet (914 mm) deep.
6. Be capable of lowering the operator at least 18 inches (457 mm) below the surface of the water.

**SECTION 1142A
ELECTRICAL RECEPTACLE, SWITCH AND CONTROL HEIGHTS**

1142A.1 Receptacle heights. Electrical receptacle outlets on branch circuits of 30 amperes or less and communication system receptacles shall be located no more than 48 inches (1219 mm) measured from the top of the receptacle outlet box or receptacle housing nor less than 15 inches (381 mm) measured from the bottom of the receptacle outlet box or receptacle housing to the level of the finished floor or working platform. If the reach is over an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height measured at the box is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Obstructions shall not extend more than 25 inches (635 mm) from the wall beneath the receptacle.

Outlets that do not satisfy these specifications are acceptable provided that comparable outlets, that perform the same functions, are provided within the same area and are accessible.

Exceptions:

1. Receptacle outlets installed as part of permanently installed baseboard heaters are exempt.
2. Required receptacle outlets shall be permitted in floors when adjacent to sliding panels or walls.
3. Baseboard electrical outlets used in relocatable partitions, window walls or other electrical convenience floor outlets are not subject to the minimum height requirements.
4. This section shall not apply to existing buildings when the enforcing agency determines that compliance with these standards would create an unreasonable hardship.

Note: The intent of the measurement is to ensure that receptacles fall within the reach range of 15 inches to 48 inches (381 mm to 1219 mm).

1142A.2 Switch and control heights. Controls or switches intended to be used by the occupant of the room or area to control lighting and receptacle outlets, appliances, alarms or cooling, heating and ventilating equipment shall be located no more than 48 inches (1219 mm) measured from the top of the outlet box nor less than 15 inches (381 mm) measured from the bottom of the outlet box to the level of the finished floor or working platform. If the reach is over a physical barrier or an obstruction (for example, a kitchen base cabinet) between 20 and 25 inches (508 and 635 mm) in depth, the maximum height is reduced to 44 inches (1118 mm) for forward approach, or 46 inches (1168 mm) for side approach, provided the obstruction is no more than 24 inches (610 mm) in depth. Physical barriers or obstructions shall not extend more than 25 inches (635 mm) from the wall beneath a control.

Controls that do not satisfy these specifications are acceptable provided that comparable controls or outlets, that perform the same functions, are provided within the same area and are accessible.

**SECTION 1143A
SIGNAGE**

1143A.1. General. When signs and/or identification devices are provided they shall comply with this section.

Exception: Signs need not be provided within dwelling units.

1143A.2. Identification signs. When signs identify permanent rooms and spaces of a building or site, they shall comply with 1143A.5, 1143A.6, 1143A.8, 1143A.9 and 1143A.10.

Note: See Section 1124A for additional signage requirements applicable to elevators and Section 1127A.7 for sanitary facilities.

1143A.3. Directional and informational signs. When signs direct to or give information about permanent rooms and spaces of a building or site, they shall comply with 1143A.5, 1143A.6 and 1143A.7.

1143A.4 Accessibility signs. When signs identify, direct or give information about accessible elements and features of a building or site, they shall include the appropriate symbol of accessibility and shall comply with 1143A.5 and, when applicable, Section 1143A.10.

1143A.5 Finish and contrast. Characters, symbols and their background shall have a non-glare finish. Characters and symbols shall contrast with their background, either light on a dark background or dark on a light background.

1143A.6 Proportions. Characters on signs shall have a width-to-height ratio of between 3:5 and 1:1 and a stroke width-to-height ratio of between 1:5 and 1:10.

1143A.7 Character height. Characters and numbers on signs shall be sized according to the viewing distance from which they are to be read. The minimum height is measured using an uppercase "X." Lowercase characters are permitted. For signs suspended or projected above the finish floor greater than 80 inches (2032 mm), the minimum character height shall be 3 inches (76 mm).

1143A.8 Raised characters and pictorial symbol signs. When raised characters are required or when pictorial symbols (pictograms) are used on such signs, they shall conform to the following requirements:

1. **Character Type.** Characters on signs shall be raised 1/32-inch (0.794 mm) minimum and shall be sans serif uppercase characters accompanied by Grade 2 Braille complying with Section 1143A.9.
2. **Character Size.** Raised characters shall be a minimum of 5/8 inch (15.9 mm) and a maximum of 2 inches (51 mm) high.
3. **Pictorial Symbol Signs (Pictograms).** Pictorial symbol signs (pictograms) shall be accompanied by the verbal description placed directly below the pictogram. The outside dimension of the pictogram field shall be a minimum of 6 inches (152 mm) in height.
4. **Character Placement.** Characters and Braille shall be in a horizontal format. Braille shall be placed a minimum of 3/8 inch (9.5 mm) and a maximum of 1/2 inch (12.7 mm) directly below the tactile characters, flush left or centered. When tactile text is multilined, all Braille shall be placed together below all lines of tactile text.

1143A.9 Braille. Contracted Grade 2 Braille shall be used wherever Braille is required in other portions of these standards. Dots shall be 1/10 inch (2.54 mm) on center in each cell with 2/10-inch (5.08 mm) space between cells, measured from the second column of dots in the first cell to the first column of dots in the second cell. Dots shall be raised a minimum of 1/40 inch (0.635 mm) above the background. Braille dots shall be domed or rounded.

1143A.10 Mounting location and height. Where permanent identification signs are provided for rooms and spaces, signs shall be installed on the wall adjacent to the latch side of the door. Where there is no wall space on the latch side, including at double leaf doors, signs shall be placed on the nearest adjacent wall, preferably on the right.

Where permanent identification signage is provided for rooms and spaces, it shall be located on the approach side of the door as one enters the room or space. Signs that identify exits shall be located on the same side of the door as the visual exit sign.

Mounting height shall be 60 inches (1524 mm) above the finish floor to the centerline of the sign. Mounting location shall be determined so that a person may approach within 3 inches (76 mm) of signage without encountering protruding objects or standing within the swing of a door.

Note: See also Section 1127A.7 for additional signage requirements applicable to sanitary facilities.

SECTION 1144A RESERVED

SECTION 1145A RESERVED

SECTION 1146A RESERVED

SECTION 1147A RESERVED

SECTION 1148A RESERVED

SECTION 1149A RESERVED

Division VI — SITE IMPRACTICALITY TESTS

Division VI Table of Contents

Section 1150A Site Impracticality Tests
Test No. 1--Individual Building Test
Test No. 2--Site Analysis Test
Test No. 3--Unusual Characteristics Test

SECTION 1150A SITE IMPRACTICALITY TESTS

1150A.1 General. Covered multifamily dwellings in buildings without an elevator, located on sites with difficult terrain conditions or unusual characteristics, may employ the site impracticality tests in this division for determining the accessibility and adaptability provisions required by this chapter.

Except as provided for in Section 1102A.3.1, the provisions of this section do not apply to multistory dwelling units in nonelevator buildings.

SINGLE BUILDING WITH ONE COMMON (LOBBY) ENTRANCE

The following may only be used for determining required access to covered multifamily dwelling units, in a single building with one common (lobby) entrance, located on a site with difficult terrain conditions or unusual characteristics:

All **ground floor ground floor** units in nonelevator buildings shall be adaptable and on an accessible route unless an accessible route to the common (lobby) entrance is not required as determined by Test No. 1, Individual Building Test, or Test No. 3, Unusual Characteristics Test, as described in this section.

Sites where either Test No. 1 or Test No. 3 is used and it is determined that an accessible route to the common (lobby) entrance is not required, at least 20 percent of the ground floor dwelling units shall comply with Division IV, and all remaining ground floor dwelling units shall comply with the features listed in Section 1150A.2 unless exempted by Test No. 3, Unusual Characteristics Test.

Test No. 1-- Individual Building Test may only be used if the site has terrain over 15 percent slope.

Test No. 3 -- Unusual Characteristics Test may be used if applicable.

Provisions to Test Nos. 1 and 2. Where a building elevator is provided only as means of creating an accessible route to covered multifamily dwelling units on a ground floor, the building is not considered to be an elevator building for purposes of this code; hence, only the ground floor dwelling units would be covered.

TEST NO. 1 – INDIVIDUAL BUILDING TEST

It is not required by this code to provide an accessible route when the terrain of the site is such that both of the following apply:

1. The slopes of the undisturbed site measured between the planned entrance and all vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance exceed 15 percent; and
2. The slopes of the planned finished grade measured between the entrance and all vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance also exceed 15 percent.

If there are no vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance, the slope for the purposes of Test No. 1 will be measured to the closest vehicular or pedestrian arrival point.

For purposes of these requirements, vehicular or pedestrian arrival points include public or resident parking areas, public transportation stops, passenger loading zones and public streets or sidewalks. To determine site impracticality, the slope would be measured at ground level from the point of the planned entrance on a straight line to (1) each vehicular or pedestrian arrival point that is within 50 feet (15 240 mm) of the planned

entrance, or (2) if there are no vehicular or pedestrian arrival points within the specified area, the vehicular or pedestrian arrival point closest to the planned entrance. In the case of sidewalks, the closest point to the entrance will be where a public sidewalk entering the site intersects with the walk to the entrance. In the case of resident parking areas, the closest point to the planned entrance will be measured from the entry point to the parking area that is located closest to the planned entrance.

TEST NO. 2 – SITE ANALYSIS TEST

For a site having multiple buildings, or a site with a single building with multiple entrances, it is not required to provide an accessible route to all ground floor units under the following conditions:

1. Calculate the percentage of the total buildable area of the undisturbed site with a natural grade less than 10-percent slope. The analysis of the existing slope (before grading) shall be done on a topographic survey with 2-foot (610 mm) contour intervals with slope determination made between each successive interval. The accuracy of the slope analysis shall be certified by a licensed engineer, landscape architect, architect or surveyor.
2. Determine the requirement of providing an accessible route to planned multifamily dwellings based on the topography of the existing natural terrain. The minimum percentage of ground-floor ground floor units required on an accessible route shall equal the percentage of the total buildable area (not restricted-use areas) of the undisturbed site with an existing natural grade of less than 10-percent slope. In no case shall less than 20 percent of the ground floor dwelling units be on an accessible route and comply with the provisions of Division IV.
3. In addition to the percentage established in paragraph (2), all additional ground floor units in a building, or ground floor units served by a particular entrance, that fall within an 8.33-percent slope between their planned entrances and an arrival point, shall be on an accessible route and comply with the provisions of Division IV.
4. All additional ground floor units in a building, or ground floor units served by a particular entrance, not on an accessible route shall comply with the features listed in Section 1150A.2.

TEST NO. 3 – UNUSUAL CHARACTERISTICS TEST

Unusual characteristics include sites located in a state or federally designated floodplain or coastal high-hazard areas and sites subject to other similar requirements of law or code that require the lowest floor or the lowest structural member of the lowest floor be designed to a specified level at or above the base flood elevation. An accessible route to a building entrance is impractical due to unusual characteristics of the site when:

1. The original site characteristics result in a difference in finished grade elevation exceeding 30 inches (762 mm) and 10 percent measured between an entrance and all vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance; or
2. If there are no vehicular or pedestrian arrival points within 50 feet (15 240 mm) of the planned entrance, the unusual characteristics result in a difference in finished grade elevation exceeding 30 inches (762 mm) and 10 percent measured between an entrance and the closest vehicular or pedestrian arrival point.

1150A.2 Additional requirements for Section 1150A.

All other ground floor dwelling units in nonelevator buildings shall be made to comply with the following requirements:

1. Grab bar reinforcement: see Section 1134A.
2. Thirty-two inch (813 mm) clear door interior opening width: see Section 1132A.3.
3. Lever hardware: see Section 1132A.8.
4. Door signal devices: see Section 1132A.10.
5. Clear space by doors: see Chapters 10 and 11A.
6. Minimum 15-inch (381 mm) water closet seat height: see Section 1134A.7, Item 3.

7. *Electrical receptacle outlet height: see Section 1136A.*
8. *Lighting and environmental control height: see Section 1136A.*
9. *Faucet controls: see Section 1134A.8, Item 7.*
10. *Water closet, bathtub and lavatory minimum space requirements: see Section 1134A.*
11. *Removable cabinets under the kitchen sink counter area: see Section 1133A.3.*

Division VII — FIGURES (NOTE: FIGURES ATTACHED FOLLOWING EXPRESS TERMS)

FIGURE 11A-1D – MINIMUM CLEAR WIDTH FOR TWO WHEELCHAIRS

Correct figure number of top right figure to "FIGURE 11A-1F."

FIGURE 11A-1I – FORWARD REACH

NOTE: X SHALL BE LESS THAN OR EQUAL TO 25 INCHES, Z SHALL BE GREATER THAN ...

FIGURE 11A-1L – CORRIDOR OVER 200 FEET (60 960 mm)

Insert "feet" after "200" under top right graphic.

FIGURE 11A-2B – DIAGONAL PARKING STALLS SINGLE AND VAN ACCESSIBLE PARKING STALLS

FIGURE 11A-3E – CURB DETAIL

Complete description of retaining curb in middle of page to read "RETAINING CURB IF NECESSARY AT BACK OF SIDEWALK."

FIGURE 11A-3H/FIGURE 11A-3I and FIGURE 11A-3J/FIGURE 11A-3K.

Reverse order of pages to keep figures in correct sequence.

FIGURE 11A-6B – STAIR HANDRAILS

Delete extraneous reference to "18" MIN." between top two figures.

FIGURE 11A-7B – ELEVATOR CONTROL PANEL

Correct spelling of "numeral" at top of figure.

FIGURE 11A-8B – HINGE SIDE APPROACHES – SWINGING DOORS

Correct spelling of "swinging" in figure title.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

12. HCD proposes to adopt Chapter 12 with amendments as follows:

**CHAPTER 12
INTERIOR ENVIRONMENT**

**SECTION 1203
VENTILATION**

1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the ~~International~~ California Mechanical Code.

1203.2.1 Openings into attic. Exterior openings into the attic space of any building intended for human occupancy shall be protected to prevent the entry of birds, squirrels, rodents, snakes and other similar creatures. Openings for ventilation having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum shall be permitted. Openings for ventilation having a least dimension larger than 1/4 inch (6.4 mm) shall be provided with corrosion-resistant wire cloth screening, hardware cloth, perforated vinyl or similar material with openings having a least dimension of 1/16 inch (1.6 mm) minimum and 1/4 inch (6.4 mm) maximum. Where combustion air is obtained from an attic area, it shall be in accordance with Chapter 7 of the ~~International~~ *California Mechanical Code*.

1203.3.2 Exceptions. The following are exceptions to Sections 1203.3 and 1203.3.1:

1. Where warranted by climatic conditions, ventilation openings to the outdoors are not required if ventilation openings to the interior are provided.
2. The total area of ventilation openings is permitted to be reduced to $1/1,500$ of the under-floor area where the ground surface is covered with a Class I vapor retarder material and the required openings are placed so as to provide cross ventilation of the space. The installation of operable louvers shall not be prohibited.
3. Ventilation openings are not required where continuously operated mechanical ventilation is provided at a rate of 1.0 cubic foot per minute (cfm) for each 50 square feet (1.02 L/s for each 10 m²) of crawl space floor area and the ground surface is covered with a Class I vapor retarder.
4. Ventilation openings are not required when the ground surface is covered with a Class I vapor retarder, the perimeter walls are insulated and the space is conditioned in accordance with the ~~International~~ *California Energy Conservation Code, Title 24, Part 6*.
5. For buildings in flood hazard areas as established in Section 1612.3, the openings for under-floor ventilation shall be deemed as meeting the flood opening requirements of ASCE 24 provided that the ventilation openings are designed and installed in accordance with ASCE 24.

1203.4 Natural ventilation. Natural ventilation of an occupied space shall be through windows, doors, louvers or other openings to the outdoors. The operating mechanism for such openings shall be provided with ready access so that the openings are readily controllable by the building occupants.

[HCD 1] In employee housing, all openable windows in rooms used for living, dining, cooking or sleeping purposes, and toilet and bath buildings, shall be provided and maintained with insect screening.

[HCD 1] Door openings of rooms used for dining, cooking, toilet and bathing facilities in employee housing shall be provided and maintained with insect screening or with solid doors equipped with self-closing devices in lieu thereof, when approved by the enforcement agency.

[HCD 1] The windows, doors, louvers or other approved closeable openings not required by Section ~~4026~~ 1029 may open into a passive solar energy collector for ventilation required by this section. The area of ventilation openings to the outside of the passive solar energy collector shall be increased to compensate for the openings required by the interior space.

1203.4.2 Contaminants exhausted. Contaminant sources in naturally ventilated spaces shall be removed in accordance with the ~~International~~ *California Mechanical Code* and the *International Fire Code*.

1203.4.2.1 Bathrooms. Rooms containing bathtubs, showers, spas and similar bathing fixtures shall be mechanically ventilated in accordance with the ~~International~~ *California Mechanical Code*. The minimum ventilation or exhaust rate shall not be less than that established by Table 4-4, Minimum Exhaust Rates. See California Mechanical Code for additional provisions related to environmental air ducts.

1203.5 Other ventilation and exhaust systems. Ventilation and exhaust systems for occupancies and operations involving flammable or combustible hazards or other contaminant sources as covered in the ~~International~~ *California Mechanical Code* or the *International Fire Code* shall be provided as required by both codes.

**SECTION 1204
TEMPERATURE CONTROL**

1204.1 Equipment and systems.

Interior spaces intended for human occupancy shall be provided with active or passive space-heating systems capable of maintaining a minimum indoor temperature of 68°F (20°C) at a point 3 feet (914 mm) above the floor on the design heating day.

Exceptions:

1. Interior spaces where the primary purpose is not associated with human comfort.
2. **[HCD 1]** *For limited-density owner-built rural dwellings, a heating facility or appliance shall be installed in each dwelling subject to the provisions of Subchapter 1, Chapter 1, Title 25, California Code of Regulations; commencing with Section 74; however, there shall be no specified requirement for heating capacity or temperature maintenance. The use of solid-fuel or solar-heating devices shall be deemed as complying with the requirements of this section. If nonrenewable fuel is used in these dwellings, rooms so heated shall meet current installation standards.*
3. **[HCD 1]** *When a passive solar energy collector is designed as a conditioned area it shall comply with the California Energy Code, Title 24, Part 6. Nonconditioned passive solar energy collectors are exempt from Title 24, Part 6.*

**SECTION 1205
LIGHTING**

1205.1 General. Every space intended for human occupancy shall be provided with natural light by means of exterior glazed openings in accordance with Section 1205.2 or shall be provided with artificial light in accordance with Section 1205.3. Exterior glazed openings shall open directly onto a public way or onto a yard or court in accordance with Section 1206.

[HCD 1] *Glazed openings may open into a passive solar energy collector provided the area of exterior glazed openings in the passive solar energy collector is increased to compensate for the area required by the interior space.*

**SECTION 1206
YARDS OR COURTS**

1206.3.3 Court drainage. The bottom of every court shall be properly graded and drained to a public sewer or other approved disposal system complying with the *International California Plumbing Code*.

**SECTION 1207
[HCD 1 & HCD 2] SOUND TRANSMISSION**

1207.1 Scope. ~~This section shall apply to common interior walls, partitions and floor/ceiling assemblies between adjacent dwelling units or between dwelling units and adjacent public areas such as halls, corridors, stairs or service areas.~~

1207.2 Air borne sound. ~~Walls, partitions and floor/ceiling assemblies separating dwelling units from each other or from public or service areas shall have a sound transmission class (STC) of not less than 50 (45 if field tested) for air borne noise when tested in accordance with ASTM E 90. Penetrations or openings in construction assemblies for piping; electrical devices; recessed cabinets; bathtubs; soffits; or heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings. This requirement shall not apply to dwelling unit entrance doors; however, such doors shall be tight fitting to the frame and sill.~~

1207.2.1 Masonry. ~~The sound transmission class of concrete masonry and clay masonry assemblies shall be calculated in accordance with TMS 0302 or determined through testing in accordance with ASTM 90.~~

1207.3 Structure borne sound. ~~Floor/ceiling assemblies between dwelling units or between a dwelling unit and a public or service area within the structure shall have an impact insulation class (IIC) rating of not less than 50 (45 if field tested) when tested in accordance with ASTM E 492.~~

1207.1 Purpose and scope. *The purpose of this section is to establish uniform minimum noise insulation performance standards to protect persons within hotels, motels, dormitories, apartment houses and dwellings other than detached single-family dwellings from the effects of excessive noise, including, but not limited to, hearing loss or impairment and interference with speech and sleep. This section shall apply to all buildings for which applications for building permits were made subsequent to August 22, 1974.*

1207.2 Definitions. *The following special definitions shall apply to this section:*

SOUND TRANSMISSION CLASS (STC) *is a single-number rating used to compare walls, floor-ceiling assemblies and doors for their sound-insulating properties with respect to speech and small household appliance noise. The STC is derived from laboratory measurements of sound transmission loss across a series of 16 test bands.*

Laboratory STC ratings should be used to the greatest extent possible in determining that the design complies with this section.

FIELD SOUND TRANSMISSION CLASS (FSTC) *is a single-number rating similar to STC, except that the transmission loss values used to derive the FSTC are measured in the field. All sound transmitted from the source room to the receiving room is assumed to be through the separating wall or floor-ceiling assembly.*

This section does not require determination of the FSTC, and field-measured values of noise reduction should not be reported as transmission loss.

IMPACT INSULATION CLASS (IIC) *is a single-number rating used to compare the effectiveness of floor-ceiling assemblies in providing reduction of impact-generated sounds such as footsteps. The IIC is derived from laboratory measurements of impact sound pressure level across a series of 16 test bands using a standardized tapping machine. Laboratory IIC ratings should be used to the greatest extent possible in determining that the design complies with this section.*

FIELD IMPACT INSULATION CLASS (FIIC) *is a single-number rating similar to the IIC, except that the impact sound pressure levels are measured in the field.*

NOISE ISOLATION CLASS (NIC) *is a single-number rating derived from measured values of noise reduction between two enclosed spaces that are connected by one or more paths. The NIC is not adjusted or normalized to a standard reverberation time.*

NORMALIZED NOISE ISOLATION CLASS (NNIC) *is a single-number rating similar to the NIC, except that the measured noise reduction values are normalized to a reverberation time of one-half second.*

NORMALIZED A-WEIGHTED SOUND LEVEL DIFFERENCE (Dn) *means for a specified source room sound spectrum, Dn is the difference, in decibels, between the average sound levels produced in two rooms after adjustment to the expected acoustical conditions when the receiving room under test is normally furnished.*

DAY-NIGHT AVERAGE SOUND LEVEL (Ldn) *is the A-weighted equivalent continuous sound exposure level for a 24-hour period with a 10 db adjustment added to sound levels occurring during nighttime hours (10 p.m. to 7 a.m.).*

COMMUNITY NOISE EQUIVALENT LEVEL (CNEL) *is a metric similar to the Ldn, except that a 5 db adjustment is added to the equivalent continuous sound exposure level for evening hours (7 p.m. to 10 p.m.) in addition to the 10 db nighttime adjustment used in the Ldn.*

1207.3 Relevant standards. *The current edition of the following standards is generally applicable for determining compliance with this section. Copies may be obtained from the American Society for Testing and Materials (ASTM) at 100 Barr Harbor Drive, West Conshohocken, PA, 19428-2959.*

ASTM C 634, Standard ~~Definitions~~ Terminology of Terms Relating to Building and Environmental Acoustics.

ASTM E 90, Standard Test Method for Laboratory Measurement of Airborne Sound Transmission Loss of Building Partitions and Elements.

ASTM E 336, Standard Test Method for Measurement of Airborne Sound Insulation Attenuation Between Rooms in Buildings.

ASTM E 413, Standard Classification for Determination of Rating Sound Transmission Class Insulation.

ASTM E 492, Standard Test Method for Laboratory Measurement of Impact Sound Transmission Through Floor-Ceiling Assemblies Using the Tapping Machine.

ASTM E 497, Standard Recommended Practice for Installation of Fixed Partitions of Light Frame Type for the Purpose of Conserving Their Sound Insulation Efficiency.

ASTM E 597, Recommended Practice for Determining A Single-Number Rating of Airborne Sound Isolation in Multi-unit Building Specifications.

ASTM E 966, Standard Guide for Field Measurements of Airborne Sound Insulation of Building Facades and Facade Elements.

ASTM E 989, Standard Classification for Determination of Impact Insulation Class (IIC).

ASTM E 1007, Standard Test Method for Field Measurement of Tapping Machine Impact Sound Transmission Through Floor-Ceiling Assemblies and Associated Support Structures.

ASTM E 1014, Standard Guide for Measurement of Outdoor A-Weighted Sound Levels.

1207.4 Complaints. Where a complaint as to noncompliance with this chapter requires a field test, the complainant shall post a bond or adequate funds in escrow for the cost of said testing. Such costs shall be chargeable to the complainant if the field tests show compliance with this chapter. If the tests show noncompliance, testing costs shall be borne ~~to~~ by the owner or builder.

1207.5 Local modification. The governing body of any city or county or city and county may, by ordinance, adopt changes or modifications to the requirements of this section as set forth in Section 17922.7 of the Health and Safety Code.

1207.6 Interdwelling sound transmission control.

1207.6.1 Wall and floor-ceiling assemblies. Wall and floor-ceiling assemblies separating dwelling units or guest rooms from each other and from public or service areas such as interior corridors, garages and mechanical spaces shall provide airborne sound insulation for walls, and both airborne and impact sound insulation for floor-ceiling assemblies.

Exception: Impact sound insulation is not required for floor-ceiling assemblies over nonhabitable rooms or spaces not designed to be occupied, such as garages, mechanical rooms or storage areas.

1207.7 Airborne sound insulation. All such acoustically rated separating wall and floor-ceiling assemblies shall provide airborne sound insulation equal to that required to meet a sound transmission class (STC) rating of 50 based on laboratory tests as defined in ASTM E 90 and E 413. Field-tested assemblies shall meet a noise isolation class (NIC) rating of 45 for occupied units and a normalized noise isolation class (NNIC) rating of 45 for unoccupied units as defined in ASTM E 336 and E 413.

ASTM E 597 may be used as a simplified procedure for field tests of the airborne sound isolation between rooms in unoccupied buildings. In such tests, the minimum value of D_n is 45 db for compliance.

Entrance doors from interior corridors together with their perimeter seals shall have STC ratings not less than 26. Such tested doors shall operate normally with commercially available seals.

Solid-core wood-slab doors 1 3/8 inches (35 mm) thick minimum or 18 gauge insulated steel-slab doors with compression seals all around, including the threshold, may be considered adequate without other substantiating information.

Field tests of corridor walls should not include segments with doors. If such tests are impractical, however, the NIC or NNIC rating for the composite wall-door assembly shall not be less than 30.

Penetrations or openings in construction assemblies for piping, electrical devices, recessed cabinets, bathtubs, soffits or heating, ventilating or exhaust ducts shall be sealed, lined, insulated or otherwise treated to maintain the required ratings.

1207.8 Impact sound insulation. All acoustically rated separating floor-ceiling assemblies shall provide impact sound insulation equal to that required to meet an IIC rating of 50 based on laboratory tests as defined in ASTM E 492 and E 989. Field-tested assemblies shall meet a field impact insulation class (FIIC) rating of 45 for both occupied and unoccupied units as defined in ASTM E 1007 and E 989, with the exception that the measured impact sound pressure levels shall not be normalized to a standard amount of absorption in the receiving room.

Floor coverings may be included in the assembly to obtain the required ratings. These coverings must be retained as a permanent part of the assembly and may be replaced only by other floor coverings that provide the required impact sound insulation.

1207.9 Tested assemblies. Laboratory-tested wall or floor-ceiling designs having STC or IIC ratings of 50 or more may be used by the building official to determine compliance with this section during the plan review phase. Field tests shall be required by the building official when evidence of sound leaks of or flanking paths is noted, or when the separating assembly is not built according to the approved design.

Generic sound transmission control systems as listed in the Catalog of STC and IIC Ratings for Wall and Floor-Ceiling Assemblies, as published by the Office of Noise Control, California Department of Health Services, or the Fire Resistance Design Manual, as published by the Gypsum Association, may be used to evaluate construction assemblies for their sound transmission properties. Other tests from recognized laboratories may also be used. When ratings for essentially similar assemblies differ, and when ratings are below STC or ~~ICC~~ IIC 50, field testing may be used to demonstrate that the building complies with this section.

For field testing, rooms should ideally be large and reverberant for reliable measurements to be made in all test bands. This is often not possible for bathrooms, kitchens, hallways or rooms with large amounts of sound-absorptive materials. Field test results should, however, report the measured values in all bands, noting those which do not meet relevant ASTM criteria for diffusion.

It should be noted that STC ratings do not adequately characterize the sound insulation of construction assemblies when the intruding noise is predominantly low-pitched, as is often produced by amplified music or by large pieces of mechanical equipment.

It should also be noted that the transmission of impact sound from a standardized tapping machine may vary considerably for a given design due to differences in specimen size, flanking transmission through associated structure and the acoustical response of the room below. Laboratory IIC values should therefore be used with caution when estimating the performance of hard-surfaced floors in the field. Additionally, IIC ratings may not always be adequate to characterize the subjectively annoying creak or boom generated by footfalls on a lumber floor.

1207.10 Certification. Field testing, when required, shall be done under the supervision of a person experienced in the field of acoustical testing and engineering, who shall forward test results to the building official showing that the sound isolation requirements stated above have been met. Documentation of field test results should generally follow the requirements outlined in relevant ASTM standards.

1207.11 Exterior sound transmission control.

1207.11.1 Application. Consistent with local land-use standards, residential structures located in noise critical areas, such as proximity to highways, county roads, city streets, railroads, rapid transit lines, airports or industrial areas, shall be designed to prevent the intrusion of exterior noises beyond prescribed levels. Proper design shall include, but shall not be limited to, orientation of the residential structure, setbacks, shielding and sound insulation of the building itself.

1207.11.2 Allowable interior noise levels. Interior noise levels attributable to exterior sources shall not exceed 45 db in any habitable room. The noise metric shall be either the day-night average sound level (L_{dn}) or the community noise equivalent level (CNEL), consistent with the noise element of the local general plan.

Note: Ldn is the preferred metric for implementing these standards. Worst-case noise levels, either existing or future, shall be used as the basis for determining compliance with this section. Future noise levels shall be predicted for a period of at least 10 years from the time of building permit application.

1207.11.3 Airport noise sources. Residential structures to be located where the annual Ldn or CNEL (as defined in Title 21, Division 2.5, Chapter 6, Article 1, Section 5001, ~~Subchapter 6,~~ California Code of Regulations) exceeds 60 db shall require an acoustical analysis showing that the proposed design will achieve prescribed allowable interior level. For public-use airports or heliports, the Ldn or CNEL shall be determined from the airport land-use plan prepared by the county wherein the airport is located. For military bases, the Ldn shall be determined from the facility Air Installation Compatible Use Zone (AICUZ) plan. For all other airports or heliports, or public-use airports or heliports for which a land-use plan has not been developed, the Ldn or CNEL shall be determined from the noise element of the general plan of the local jurisdiction.

When aircraft noise is not the only significant source, noise levels from all sources shall be added to determine the composite site noise level.

1207.11.4 Other noise sources. Residential structures to be located where the Ldn or CNEL exceeds 60 db shall require an acoustical analysis showing that the proposed design will limit exterior noise to the prescribed allowable interior level. The noise element of the local general plan shall be used to the greatest extent possible to identify sites with noise levels potentially greater than 60 db.

1207.12 Compliance. Evidence of compliance shall consist of submittal of an acoustical analysis report, prepared under the supervision of a person experienced in the field of acoustical engineering, with the application for a building permit. The report shall show topographical relationships of noise sources and dwelling sites, identification of noise sources and their characteristics, predicted noise spectra and levels at the exterior of the proposed dwelling structure considering present and future land usage, basis for the prediction (measured or obtained from published data), noise attenuation measures to be applied, and an analysis of the noise insulation effectiveness of the proposed construction showing that the prescribed interior noise level requirements are met.

If interior allowable noise levels are met by requiring that windows be unopenable or closed, the design for the structure must also specify a ventilation or air-conditioning system to provide a habitable interior environment. The ventilation system must not compromise the dwelling unit or guest room noise reduction.

1207.13 Field testing. When inspection indicates that the construction is not in accordance with the approved design, or that the noise reduction is compromised due to sound leaks or flanking paths, field testing may be required. A test report showing compliance or noncompliance with prescribed interior allowable levels shall be submitted to the building official.

Measurements of outdoor sound levels shall generally follow the guidelines in ASTM E 1014.

Field measurements of the A-weighted airborne sound insulation of buildings from exterior sources shall generally follow the guidelines in ASTM E 966.

For the purpose of this standard, sound level differences measured in unoccupied units shall be normalized to a receiving room reverberation time of one-half second. Sound level differences measured in occupied units shall not be normalized to a standard reverberation time.

SECTION 1208 INTERIOR SPACE DIMENSIONS

1208.1 Minimum room widths. Habitable spaces, other than a kitchen, shall not be less than 7 feet (2134 mm) in any plan dimension. Kitchens shall have a clear passageway of not less than 3 feet (914 mm) between counter fronts and appliances or counter fronts and walls.

[HCD 1] For limited-density owner-built rural dwellings, there shall be no requirements for room dimensions, provided there is adequate light and ventilation and adequate means of egress.

1208.4 Efficiency dwelling units. An efficiency living unit shall conform to the requirements of the code except as modified herein: **[HCD 1]** Unless modified by local ordinance pursuant to Health and Safety Code Section 17958.1, efficiency dwelling units shall comply with the following:

1. The unit shall have a living room of not less than 220 square feet (20.4 m²) of floor area. An additional 100 square feet (9.3 m²) of floor area shall be provided for each occupant of such unit in excess of two.
2. The unit shall be provided with a separate closet.
3. The unit shall be provided with a kitchen sink, cooking appliance and refrigeration facilities, each having a clear working space of not less than 30 inches (762 mm) in front. Light and ventilation conforming to this code shall be provided.
4. The unit shall be provided with a separate bathroom containing a water closet, lavatory and bathtub or shower.

[HCD 1] For additional information, see Health and Safety Code Section 17958.1.

SECTION 1209 ACCESS TO UNOCCUPIED SPACES

1209.3 Mechanical appliances. Access to mechanical appliances installed in under-floor areas, in attic spaces and on roofs or elevated structures shall be in accordance with the ~~International California~~ *International California Mechanical Code*.

SECTION 1210 SURROUNDING MATERIALS

1210.2 Walls and partitions. Walls and partitions within 2 feet (610 mm) of urinals and water closets shall have a smooth, hard, nonabsorbent surface, to a height of 4 feet (1219 mm) above the floor, and except for structural elements, the materials used in such walls shall be of a type that is not adversely affected by moisture.

Exceptions:

1. Dwelling units and sleeping units.
2. Toilet rooms that are not accessible to the public and which have not more than one water closet.

Accessories such as grab bars, towel bars, paper dispensers and soap dishes, provided on or within walls, shall be installed and sealed to protect structural elements from moisture. ~~For walls and partitions also see Section 2903.~~

SECTION 1211 [HCD 1 & HCD 2] GARAGE DOOR SPRINGS

Section 1211.1 General. This section shall apply to applications listed in Sections ~~408.2.1.1~~ 1.8.2.1.1 and ~~408.2.1.3~~ 1.8.2.1.3 regulated by the Department of Housing and Community Development.

1211.1.1 Extension garage door springs. Every extension garage door spring sold or offered for sale, whether new or as a replacement, or installed in any garage or carport which is accessory to an apartment house, hotel, motel or dwelling shall conform to the following requirements: Hard-drawn spring wire shall conform to ASTM A 227-71 or a more current version, and shall be made by the steel processes described therein, conforming to the chemical composition requirements listed and meeting the standards of steel heat as set forth by the ladle analysis. Wire tensile strength and dimension variations shall meet the prescribed properties of established standards.

Oil-tempered wire shall conform to ASTM A 229 -71 or a more current version, and shall be made by the steel processes described therein, conforming to the chemical composition requirements listed and meeting the standards of steel heat as set forth by the ladle analysis. Wire tensile strength and dimension variations shall meet the prescribed properties of established standards.

Extension springs shall be fabricated from either hard-drawn spring wire or oil-tempered wire as specified above.

1211.2 Design standards. ~~[HCD 1 & HCD 2]~~ Minimum design standard shall be 9,000 cycles. (One cycle is equal to door opening plus door closing at maximum working load.)

1211.3 Certification. ~~[HCD 1 & HCD 2]~~

Mill certification of wire physical tests and chemical properties shall be kept on file by the spring manufacturer.

Physical cycling tests shall be performed for each extension spring design and shall be certified by an approved testing agency acceptable to the department and reports kept on file by the manufacturer.

Containment devices shall be physically tested for each extension spring design by installing the device on the spring and by destroying the spring at maximum recommended stretch. Containment tests shall be certified by an approved testing agency acceptable to the department and reports kept on file by the manufacturer.

1211.4 Containment devices. ~~[HCD 1 & HCD 2]~~ Each extension spring shall be equipped with an approved device capable of restraining the spring or any part thereof in the event it breaks.

1211.5 Identification. ~~[HCD 1 & HCD 2]~~ Extension sSprings shall be permanently identified as to manufacturer and also to indicate maximum recommended stretch. Both extension springs and containment devices shall bear information stating that they have been manufactured in accordance with requirements of the California Department of Housing and Community Development.

1211.6 Installation. ~~[HCD 1 & HCD 2]~~ Installation of extension springs, containment devices and hardware shall be in accordance with the manufacturer's installation instructions. Instructions shall be provided by the manufacturer and shall specify the approved method of restraint and maximum recommended stretch. Unless otherwise permitted by the manufacturer's installation instructions, the hardware and extension springs shall be mounted to nominal 12 by 6 framing members which shall be of a species identified as Group I or II in Volume 3, Chapter 23, Division III.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

13. HCD proposes to not adopt Chapter 13 and remove it from the printed California Building Code.

CHAPTER 13 ENERGY EFFICIENCY

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

14. HCD proposes to adopt Chapter 14 without amendment:

CHAPTER 14 EXTERIOR WALLS

MATRIX ADOPTION TABLE NOTATION:

The ♦ designation indicates that the State Fire Marshal's adoption of this chapter is applicable to structures subject to HCD 1 and HCD 2.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

15. HCD proposes to adopt Chapter 15 with amendments as follows:

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

MATRIX ADOPTION TABLE NOTATION:

The ♦ designation indicates that the State Fire Marshal's adoption of this chapter is applicable to structures subject to HCD 1 and HCD 2.

SECTION 1503 WEATHER PROTECTION

1503.4 Roof Drainage. Design and installation of roof drainage systems shall comply with Section 1503 and the ~~International~~ California Plumbing Code.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

16. HCD proposes to adopt Chapter 16 with amendments as follows:

CHAPTER 16 STRUCTURAL DESIGN

MATRIX ADOPTION TABLE NOTATION:

The ♦ designation indicates that the State Fire Marshal's adoption of this chapter is applicable to structures subject to HCD 1 and HCD 2.

SECTION 1607 LIVE LOADS

1607.7 Loads on handrails, guards, grab bars, shower seats, dressing room bench seats and vehicle barrier systems. Handrails, guards, grab bars, accessible seats, accessible benches and vehicle barrier systems shall be designed and constructed to the structural loading conditions set forth in this section.

1607.7.2 Grab bars, shower seats and dressing room bench seats. Grab bars, shower seats and dressing room bench seat systems shall be designed to resist a single concentrated load of 250 pounds (1.11 kN) applied in any direction at any point. **[HCD 1-AC]** See Chapter 11A, Section 1127A.4 and Chapter 11B, Sections 1115B.7.2 and 1117B.8, for grab bars, shower seats and dressing room bench seats, as applicable.

SECTION 1609 WIND LOADS

1609.1.1 Determination of wind loads. Wind loads on every building or structure shall be determined in accordance with Chapter 6 of ASCE 7 or provisions of the alternate all-heights method in accordance in Section 1609.6. ~~[HCD 1 & HCD 2] or provisions of the Alternate All-heights Method in Section 1609.6.~~ The type of opening protection required, the basic wind speed and the exposure category for a site is permitted to be determined in accordance with Section 1609 or ASCE 7. Wind shall be assumed to come from any horizontal direction and wind pressures shall be assumed to act normal to the surface considered.

Exceptions:

1. Subject to the limitations of Section 1609.1.1.1, the provisions of ICC-600 shall be permitted for applicable Group R-2 and R-3 buildings.
2. Subject to the limitations of Section 1609.1.1.1, residential structures using the provisions of the AF&PA WFCM.
3. Subject to limitations of 1609.1.1, residential structures using the provisions of AISI S230.
4. Designs using NAAMM FP 1001.
5. Designs using TIA-222 for antenna-supporting structures and antennas.
6. Wind tunnel tests in accordance with Section 6.6 of ASCE 7, subject to the limitations in Section 1609.1.1.2.

~~**1609.6 [HCD 1 & HCD 2] Alternate all-heights method.** The alternate wind design provisions in this section are simplifications of the ASCE 7 Method 2 Analytical Procedure.~~

~~**1609.6.1 Scope.** As an alternate to ASCE 7 Section 6.5, the following provisions are permitted to be used to determine the wind effects on regularly shaped buildings, or other structures which meet all of the following conditions:~~

- ~~1. The building or other structure is less than or equal to 75 feet height having height to least width ratio of 4 or less, or the building or other structure has a fundamental frequency greater than or equal to 1 hertz.~~
- ~~2. The building or other structure is not sensitive to dynamic effects.~~
- ~~3. The building or other structure is not located on a site for which channeling effects or buffeting in the wake of upwind obstructions warrant special consideration.~~
- ~~4. The building shall meet the requirements of a simple diaphragm building as defined in ASCE 7 Section 6.2.~~

~~**1609.6.1.1 Modifications.** The following modifications shall be made to certain subsections in ASCE 7: Section 1609.6.2 Symbols and Notations that are specific to this section are used in conjunction with the Symbols and Notations in ASCE 7 Section 6.3.~~

1609.6.2 Symbols and notations. Coefficients and variables used in the Alternate All-Heights Method equations are as follows:

- C_{net} — net pressure coefficient based on $K_d [(G) - (C_p) - (GC_{pi})]$, Ref. Table 1609.6.2(2)
- G — Gust effect factor equal to 0.85 for rigid structures per ASCE 7 Section 6.5.8.1.
- K_d — Wind directionality factor per ASCE 7 Table 6.4.
- P_{net} — Design wind pressure to be used in determination of wind loads on buildings or other structures or their components and cladding, in lb/ft^2 (N/m^2).
- q_s — Wind velocity pressure in lb/ft^2 (N/m^2). (Per Table 1609.6.2(1))

1609.6.3 Design equations. When using the Alternate All-Heights Method, the Main Wind Force-Resisting System (MWFRS), and Components and Cladding of every structure shall be designed to resist the effects of wind pressures on the building envelope in accordance with Equation (16-36).

$$P_{net} = q_s K_z C_{net} [I K_{zt}] \quad \text{(Equation 16-36)}$$

Design wind forces for the MWFRS shall not be less than 10 lb/ft^2 (0.48 KN/m^2) multiplied by the area of the structure projected on a plane normal to the assumed wind direction. See ASCE 7 Section 6.1.4 for criteria. Design net wind pressure for components and cladding shall not be less than 10 lb/ft^2 (0.48 KN/m^2) acting in either direction normal to the surface.

1609.6.4 Design procedure. The MWFRS and the components and cladding of every building or other structure shall be designed for the pressures calculated using Equation (16-36).

1609.6.4.1 Main wind force-resisting systems. The MWFRS shall be investigated for the torsional effects identified in ASCE 7 Figure 6-9.

1609.6.4.2 Determination of K_x and K_{zt} . velocity pressure exposure coefficient, K_z , shall be determined in accordance with ASCE 7 Section 6.5.6.6 and the Topographic Factor, K_{zt} shall be determined in accordance with ASCE 7 Section 6.5.7.

1. For the windward side of a structure, K_{zt} and K_z shall be based on height z .
2. For leeward and side walls, and for windward and leeward roofs, K_{zt} and K_z shall be based on mean roof height h .

1609.6.4.3 Determination of net pressure coefficients, C_{net} . For the design of the Main Wind Force-Resisting System and for Components and Cladding, the sum of the internal and external net pressure shall be based on the net pressure coefficient C_{net} .

1. The pressure coefficient, C_{net} , for walls and roofs shall be determined from Table 1609.6.2(2).
2. Where C_{net} may have more than one value, the more severe wind load combination shall be used for design.

1609.6.4.4 Application of wind pressures. When using the Alternate All-Heights Method, wind pressures shall be applied simultaneously on, and in a direction normal to, all building envelope wall and roof surfaces.

1609.6.4.4.1 Components and cladding. Wind pressure for each component or cladding element is applied as follows using C_{net} values based on the effective wind area, A , contained within the zones in areas of discontinuity of width and/or length "a", "2a" or "4a" at: corners of roofs and walls; edge strips for ridges, rakes and eaves; or field areas on walls or roofs as indicated in Figures in Table 1609.6.2(2) in accordance with the following:

1. Calculated pressures at local discontinuities acting over specific edge strips or corner boundary areas.
2. Include "field" (zone 1, 2 or 4, as applicable) pressures applied to areas beyond the boundaries of the areas of discontinuity.
3. Where applicable, the calculated pressures at discontinuities (Zones 2 or 3) shall be combined with design pressures that apply specifically on rakes or eave overhangs.

TABLE 1609.6.2(1)
WIND VELOCITY PRESSURE (q_s) AT STANDARD HEIGHT OF 33 FEET^{a,b,c}

BASIC WIND SPEED, V (mph)	85	90	100	105	110	120	125	130	140	150	160	170
PRESSURE, q_s (psf)	18.5	20.7	25.6	28.2	31.0	36.9	40.0	43.3	50.2	57.6	65.5	74.0

a. For wind speeds not shown, use $q_s = 0.00256 V^2$

b. Multiply by 1.61 to convert to km/h

c. Multiply by 0.048 to convert to kN/m²

TABLE 1609.6.2(2) – NET PRESSURE COEFFICIENTS, C_{net}^{a,b,c}

STRUCTURE OR PART THEREOF	DESCRIPTION	C _{net} FACTOR			
		Enclosed	Partially Enclosed		
	WALLS:				
	Windward Wall	0.43	0.11		
	Leeward Wall	-0.51	-0.83		
	Side Wall	-0.66	-0.97		
	Parapet Wall	Windward	1.28		
		Leeward	-0.85		
	ROOFS:				
	Wind perpendicular to ridge				
	Leeward roof or flat roof	-0.66	-0.97		
	Windward roof slopes:				
	Slope < 2:12 (10°)	Case 1	-1.09	-1.41	
		Case 2	-0.28	-0.60	
	Slope = 4:12 (18°)	Case 1	-0.73	-1.04	
		Case 2	-0.05	-0.37	
	Slope = 5:12 (23°)	Case 1	-0.58	-0.90	
		Case 2	0.03	-0.29	
	Slope = 6:12 (27°)	Case 1	-0.47	-0.78	
		Case 2	0.06	-0.25	
	Slope = 7:12 (30°)	Case 1	-0.37	-0.68	
		Case 2	0.07	-0.25	
	Slope 9:12 (37°)	Case 1	-0.27	-0.58	
		Case 2	0.14	-0.18	
	Slope 12:12 (45°)		-0.15	-0.47	
	Wind parallel to ridge and flat roofs		-1.09	-1.41	
	Non building structures: chimneys, tanks and similar structures:				
			h/D		
			4	7	25
	Square (wind normal to face)		0.99	1.07	1.53
	Square (wind on diagonal)		0.77	0.84	1.15
	Hexagonal or Octagonal		0.81	0.97	1.13

	<i>Round</i>		0.65	0.81	0.97
	<i>Open signs and lattice frameworks</i>		<i>Ratio of solid to gross area</i>		
			< 0.1	0.1 to 0.29	0.3 to 0.7
	<i>Flat</i>		1.45	1.30	1.16
	<i>Round</i>		0.87	0.94	1.08
<i>2. Components and Cladding not in areas of discontinuity—Roofs and overhangs</i>	<i>Roof elements and slopes</i>		<i>Enclosed</i>		<i>Partially Enclosed</i>
	<i>Gable or hipped configurations (Zone 1)</i>				
	<i>Flat < slope < 6:12 (27°)</i>				
	<i>Positive</i>	<i>10 SF or less</i>		0.58	0.89
		<i>100 SF or more</i>		0.41	0.72
	<i>Negative</i>	<i>10 SF or less</i>		-1.00	-1.32
		<i>100 SF or more</i>		-0.92	-1.23
	<i>Overhang: flat < slope < 6:12 (27°)</i>				
	<i>Negative</i>	<i>10 SF or less</i>		-1.45	
		<i>100 SF or more</i>		-1.36	
		<i>500 SF or more</i>		-0.94	
	<i>6:12 (27°) < slope < 12:12 (45°)</i>				
	<i>Positive</i>	<i>10 SF or less</i>		0.92	1.23
		<i>100 SF or more</i>		0.83	1.15
	<i>Negative</i>	<i>10 SF or less</i>		-1.00	-1.32
		<i>100 SF or more</i>		-0.83	-1.15
	<i>Monosloped configurations (Zone 1)</i>			<i>Enclosed</i>	<i>Partially Enclosed</i>
	<i>Flat < slope < 7:12 (30°)</i>				
	<i>Positive</i>	<i>10 SF or less</i>		0.49	0.81

		100 SF or more	0.41	0.72
	Negative	10 SF or less	-1.26	-1.57
		100 SF or more	-1.09	-1.40
	Tall flat topped roofs $h > 60'$		Enclosed	Partially-Enclosed
	Flat < slope < 2:12 (10') (Zone 1)			
	Negative	10 SF or less	-1.34	-1.66
		500 SF or more	-1.00	-1.32
3. Components and Cladding in areas of discontinuities—Roofs and overhangs	Roof elements and slopes		Enclosed	Partially-Enclosed
	Gable or hipped configurations at ridges, eaves and rakes (Zone 2)			
	Flat < Slope < 6:12 (27°)			
	Positive	10 SF or less	0.58	0.89
		100 SF or more	0.41	0.72
	Negative	10 SF or less	-1.68	-2.00
		100 SF or more	-1.17	-1.49
	Overhang for slope flat < slope < 6:12 (27°)			
	Negative	10 SF or less	-1.87	
		100 SF or more	-1.87	
	6:12 (27°) < slope < 12:12 (45°)		Enclosed	Partially-Enclosed
	Positive	10 SF or less	0.92	1.23
		100 SF or more	0.83	1.15
	Negative	10 SF or less	-1.17	-1.49
		100 SF or more	-1.00	-1.32
	Overhang for 6:12 (27°) < slope < 12:12 (45°)			
	Negative	10 SF or less	-1.70	
		100 SF or more	-1.53	
	Monosloped configurations at ridges, eaves and rakes (Zone 2)			

<i>Flat < slope < 7:12 (30°)</i>			
<i>Positive</i>	<i>10 SF or less</i>	<i>0.49</i>	<i>0.81</i>
	<i>100 SF or more</i>	<i>0.41</i>	<i>0.72</i>
<i>Negative</i>	<i>10 SF or less</i>	<i>-1.51</i>	<i>-1.83</i>
	<i>100 SF or more</i>	<i>-1.43</i>	<i>-1.74</i>
<i>Tall flat topped roofs h > 60'</i>		<i>Enclosed</i>	<i>Partially Enclosed</i>
<i>Flat < slope < 2:12 (10°) (Zone 2)</i>			
<i>Negative</i>	<i>10 SF or less</i>	<i>-2.11</i>	<i>-2.42</i>
	<i>500 SF or more</i>	<i>-1.51</i>	<i>-1.83</i>
<i>Gable or hipped configurations at corners (Zone 3)</i>			
<i>Flat < slope < 6:12 (27°)</i>		<i>Enclosed</i>	<i>Partially Enclosed</i>
<i>Positive</i>	<i>10 SF or less</i>	<i>0.58</i>	<i>0.89</i>
	<i>100 SF or more</i>	<i>0.41</i>	<i>0.72</i>
<i>Negative</i>	<i>10 SF or less</i>	<i>-2.53</i>	<i>-2.85</i>
	<i>100 SF or more</i>	<i>-1.85</i>	<i>-2.17</i>
<i>Overhang for slope flat < slope < 6:12 (27°)</i>			
<i>Negative</i>	<i>10 SF or less</i>	<i>-3.15</i>	
	<i>100 SF or more</i>	<i>-2.13</i>	
<i>6:12 (27°) < slope < 12:12 (45°)</i>			
<i>Positive</i>	<i>10 SF or less</i>	<i>0.92</i>	<i>1.23</i>
	<i>100 SF or more</i>	<i>0.83</i>	<i>1.15</i>
<i>Negative</i>	<i>10 SF or less</i>	<i>-1.17</i>	<i>-1.49</i>
	<i>100 SF or more</i>	<i>-1.00</i>	<i>-1.32</i>
<i>Overhang for 6:12 (27°) < slope < 12:12 (45°)</i>			
<i>Negative</i>	<i>10 SF or less</i>	<i>-1.70</i>	
	<i>100 SF or more</i>	<i>-1.53</i>	

	<i>Monosloped configurations at corners (Zone 3)</i>		
	<i>Flat < slope < 7:12 (30°)</i>		
	<i>Positive</i>	<i>10 SF or less</i>	<i>0.49</i>
		<i>100 SF or more</i>	<i>0.41</i>
	<i>Negative</i>	<i>10 SF or less</i>	<i>-2.62</i>
		<i>100 SF or more</i>	<i>-1.85</i>
	<i>Tall flat topped roofs h > 60'</i>		<i>Enclosed</i>
			<i>Partially Enclosed</i>
	<i>Flat < slope < 2:12 (10°) (Zone 3)</i>		
	<i>Negative</i>	<i>10 SF or less</i>	<i>-2.87</i>
		<i>500 SF or more</i>	<i>-2.11</i>
<i>4. Components and Cladding not in areas of discontinuity— Walls and parapets</i>	<i>Wall elements: h ≤ 60' (Zone 4)</i>		<i>Enclosed</i>
	<i>Positive</i>	<i>10 SF or less</i>	<i>1.00</i>
		<i>500 SF or more</i>	<i>0.75</i>
	<i>Negative</i>	<i>10 SF or less</i>	<i>-1.09</i>
		<i>500 SF or more</i>	<i>-0.83</i>
	<i>Wall elements: h > 60' (Zone 4)</i>		
	<i>Positive</i>	<i>20 SF or less</i>	<i>0.92</i>
		<i>500 SF or more</i>	<i>0.66</i>
	<i>Negative</i>	<i>20 SF or less</i>	<i>-0.92</i>
		<i>500 SF or more</i>	<i>-0.75</i>
	<i>Parapet walls</i>		
<i>Positive</i>		<i>2.87</i>	<i>3.19</i>
<i>Negative</i>		<i>-1.68</i>	<i>-2.00</i>
<i>5. Components and Cladding in areas of discontinuity— Walls and parapets</i>	<i>Wall elements: h ≤ 60' (Zone 5)</i>		<i>Enclosed</i>
	<i>Positive</i>	<i>10 SF or less</i>	<i>1.00</i>
		<i>500 SF or more</i>	<i>0.75</i>

	<i>Negative</i>	<i>10 SF or less</i>	<i>-1.34</i>	<i>-1.66</i>
		<i>500 SF or more</i>	<i>-0.83</i>	<i>-1.05</i>
<i>Wall elements: h > 60' (Zone 5)</i>				
	<i>Positive</i>	<i>20 SF or less</i>	<i>0.92</i>	<i>1.23</i>
		<i>500 SF or more</i>	<i>0.66</i>	<i>0.98</i>
	<i>Negative</i>	<i>20 SF or less</i>	<i>-1.68</i>	<i>-2.00</i>
		<i>500 SF or more</i>	<i>-1.00</i>	<i>-1.32</i>
<i>Parapet walls</i>				
		<i>Positive</i>	<i>3.64</i>	<i>3.95</i>
		<i>Negative</i>	<i>-2.45</i>	<i>-2.76</i>

a. Linear interpolation between values in the table is acceptable.

b. For open buildings, multispans gable roofs, stepped roofs, sawtooth roofs, domed roofs, solid free standing walls and solid signs apply ASCE 7.

c. Some C_{net} values have been grouped together. Less conservative results may be obtained by applying ASCE 7.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

17. HCD proposes to adopt Chapter 17 with amendments as follows:

CHAPTER 17

STRUCTURAL TESTS AND SPECIAL INSPECTIONS

MATRIX ADOPTION TABLE NOTATION:

The ♦ designation indicates that the State Fire Marshal's adoption of this chapter is applicable to structures subject to HCD 1 and HCD 2.

SECTION 1702 DEFINITIONS

APPROVED AGENCY. An established and recognized agency regularly engaged in conducting tests or furnishing inspection services, when such agency has been approved. **[HCD 1 & HCD 2]** "Approved agency" shall mean "Listing agency" and "Testing agency" (See Chapter 2 definitions).

SECTION 1704 SPECIAL INSPECTIONS

1704.1 General. Where application is made for construction as described in this section, the owner or the registered design professional in responsible charge acting as the owner's agent shall employ one or more approved agencies to perform inspections during construction on the types of work listed under Section 1704. These inspections are in addition to the inspections specified in Section 110.

The special inspector shall be a qualified person who shall demonstrate competence, to the satisfaction of the building official, for the inspection of the particular type of construction or operation requiring special inspection. The registered design professional in responsible charge and engineers of record involved in the design of the project are permitted to act as the approved agency and their personnel are permitted to act as the special inspector for the work designed by them, provided those personnel meet the qualification requirements of this section to the satisfaction of the building official. The special inspector shall provide written documentation to the building official demonstrating his or her competence and relevant experience or training. Experience or training shall be considered relevant when the documented experience or training is related in complexity to the same type of special inspection activities for projects of similar complexity and material qualities. These qualifications are in addition to qualifications specified in other sections of this code.

Exceptions:

1. Special inspections are not required for work of a minor nature or as warranted by conditions in the jurisdiction as approved by the building official.
2. Special inspections are not required for building components unless the design involves the practice of professional engineering or architecture as defined by applicable state statutes and regulations governing the professional registration and certification of engineers or architects.
3. Unless otherwise required by the building official, special inspections are not required for Group U occupancies that are accessory to a residential occupancy including, but not limited to, those listed in Section 312.1.
4. **[HCD 1]** *The provisions of Health and Safety Code Division 13, Part 6 and the California Code of Regulations, Title 25, Division 1, Chapter 3, commencing with Section 3000, shall apply to the construction and inspection of factory-built housing as defined in Health and Safety Code Section 19971.*

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

18. HCD proposes to adopt Chapter 18 with amendments as follows:

**CHAPTER 18
SOILS AND FOUNDATIONS**

**SECTION 1801
GENERAL**

1801.2 Design basis. Allowable bearing pressures, allowable stresses and design formulas provided in this chapter shall be used with the allowable stress design load combinations specified in Section 1605.3. The quality and design of materials used structurally in excavations and foundations shall comply with the requirements specified in Chapters 16, 19, 21, 22 and 23 of this code. Excavations and fills shall also comply with Chapter 33.

[HCD 1] For limited-density owner-built rural dwellings, pier foundations, stone masonry footings and foundations, pressure-treated lumber, poles, or equivalent foundation materials or designs may be used provided that the bearing is sufficient for the purpose intended.

**SECTION 1803
GEOTECHNICAL INVESTIGATIONS**

1803.1 General. Geotechnical investigations shall be conducted in accordance with Section 1803.2 and reported in accordance with Section 1803.6. Where required by the building official, or where geotechnical investigations involve in-situ testing, laboratory testing or engineering calculations, such investigations shall be conducted by a registered design professional.

~~1802.1.1~~ 1803.1.1 General and where required for applications listed in Section ~~408.2.1.1~~ 1.8.2.1.1 regulated by the Department of Housing and Community Development. [HCD 1] Foundation and soils investigations shall be conducted in conformance with Health and Safety Code Sections 17953 through 17955 as summarized below.

~~1802.1.1.1~~ 1803.1.1.1 Preliminary soil report. Each city, county, or city and county shall enact an ordinance which requires a preliminary soil report, prepared by a civil engineer who is registered by the state. The report shall be based upon adequate test borings or excavations, of every subdivision, where a tentative and final map is required pursuant to Section 66426 of the Government Code.

The preliminary soil report may be waived if the building department of the city, county or city and county, or other enforcement agency charged with the administration and enforcement of the provisions of this part, shall determine that, due to the knowledge such department has as to the soil qualities of the soil of the subdivision or lot, no preliminary analysis is necessary.

~~1802.1.1.2~~ 1802.1.1.2 Soil investigation by lot, necessity, preparation, and recommendations. If the preliminary soil report indicates the presence of critically expansive soils or other soil problems which, if not corrected, would lead to structural defects, such ordinance shall require a soil investigation of each lot in the subdivision.

The soil investigation shall be prepared by a civil engineer who is registered in this state. It shall recommend corrective action which is likely to prevent structural damage to each dwelling proposed to be constructed on the expansive soil.

~~1802.1.1.3~~ 1803.1.1.3 Approval, building permit conditions, appeal. The building department of each city, county or city and county, or other enforcement agency charged with the administration and enforcement of the provisions of this part, shall approve the soil investigation if it determines that the recommended action is likely to prevent structural damage to each dwelling to be constructed. As a condition to the building permit, the ordinance shall require that the approved recommended action be incorporated in the construction of each dwelling. Appeal from such determination shall be to the local appeals board.

**SECTION 1805
DAMP-PROOFING AND WATERPROOFING**

1805.4.3 Drainage discharge. The floor base and foundation perimeter drain shall discharge by gravity or mechanical means into an approved drainage system that complies with the ~~International~~ California Plumbing Code.

Exception: Where a site is located in well-drained gravel or sand/gravel mixture soils, a dedicated drainage system is not required.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

19. HCD proposes to adopt Chapter 19 with amendments as follows:

CHAPTER 19

CONCRETE

SECTION 1908 MODIFICATIONS TO ACI 318

NOTE: Italics in model code showing differences from ACI 318 have been removed to differentiate proposed California amendments from model code language.

1908.1.2 ACI 318, Section 21.1.1. Modify ACI 318 Sections 21.1.1.3 and 21.1.1.7 to read as follows:

21.1.1.3 – Structures assigned to Seismic Design Category A shall satisfy requirements of Chapters 1 to 19 and 22; Chapter 21 does not apply. Structures assigned to Seismic Design Category B, C, D, E or F also shall satisfy 21.1.1.4 through 21.1.1.8, as applicable. Except for structural elements of plain concrete complying with Section 1908.1.8 of the *International California Building Code*, structural elements of plain concrete are prohibited in structures assigned to Seismic Design Category C, D, E or F.

21.1.1.7 – Structural systems designated as part of the seismic-force-resisting system shall be restricted to those permitted by ASCE 7. Except for Seismic Design Category A, for which Chapter 21 does not apply, the following provisions shall be satisfied for each structural system designated as part of the seismic-force-resisting system, regardless of the Seismic Design Category:

- (a) Ordinary moment frames shall satisfy 21.2.
- (b) Ordinary reinforced concrete structural walls and ordinary precast structural walls need not satisfy any provisions in Chapter 21.
- (c) Intermediate moment frames shall satisfy 21.3.
- (d) Intermediate precast structural walls shall satisfy 21.4.
- (e) Special moment frames shall satisfy 21.5 through 21.8.
- (f) Special structural walls shall satisfy 21.9.
- (g) Special structural walls constructed using precast concrete shall satisfy 21.10.

All special moment frames and special structural walls shall also satisfy 21.1.3 through 21.1.7.

1908.1.6 ACI 318, Section 21.12.1.1. Modify ACI 318, Section 21.12.1.1, to read as follows:

21.12.1.1 – Foundations resisting earthquake-induced forces or transferring earthquake-induced forces between a structure and ground shall comply with the requirements of Section 21.12 and other applicable provisions of ACI 318 unless modified by Chapter 18 of the *International California Building Code*.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11, and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

20. HCD proposes to adopt Chapter 20 without amendment:

CHAPTER 20 ALUMINUM

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

21. HCD proposes to adopt Chapter 21 with amendments as follows:

CHAPTER 21 MASONRY SECTION 2113 MASONRY CHIMNEYS

2113.11.1.2 Gas appliances. Flue lining systems for gas appliances shall be in accordance with the *International Fuel Gas California Mechanical Code*.

2113.15 Flue area (appliance). Chimney flues shall not be smaller in area than the area of the connector from the appliance. Chimney flues connected to more than one appliance shall not be less than the area of the largest connector plus 50 percent of the areas of additional chimney connectors.

Exceptions:

1. Chimney flues serving oil-fired appliances sized in accordance with NFPA 31.
2. Chimney flues serving gas-fired appliances sized in accordance with the *International Fuel Gas California Mechanical Code*.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, Sections 17910 through 17995.5, Sections 18200 through 18700, Sections 18860 through 18874, and Sections 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

22. HCD proposes to adopt Chapter 22 without amendment:

CHAPTER 22 STEEL

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

23. HCD proposes to adopt Chapter 23 with amendments as follows:

CHAPTER 23 WOOD

SECTION 2301 GENERAL

2301.1 Scope. The provisions of this chapter shall govern the materials, design, construction and quality of wood members and their fasteners.

[HCD 1] For limited-density owner-built rural dwellings, owner-produced or used materials and appliances may be utilized unless found not to be of sufficient strength or durability to perform the intended function; owner-produced or used lumber, or shakes and shingles may be utilized unless found to contain dry rot, excessive splitting or other defects obviously rendering the material unfit in strength or durability for the intended purpose.

SECTION 2304 GENERAL CONSTRUCTION REQUIREMENTS

2304.2 Size of structural members. Computations to determine the required sizes of members shall be based on the net dimensions (actual sizes) and not nominal sizes.

[HCD 1] For limited density owner built rural dwellings, owner produced or used materials and appliances may be utilized unless found not to be of sufficient strength or durability to perform the intended function; owner produced or used lumber, or shakes and shingles may be utilized unless found to contain dry rot, excessive splitting or other defects obviously rendering the material unfit in strength or durability for the intended purpose.

2304.5 Framing around flues and chimneys. Combustible framing shall be a minimum of 2 inches (51 mm), but shall not be less than the distance specified in Sections 2111 and 2113 and the *International California Mechanical Code*, from flues, chimneys and fireplaces, and 6 inches (152 mm) away from flue openings.

SECTION 2308 CONVENTIONAL LIGHT-FRAME CONSTRUCTION

2308.1 General. The requirements of this section are intended for conventional light-frame construction. Other methods are permitted to be used, provided a satisfactory design is submitted showing compliance with other provisions of this code. Interior nonload-bearing partitions, ceilings and curtain walls of conventional light-frame construction are not subject to the limitations of this section. Alternatively, compliance with AF&PA WFCM shall be permitted subject to the limitations therein and the limitations of this code. Detached one- and two-family dwellings and multiple single-family dwellings (townhouses) not more

than three stories above grade plane in height with a separate means of egress and their accessory structures shall comply with the *International California Residential Code*.

2308.2.2 Buildings in Seismic Design Category B, C, D or E. Buildings of conventional light-frame construction in Seismic Design Category B or C, as determined in Section 1613, shall comply with the additional requirements in Section 2308.11.

Buildings of conventional light-frame construction in Seismic Design Category D or E, as determined in Section 1613, shall comply with the additional requirements in Section 2308.12.

Exceptions:

1. ~~[HCD 1] Detached one and two family dwellings in Seismic Design Category B.~~
2. ~~[HCD 1] Detached one and two family dwellings in Seismic Design Category C where masonry veneer is limited to the first two stories above grade.~~

**TABLE 2308.9.3(1)
BRACED WALL PANELS^a**

SEISMIC DESIGN CATEGORY	CONDITION	CONSTRUCTION METHODS ^{b,c}								BRACED PANEL LOCATION AND LENGTH ^d
		1	2	3	4	5	6	7	8	
A and B	One story, top of two or three story	X	X	X	X	X	X	X	X	Located in accordance with Section 2308.9.3 and not more than 25 feet on center.
	First story of two story or second story of three story	X	X	X	X	X	X	X	X	
	First story of three story	—	X	X	X	X ^e	X	X	X	
C	One story or top of two story [HCD 1] or three story	—	X	X	X	X	X	X	X	Located in accordance with Section 2308.9.3 and not more than 25 feet on center.
	First story of two story [HCD 1] or second story of three story	—	X	X	X	X ^e	X	X	X	Located in accordance with Section 2308.9.3 and not more than 25 feet on center, but total length shall not be less than 25% of building length ^f .
	[HCD 1] First story of three story	—	X	X	X	X ^e	X	X	X	[HCD 1] Located in accordance with Section 2308.9.3 and not more than 25 feet on center, but total length shall not be less than 40% of building length.

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

a. This table specifies minimum requirements for braced panels that form interior or exterior braced wall lines.

b. See Section 2308.9.3 for full description.

c. See Sections 2308.9.3.1 and 2308.9.3.2 for alternative braced panel requirements.

d. Building length is the dimension parallel to the braced wall length.

e. Gypsum wallboard applied to framing supports that are spaced at 16 inches on center.

f. The required lengths shall be doubled for gypsum board applied to only one face of a braced wall panel.

2308.11 Additional requirements for conventional construction in Seismic Design Category B or C.

Structures of conventional light-frame construction in Seismic Design Category B or C, as determined in Section 1613, shall comply with Sections 2308.11.1 through 2308.11.3, in addition to the provisions of Sections 2308.1 through 2308.10.

2308.11.1 Number of Stories. Structures of conventional light-frame construction shall not exceed two stories above grade plane in Seismic Design Category C.

Exception: ~~[HCD 1] Detached one and two family dwellings are permitted to be three stories in height in Seismic Design Category C.~~

2308.12 Additional requirements for conventional construction in Seismic Design Category D or E.

Structures of conventional light-frame construction in Seismic Design Category D or E, as determined in Section 1613, shall conform to Sections 2308.12.1 through 2308.12.9, in addition to the requirements for Seismic Design Category B or C in Section 2308.11.

2308.12.1 Number of stories. Structures of conventional light-frame construction shall not exceed one story above grade plane in Seismic Design Category D or E.

Exception: ~~[HCD 1] Detached one- and two-family dwellings are permitted to be two stories high in Seismic Design Category D or E.~~

**TABLE 2308.12.4
WALL BRACING IN SEISMIC DESIGN CATEGORIES D AND E
(Minimum Length of Wall Bracing per each 25 Linear Feet of Braced Wall Line^a)**

CONDITION	SHEATHING TYPE ^b	$S_{DS} < 0.50$	$0.50 \leq S_{DS} < 0.75$	$0.75 \leq S_{DS} \leq 1.00$	$S_{DS} > 1.00$
One story	G-P ^c	10 feet 8 inches	14 feet 8 inches	18 feet 8 inches	25 feet 0 inches
	S-W	5 feet 4 inches	8 feet 0 inches	9 feet 4 inches	12 feet 0 inches
Story below top story [HCD 1]	G-P^{c,d}	18 feet 8 inches^d	NP	NP	NP
	S-W^d	10 feet 8 inches^d	13 feet 4 inches^d	17 feet 4 inches^d	21 feet 4 inches^d
Bottom story of three stories [HCD 1]	G-P	Conventional construction not permitted; conformance with Section 2301.2, Item 1 or 2 is required.			
	S-W				

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. Minimum length of panel bracing of one face of the wall for S-W sheathing or both faces of the wall for G-P sheathing; h/w ratio shall not exceed 2:1. For S-W panel bracing of the same material on two faces of the wall, the minimum length is permitted to be one-half the tabulated value but the h/w ratio shall not exceed 2:1 and design for uplift is required.
- b. G-P = gypsum board, fiberboard, particleboard, lath and plaster or gypsum sheathing boards; S-W = wood structural panels and diagonal wood sheathing. ~~NP = not permitted.~~
- c. Nailing as specified below shall occur at all panel edges at studs, at top and bottom plates and, where occurring, at blocking:
 - For 1/2-inch gypsum board, 5d (0.113 inch diameter) cooler nails at 7 inches on center;
 - For 5/8-inch gypsum board, No. 11 gage (0.120 inch diameter) at 7 inches on center;
 - For gypsum sheathing board, 1 3/4 inches long by 7/16-inch head, diamond point galvanized nails at 4 inches on center;
 - For gypsum lath, No. 13 gage (0.092 inch) by 1 1/8 inches long, 19/64-inch head, plasterboard at 5 inches on center;
 - For Portland cement plaster, No. 11 gage (0.120 inch) by 1 1/2 inches long, 7/16-inch head at 6 inches on center;
 - For fiberboard and particleboard, No. 11 gage (0.120 inch) by 1 1/2 inches long, 7/16-inch head, galvanized nails at 3 inches on center.

~~d. [HCD 1] Applies to detached one- and two-family dwellings only.~~

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

24. HCD proposes to adopt Chapter 24 without amendment:

CHAPTER 24 GLASS AND GLAZING

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

25. HCD proposes to adopt Chapter 25 without amendment:

CHAPTER 25 GYPSUM BOARD AND PLASTER

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

26. HCD proposes to adopt Chapter 26 without amendment:

CHAPTER 26 PLASTIC

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

27. HCD proposes to not adopt Chapter 27; however, HCD proposes the editorial correction of Section 2701.1 as follows:

CHAPTER 27

ELECTRICAL

SECTION 2701

GENERAL

2701.1 Scope. This chapter governs the electrical components, equipment and systems used in buildings and structures covered by this code. Electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of the ~~NFPA 70~~ *California Electrical Code*.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

28. HCD proposes to not adopt Chapter 28; however, HCD proposes the editorial correction of Section 2801.1 as follows:

CHAPTER 28

MECHANICAL SYSTEMS

SECTION 2801

GENERAL

2801.1 Scope. Mechanical appliances, equipment and systems shall be constructed, installed and maintained in accordance with the ~~International Mechanical Code and the International Fuel-Gas Code~~ *California Mechanical Code*. Masonry chimneys, fireplaces and barbecues shall comply with the ~~International~~ *California Mechanical Code* and Chapter 21 of this code.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

29. HCD proposes to not adopt Chapter 29; however, HCD proposes the editorial correction of Section 2901.1 as follows:

**CHAPTER 29
PLUMBING SYSTEMS**

**SECTION 2901
GENERAL**

2901.1 Scope. The provisions of ~~this chapter and the International California Plumbing Code~~ shall govern the erection, installation, alteration, repairs, relocation, replacement, addition to, use or maintenance of plumbing equipment and systems. Plumbing systems and equipment shall be constructed, installed and maintained in accordance with the ~~International California Plumbing Code~~. Private sewage disposal systems shall conform to the ~~International Private Sewage Disposal California Plumbing Code~~.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

30. HCD proposes to adopt Chapter 30, Sections 3001.1 and 3001.3, with amendments, and proposes the editorial correction of Section 3004.3 as follows:

**CHAPTER 30
ELEVATORS AND CONVEYING SYSTEMS**

MATRIX ADOPTION TABLE NOTATION:

The ♦ designation indicates that the State Fire Marshal's adoption of this chapter or sections is applicable to structures subject to HCD 1 and/or HCD 2.

**SECTION 3001
GENERAL**

3001.1 Scope. This chapter governs the design, construction, installation, alteration and repair of elevators and conveying systems and their components.

Exception: *[DSA-AC and HCD 1-AC] For accessibility requirements for platform (wheelchair) lifts and elevators, see California Code of Regulations, Title 8 and Title 24, Part 2, Sections 1124A and 1116B.*

3001.3 Accessibility. Passenger elevators and platform (wheelchair) lifts required to be accessible by Chapters 11A or 11B shall conform to ~~ICC A117.1 Chapter 11A for applications listed in Section 408.2.1.2 1.8.2.1.2~~ regulated by the Department of Housing and Community Development or Chapter 11B for applications listed in Section ~~409.4 1.9.1~~ regulated by the Division of the State Architect--Access Compliance.

**SECTION 3004
HOISTWAY VENTING**

3004.3.1 Reduced vent area. Where mechanical ventilation conforming to the ~~International California Mechanical Code~~ is provided, a reduction in the required vent area is allowed provided that all of the following conditions are met:

1. The occupancy is not in Group R-1, R-2, I-1 or I-2 or of a similar occupancy with overnight sleeping units.
2. The vents required by Section 3004.2 do not have outside exposure.
3. The hoistway does not extend to the top of the building.
4. The hoistway and machine room exhaust fan is automatically reactivated by thermostatic means.
5. Equivalent venting of the hoistway is accomplished.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

31. HCD proposes to adopt Chapter 31, except Section 3109, with amendments as follows:

**CHAPTER 31
SPECIAL CONSTRUCTION**

**SECTION 3104
PEDESTRIAN WALKWAYS AND TUNNELS**

3104.2 Separate structures. Connected buildings shall be considered to be separate structures.

Exceptions:

1. Buildings on the same lot in accordance with Section 503.1.2.
2. **[HCD 1-AC]** For purposes of *accessibility* ~~calculating the number of Type B units required by Chapter 11 as required by Chapter 11A~~, structurally connected buildings, *buildings connected by stairs, walkways, or roofs*, and buildings with multiple wings shall be considered one structure.

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

32. HCD proposes to adopt Chapter 32 without amendment:

CHAPTER 32 ENCROACHMENTS INTO THE PUBLIC RIGHT-OF-WAY

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

33. HCD proposes to adopt Chapter 33, Section 3306.2 only, with amendments, and proposes the editorial correction of Section 3305.1 as follows:

CHAPTER 33 SAFEGUARDS DURING CONSTRUCTION

SECTION 3305 SANITARY

3305.1 Facilities required. Sanitary facilities shall be provided during construction, remodeling or demolition activities in accordance with the ~~International~~ *California Plumbing Code*.

SECTION 3306 PROTECTION OF PEDESTRIANS

3306.2 Walkways. A walkway shall be provided for pedestrian travel in front of every construction and demolition site unless the applicable governing authority authorizes the sidewalk to be fenced or closed. Walkways shall be of sufficient width to accommodate the pedestrian traffic, but in no case shall they be less than 4 feet (1219 mm) in width. Walkways shall be provided with a durable walking surface. Walkways shall be accessible in accordance with Chapters 11A or 11B and shall be designed to support all imposed loads and in no case shall the design live load be less than 150 pounds per square foot (psf) (7.2 kN/m²).

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

34. HCD proposes to adopt Chapter 34, Sections 3401.1, 3401.3, 3401.4.3, 3403.1, 3403.1.1, 3404.1, 3404.1.1, 3405.1.2 and 3410.1 with amendments, and Sections 3403.4.1, 3404.4.1, 3405.1 and 3405.1.1 without amendments as follows:

**CHAPTER 34
EXISTING STRUCTURES**

MATRIX ADOPTION TABLE NOTATION:

The ♦ designation indicates that the State Fire Marshal's adoption of this chapter is applicable to structures subject to HCD 1 and HCD 2.

**SECTION 3401
GENERAL**

3401.1 Scope. The provisions of this chapter shall control the alteration, repair, addition and change of occupancy of existing structures.

Exceptions:

1. Existing bleachers, grandstands and folding and telescopic seating shall comply with ICC 300-02.
2. **[HCD 2]** *For moved buildings and maintenance, alteration, repair, addition, or change of occupancy to existing buildings and accessory structures in mobilehome parks or special occupancy parks as provided in Section ~~408-2.4.3~~ 1.8.2.1.3. See California Code of Regulations, Title 25, Division 1, Chapter 2, and 2.2.*
3. **[HCD 1]** *Limited-density owner-built rural dwellings.*

3401.3 Compliance. Alterations, repairs, additions and changes of occupancy to existing structures shall comply with the provisions for alterations, repairs, additions and changes of occupancy in the International Fire Code, ~~International Fuel Gas Code, International California Mechanical Code, International California Plumbing Code, International Property Maintenance Code, International Private Sewage Disposal Code,~~ International California Residential Code and NFPA-70 California Electrical Code.

[HCD 1] *See Chapter 34, Sections ~~3403.1, Exception 2 3401.4.3, 3403.1.1 and 3404.1.1~~ and Title 25, Division 1, Chapter 1, Subchapter 1, ~~Article 4,~~ commencing with Article 1, Section 1 for existing buildings or structures.*

3401.4 Building materials. Building materials shall comply with the requirements of this section.

3401.4.1 Existing materials. Materials already in use in a building in conformance with requirements or approvals in effect at the time of their erection or installation shall be permitted to remain in use unless determined by the building code official to be dangerous to life, health or safety. Where such conditions are determined to be dangerous to life, health or safety, they shall be mitigated or made safe.

3401.4.2 New and replacement materials. Except as otherwise required or permitted by this code, materials permitted by the applicable code for new construction shall be used. Like materials shall be permitted for repairs and alterations, provided no hazard to life, health or property is created. Hazardous materials shall not be used where the code for new construction would not permit their use in buildings of similar occupancy, purpose and location.

3401.4.3 Replacement, retention and extension of original materials. **[HCD 1]** *Local ordinances or regulations shall permit the replacement, retention and extension of original materials, and the use of original methods of construction, for any building or accessory structure, provided such building or structure complied with the building code provisions in effect at the time of original construction and the building or accessory structure does not become or continue to be a substandard building. For additional information, see Health and Safety Code Sections 17912, 17920.3, 17922(d), 17922.3, 17958.8 and 17958.9.*

SECTION 3403 ADDITIONS

3403.1 Existing buildings or structures.

Exceptions: [HCD 1]

~~1 Limited density owner-built rural dwellings.~~

~~2. Local ordinances or regulations shall permit the replacement, retention and extension of original materials, and the use of original methods of construction, for any building or accessory structure, provided such building or structure complied with the building code provisions in effect at the time of original construction and the building or accessory structure does not become or continue to be a substandard building. For additional information, see Health and Safety Code Sections 17912, 17920.3, 17922(d), 17922.3, 17958.8 and 17958.9~~

3403.1 General. Additions to any building or structure shall comply with the requirements of this code for new construction. Alterations to the existing building or structure shall be made to ensure that the existing building or structure together with the addition are no less conforming with the provisions of this code than the existing building or structure was prior to the addition. An existing building together with its additions shall comply with the height and area provisions of Chapter 5.

3403.1.1 Replacement, retention and extension of original materials. [HCD 1] Local ordinances or regulations shall permit the replacement, retention and extension of original materials, and the use of original methods of construction, for any building or accessory structure, provided such building or structure complied with the building code provisions in effect at the time of original construction and the building or accessory structure does not become or continue to be a substandard building. For additional information, see Health and Safety Code Sections 17912, 17920.3, 17922(d), 17922.3, 17958.8 and 17958.9.

SECTION 3404 ALTERATIONS

3404.1 General. Except as provided by Section 3401.4 or this section, alterations to any building or structure shall comply with the requirements of the code for new construction. Alterations shall be such that the existing building or structure is no less complying with the provisions of this code than the existing building or structure was prior to the alteration.

Exceptions:

1. An existing stairway shall not be required to comply with the requirements of Section 1009 where the existing space and construction does not allow a reduction in pitch or slope.
2. Handrails otherwise required to comply with Section 1009.12 shall not be required to comply with the requirements of Section 1012.6 regarding full extension of the handrails where such extensions would be hazardous due to plan configuration.

3404.1.1 Replacement, retention and extension of original materials. [HCD 1] Local ordinances or regulations shall permit the replacement, retention and extension of original materials, and the use of original methods of construction, for any building or accessory structure, provided such building or structure complied with the building code provisions in effect at the time of original construction and the building or accessory structure does not become or continue to be a substandard building. For additional information, see Health and Safety Code Sections 17912, 17920.3, 17922(d), 17922.3, 17958.8 and 17958.9

SECTION 3405 REPAIRS

3405.1 General. Buildings and structures, and parts thereof, shall be repaired in compliance with Section 3401.2. Work on nondamaged components that is necessary for the required repair of damaged components shall be considered part of the repair and shall not be subject to the requirements for alterations in this chapter. Routine maintenance required by Section 3401.2, ordinary repairs exempt from permit in accordance with Section 105.2, and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.

3405.1.1 Dangerous conditions. Regardless of the extent of structural or nonstructural damage, the building code official shall have the authority to require the elimination of conditions deemed dangerous.

3405.1.2 Replacement, retention and extension of original materials. [HCD 1] Local ordinances or regulations shall permit the replacement, retention and extension of original materials, and the use of original methods of construction, for any building or accessory structure, provided such building or structure complied with the building code provisions in effect at the time of original construction and the building accessory structure does not become or continue to be a substandard building. For additional information, see Health and Safety Code Sections 17912, 17920.3, 17922(d), 17922.3, 17958.8 and 17958.9.

SECTION 3410 MOVED STRUCTURES

3410.1 Conformance. Structures moved into or within the jurisdiction shall comply with the provisions of this code for new structures.

***Exception:** [HCD 1 & HCD 2] After July 1, 1978, local ordinances or regulations for moved apartment houses and dwellings shall permit the retention of existing materials and methods of construction, provided the apartment house or dwelling complies with the building standards for foundations applicable to new construction and does not become or continue to be a substandard building. For additional information, see Health and Safety Code Section 17958.9.*

SECTION 3411 ACCESSIBILITY FOR EXISTING BUILDINGS

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

35. HCD proposes to adopt Chapter 35 with amendments as follows:

CHAPTER 35 REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Chapter 1, Administration, Division I, Sections 401.5 1.1.5 and 401.7 1.1.7 and in Appendix Chapter 1, Administration, Division II, Section 102.4

ICC	International Code Council 500 New Jersey Avenue, NW 6th Floor Washington, DC 20001	
Standard Reference Number	Title	Referenced in code section number
ICC/ANSI A117.1—03	Accessible and Usable Buildings and Facilities	406.2.2, 907.9.1.4, 1007.6.5, 1010.1, 1010.6.5, 1010.9, 1011.3, 1101.2, 1102.1, 1103.2.14, 1106.7, 1107.2, 1108.2.2, 1109.1, 1109.2, 1109.2.1.1, 1109.2.2, 1109.2.3, 1109.3, 1109.4, 1109.8, 2902.4, 3001.3, 3008.13.1, 3008.13.2, 3411.6, 3411.8.2, 3411.8.3, E101.2, E104.2, E104.2.1, E104.3, E104.3.1, E104.3.4, E105.1, E105.2.1, E105.2.2, E105.3, E105.4, E105.6, E106.2, E106.3, E106.4, E106.4.9, E106.5, E107.2, E107.3, E108.3, E108.4, E109.2.1, E109.2.2.1, E109.2.2.2, E109.2.2.3, E109.2.3, E110.4
ICC 300-07	ICC Standard on Bleachers, Folding and Telescopic Seating and Grandstands	1028.1.1, Table 1607.1, 3401.1
ICC 400-07	Standard on Design and Construction of Log Structures	2301.2
ICC 500—08	ICC/NSSA Standard on the Design and Construction of Storm Shelters	423.1, 423.2
ICC 600-08	Standard for Residential Construction in High Wind Regions	1609.1.1, 1609.1.1.1, 2308.2.1
IECC 09	International Energy Conservation Code [®]	101.4.7, 1203.3.2, 1301.1.1, K201.3
IFC 09	International Fire Code [®]	101.4.5, 102.6, 201.3, 307.1, 307.1(2), 307.1.1, 307.2, Table 307.1(1), 404.2, 403.4.4, 406.5.1, 406.6.1, 410.3.6, 411.1, 412.1, 412.6.1, 413.1, 414.1.1, 414.1.2, 414.1.2.1, 414.2, 414.2.5, Table 414.2.5(1), Table 414.2.5(2), 414.3, 414.5, 414.5.1, Table 414.5.1, 414.5.2, 414.5.4, 414.5.5, 414.6, 415.1, 415.2, 415.3, 415.3.1, Table 415.3.1, Table 415.3.2, 415.6, 415.6.1, 415.6.1.4, 415.6.2, 415.6.2.3, 415.6.2.5, 415.6.2.7, 415.6.2.8, 415.6.2.9, 415.6.3, 415.6.4, 415.7, 415.8.1, 415.8.2.7, 415.8.5.1, 415.8.7.2, 415.8.9.3, 415.8.10.1, 416.1, 421.1, 421.7, 507.3, 707.1, 901.2, 901.3, 901.5, 901.6.2, 903.2.6.1, 903.2.11, Table 903.2.13, 903.5, 904.2.1, 905.1, 905.3.6, 906.1, 907.2.5, 907.2.12.2, 907.2.14, 907.2.16, 907.14, 907.19, 909.20, 910.2.2, Table 910.3, 1001.3, 1203.4.2, 1203.5, 2702.1, 2702.2.9, 2702.2.11, 2702.2.12, 2702.2.13, 2702.3, 3102.1, 3103.1, 3309.2, 3401.3, 3412.3.2, 3412.6.8.1, 3412.6.14, 3412.16.14.1, K201.3, K1202.8, K1202.9
IFGC 09	International Fuel Gas Code [®]	.101.4.1, 201.3, Table 307.1(1),

		415.6.3, 2113.11.1.2, 2113.15, 2801.1, 3401.3, A101.2, K201.3, K1202.11
IMC-09	International Mechanical Code [®]	101.4.2, 201.3, 307.1, Table 307.1(1), 406.4.2, 406.6.3, 406.6.5, 409.3, 412.6.6, 414.1.2, 414.3, 415.6.1.4, 415.6.2, 415.6.2.8, 415.6.3, 415.6.4, 415.8.11.1, 416.3, 421.5, 603.1, 603.1.1, 603.1.2, 708.2, 716.2.2, 716.5.4, 716.6.1, 716.6.2, 716.6.3, 717.5, 719.1, 719.7, 903.2.12.1, 904.2.1, 904.11, 908.6, 909.1, 909.10.2, 1015.5, 1018.5.1, 1203.1, 1203.2.1, 1203.4.2, 1203.4.2.1, 1203.5, 1209.3, 2304.5, 2801.1, 3004.3.1, 3401.3, 3412.6.7.1, 3412.6.8, 3412.6.8.1, A101.2, K201.3, K1202.10, K1202.10.1, K1202.11
IPC-09	International Plumbing Code [®]	101.4.3, 201.3, 415.6.4, 717.5, 903.3.5, 912.5, 1206.3.3, 1503.4, 1805.4.3, 2901.1, Table 2902.1, 3305.1, 3401.3, A101.2, K201.3
IPMC-09	International Property Maintenance Code [®]	101.4.4, 102.6, 103.3, 3401.3, 3412.3.2, K201.3, K1203.1
IPSDC-09	International Private Sewage Disposal Code [®]	101.4.3, 2901.1, 3401.3, K201.3
IRC-09	International Residential Code [®]	101.2, 308.2, 308.3, 308.5, 310.1, 2308.1, 3401.3, K201.3, K1202.11
IWUIC-09	International Wildland-Urban Interface Code [™]	Table 1505.1
IZC-09	International Zoning Code	K201.3
SBCCI SSTD 11-97	Test Standard for Determining Wind Resistance of Concrete or Clay Roof Tiles	1716.2.1, 1716.2.2
NFPA	National Fire Protection Association 1 Batterymarch Park Quincy, MA 02169-7471	
Standard Reference Number	Title	Referenced in code section number
<u>720</u>	<u>Standard for the Installation of Carbon Monoxide (CO) Detection and Warning Equipment 2009 Edition</u>	<u>420.4</u>
UL	Underwriters Laboratories, Inc. 333 Pfingsten Road Northbrook, IL 60062-2096	
Standard Reference Number	Title	Referenced in code section number
<u>2034</u>	<u>Single and Multiple Station Carbon Monoxide Alarms effective August 1, 2009</u>	<u>420.4</u>

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

36. HCD proposes a note for the former location of California Appendix Chapter 1 as follows:

APPENDIX CHAPTER 1

ADMINISTRATION

("Appendix Chapter 1, Administration" has been relocated to "Chapter 1, Administration, Division II")

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

37. HCD proposes to not adopt Appendix A.

APPENDIX A

EMPLOYEE QUALIFICATIONS

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

38. HCD proposes to not adopt Appendix B.

APPENDIX B

BOARD OF APPEALS

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

39. HCD proposes to not adopt Appendix C.

APPENDIX C

GROUP U – AGRICULTURAL BUILDINGS

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

40. HCD proposes to not adopt Appendix D.

APPENDIX D

FIRE DISTRICTS

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

41. HCD proposes to not adopt Appendix E and remove it from the printed California Building Code.

APPENDIX E

SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

42. HCD proposes to not adopt Appendix F.

APPENDIX F RODENTPROOFING

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

43. HCD proposes to not adopt Appendix G.

APPENDIX G FLOOD-RESISTANT CONSTRUCTION

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

44. HCD proposes to not adopt Appendix H.

APPENDIX H SIGNS

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

45. HCD proposes to adopt Appendix I without amendments for HCD 1 only:

**APPENDIX I
PATIO COVERS**

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

46. HCD proposes to adopt Appendix J without amendments for HCD 1 only:

**APPENDIX J
GRADING**

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.

47. HCD proposes to not adopt Appendix K. This new appendix contains only administrative provisions that are intended to be used by a jurisdiction to implement and enforce NFPA 70, the *National Electrical Code*.

**APPENDIX K
ADMINISTRATIVE PROVISIONS**

NOTE:

Authority Cited: Health and Safety Code Sections 17040, 17050, 17920.9, 17921, 17921.3, 17921.6, 17921.10, 17922, 17922.6, 17922.12, 17927, 17928, 17959.6, 18300, 18552, 18554, 18620, 18630, 18640, 18670, 18690, 18691, 18865, 18871.3, 18871.4, 18873, 18873.1, 18873.2, 18873.3, 18873.4, 18873.5, 18938.3, 18944.11 and 19990; and Government Code Section 12955.1.

Reference: Health and Safety Code Sections 17000 through 17062.5, 17910 through 17995.5, 18200 through 18700, 18860 through 18874, and 19960 through 19997; and Government Code Sections 12955.1 and 12955.1.1.
