

REVISION RECORD FOR THE STATE OF CALIFORNIA

SUPPLEMENT

July 1, 2024

2022 Title 24, Part 2, Volume 1, CALIFORNIA BUILDING CODE

General Information:

1. The date of this Supplement is for identification purposes only. See the History Note Appendix on the backside or accompanying page.
2. This supplement is issued by the California Building Standards Commission in order to provide new and/or replacement pages containing recently adopted provisions for the 2022 California Building Code, California Code of Regulations, Title 24, Part 2, Volume 1. Instructions are provided below.
3. Health and Safety Code Section 18938.5 establishes that only building standards in effect at the time of the application for a building permit may be applied to the project plans and construction. This rule applies to both adoptions of building standards for Title 24 by the California Building Standards Commission, and local adoptions and ordinances imposing building standards. The new building standards provided with the enclosed blue supplement pages must not be enforced before the effective date.
4. Not all code text on the enclosed blue supplement pages is a new building standard. New, amended, or repealed building standards are identified by margin symbols. An explanation of margin symbols is provided in the code before the Table of Contents.
5. You may wish to retain the superseded material with this revision record so that the prior wording of any section can be easily ascertained.

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PREFACE

This document is Part 2 of thirteen parts of the official triennial compilation and publication of the adoptions, amendments and repeal of administrative regulations to *California Code of Regulations, Title 24*, also referred to as the *California Building Standards Code*. This part is known as the *California Building Code*.

The *California Building Standards Code* is published in its entirety every three years by order of the California legislature, with supplements published in intervening years. The California legislature delegated authority to various state agencies, boards, commissions and departments to create building regulations to implement the State's statutes. These building regulations, or standards, have the same force of law, and take effect 180 days after their publication unless otherwise stipulated. The *California Building Standards Code* applies to occupancies in the State of California as annotated.

A city, county, or city and county may establish more restrictive building standards reasonably necessary because of local climatic, geological or topographical conditions. Findings of the local condition(s) and the adopted local building standard(s) must generally be filed with the California Building Standards Commission (or other filing if indicated) to become effective, and may not be effective sooner than the effective date of this edition of the *California Building Standards Code*. Local building standards that were adopted and applicable to previous editions of the *California Building Standards Code* do not apply to this edition without appropriate adoption and the required filing.

Should you find publication (e.g., typographical) errors or inconsistencies in this code or wish to offer comments toward improving its format, please address your comments to:

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833–2936
Phone: (916) 263–0916
Email: cbsc@dgs.ca.gov
Web page: www.dgs.ca.gov/bsc

ACKNOWLEDGMENTS

The 2022 *California Building Standards Code* (Code) was developed through the outstanding collaborative efforts of the Department of Housing and Community Development, Division of State Architect, Office of the State Fire Marshal, Office of Statewide Health Planning and Development, California Energy Commission, California Department of Public Health, California State Lands Commission, Board of State and Community Corrections and the California Building Standards Commission (Commission).

This collaborative effort included the assistance of the Commission's Code Advisory Committees and many other volunteers who worked tirelessly to assist the Commission in the production of this Code.

Governor Gavin Newsom
Members of the California Building Standards Commission
Secretary Yolanda Richardson – Chair
Rajesh Patel – Vice-Chair
Erick Mikiten Elley Klausbruckner
Aaron Stockwell Juvilyn Alegre
Peter Santillan Kent Sasaki
Laura Rambin
Mia Marvelli – Executive Director
Michael L. Nearman – Deputy Executive Director

For questions on California state agency amendments, please refer to the contact list on page iv.

CALIFORNIA CODE OF REGULATIONS, TITLE 24

California Agency Information Contact List

The following state agencies may propose building standards for publication in Title 24. Request notice of such activity with each agency of interest. See Sections 1.2 through 1.14 of the California Building Code (Part 2 of Title 24) for more detailed information on the regulatory jurisdiction of each state agency.

Board of State and Community Corrections

www.bscc.ca.gov (916) 445-5073

Local Adult and Juvenile
Detention Facility Standards

California Building Standards Commission

www.dgs.ca.gov/bsc (916) 263-0916

State Buildings including UC and
CSU Buildings, Parking Lot and Walkway Lighting,
Green Building Standards for Non-residential Buildings

California Energy Commission

www.energy.ca.gov **Energy Hotline** (800) 772-3300

Building Efficiency Standards
Appliance Efficiency Standards
Compliance Manual/Forms

California State Lands Commission

www.slc.ca.gov (562) 499-6312

Marine Oil Terminal Standards

California State Library

www.library.ca.gov (916) 323-9843

Department of Consumer Affairs:

Acupuncture Board

www.acupuncture.ca.gov (916) 515-5200

Office Standards

Board of Pharmacy

www.pharmacy.ca.gov (916) 518-3100

Pharmacy Standards

Bureau of Barbering and Cosmetology

www.barbercosmo.ca.gov (800) 952-5210

Barber and Beauty Shop,
and College Standards

Bureau of Household Goods and Services

www.bhgs.dca.ca.gov (916) 999-2041

Insulation Testing Standards

Structural Pest Control Board

www.pestboard.ca.gov (800) 737-8188

Structural Standards

Veterinary Medical Board

www.vmb.ca.gov (916) 515-5220

Veterinary Hospital Standards

Department of Food and Agriculture

www.cdffa.ca.gov

Meat & Poultry Packing Plant Standards

Rendering & Collection Center Standards (916) 900-5004

Dairy Standards (916) 900-5008

Department of Housing and Community Development

www.hcd.ca.gov Contact Center (800) 952-8356

Option 5 > Option 2

Residential—Hotels, Motels, Apartments,
Single-Family Dwellings, and
Permanent Structures in Mobilehome &
Special Occupancy Parks

Option 5 > Option 3

Manufactured Housing & Commercial Modular

Option 5 > Option 4

Factory-Built Housing

Option 5 > Option 5

Employee Housing Standards

Northern CA—Option 2 > Option 2 or 3

Southern CA—Option 2 > Option 4 or 5

Mobilehome—Permits & Inspections

Department of Public Health

www.dph.ca.gov (916) 449-5661

Organized Camps Standards
Public Swimming Pools Standards

Department of Water Resources

www.water.ca.gov DWRwebComment@water.ca.gov

Recycled Water Building Standards

Division of the State Architect

www.dgs.ca.gov/dsa (916) 445-8100

Access Compliance

Fire and Life Safety

Structural Safety

Public Schools Standards
Essential Services Building Standards
Community College Standards

State Historical Building Safety Board

Historical Rehabilitation, Preservation,
Restoration or Relocation Standards

Office of Statewide Health Planning and Development

/ California Department of Health Care

Access and Information (HCAI)

www.hcai.ca.gov (916) 440-8300

Hospital Standards
Skilled Nursing Facility Standards &
Clinic Standards

Office of the State Fire Marshal

osfm.fire.ca.gov (916) 568-3800

Code Development and Analysis
Fire Safety Standards

How to Distinguish Between Model Code Language and California Amendments

To distinguish between model code language and the incorporated California amendments, including exclusive California standards, California amendments will appear in italics.

[BSC] This is an example of a state agency acronym used to identify an adoption or amendment by the agency. The acronyms will appear at California Amendments and in the Matrix Adoption Tables. Sections 1.2 through 1.14 in Chapter 1, Division 1 of this code, explain the used acronyms, the application of state agency adoptions to building occupancies or building features, the enforcement agency as designated by state law (may be the state adopting agency or local building or fire official), the authority in state law for the state agency to make the adoption and the specific state law being implemented by the agency's adoption. The following acronyms are used in Title 24 to identify the state adopting agency making an adoption.

Legend of Acronyms of Adopting State Agencies

BSC	California Building Standards Commission (see Section 1.2)
BSC-CG	California Building Standards Commission-CALGreen (see Section 1.2.2)
BSCC	Board of State and Community Corrections (see Section 1.3)
SFM	Office of the State Fire Marshal (see Section 1.11)
HCD 1	Department of Housing and Community Development (see Section 1.8.2.1.1)
HCD 2	Department of Housing and Community Development (see Section 1.8.2.1.3)
HCD 1/AC	Department of Housing and Community Development (see Section 1.8.2.1.2)
DSA-AC	Division of the State Architect-Access Compliance (see Section 1.9.1)
DSA-SS	Division of the State Architect-Structural Safety (see Section 1.9.2)
DSA-SS/CC	Division of the State Architect-Structural Safety/Community Colleges (see Section 1.9.2.2)
OSHPD 1	Office of Statewide Health Planning and Development (see Section 1.10.1)
OSHPD 1R	Office of Statewide Health Planning and Development (see Section 1.10.1)
OSHPD 2	Office of Statewide Health Planning and Development (see Section 1.10.2)
OSHPD 3	Office of Statewide Health Planning and Development (see Section 1.10.3)
OSHPD 4	Office of Statewide Health Planning and Development (see Section 1.10.4)
OSHPD 5	Office of Statewide Health Planning and Development (see Section 1.10.5)
OSHPD 6	Office of Statewide Health Planning and Development (see Section 1.10.6)
DPH	Department of Public Health (see Section 1.7)
AGR	Department of Food and Agriculture (see Section 1.6)
CEC	California Energy Commission (see Section 100 in Part 6, the California Energy Code)
CA	Department of Consumer Affairs (see Section 1.4): Board of Barbering and Cosmetology Board of Examiners in Veterinary Medicine Board of Pharmacy Acupuncture Board Bureau of Household Goods & Services Structural Pest Control Board (SPCB)
SL	State Library (see Section 1.12)
SLC	State Lands Commission (see Section 1.14)
DWR	Department of Water Resources (see Section 1.13 of Chapter 1 of the California Plumbing Code in Part 2 of Title 24)

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The state agencies are available to answer questions about their adoptions. Contact information is provided on page iv of this code.

To learn more about the use of this code refer to pages vii and viii. Training materials on the application and use of this code are available at the website of the California Building Standards Commission www.dgs.ca.gov/bsc.

California Matrix Adoption Tables

Format of the California Matrix Adoption Tables

The matrix adoption tables, examples of which follow, are non-regulatory aids intended to show the user which state agencies have adopted and/or amended given sections of the model code. An agency's statutory authority for certain occupancies or building applications determines which chapter or section may be adopted, repealed, amended or added. See Chapter 1, Division I, Sections 1.2 through 1.14 for agency authority, building applications and enforcement responsibilities.

The side headings identify the scope of state agencies' adoption as follows:

Adopt the entire IBC chapter without state amendments.

If there is an "X" under a particular state agency's acronym on this row; this means that particular state agency has adopted the entire model code chapter without any state amendments.

Example:

CALIFORNIA BUILDING CODE-MATRIX ADOPTION TABLE

(Matrix Adoption Tables are non-regulatory, intended only as an aid to the user.
See Chapter 1 for state agency authority and building applications.)

CHAPTER 2 – DEFINITIONS AND ABBREVIATIONS

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1-AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter			X																				
Adopt entire chapter as amended (amended sections listed below)																							
Adopt only those sections that are listed below								S	A	M	P	L	E										
Chapter/Section																							

Adopt the entire IBC chapter as amended, state-amended sections are listed below:

If there is an "X" under a particular state agency's acronym on this row, it means that particular state agency has adopted the entire model code chapter; with state amendments.

Each state-amended section that the agency has added to that particular chapter is listed. There will be an "X" in the column, by that particular section, under the agency's acronym, as well as an "X" by each section that the agency has adopted.

Example:

CHAPTER 2 – DEFINITIONS AND ABBREVIATIONS

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1-AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter																							
Adopt entire chapter as amended (amended sections listed below)			X																				
Adopt only those sections that are listed below								S	A	M	P	L	E										
Chapter/Section																							
202			X																				

Adopt only those sections that are listed below:

If there is an “X” under a particular state agency’s acronym on this row, it means that particular state agency is adopting only specific model code or state-amended sections within this chapter. There will be an “X” in the column under the agency’s acronym, as well as an “X” by each section that the agency has adopted.

Example:

CHAPTER 2 – DEFINITIONS AND ABBREVIATIONS

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDP						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1-AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter																							
Adopt entire chapter as amended (amended sections listed below)																							
Adopt only those sections that are listed below					X	X		S	A	M	P	L	E										
Chapter/Section																							
202					X	X		S	A	M	P	L	E										
202					X	X			C	O	N	T.											
203					X	X																	
203					X	X																	

||

Marginal Markings

Symbols in the margin indicate the status of code changes as follows:

- || This symbol indicates that a change has been made to a California amendment.
- > This symbol indicates deletion of California amendment language.
- | This symbol indicates that a change has been made to International Code Council model language.
- ➡ This symbol indicates deletion of International Code Council model language.

A single asterisk [*] placed in the margin indicates that text or a table has been relocated within the code. A double asterisk **[**] placed in the margin indicates that the text or table immediately following it has been relocated there from elsewhere in the code. The following table indicates such relocations in the 2018 edition of the *International Building Code*.

2021 LOCATION	2018 LOCATION
508.5–508.5.11	419.1–419.9
904.12	904.14
904.13	904.12
904.14	904.13
1010.2	1010.1.9
1010.2.1	1010.1.9.6
1010.2.2	1010.1.9.1
1010.2.3	1010.1.9.2
1010.2.4	1010.1.9.4
1010.2.5	1010.1.9.5
1010.2.6	1010.1.9.6.1
1010.2.7	1010.1.9.12
1010.2.8	1010.1.4.4
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1010.2.10	1010.1.9.3
1010.2.11	1010.1.9.10
1010.2.12	1010.1.9.9
1010.2.13	1010.1.9.8
1010.2.13.1	1010.1.9.8.1
1010.2.14	1010.1.9.7
1010.2.15	1010.1.9.11
1010.3	1010.1.4
1010.3.1	1010.1.4.1
Table 1010.3.1(1)	Table 1010.1.4.1(1)
Table 1010.3.1(2)	Table 1010.1.4.1(2)
1010.3.1.1	1010.1.4.1.1
1010.3.1.2	1010.1.4.1.2
1010.3.2	1010.1.4.2
1010.3.3	1010.1.4.3
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CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 1 – SCOPE AND ADMINISTRATION

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3/6	4	5								
Adopt entire chapter																							
Adopt entire chapter as amended (amended sections listed below)																							
Adopt only those sections that are listed below	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Chapter / Section																							
Division I – <i>California Administration</i>																							
1.1	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X			X	X	X
1.2	X		X																				
1.2.3	X						X																
1.3			X													X							
1.4			X																		X		
1.5 (Reserved)			X																				
1.6			X															X					
1.7			X														X						
1.8			X	X	X	X																	
1.9			X																				
1.9.1 – 1.9.1.8							X																
1.9.2								X	X														
1.9.2.1								X															
1.9.2.2									X														
1.10			X																				
1.10.1										X	X												
1.10.2												X											
1.10.3													3										
1.10.4														X									
1.10.5 – 1.10.5.3															X								
1.10.6													6										
1.11			X																				
1.12			X																			X	
1.13 (Reserved)																			X				
1.14																							X
Division II – <i>Scope and Administration</i>																							
101.1 – 101.4.5							X			X	X	X	X	X	X								
101.4.7										X	X	X		X	X								
102.1								X	X	X	X	X	X	X	X								
102.2 – 102.4								X	X	X	X	X	X	X	X								
102.4.1								X	X														
102.4.3								X	X	X	X	X	X	X	X								
102.4.4								X	X	X	X	X	X	X	X								
102.5								X	X	X	X	X	X	X	X								
102.6 – 104.1										X	X	X	X	X	X								
104.2 – 104.4										X	X	X	X	X	X								
104.5 – 104.8										X	X	X	X	X	X								
104.9								X	X	X	X	X	X	X	X								

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 1 – SCOPE AND ADMINISTRATION—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3/6	4	5								
Adopt entire chapter																							
Adopt entire chapter as amended (amended sections listed below)																							
Adopt only those sections that are listed below	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Chapter / Section																							
Division II – <i>Scope and Administration</i> -cont'd																							
104.10								X	X	X	X	X	X	X	X	X							
104.11							X	X	X	X	X	X		X	X								
104.11.1 – 104.11.2										X	X	X	X	X	X								
104.11.3										X	X	X		X	X								
104.11.4										X				X									
105.1										X	X	X	X	X	X	X							
105.1.1 – 105.2										X	X	X	X	X	X	X							
105.2 Building: 1-13			X	X	X																		
105.2.1 – 105.2.2			X							X	X	X	X	X	X	X							
105.2.3										X	X	X	X	X	X	X							
105.3 – 105.3.1			X							X	X	X	X	X	X	X							
105.3.2										X	X	X		X	X								
105.4			X							X	X	X	X	X	X	X							
105.5										X	X	X	X	X	X	X							
105.5.1	X																						
105.6 – 105.7			X							X	X	X	X	X	X	X							
106.1			X					X	X	X	X	X	X	X	X	X							
106.1.1										X	X	X		X	X								
106.1.2								X	X														
106.2 – 106.3			X							X	X	X	X	X	X	X							
107.1			X	X	X					X	X	X	X	X	X	X							
107.2			X							X	X	X	X	X	X	X							
107.2.1			X	X	X					X	X	X				X							
107.2.3			X	X	X																		
107.2.4			X	X	X																		
107.2.5			X	X	X			X	X														
107.2.6			X	X	X																		
107.2.6.1				X	X																		
107.2.7			X	X	X																		
107.3			X							X	X	X	X	X	X	X							
107.3.4.1										X	X	X		X	X								
107.4			X																				
107.5			X							X	X	X	X	X	X	X							
108.1 – 108.4			X							X	X	X	X	X	X	X							
109										X	X	X	X	X	X	X							
110.1 – 110.3			X							X	X	X	X	X	X	X							
110.3.1 – 110.3.3				X	X					X	X	X	X	X	X	X							
110.3.4 – 110.3.7			X	X	X					X	X	X	X	X	X	X							

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 1 – SCOPE AND ADMINISTRATION—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3/6	4	5								
Adopt entire chapter																							
Adopt entire chapter as amended (amended sections listed below)																							
Adopt only those sections that are listed below	X		X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X		X	X	X	X
Chapter / Section																							
Division II – <i>Scope and Administration</i> -cont'd																							
110.3.4.1				X																			
110.3.5	X		X	X	X			X	X														
110.3.6				X	X																		
110.3.7				X	X			X	X														
110.3.8				X	X																		
110.3.9 – 110.3.11			X	X	X					X	X	X	X	X	X								
110.3.11.1				X	X																		
110.3.12 – 110.3.12.1				X	X																		
110.3.12.2				X	X																		
110.4 – 110.6			X							X	X	X	X	X	X								
111.1			X							X	X	X	X	X	X								
111.2			X				X			X	X	X	X	X	X								
111.3 – 111.4			X							X	X	X	X	X	X								
112			X							X	X	X	X	X	X								
113										X	X	X	X	X	X								
114.1 – 114.2			X							X	X	X	X	X	X								
114.2 – 114.3										X	X	X	X	X	X								
115 - 116			X							X	X	X	X	X	X								

The state agency does not adopt sections identified by the following symbol: †

The Office of the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures regulated by other state agencies pursuant to Section 1.11.

1.2. Sections 4-201 through 4-249, Chapter 4, for state-owned or state-leased essential services buildings.

2. **Title 24, Part 2, California Code of Regulations:** [applies to public elementary and secondary schools, community colleges and state-owned or state-leased essential services building(s)]:

2.1. Sections 1.1 and 1.9.2.1 of Chapter 1, Division I.

2.2. Sections 102.1, 102.2, 102.3, 102.4, 102.5, 104.9, 104.10, 104.11, 106.1, 107.2.5 and 110.3.6 of Chapter 1, Division II.

1.9.2.1.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10, 11 and 12, California Code of Regulations, for school buildings, community colleges and state-owned or state-leased essential service buildings.

The provisions of Title 24, Part 2, as adopted and amended by the Division of the State Architect—Structural Safety, shall apply to the applications listed in Section 1.9.2.1.

The Division of the State Architect—Structural Safety adopts the following building standards in Title 24, Part 2:

Chapters 2 through 10, 12, 14, 15, 16A, 17A, 18A, 19A, 20, 21A, 22A, 23, 24, 25, 26, 30, 31, 32, 33 and 35.

1.9.2.1.3 Amendments. Division of the State Architect—Structural Safety amendments in this code appear preceded with the acronym [DSA-SS].

Exception: Chapters 16A, 17A, 18A, 19A, 21A and 22A—Amendments appearing in these chapters without an acronym have been co-adopted by DSA-SS and OSHPD.

1.9.2.1.4 Reference to other chapters. Where reference is made within this code to sections in Chapters 16, 17, 18, 19, 21 and 22, the respective sections in Chapters 16A, 17A, 18A, 19A, 21A and 22A shall apply instead.

1.9.2.2 DSA-SS/CC Division of the State Architect—Structural Safety/Community Colleges

Application—Community Colleges. The Division of the State Architect has been delegated the authority by the Department of General Services to promulgate alternate building standards for application to community colleges, which a community college may elect to use in lieu of standards promulgated by DSA-SS in accordance with Section 1.9.2.1.

Enforcing agency—Division of the State Architect—Structural Safety/Community Colleges (DSA-SS/CC)

The Division of the State Architect has been delegated the authority by the Department of General Services to review and approve the design and oversee construction of community colleges electing to use the alternative building standards as provided in this section.

Authority cited—Education Code Section 81053.

Reference—Education Code Sections 81052, 81053 and 81130 through 81147.

1.9.2.2.1 Applicable administrative standards.

1. **Title 24, Part 1, California Code of Regulations:**

1.1. Sections 4-301 through 4-355, Group 1, and Sections 4-401 through 4-435, Group 2, Chapter 4.

2. **Title 24, Part 2, California Code of Regulations:**

2.1. Sections 1.1 and 1.9.2 of Chapter 1, Division I.

2.2. Sections 102.1, 102.2, 102.3, 102.4, 102.5, 104.9, 104.10, 104.11, 106.1, 107.2.5 and 110.3.6 of Chapter 1, Division II.

1.9.2.2.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10, 11 and 12, California Code of Regulations.

The Division of the State Architect—Structural Safety/Community Colleges [DSA-SS/CC] adopts the following building standards in Title 24, Part 2:

Chapters 2 through 10, 12, 14, 15, 16, 17A, 18A, 19, 20, 21, 22, 23, 24, 25, 26, 30, 31, 32, 33 and 35.

1.9.2.2.3 Amendments. Division of the State Architect—Structural Safety/Community Colleges amendments in this code appear preceded with the acronym [DSA-SS/CC].

Exception: Chapters 17A, and 18A—Amendments appearing in these chapters without an acronym have been co-adopted by DSA-SS, DSA-SS/CC and OSHPD.

1.9.2.2.4 Reference to other chapters. Where reference is made within this code to sections in Chapters 17 and 18, the respective sections in Chapters 17A and 18A shall apply instead.

SECTION 1.10 OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT

1.10.1 OSHPD 1 and OSHPD 1R. Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

Application—[OSHPD 1] General acute care hospital buildings. [OSHPD 1R] Nonconforming hospital SPC or freestanding buildings that have been removed from acute-care service.

Enforcing agency—Office of Statewide Health Planning and Development (OSHPD). The office shall enforce the Division of the State Architect—Access Compliance regulations and the regulations of the Office of the State Fire Marshal for the above stated facility types.

1.10.1.1 Applicable administrative standards.

1. Title 24, Part 1, California Code of Regulations: Chapters 6 and 7.

2. Title 24, Part 2, California Code of Regulations: Sections 1.1 and 1.10, Chapter 1, Division I, and as indicated in the adoption matrix for Chapter 1, Division II.

1.10.1.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.

The provisions of Title 24, Part 2, as adopted and amended by OSHPD, shall apply to the applications listed in Section 1.10.1.

OSHPD 1 adopts the following building standards in Title 24, Part 2:

Chapters 2 through 10, 12, 14, 15, 16A, 17A, 18A, 19A, 20, 21A, 22A, 23, 24, 25, 26, 30, 31, 32, 33, 35 and Appendix L.

OSHPD 1R adopts the following building standards in Title 24, Part 2:

Chapters 2 through 10, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 30, 31, 32, 33 and 35.

1.10.1.3 Identification of amendments. For applications listed in Section 1.10.1, amendments appear in this code preceded with the acronym [OSHPD 1], unless the entire chapter is applicable. For nonconforming hospital buildings removed from acute-care service, amendments are preceded with the acronym [OSHPD 1R].

1.10.1.4 Reference to other chapters. Where reference is made within this code to sections in Chapters 16, 17, 18, 19, 21 and 22, the respective sections in Chapters 16A, 17A, 18A, 19A, 21A and 22A shall apply instead for hospital buildings under OSHPD 1.

Authority—Health and Safety Code Sections 127010, 127015, 1275 and 129850.

References—Health and Safety Code Sections 19958, 127010, 127015, 129680, 1275 and 129675 through 130070.

> **1.10.2 OSHPD 2.** Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

> **Application**—Skilled nursing facility and intermediate care facility buildings.

Enforcing agency—Office of Statewide Health Planning and Development (OSHPD). The office shall also enforce the Division of the State Architect—Access Compliance regulations and the regulations of the Office of the State Fire Marshal for the above-stated facility type.

1.10.2.1 Applicable administrative standards.

1. Title 24, Part 1, California Code of Regulations: Chapter 7.

2. Title 24, Part 2, California Code of Regulations: Sections 1.1 and 1.10, Chapter 1, Division I, and as indicated in the adoption matrix for Chapter 1, Division II.

1.10.2.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.

The provisions of Title 24, Part 2, as adopted and amended by OSHPD, shall apply to the applications listed in Section 1.10.2.

OSHPD 2 adopts the following building standards in Title 24, Part 2:

Chapters 2 through 10, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 30, 31, 32, 33 and 35.

1.10.2.3 Identification of amendments. For applications listed in Section 1.10.2, amendments appear in this code preceded with the acronym [OSHPD 2].

Authority—Health and Safety Code Sections 127010, 127015, 1275 and 129850.

References—Health and Safety Code Sections 127010, 127015, 1275 and 129680.

1.10.3 OSHPD 3. Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

Application—Licensed clinics and any freestanding building under a hospital license where outpatient clinical services are provided.

Enforcing agency—Local building department.

1.10.3.1 Applicable administrative standards.

1. Title 24, Part 1, California Code of Regulations: Chapter 7.

2. Title 24, Part 2, California Code of Regulations: Sections 1.1 and 1.10, Chapter 1, Division I, and as indicated in the adoption matrix for Chapter 1, Division II.

1.10.3.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.

The provisions of Title 24, Part 2, as adopted and amended by OSHPD, shall apply to the applications listed in Section 1.10.3.

OSHPD 3 adopts the following building standards in Title 24, Part 2:

Chapter 12.

1.10.3.3 Identification of amendments. For applications listed in Section 1.10.3, amendments appear in this code without the acronym [OSHPD 3]. Adoptions are shown in the adoption matrix.

Authority—Health and Safety Code Sections 127010, 127015 and 1226.

References—Health and Safety Code Sections 127010, 127015, 129885 and 1226, Government Code Section 54350 and State Constitution Article 11, Section 7.

1.10.4 OSHPD 4. Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

Application—Correctional treatment centers.

Enforcing agency—Office of Statewide Health Planning and Development (OSHPD). The office shall also enforce the Division of the State Architect—Access Compliance regulations and the regulations of the Office of the State Fire Marshal for the above-stated facility types.

1.10.4.1 Applicable administrative standards.

1. Title 24, Part 1, California Code of Regulations: Chapter 7.
2. Title 24, Part 2, California Code of Regulations: Sections 1.1 and 1.10, Chapter 1, Division I, and as indicated in the adoption matrix for Chapter 1, Division II.

1.10.4.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.

The provisions of Title 24, Part 2, as adopted and amended by OSHPD, shall apply to the applications listed in Section 1.10.4.

OSHPD 4 adopts the following building standards in Title 24, Part 2:

Chapters 2 through 10, 12, 14, 15, 16A, 17A, 18A, 19A, 20, 21A, 22A, 23, 24, 25, 26, 30, 31, 32, 33, 35 and Appendix L.

1.10.4.3 Identification of amendments. For applications listed in Section 1.10.4, amendments appear in this code preceded with the acronym [OSHPD 4], unless the entire chapter is applicable.

1.10.4.4 Reference to other chapters. Where reference is made within this code to sections in Chapters 16, 17, 18, 19, 21 and 22, the respective sections in Chapters 16A, 17A, 18A, 19A, 21A and 22A shall apply instead.

Authority—Health and Safety Code Sections 127010, 127015 and 129790.

References—Health and Safety Code Sections 127010, 127015, 1275 and 129675 through 130070.

1.10.5 OSHPD 5. Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

Application—Acute psychiatric hospital buildings.

Enforcing agency—Office of Statewide Health Planning and Development (OSHPD). The office shall also enforce the Division of the State Architect – Access Compliance regulations and the regulations of the Office of the State Fire Marshal for the above-stated facility type.

1.10.5.1 Applicable administrative standards.

1. Title 24, Part 1, California Code of Regulations: Chapter 7.
2. Title 24, Part 2, California Code of Regulations: Sections 1.1 and 1.10, Chapter 1, Division I, and as indicated in the adoption matrix for Chapter I, Division II.

1.10.5.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.

The provision of Title 24, Part 2, as adopted and amended by OSHPD, shall apply to the applications listed in Section 1.10.5.

OSHPD 5 adopts the following building standards in Title 24, Part 2:

Chapters 2 through 10, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 30, 32 and 33.

1.10.5.3 Identification of amendments. For applications listed in Section 1.10.5, amendments appear in this code preceded with the acronym [OSHPD 5].

Authority—Health and Safety Code Sections 127010, 127015, 1275 and 129850.

References—Health and Safety Code Sections 127010, 127015, 129680, 1275 and 129675 through 130070.

1.10.6 OSHPD 6. Specific scope of application of the agency responsible for enforcement, enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

Application—Chemical dependency recovery hospital buildings.

Enforcing agency—Office of Statewide Health Planning and Development (OSHPD). The office shall also enforce the Division of the State Architect – Access Compliance regulations and the regulations of the Office of the State Fire Marshal for the above-stated facility type.

1.10.6.1 Applicable administrative standards.

1. Title 24, Part 1, California Code of Regulations: Chapter 7.
2. Title 24, Part 2, California Code of Regulations: Sections 1.1 and 1.10, Chapter 1, Division I, and as indicated in the adoption matrix for Chapter I, Division II.

1.10.6.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10 and 11.

The provision of Title 24, Part 2, as adopted and amended by OSHPD, shall apply to the applications listed in Section 1.10.6.

OSHPD 6 adopts the following building standards in Title 24, Part 2:

Chapters 2 through 10, 12, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 30, 32 and 33.

1.10.6.3 Identification of amendments. For applications listed in Section 1.10.6, amendments appear in this code preceded with the acronym [OSHPD 6].

SECTION 1.11**OFFICE OF THE STATE FIRE MARSHAL**

1.11.1 SFM—Office of the State Fire Marshal. Specific scope of application of the agency responsible for enforcement, the enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.

Application:

Institutional, educational or any similar occupancy. Any building or structure used or intended for use as an asylum, jail, prison, mental hospital, hospital, sanitarium, home for the elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity.

Authority cited—Health and Safety Code Section 13143.

Reference—Health and Safety Code Section 13143.

Assembly or similar place of assemblage. Any 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, entertain-

ment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education.

Authority cited—Health and Safety Code Section 13143.

Reference—Health and Safety Code Section 13143.

Small family day-care homes.

Authority cited—Health and Safety Code Sections 1597.45, 1597.54, 13143 and 17921.

Reference—Health and Safety Code Section 13143.

Large family day-care homes.

Authority cited—Health and Safety Code Sections 1597.46, 1597.54 and 17921.

Reference—Health and Safety Code Section 13143.

Residential facilities and residential facilities for the elderly.

Authority cited—Health and Safety Code Section 13133.

Reference—Health and Safety Code Section 13143.

Any state institution or other state-owned or specified state-occupied building.

Specified state-occupied buildings. Any building, structure or area that meets any of the following criteria:

1. A building where the state has contracted into a build-to-suit lease.
2. A courthouse holding facility or trial court with a detention area.
3. A building used by the Department of Corrections and Rehabilitation (CDCR) as a community correctional reentry center.
4. 100 percent state occupied.
5. State-occupied areas in a state-leased building that is a high-rise and is 75 percent of the net area floor space or more occupied by state entities.
6. State-occupied areas in a building that contains 5,000 square feet (465 m²) or more space of state-leased Group H or Group L occupancy.
7. A state-leased building with facilities with the primary purpose of housing state records and/or state artifacts of historical significance.
8. Properties leased by California State University (CSU).
9. State institutions and their real property.
10. CAL FIRE occupied areas in leased buildings.
11. State-leased facilities where the governing body's fire protection services rely on an all-volunteer fire department.

Authority cited—Health and Safety Code Sections 13108, 13145, 13146, 16022.5 and 17921.

Reference—Health and Safety Code Sections 13108, 13143, 13145, 13146, 16022.5 and 17921.

High-Rise structures.

Authority cited—Health and Safety Code Section 13211.

Reference—Health and Safety Code Section 13143.

Motion picture production studios.

Authority cited—Health and Safety Code Section 13143.1.

Reference—Health and Safety Code Section 13143.

Organized camps.

Authority cited—Health and Safety Code Section 18897.3.

Reference—Health and Safety Code Section 13143.

Residential. All hotels, motels, lodging houses, apartment houses and dwellings, including congregate residences and buildings and structures accessory thereto.

Multiple-story structures existing on January 1, 1975, let for human habitation, including and limited to, hotels, motels and apartment houses, less than 75 feet (22 860 mm) above the lowest floor level having building access, wherein rooms used for sleeping are let above the ground floor.

Authority cited—Health and Safety Code Sections 13143.2 and 17921.

Reference—Health and Safety Code Section 13143.

Residential care facilities. Certified family care homes, out-of-home placement facilities, halfway houses, drug and/or alcohol rehabilitation facilities and any building or structure used or intended for use as a home or institution for the housing of any person of any age when such person is referred to or placed within such home or institution for protective social care and supervision services by any governmental agency.

Authority cited—Health and Safety Code Section 13143.6.

Reference—Health and Safety Code Section 13143.

Tents, awnings or other fabric enclosures used in connection with any occupancy.

Authority cited—Health and Safety Code Section 13116.

Reference—Health and Safety Code Section 13143.

Fire alarm devices, equipment and systems in connection with any occupancy.

Authority cited—Health and Safety Code Section 13114.

Reference—Health and Safety Code Section 13143.

Hazardous materials.

Authority cited—Health and Safety Code Section 13143.9.

Reference—Health and Safety Code Section 13143.

Flammable and combustible liquids.

Authority cited—Health and Safety Code Section 13143.6.

Reference—Health and Safety Code Section 13143.

Public School Automatic Fire Detection, Alarm and Sprinkler Systems.

Authority cited—Health and Safety Code Section 13143 and California Education Code Article 7.5, Sections 17074.50, 17074.52 and 17074.54.

Reference—Government Code Section 11152.5, Health and Safety Code Section 13143 and California Education Code Chapter 12.5, Leroy F. Greene School Facilities Act of 1998, Article 1.

Wildland-Urban Interface Fire Area.

Authority cited—Health and Safety Code Sections 13143, 13108.5(a) and 18949.2(b) and (c) and Government Code Section 51189.

Reference—Health and Safety Code Sections 13143, Government Code Sections 51176, 51177, 51178 and 51179 and Public Resources Code Sections 4201 through 4204.

[A] **106.2 Issuance of certificate of occupancy.** A certificate of occupancy required by Section 111 shall not be issued until the floor load signs, required by Section 106.1, have been installed.

[A] **106.3 Restrictions on loading.** It shall be unlawful to place, or cause or permit to be placed, on any floor or roof of a building, structure or portion thereof, a load greater than is permitted by this code.

SECTION 107 CONSTRUCTION DOCUMENTS

[A] **107.1 General.** Submittal documents consisting of construction documents, statement of special inspections, geotechnical report and other data shall be submitted in two or more sets, or in a digital format where allowed by the building official, with each permit application. The construction documents shall be prepared by a registered design professional where required by the statutes of the jurisdiction in which the project is to be constructed. Where special conditions exist, the building official is authorized to require additional construction documents to be prepared by a registered design professional.

Exception: The building official is authorized to waive the submission of construction documents and other data not required to be prepared by a registered design professional if it is found that the nature of the work applied for is such that review of construction documents is not necessary to obtain compliance with this code.

[A] **107.2 Construction documents.** Construction documents shall be in accordance with Sections 107.2.1 through 107.2.8.

[A] **107.2.1 Information on construction documents.** Construction documents shall be dimensioned and drawn on suitable material. Electronic media documents are permitted to be submitted where approved by the building official. Construction documents shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code and relevant laws, ordinances, rules and regulations, as determined by the building official.

[A] **107.2.2 Fire protection system shop drawings.** Shop drawings for the fire protection systems shall be submitted to indicate conformance to this code and the construction documents and shall be approved prior to the start of system installation. Shop drawings shall contain all information as required by the referenced installation standards in Chapter 9.

[A] **107.2.3 Means of egress.** The construction documents shall show in sufficient detail the location, construction, size and character of all portions of the means of egress including the path of the exit discharge to the public way in compliance with the provisions of this code. In other than occupancies in Groups R-2, R-2.1 and R-3, the construction documents shall designate the number of occupants to be accommodated on every floor, and in all rooms and spaces.

[A] **107.2.4 Exterior wall envelope.** Construction documents for all buildings shall describe the exterior wall envelope in sufficient detail to determine compliance with this code. The construction documents shall provide details of the exterior wall envelope as required, including flashing, intersections with dissimilar materials, corners, end details, control joints, intersections at roof, eaves or parapets, means of drainage, water-resistive barrier and details around openings.

The construction documents shall include manufacturer's installation instructions that provide supporting documentation that the proposed penetration and opening details described in the construction documents maintain the weather resistance of the exterior wall envelope. The supporting documentation shall fully describe the exterior wall system that was tested, where applicable, as well as the test procedure used.

[A] **107.2.5 Exterior balconies and elevated walking surfaces.** Where balconies or other elevated walking surfaces have weather-exposed surfaces, and the structural framing is protected by an impervious moisture barrier, the construction documents shall include details for all elements of the impervious moisture barrier system. The construction documents shall include manufacturer's installation instructions.

[A] **107.2.6 Site plan.** The construction documents submitted with the application for permit shall be accompanied by a site plan showing to scale the size and location of new construction and existing structures on the site, distances from lot lines, the established street grades and the proposed finished grades and, as applicable, flood hazard areas, floodways, and design flood elevations; and it shall be drawn in accordance with an accurate boundary line survey. In the case of demolition, the site plan shall show construction to be demolished and the location and size of existing structures and construction that are to remain on the site or plot. The building official is authorized to waive or modify the requirement for a site plan where the application for permit is for alteration or repair or where otherwise warranted.

[A] **107.2.6.1 Design flood elevations.** Where design flood elevations are not specified, they shall be established in accordance with Section 1612.3.1.

[A] **107.2.7 Structural information.** The construction documents shall provide the information specified in Section 1603.

107.2.8 Relocatable buildings. Construction documents for relocatable buildings shall comply with Section 3113.

[A] **107.3 Examination of documents.** The building official shall examine or cause to be examined the accompanying submittal documents and shall ascertain by such examinations whether the construction indicated and described is in accordance with the requirements of this code and other pertinent laws or ordinances.

[A] **107.3.1 Approval of construction documents.** When the building official issues a permit, the construction documents shall be approved, in writing or by stamp, as

“Reviewed for Code Compliance.” One set of construction documents so reviewed shall be retained by the building official. The other set shall be returned to the applicant, shall be kept at the site of work and shall be open to inspection by the building official or a duly authorized representative.

[A] 107.3.2 Previous approvals. This code shall not require changes in the construction documents, construction or designated occupancy of a structure for which a lawful permit has been heretofore issued or otherwise lawfully authorized, and the construction of which has been pursued in good faith within 180 days after the effective date of this code and has not been abandoned.

[A] 107.3.3 Phased approval. The building official is authorized to issue a permit for the construction of foundations or any other part of a building or structure before the construction documents for the whole building or structure have been submitted, provided that adequate information and detailed statements have been filed complying with pertinent requirements of this code. The holder of such permit for the foundation or other parts of a building or structure shall proceed at the holder’s own risk with the building operation and without assurance that a permit for the entire structure will be granted.

[A] 107.3.4 Design professional in responsible charge. Where it is required that documents be prepared by a registered design professional, the building official shall be authorized to require the owner or the owner’s authorized agent to engage and designate on the building permit application a registered design professional who shall act as the registered design professional in responsible charge. If the circumstances require, the owner or the owner’s authorized agent shall designate a substitute registered design professional in responsible charge who shall perform the duties required of the original registered design professional in responsible charge. The building official shall be notified in writing by the owner or the owner’s authorized agent if the registered design professional in responsible charge is changed or is unable to continue to perform the duties.

The registered design professional in responsible charge shall be responsible for reviewing and coordinating submittal documents prepared by others, including phased and deferred submittal items, for compatibility with the design of the building.

[A] 107.3.4.1 Deferred submittals. Deferral of any submittal items shall have the prior approval of the building official. The registered design professional in responsible charge shall list the deferred submittals on the construction documents for review by the building official.

Documents for deferred submittal items shall be submitted to the registered design professional in responsible charge who shall review them and forward them to the building official with a notation indicating that the deferred submittal documents have been reviewed and found to be in general conformance to the design of the building. The deferred submittal items

shall not be installed until the deferred submittal documents have been approved by the building official. *[OSHPD 1, 1R, 2, 4 & 5] Deferred submittals shall be in accordance with the California Administrative Code, Chapter 7, Section 7-126.*

[A] 107.4 Amended construction documents. Work shall be installed in accordance with the approved construction documents, and any changes made during construction that are not in compliance with the approved construction documents shall be resubmitted for approval as an amended set of construction documents.

[A] 107.5 Retention of construction documents. One set of approved construction documents shall be retained by the building official for a period of not less than 180 days from date of completion of the permitted work, or as required by state or local laws.

SECTION 108 TEMPORARY STRUCTURES AND USES

[A] 108.1 General. The building official is authorized to issue a permit for temporary structures and temporary uses. Such permits shall be limited as to time of service, but shall not be permitted for more than 180 days. The building official is authorized to grant extensions for demonstrated cause.

[A] 108.2 Conformance. Temporary structures and uses shall comply with the requirements in Section 3103.

[A] 108.3 Temporary power. The building official is authorized to give permission to temporarily supply and use power in part of an electric installation before such installation has been fully completed and the final certificate of completion has been issued. The part covered by the temporary certificate shall comply with the requirements specified for temporary lighting, heat or power in NFPA 70.

[A] 108.4 Termination of approval. The building official is authorized to terminate such permit for a temporary structure or use and to order the temporary structure or use to be discontinued.

SECTION 109 FEES

[A] 109.1 Payment of fees. A permit shall not be valid until the fees prescribed by law have been paid, nor shall an amendment to a permit be released until the additional fee, if any, has been paid.

[A] 109.2 Schedule of permit fees. Where a permit is required, a fee for each permit shall be paid as required, in accordance with the schedule as established by the applicable governing authority.

[A] 109.3 Permit valuations. The applicant for a permit shall provide an estimated permit value at time of application. Permit valuations shall reflect the total value of work, including materials and labor, for which the permit is being issued, such as electrical, gas, mechanical, plumbing equipment and permanent systems. If, in the opinion of the building official, the valuation is underestimated on the application, the permit

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 2 – DEFINITIONS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X																						
Adopt entire chapter as amended (amended sections listed below)			X	X	X	X		X	X	X	X	X	X	X	X								
Adopt only those sections that are listed below							X									X	X						
Chapter / Section																							
201.3			X	X	X	X																	
201.4			X																				
202			X	X	X	X																	
Access Aisle							X																
Accessibility				X	X	X	X																
Accessibility Function Button							X																
Accessible				X	X	X	X																
Accessible Element							X																
Accessible Means of Egress							X																
Accessible Route				X	X	X	X																
Accessible Space				X	X	X	X																
Accessible Unit				†	†	†																	
Accessory Dwelling Unit				X	X																		
Active Earthquake Fault								X	X	X					X								
Active Equipment/Component								X	X	X	X	X		X	X								
Adaptable							X																
Adaptable Dwelling Unit						X																	
Addition (2nd paragraph only)							X																
Adjusted Construction Cost							X																
Administrative Authority							X																
Adult Changing Facility							X																
Aged Home or Institution			X																				
Aisle (2nd paragraph only)							X																
Alteration							X																
Alternative System										X	X	X		X	X								
Amusement Attraction							X																
Amusement Ride							X																
Amusement Ride Seat							X																
ANSI							X																
Approved (with notes)			X	X	X	X																	
Approved (2nd paragraph only) (w/o notes)							X																
Approved Agency				X	X			X	X														
Approved Listing Agency				X	X																		
Approved Testing Agency				X	X		X			X	X	X		X	X								
Area of Refuge							X																
Area of Sport Activity							X																
Assembly Area							X																
Assistive Device						X																	
Assistive Listening System (ALS)							X																
Automatic Door				X	X	X	X																
Automatic Teller Machine (ATM)							X																
Auxiliary Area																	X						
Backwash																	X						
Base								X	X	X				X									

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 2 – DEFINITIONS—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X																						
Adopt entire chapter as amended (amended sections listed below)			X	X	X	X		X	X	X	X	X	X	X	X								
Adopt only those sections that are listed below							X									X	X						
Chapter / Section																							
<i>Bather</i>																	X						
<i>Bathroom</i>						X	X																
<i>Bedridden Person</i>			X																				
<i>Blended Transition</i>							X																
<i>Boarding Pier</i>							X																
<i>Boat Launch Ramp</i>							X																
<i>Boat Slip</i>							X																
<i>Bottle-Filling Station</i>							X																
<i>Building</i>			X																				
<i>Building (with exception)</i>				X	X	X																	
<i>Building (w/o notes)</i>							X																
<i>Building Entrance on an Accessible Route</i>						X																	
<i>Building, Existing</i>				X	X																		
<i>Building Official</i>							X																
<i>Care and Supervision</i>			X																				
<i>Carriage Unit</i>						X																	
<i>Catastrophically Injured</i>			X																				
<i>Catch Pool</i>							X																
<i>CCR</i>							X																
<i>CDF Director</i>			X																				
<i>Cell</i>			X																				
<i>Cell Complex</i>			X																				
<i>Cell Tiers</i>			X																				
<i>Cellular Concrete</i>				X	X																		
<i>Central Control Building</i>			X																				
<i>Characters</i>				X	X	X	X																
<i>Charter School</i>			X																				
<i>Child Care</i>			X																				
<i>Child-Care Center</i>			X																				
<i>Child or Children</i>			X																				
<i>Children's Use</i>							X																
<i>Chronically Ill</i>			X																				
<i>Circulation Path</i>							X																
<i>Clean Pool Water</i>																	X						
<i>Clear</i>							X																
<i>Clear Floor Space</i>						X	X																
<i>Clear Pool Water</i>																	X						
<i>Climate Zone</i>																				X			
<i>Clinic, Outpatient</i>			X																				
<i>Closed-Circuit Telephone</i>							X																
<i>Commercial Facilities</i>							X																
<i>Commercial Place of Public Amusement</i>							X																
<i>Common Use</i>				†	†	†	X																
<i>Common Use Areas</i>			†			X																	
<i>Community Care Facility</i>			X																				

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 2 – DEFINITIONS—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X																						
Adopt entire chapter as amended (amended sections listed below)			X	X	X	X		X	X	X	X	X	X	X	X								
Adopt only those sections that are listed below							X									X	X						
Chapter / Section																							
Community Correctional Reentry Centers			X																				
Comply With							X																
Concrete, Cellular				X	X	X																	
Congregate Living Health Facility (CLHF)			X																				
Congregate Residence			X			X																	
Control Room			X																				
Correctional Hospitals			X																				
Correctional Medical or Mental Health Housing Suite			X																				
Correctional Mental Health Facilities			X																				
Correctional Nursing Facilities			X																				
Correctional Treatment Centers			X																				
Corrosion Resistant																	X						
Courthouse Holding Facility			X																				
Courtroom Dock			X																				
Covered Multifamily Dwellings						X																	
Cross Slope						X	X																
Curb Cut				X	X	X	X																
Curb Ramp				X	X	X	X																
Custody Station			X																				
Day-Care			X																				
Day-Care Home, Family			X																				
Day-Care Home, Large Family			X																				
Day-Care Home, Small Family			X																				
Day Room			X																				
Deck																	X						
Department				X	X																		
Designated Public Transportation							X																
Destination-Oriented Elevator							X																
Detached Single-Family Dwelling				X	X																		
Detectable Warning				X	X	X	X																
Detention Elevator			X																				
Detention Program Suite			X																				
Detention Treatment Room			X																				
Detoxification Facilities			X																				
Directional Sign				X	X		X																
Disability							X																
Distance from Active Earthquake Fault								X	X	X				X									
District Agricultural Associations							X																
Dormitory			X				X																

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 2 – DEFINITIONS—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X																						
Adopt entire chapter as amended (amended sections listed below)			X	X	X	X		X	X	X	X	X	X	X	X								
Adopt only those sections that are listed below							X									X	X						
Chapter / Section																							
Dormitory			X																				
Drain																	X						
Drive Aisle							X																
Drive-up Electric Vehicle Charging Station							X																
Driveway							X																
Dwelling Unit						X																	
Effective Particle Size																	X						
Efficiency Dwelling Unit				X																			
Electric Vehicle			X																				
Electric Vehicle (EV)							X																
Electric Vehicle (EV) Charger							X																
Electric Vehicle Charging Space (EV Space)							X																
Electric Vehicle Charging Station (EVCS)							X																
Electric Vehicle (EV) Connector							X																
Element							X																
Elevated Play Component							X																
Elevator, Passenger				X	X		X																
Employee Work Area							X																
Enforcement				X	X																		
Enforcement Agent								X	X	X	X	X		X	X								
Enforcing Agency			X	X	X		X			X	X	X	X	X	X		X						
Entrance				X	X	X	X																
Equipment								X	X	X		X		X	X								
Countertop Equipment								X	X	X		X		X	X								
Essential Equipment								X	X	X		X		X	X								
Fixed Equipment								X	X	X		X		X	X								
Interim Equipment										X		X		X	X								
Mobile Equipment								X	X	X		X		X	X								
Movable Equipment								X	X	X		X		X	X								
Other Equipment								X	X	X		X		X	X								
Temporary Equipment										X		X		X	X								
Equipment Area																	X						
Equivalent Facilitation						X	X																
Existing Building or Facility							X																
Exit							X																
Exterior Covering			X																				
Facility							X																
Family				X																			
Fire Appliance			X																				
Fire Hazard Severity Zones			X																				
Fire Protection Plan			X																				
Fire-Retardant Treated Wood			X																				
Fire-Smoke Barrier			X																				
Fireworks			X																				
Flammable Gas			X																				

(continued)

[F] AUTOMATIC WATER MIST SYSTEM. *A system consisting of a water supply, a pressure source and a distribution piping system with attached nozzles, which, at or above a minimum operating pressure, defined by its listing, discharges water in fine droplets meeting the requirements of NFPA 750 for the purpose of the control, suppression or extinguishment of a fire. Such systems include wet-pipe, dry-pipe and pre-action types. The systems are designed as engineered, pre-engineered, local-application or total flooding systems.*

[F] AUTOMATIC WATER MIST SYSTEM. A system consisting of a water supply, a pressure source and a distribution piping system with attached nozzles, which, at or above a minimum operating pressure defined by its listing, discharges water in fine droplets meeting the requirements of NFPA 750 for the purpose of the control, suppression or extinguishment of a fire. Such systems include wet-pipe, dry-pipe and preaction types. The systems are designed as engineered, preengineered, local-application or total-flooding systems.

AUXILIARY AREA. *A public dressing, locker, shower or toilet area or building space intended to be used by bathers.*

[F] AVERAGE AMBIENT SOUND LEVEL. The root mean square, A-weighted sound pressure level measured over a 24-hour period, or the time any person is present, whichever time period is less.

[BG] AWNING. An architectural projection that provides weather protection, identity or decoration and is partially or wholly supported by the building to which it is attached. An awning is composed of a lightweight frame structure over which a covering is attached.

[BF] BACKING. The wall or surface to which the veneer is secured.

BACKWASH. *Is the process of thoroughly cleansing the filter media and/or elements and the contents of the filter vessel.*

[BE] BALANCED DOOR. A door equipped with double-pivoted hardware so designed as to cause a semicounterbalanced swing action when opening.

[F] BALED COTTON. A natural seed fiber wrapped in and secured with industry accepted materials, usually consisting of burlap, woven polypropylene, polyethylene or cotton or sheet polyethylene, and secured with steel, synthetic or wire bands or wire; also includes linters (lint removed from the cottonseed) and motes (residual materials from the ginning process).

[F] BALED COTTON, DENSELY PACKED. Cotton made into banded bales with a packing density of not less than 22 pounds per cubic foot (360 kg/m³), and dimensions complying with the following: a length of 55 inches (1397 mm), a width of 21 inches (533.4 mm) and a height of 27.6 to 35.4 inches (701 to 899 mm).

[BS] BALLAST. In roofing, ballast comes in the form of large stones or paver systems or light-weight interlocking paver systems and is used to provide uplift resistance for roofing systems that are not adhered or mechanically attached to the roof deck.

[F] BARRICADE. A structure that consists of a combination of walls, floor and roof, which is designed to withstand the rapid release of energy in an explosion and which is fully confined, partially vented or fully vented; or other effective method of shielding from explosive materials by a natural or artificial barrier.

Artificial barricade. An artificial mound or revetment a minimum thickness of 3 feet (914 mm).

Natural barricade. Natural features of the ground, such as hills, or timber of sufficient density that the surrounding exposures that require protection cannot be seen from the magazine or building containing explosives when the trees are bare of leaves.

BASE. *[DSA-SS, DSA-SS/CC, OSHPD 1 & 4] See ASCE 7.*

[BS] BASE FLOOD. The flood having a 1-percent chance of being equaled or exceeded in any given year.

[BS] BASE FLOOD ELEVATION. The elevation of the base flood, including wave height, relative to the National Geodetic Vertical Datum (NGVD), North American Vertical Datum (NAVD) or other datum specified on the *Flood Insurance Rate Map* (FIRM).

[BG] BASEMENT. A story that is not a story above grade plane (see “Story above grade plane”). This definition of “Basement” does not apply to the provisions of Section 1612 for flood loads.

[BS] BASEMENT (for flood loads). The portion of a building having its floor subgrade (below ground level) on all sides. This definition of “Basement” is limited in application to the provisions of Section 1612.

BATHER. *A person using a pool and adjoining deck areas for the purpose of water sports such as diving, swimming, wading or related activities.*

BATHROOM. *For the purposes of Chapters 11A and 11B, a room which includes a water closet (toilet), a lavatory 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 Chapters 11A and 11B.*

[BS] BEARING WALL STRUCTURE. A building or other structure in which vertical loads from floors and roofs are primarily supported by walls.

[BS] BED JOINT. The horizontal layer of mortar on which a masonry unit is laid.

BEDRIDDEN PERSON. *A person, requiring assistance in turning and repositioning in bed, or being unable to independently transfer to and from bed, except in facilities with appropriate and sufficient care staff, mechanical devices if necessary, and safety precautions as determined in Title 22 regulations, by the Director of Social Services or his or her designated representative. Persons who are unable to inde-*

DEFINITIONS

pendently transfer to and from bed, but who do not need assistance to turn or reposition in bed, shall be considered nonambulatory.

The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of persons with developmental disabilities, in consultation with the Director of Developmental Services or his or her designated representative.

The Director of Social Services or his or her designated representative shall make the determination of the bedridden status of all other persons with disabilities who are not developmentally disabled.

[BE] BLEACHERS. Tiered seating supported on a dedicated structural system and two or more rows high and is not a building element (see “Grandstand”).

BLENDED TRANSITION. [DSA-AC] A raised pedestrian crossing, depressed corner or similar connection that has a slope of 1:20 or less between a circulation path at the level of the sidewalk or walk and the level of a vehicular way.

[BG] BOARDING HOUSE. A building arranged or used for lodging for compensation, with or without meals, and not occupied as a single-family unit.

BOARDING PIER. [DSA-AC] A portion of a pier where a boat is temporarily secured for the purpose of embarking or disembarking.

BOAT LAUNCH RAMP. [DSA-AC] A sloped surface designed for launching and retrieving trailered boats and other water craft to and from a body of water.

BOAT SLIP. [DSA-AC] That portion of a pier, main pier, finger pier or float where a boat is moored for the purpose of berthing, embarking or disembarking.

[F] BOILING POINT. The temperature at which the vapor pressure of a liquid equals the atmospheric pressure of 14.7 pounds per square inch (psia) (101 kPa) or 760 mm of mercury. Where an accurate boiling point is unavailable for the material in question, or for mixtures which do not have a constant boiling point, for the purposes of this classification, the 20-percent evaporated point of a distillation performed in accordance with ASTM D86 shall be used as the boiling point of the liquid.

BOTTLE-FILLING STATION. A fixture that is designed and intended for filling personal use drinking water bottles or containers. Such fixtures can be separate from or integral to a drinking fountain.

[BS] BRACED WALL LINE. A straight line through the building plan that represents the location of the lateral resistance provided by the wall bracing.

[BS] BRACED WALL PANEL. A full-height section of wall constructed to resist in-plane shear loads through interaction of framing members, sheathing material and anchors. The panel’s length meets the requirements of its particular bracing method and contributes toward the total amount of bracing required along its braced wall line.

[BE] BREAKOUT. For revolving doors, a process whereby wings or door panels can be pushed open manually for means of egress travel.

[BS] BRICK.

Calcium silicate (sand lime brick). A pressed and subsequently autoclaved unit that consists of sand and lime, with or without the inclusion of other materials.

Clay or shale. A solid or hollow masonry unit of clay or shale, usually formed into a rectangular prism, then burned or fired in a kiln; brick is a ceramic product.

Concrete. A concrete masonry unit made from Portland cement, water, and suitable aggregates, with or without the inclusion of other materials.

[A] BUILDING. Any structure utilized or intended for supporting or sheltering any occupancy.

Exception: [HCD 1, HCD 2 & HCD 1-AC] For applications listed in Section 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 Health and Safety Code Section 18010.
5. Any multifamily manufactured home as defined in Health and Safety Code Section 18008.7.

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

Note: Building shall have the same meaning as defined in Health and Safety Code Sections 17920 and 18908 for the applications specified in Section 1.11.

BUILDING AREA. See “Area, building.”

[BG] BUILDING ELEMENT. A fundamental component of building construction, specified in TABLE 601, which may or may not be of fire-resistance-rated construction and is constructed of materials based on the building type of construction.

BUILDING ENTRANCE ON AN ACCESSIBLE ROUTE. [HCD 1-AC] 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.

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

BUILDING HEIGHT. See “Height, building.”

[BG] BUILDING LINE. The line established by law, beyond which a building shall not extend, except as specifically provided by law.

[A] BUILDING OFFICIAL. The officer or other designated authority charged with the administration and enforcement of this code, or a duly authorized representative.

[BS] BUILDING-INTEGRATED PHOTOVOLTAIC (BIPV) PRODUCT. A building product that incorporates photovoltaic modules and functions as a component of the building envelope.

[BS] BUILDING-INTEGRATED PHOTOVOLTAIC ROOF PANEL (BIPV ROOF PANEL). A photovoltaic panel that functions as a component of the building envelope.

[BS] BUILT-UP ROOF COVERING. Two or more layers of felt cemented together and surfaced with a cap sheet, mineral aggregate, smooth coating or similar surfacing material.

[BG] CANOPY. A permanent structure or architectural projection of rigid construction over which a covering is attached that provides weather protection, identity or decoration. A canopy is permitted to be structurally independent or supported by attachment to a building on one or more sides.

[F] CAPACITOR ENERGY STORAGE SYSTEM. A stationary, rechargeable energy storage system consisting of capacitors, chargers, controls and associated electrical equipment designed to provide electrical power to a building or facility. The system is typically used to provide standby or emergency power, an uninterruptible power supply, load shedding, load sharing or similar capabilities.

[F] CARBON DIOXIDE EXTINGUISHING SYSTEMS. A system supplying carbon dioxide (CO₂) from a pressurized vessel through fixed pipes and nozzles. The system includes a manual- or automatic-actuating mechanism.

[F] CARBON MONOXIDE ALARM. A single- or multiple-station alarm intended to detect carbon monoxide gas and alert occupants by a distinct audible signal. It incorporates a sensor, control components and an alarm notification appliance in a single unit.

[F] CARBON MONOXIDE DETECTOR. A device with an integral sensor to detect carbon monoxide gas and transmit an alarm signal to a connected alarm control unit.

CARE AND SUPERVISION. *Any one or more of the following activities provided by a person or facility to meet the needs of the clients:*

1. Assistance in dressing, grooming, bathing and other personal hygiene.
2. Assistance with taking medication.
3. Central storing and/or distribution of medications.
4. Arrangement of and assistance with medical and dental care.
5. Maintenance of house rules for the protection of clients.
6. Supervision of client schedules and activities.
7. Maintenance and/or supervision of client cash resources or property.

8. Monitoring food intake or special diets.

9. Providing basic services required by applicable law and regulation to be provided by the licensee in order to obtain and maintain a community-care facility license.

[BG] CARE SUITE. In Group I-2 occupancies, a group of treatment rooms, care recipient sleeping rooms and the support rooms or spaces and circulation space within the suite where staff are in attendance for supervision of all care recipients within the suite, and the suite is in compliance with the requirements of Section 407.4.4.

CARRIAGE UNIT. [HCD 1-AC] *A dwelling unit with living space on one or more floors immediately above a Group U, 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.*

[BS] CAST STONE. A building stone manufactured from Portland cement concrete precast and used as a trim, veneer or facing on or in buildings or structures.

CATASTROPHICALLY INJURED. *As termed, means a person whose origin of disability was acquired through trauma or nondegenerative neurologic illness, for whom it has been determined by the Department of Health Services Certification and Licensing that active rehabilitation would be beneficial.*

CATCH POOL. [DSA-AC] *A pool or designated section of a pool used as a terminus for water slide flumes.*

CCR. [DSA-AC] *The California Code of Regulations.*

CDCR. *California Department of Corrections and Rehabilitation.*

CDF DIRECTOR. [SFM] *(See Chapter 7A, Section 702A for defined term.)*

[F] CEILING LIMIT. The maximum concentration of an airborne contaminant to which one may be exposed. The ceiling limits utilized are those published in DOL 29 CFR Part 1910.1000. The ceiling Recommended Exposure Limit (REL-C) concentrations published by the US National Institute for Occupational Safety and Health (NIOSH), Threshold Limit Value—Ceiling (TLV-C) concentrations published by the American Conference of Governmental Industrial Hygienists (ACGIH), Ceiling Workplace Environmental Exposure Level (WEEL-Ceiling) Guides published by the American Industrial Hygiene Association (AIHA), and other approved, consistent measures are allowed as surrogates for hazardous substances not listed in DOL 29 CFR Part 1910.1000.

[BF] CEILING RADIATION DAMPER. A listed device installed in a ceiling membrane of a fire-resistance-rated floor/ceiling or roof/ceiling assembly to limit automatically the radiative heat transfer through an air inlet/outlet opening. Ceiling radiation dampers include air terminal units, ceiling dampers and ceiling air diffusers. Ceiling radiation dampers are classified for use in either static systems that will automatically shut down in the event of a fire, or in dynamic systems

DEFINITIONS

that continue to operate during a fire. A dynamic ceiling radiation damper is tested and rated for closure under elevated temperature airflow.

CELL (*Detention or correctional facility*). *[SFM]* A sleeping or housing unit in a detention or correctional facility for the confinement of not more than two inmates or prisoners.

[BG] CELL (Group I-3 occupancy). A room within a housing unit in a detention or correctional facility used to confine inmates or prisoners.

[BS] CELL (masonry). A void space having a gross cross-sectional area greater than $1\frac{1}{2}$ square inches (967 mm²).

CELL COMPLEX. A cluster or group of cells or dormitories in a jail, prison or other detention facility, together with rooms used for accessory purposes, all of which open into the cell complex, and are used for functions such as dining, counseling, exercise, classrooms, sick call, visiting, storage, staff offices, control rooms or similar functions, and interconnecting corridors all within the cell complex.

[BG] CELL TIER. Levels of cells vertically stacked above one another within a housing unit.

CELL TIERS. Cells, dormitories and accessory spaces. Cell tiers are located one level above the other and do not exceed two levels per floor. A cell tier shall not be considered a story or mezzanine. The aggregate area of a tier within a housing pod shall not be greater than one-third of the floor area of that pod when supported by non-rated construction, and shall be no greater than two-thirds of the floor area of the pod when the tier floor and supporting elements meet the fire rating requirements of a floor.

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

[BS] CEMENT PLASTER. A mixture of Portland or blended cement, Portland cement or blended cement and hydrated lime, masonry cement or plastic cement and aggregate and other approved materials as specified in this code.

CENTRAL CONTROL BUILDING. A secure building within a prison where the fire and life safety systems, communication systems, security systems and exterior lighting systems are monitored and where security operations necessitate the remote locking of required means of egress or at the door with a key to maintain a high security area

[BF] CERAMIC FIBER BLANKET. A high-temperature mineral wool insulation material made of alumina-silica ceramic or calcium magnesium silicate soluble fibers and weighing 4 to 10 pounds per cubic foot (pcf) (64 to 160 kg/m³).

[BS] CERTIFICATE OF COMPLIANCE. A certificate stating that materials and products meet specified standards or that work was done in compliance with approved construction documents.

[A] CHANGE OF OCCUPANCY. Either of the following shall be considered as a change of occupancy where this code requires a greater degree of safety, accessibility, structural

strength, fire protection, means of egress, ventilation or sanitation than is existing in the current building or structure:

1. Any change in the occupancy classification of a building or structure.
2. Any change in the purpose of, or a change in the level of activity within, a building or structure.

CHARACTERS. Letters, numbers, punctuation marks and typographic symbols.

CHARTER SCHOOL. A public school providing instruction from kindergarten through 12th grade, established pursuant to Education Code, Title 2, Division 4, Part 26.8, Section 47600, et seq.

CHILD-CARE. For the purposes of these regulations, means the care of children during any period of a 24-hour day where permanent sleeping accommodations are not provided. The time-period shall not be more than 24 hours.

Note: "Child care" shall not be construed to preclude the use of cots or mats for napping purposes, provided all employees, attendants and staff personnel are awake and on duty in the area where napping occurs.

CHILD-CARE CENTER. Any facility of any capacity other than a large or small family day-care home as defined in these regulations in which less than 24-hour-per-day nonmedical supervision is provided for children in a group setting.

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

CHILDREN'S USE. *[DSA-AC]* Describes spaces and elements specifically designed for use primarily by people 12 years old and younger.

[M] CHIMNEY. A primarily vertical structure containing one or more flues, for the purpose of carrying gaseous products of combustion and air from a fuel-burning appliance to the outdoor atmosphere.

Factory-built chimney. A listed and labeled chimney composed of factory-made components, assembled in the field in accordance with manufacturer's instructions and the conditions of the listing.

Masonry chimney. A field-constructed chimney composed of solid masonry units, bricks, stones, or concrete.

Metal chimney. A field-constructed chimney of metal.

[M] CHIMNEY TYPES.

High-heat appliance type. An approved chimney for removing the products of combustion from fuel-burning, high-heat appliances producing combustion gases in excess of 2,000°F (1093°C) measured at the appliance flue outlet (see Section 2113.11.3).

Low-heat appliance type. An approved chimney for removing the products of combustion from fuel-burning, low-heat appliances producing combustion gases not in excess of 1,000°F (538°C) under normal operating conditions, but capable of producing combustion gases of 1,400°F (760°C) during intermittent forces firing for peri-

[BE] EMERGENCY ESCAPE AND RESCUE OPENING. An operable exterior window, door or other similar device that provides for a means of escape and access for rescue in the event of an emergency.

[F] EMERGENCY POWER SYSTEM. A source of automatic electric power of a required capacity and duration to operate required life safety, fire alarm, detection and ventilation systems in the event of a failure of the primary power. Emergency power systems are required for electrical loads where interruption of the primary power could result in loss of human life or serious injuries.

[F] EMERGENCY VOICE/ALARM COMMUNICATIONS. Dedicated manual or automatic facilities for originating and distributing voice instructions, as well as alert and evacuation signals pertaining to a fire emergency, to the occupants of a building.

[BF] EMITTANCE. The ratio of radiant heat flux emitted by a specimen to that emitted by a blackbody at the same temperature and under the same conditions.

[BE] EMPLOYEE WORK AREA. All or any portion of a space used only by employees and only for work. Corridors, toilet rooms, kitchenettes and break rooms are not employee work areas.

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.

ENFORCEMENT AGENT. [DSA-SS, DSA-SS/CC & OSHPD 1, 1R, 2, 4 & 5] *That individual within the agency or organization charged with responsibility for agency or organization compliance with the requirements of this Code. Used interchangeably with Building Official and Code Official.*

ENFORCING AGENCY. [DSA-AC, HCD 1 & HCD 2] *The designated department or agency as specified by statute or regulation.*

[BS] ENGINEERED WOOD RIM BOARD. A full-depth structural composite lumber, wood structural panel, structural glued laminated timber or prefabricated wood I-joist member designed to transfer horizontal (shear) and vertical (compression) loads, provide attachment for diaphragm sheathing, siding and exterior deck ledgers, and provide lateral support at the ends of floor or roof joists or rafters.

ENTRANCE. *Any access point to a building or portion of a building or facility used for the purpose of entering. An entrance includes the approach walk, the vertical access leading to the entrance platform, the entrance platform itself, vestibule if provided, the entry door or gate, and the hardware of the entry door or gate.*

ENTRANCE, PUBLIC. See "Public entrance."

ENTRANCE, RESTRICTED. See "Restricted entrance."

ENTRANCE, SERVICE. See "Service entrance."

EQUIPMENT. [DSA-SS, DSA-SS/CC, OSHPD 1, 2, 4 & 5] *Equipment as used in this part and all applicable parts of the California Building Standards Code shall be classified as fixed equipment, mobile, movable, countertop, interim, temporary or other equipment.*

- (1) **COUNTERTOP EQUIPMENT [DSA-SS, DSA-SS/CC, OSHPD 1, 2, 4 & 5]** *means equipment that typically remains on countertop, work bench, shelf or support other than the floor during its service life.*
- (2) **ESSENTIAL EQUIPMENT [OSHPD 1, 2, 4 & 5]** *means equipment whose failure will significantly impair operations during or after a disaster. The facility shall determine which equipment is essential. Essential equipment shall also include equipment that is required to provide the eight basic services of the hospital as defined in Section 1224.3.*

ESSENTIAL EQUIPMENT [DSA-SS, DSA-SS/CC] *means equipment whose failure will significantly impair operations during or after a disaster for emergency preparedness, communications and operations centers, and other facilities required for emergency response of state-owned essential services buildings, as defined in the California Administrative Code (Title 24, Part 1, CCR) Section 4-207, and all structures required for their continuous operation or access/egress.*

- (3) **FIXED EQUIPMENT [DSA-SS, DSA-SS/CC, OSHPD 1, 2, 4 & 5]** *means equipment that is directly attached to the building or directly connected to a service distribution system/utility and that typically remains in one fixed location during its service life or use.*
- (4) **INTERIM EQUIPMENT [OSHPD 1, 2, 4 & 5]** *means equipment that will be in use for the duration of the need for the equipment, not to exceed the duration of the construction project that it is related to.*
- (5) **MOBILE EQUIPMENT [DSA-SS, DSA-SS/CC, OSHPD 1, 2, 4 & 5]** *means equipment, with or without wheels or rollers, that is typically used in a different location than where it is stored and moved from one location in the building to another during ordinary use.*
- (6) **MOVABLE EQUIPMENT [DSA-SS, DSA-SS/CC, OSHPD 1, 2, 4 & 5]** *means fixed equipment that is directly attached to the building and/or directly connected to a service distribution system/utility, with or without wheels or rollers, that typically remains in one fixed location during its service life or use but is required to be periodically moved to facilitate cleaning or maintenance.*
- (7) **OTHER EQUIPMENT [DSA-SS, DSA-SS/CC, OSHPD 1, 2, 4 & 5]** *means equipment that is not directly connected to a building service distribution system, with or without wheels or rollers, and is typically used at a single location during its service life.*

DEFINITIONS

- (8) **TEMPORARY EQUIPMENT [OSH PD 1, 2, 4 & 5]** means fixed, movable, countertop or other equipment that is used during replacement, maintenance or repair for a time of service as defined in Section 108.

EQUIPMENT AREA. An area used for pool recirculation and purification equipment and related piping appurtenances.

[BG] EQUIPMENT PLATFORM. An unoccupied, elevated platform used exclusively for mechanical systems or industrial process equipment, including the associated elevated walkways, stairways, alternating tread devices and ladders necessary to access the platform (see Section 505.3).

EQUIVALENT FACILITATION. The use of designs, products or technologies as alternatives to those prescribed, resulting in substantially equivalent or greater accessibility and usability.

Note: 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.

[BS] ESSENTIAL FACILITIES. Buildings and other structures that are intended to remain operational in the event of extreme environmental loading from flood, wind, snow or earthquakes.

[F] EXHAUSTED ENCLOSURE. An appliance or piece of equipment that consists of a top, a back and two sides providing a means of local exhaust for capturing gases, fumes, vapors and mists. Such enclosures include laboratory hoods, exhaust fume hoods and similar appliances and equipment used to locally retain and exhaust the gases, fumes, vapors and mists that could be released. Rooms or areas provided with general ventilation, in themselves, are not exhausted enclosures.

[A] EXISTING BUILDING. A building erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.

EXISTING BUILDING OR FACILITY. [DSA-AC] A facility in existence on any given date, without regard to whether the facility may also be considered newly constructed or altered under this code.

[BS] EXISTING STRUCTURE. A structure erected prior to the date of adoption of the appropriate code, or one for which a legal building permit has been issued.

[BE] EXIT. That portion of a means of egress system between the exit access and the exit discharge or public way. Exit components include exterior exit doors at the level of exit discharge, interior exit stairways and ramps, exit passageways, exterior exit stairways and ramps and horizontal exits.

EXIT, HORIZONTAL. See “Horizontal exit.”

[BE] EXIT ACCESS. That portion of a means of egress system that leads from any occupied portion of a building or structure to an exit.

[BE] EXIT ACCESS DOORWAY. A door or access point along the path of egress travel from an occupied room, area or space where the path of egress enters an intervening room, corridor, exit access stairway or ramp.

[BE] EXIT ACCESS RAMP. A ramp within the exit access portion of the means of egress system.

[BE] EXIT ACCESS STAIRWAY. A stairway within the exit access portion of the means of egress system.

[BE] EXIT DISCHARGE. That portion of a means of egress system between the termination of an exit and a public way.

[BE] EXIT DISCHARGE, LEVEL OF. The story at the point at which an exit terminates and an exit discharge begins.

[BE] EXIT PASSAGEWAY. An exit component that is separated from other interior spaces of a building or structure by fire-resistance-rated construction and opening protectives, and provides for a protected path of egress travel in a horizontal direction to an exit or to the exit discharge.

[BF] EXPANDED VINYL WALL COVERING. Wall covering consisting of a woven textile backing, an expanded vinyl base coat layer and a nonexpanded vinyl skin coat. The expanded base coat layer is a homogeneous vinyl layer that contains a blowing agent. During processing, the blowing agent decomposes, causing this layer to expand by forming closed cells. The total thickness of the wall covering is approximately 0.055 inch to 0.070 inch (1.4 mm to 1.78 mm).

[F] EXPLOSION. An effect produced by the sudden violent expansion of gases, which may be accompanied by a shock wave or disruption, or both, of enclosing materials or structures. An explosion could result from any of the following:

1. Chemical changes such as rapid oxidation, deflagration or detonation, decomposition of molecules and runaway polymerization (usually detonations).
2. Physical changes such as pressure tank ruptures.
3. Atomic changes (nuclear fission or fusion).

[F] EXPLOSIVE. A chemical compound, mixture or device, the primary or common purpose of which is to function by explosion. The term includes, but is not limited to: dynamite, black powder, pellet powder, initiating explosives, detonators, safety fuses, squibs, detonating cord, igniter cord, and igniters. The term “explosive” includes any material determined to be within the scope of USC Title 18: Chapter 40 and also includes any material classified as an explosive other than consumer fireworks, 1.4G by the hazardous materials regulations of DOTn 49 CFR Parts 100-185.

High explosive. Explosive material, such as dynamite, which can be caused to detonate by means of a No. 8 test blasting cap when unconfined.

Low explosive. Explosive material that will burn or deflagrate when ignited. It is characterized by a rate of reaction that is less than the speed of sound. Examples of low explosives include, but are not limited to: black powder; safety fuse; igniters; igniter cord; fuse lighters; fireworks; and propellants, 1.3C.

Mass-detonating explosives. Division 1.1, 1.2 and 1.5 explosives alone or in combination, or loaded into various types of ammunition or containers, most of which can be expected to explode virtually instantaneously when a small portion is subjected to fire, severe concussion, impact, the impulse of an initiating agent or the effect of a considerable

[F] FIRE SAFETY FUNCTIONS. Building and fire control functions that are intended to increase the level of life safety for occupants or to control the spread of harmful effects of fire.

[BF] FIRE SEPARATION DISTANCE. The distance measured from the building face to one of the following:

1. The closest interior lot line.
2. To the centerline of a street, an alley or public way.
3. To an imaginary line between two buildings on the lot.

The distance shall be measured at right angles from the face of the wall.

FIRE-SMOKE BARRIER. [SFM] *A fire-resistance-rated wall assembly of materials designed to restrict the spread of fire in which continuity is maintained in accordance with Section 707 and that is designed and constructed to restrict the movement of smoke in accordance with Section 710.*

[BF] FIRE WALL. A fire-resistance-rated wall having protected openings, which restricts the spread of fire and extends continuously from the foundation to or through the roof, with sufficient structural stability under fire conditions to allow collapse of construction on either side without collapse of the wall.

[BF] FIRE WINDOW ASSEMBLY. A window constructed and glazed to give protection against the passage of fire.

[BF] FIREBLOCKING. Building materials, or materials approved for use as fireblocking, installed to resist the free passage of flame to other areas of the building through concealed spaces.

[M] FIREPLACE. A hearth and fire chamber or similar prepared place in which a fire may be made and which is built in conjunction with a chimney.

[BS] FIREPLACE THROAT. The opening between the top of the firebox and the smoke chamber.

[BF] FIRE-RATED GLAZING. Glazing with either a fire protection rating or a fire-resistance rating.

[BF] FIRE-RESISTANCE RATING. The period of time a building element, component or assembly maintains the ability to confine a fire, continues to perform a given structural function, or both, as determined by the tests, or the methods based on tests, prescribed in Section 703.

[BF] FIRE-RESISTANT JOINT SYSTEM. An assemblage of specific materials or products that are designed, tested and fire-resistance rated in accordance with either ASTM E1966 or UL 2079 to resist for a prescribed period of time the passage of fire through joints made in or between fire-resistance-rated assemblies.

[BS] FIRE-RETARDANT-TREATED WOOD. Wood products that, when impregnated with chemicals by a pressure process or other means during manufacture, exhibit reduced surface-burning characteristics and resist propagation of fire.

FIRE-RETARDANT TREATED WOOD. [SFM] *See Section 2303.2.*

FIRESTOP, MEMBRANE-PENETRATION. *See “Membrane-penetration firestop.”*

FIRESTOP, PENETRATION. *See “Penetration firestop.”*

FIRESTOP SYSTEM, THROUGH-PENETRATION. *See “Through-penetration firestop system.”*

[F] FIREWORKS. Any composition or device for the purpose of producing a visible or audible effect for entertainment purposes by combustion, deflagration or detonation that meets the definition of 1.4G fireworks or 1.3G fireworks.

Fireworks, 1.3G. Large fireworks devices, which are explosive materials, intended for use in fireworks displays and designed to produce audible or visible effects by combustion, deflagration or detonation. Such 1.3G fireworks include, but are not limited to, firecrackers containing more than 130 milligrams (2 grains) of explosive composition, aerial shells containing more than 40 grams of pyrotechnic composition, and other display pieces which exceed the limits for classification as 1.4G fireworks. Such 1.3G fireworks are also described as fireworks, UN0335 by the DOTn.

Note: *Fireworks shall have the same meaning as defined in Health and Safety Code Section 12511 and 12512 which has been reprinted as follows:*

12511. “Fireworks” means any device containing chemical elements and chemical compounds capable of burning independently of the oxygen of the atmosphere and producing audible, visual, mechanical or thermal effects which are useful as pyrotechnic devices or for entertainment.

The term “fireworks” includes, but is not limited to, devices designated by the manufacturer as fireworks, torpedoes, skyrockets, roman candles, rockets, Daygo bombs, sparklers, party poppers, paper caps, chasers, fountains, smoke sparks, aerial bombs and fireworks kits.

12512. “Fireworks kit” means any assembly of materials or explosive substances, which is designed and intended by the seller to be assembled by the person receiving such material or explosive substance and when so assembled would come within the definition of fireworks in Section 12511.

Fireworks, 1.4G. Small fireworks devices containing restricted amounts of pyrotechnic composition designed primarily to produce visible or audible effects by combustion or deflagration that complies with the construction, chemical composition and labeling regulations of the DOTn for fireworks, UN0336, and the US Consumer Product Safety Commission (CPSC) as set forth in CPSC 16 CFR: Parts 1500 and 1507.

[BG] FIXED BASE OPERATOR (FBO). A commercial business granted the right by the airport sponsor to operate on an airport and provide aeronautical services, such as fueling, hangaring, tie-down and parking, aircraft rental, aircraft maintenance and flight instruction.

[BE] FIXED SEATING. Furniture or fixture designed and installed for the use of sitting and secured in place including bench-type seats and seats with or without backs or armrests.

[BF] FLAME SPREAD. The propagation of flame over a surface.

[BF] FLAME SPREAD INDEX. A comparative measure, expressed as a dimensionless number, derived from visual measurements of the spread of flame versus time for a material tested in accordance with ASTM E84 or UL 723.

DEFINITIONS

[F] FLAMMABLE GAS. A material that is a gas at 68°F (20°C) or less at 14.7 pounds per square inch atmosphere (psia) (101 kPa) of pressure [a material that has a boiling point of 68°F (20°C) or less at 14.7 psia (101 kPa)], *subdivided as follows:*

1. *Category 1A.*

1.1. *A gas which is ignitable at 14.7 psia (101 kPa) when in a mixture of 13 percent or less by volume with air.*

1.2. *A gas with a flammable range at 14.7 psia (101 kPa) with air of at least 12 percent, regardless of the lower limit unless data shows compliance with Category 1B.*

2. *Category 1B.*

A gas which meets the flammability criteria for Category 1A, is not pyrophoric or chemically unstable, and meets one or more of the following:

2.1. *A lower flammability limit of more than 6 percent by volume in air; or*

2.2. *A fundamental burning velocity of less than 3.9 in./s (10 cm/s).*

The limits specified shall be determined at 14.7 psi (101 kPa) of pressure and a temperature of 68°F (20°C) in accordance with ASTM E681. *Where not otherwise specified, the term “flammable gas” includes both Category 1A and 1B.*

[F] FLAMMABLE LIQUEFIED GAS. A liquefied compressed gas which, under a charged pressure, is partially liquid at a temperature of 68°F (20°C) and which is flammable.

[F] FLAMMABLE LIQUID. A liquid having a closed cup flash point below 100°F (38°C). Flammable liquids are further categorized into a group known as Class I liquids. The Class I category is subdivided as follows:

Class 1A. Liquids having a flash point below 73°F (23°C) and a boiling point below 100°F (38°C).

Class 1B. Liquids having a flash point below 73°F (23°C) and a boiling point at or above 100°F (38°C).

Class 1C. Liquids having a flash point at or above 73°F (23°C) and below 100°F (38°C). The category of flammable liquids does not include compressed gases or cryogenic fluids, or liquids that do not have a fire point when tested in accordance with ASTM D92.

[F] FLAMMABLE MATERIAL. A material capable of being readily ignited from common sources of heat or at a temperature of 600°F (316°C) or less.

[F] FLAMMABLE SOLID. A solid, other than a blasting agent or explosive, that is capable of causing fire through friction, absorption or moisture, spontaneous chemical change, or retained heat from manufacturing or processing, or which has an ignition temperature below 212°F (100°C) or which burns so vigorously and persistently when ignited as to create a serious hazard. A chemical shall be considered a flammable solid as determined in accordance with the test method of CPSC 16 CFR; Part 1500.44, if it ignites and burns with a self-sustained flame at a rate greater than 0.1 inch (2.5 mm) per second along its major axis.

[F] FLAMMABLE VAPORS OR FUMES. The concentration of flammable constituents in air that exceeds 25 percent of their lower flammable limit (LFL).

[F] FLASH POINT. The minimum temperature in degrees Fahrenheit at which a liquid will give off sufficient vapors to form an ignitable mixture with air near the surface or in the container, but will not sustain combustion. The flash point of a liquid shall be determined by appropriate test procedure and apparatus as specified in ASTM D56, ASTM D93 or ASTM D3278.

[BE] FLIGHT. A continuous run of rectangular treads, winders or combination thereof from one landing to another.

FLOOD, DESIGN. See “Design flood.”

[BS] FLOOD DAMAGE-RESISTANT MATERIALS. Any construction material capable of withstanding direct and prolonged contact with floodwaters without sustaining any damage that requires more than cosmetic repair.

FLOOD ELEVATION, DESIGN. See “Design flood elevation.”

[BS] FLOOD HAZARD AREA. The greater of the following two areas:

1. The area within a flood plain subject to a 1-percent or greater chance of flooding in any year.
2. The area designated as a flood hazard area on a community’s flood hazard map, or otherwise legally designated.

FLOOD HAZARD AREAS, SPECIAL. See “Special flood hazard area.”

[BS] FLOOD INSURANCE RATE MAP (FIRM). An official map of a community on which the Federal Emergency Management Agency (FEMA) has delineated both the special flood hazard areas and the risk premium zones applicable to the community.

[BS] FLOOD INSURANCE STUDY. The official report provided by the Federal Emergency Management Agency containing the *Flood Insurance Rate Map* (FIRM), the *Flood Boundary and Floodway Map* (FBFM), the water surface elevation of the base flood and supporting technical data.

[BS] FLOOD or FLOODING. A general and temporary condition of partial or complete inundation of normally dry land from:

1. The overflow of inland or tidal waters.
2. The unusual and rapid accumulation or runoff of surface waters from any source.

[BS] FLOODWAY. The channel of the river, creek or other watercourse and the adjacent land areas that must be reserved in order to discharge the base flood without cumulatively increasing the water surface elevation more than a designated height.

[BE] FLOOR AREA, GROSS. The floor area within the inside perimeter of the exterior walls of the building under consideration, exclusive of vent shafts and courts, without deduction for corridors, stairways, ramps, closets, the thickness of interior walls, columns or other features. The floor area of a building, or portion thereof, not provided with surrounding exterior walls shall be the usable area under the horizontal projection of the roof or floor above. The gross floor area shall not include shafts with no openings or interior courts.

[BE] FLOOR AREA, NET. The actual occupied area not including unoccupied accessory areas such as corridors, stairways, ramps, toilet rooms, mechanical rooms and closets.

[BF] MEMBRANE-PENETRATION FIRESTOP SYSTEM. An assemblage consisting of a fire-resistance-rated floor-ceiling, roof-ceiling or wall assembly, one or more penetrating items installed into or passing through the breach in one side of the assembly and the materials or devices, or both, installed to resist the spread of fire into the assembly for a prescribed period of time.

[BE] MERCHANDISE PAD. A merchandise pad is an area for display of merchandise surrounded by aisles, permanent fixtures or walls. Merchandise pads contain elements such as nonfixed and movable fixtures, cases, racks, counters and partitions as indicated in Section 105.2 from which customers browse or shop.

[BF] METAL COMPOSITE MATERIAL (MCM). A factory-manufactured panel consisting of metal skins bonded to both faces of a solid plastic core.

[BF] METAL COMPOSITE MATERIAL (MCM) SYSTEM. An exterior wall covering fabricated using MCM in a specific assembly including joints, seams, attachments, substrate, framing and other details as appropriate to a particular design.

[BS] METAL ROOF PANEL. An interlocking metal sheet having a minimum installed weather exposure of 3 square feet (0.279 m²) per sheet.

[BS] METAL ROOF SHINGLE. An interlocking metal sheet having an installed weather exposure less than 3 square feet (0.279 m²) per sheet.

[BG] MEZZANINE. An intermediate level or levels between the floor and ceiling of any story and in accordance with Section 505. *[DSA-AC] An intermediate level or levels between the floor and ceiling of any story with an aggregate floor area of not more than one-third of the area of the room or space in which the level or levels are located. Mezzanines have sufficient elevation that space for human occupancy can be provided on the floor below.*

[BS] MICROPILE. A micropile is a bored, grouted-in-place deep foundation element that develops its load-carrying capacity by means of a bond zone in soil, bedrock or a combination of soil and bedrock.

[BF] MINERAL BOARD. A rigid felted thermal insulation board consisting of either felted mineral fiber or cellular beads of expanded aggregate formed into flat rectangular units.

[BF] MINERAL FIBER. Insulation composed principally of fibers manufactured from rock, slag or glass, with or without binders.

[BF] MINERAL WOOL. Synthetic vitreous fiber insulation made by melting predominately igneous rock or furnace slag, and other inorganic materials, and then physically forming the melt into fibers.

MINOR STRUCTURAL ALTERATIONS, ADDITIONS OR REPAIRS. *[OSHDP 1 & 4] Refer to Chapter 2 of the California Existing Building Code.*

[BS] MODIFIED BITUMEN ROOF COVERING. One or more layers of polymer-modified asphalt sheets. The sheet materials shall be fully adhered or mechanically attached to the substrate or held in place with an approved ballast layer.

MONOLITHIC. *[OSHDP 1, 1R, 2, 3, 4 & 5] (See Chapter 12, Section 1224.3 for defined term.)*

MONOLITHIC CEILING. *[OSHDP 1, 1R, 2, 3, 4 & 5] (See Chapter 12, Section 1224.3 for defined term.)*

[BS] MORTAR. A mixture consisting of cementitious materials, fine aggregates, water, with or without admixtures, that is used to construct unit masonry assemblies.

[BS] MORTAR, SURFACE-BONDING. A mixture to bond concrete masonry units that contains hydraulic cement, glass fiber reinforcement with or without inorganic fillers or organic modifiers and water.

MOTEL. *[HCD 1 & HCD 2] See “Hotel” or “Motel.”*

MOTION PICTURE AND TELEVISION PRODUCTION STUDIO SOUND STAGES, APPROVED PRODUCTION FACILITIES AND PRODUCTION LOCATIONS. *See Chapter 48, California Fire Code.*

MULTI-BEDROOM HOUSING UNIT. *[DSA-AC] A housing unit, intended for use by students at a place of education, with a kitchen and/or toilet and bathing rooms within the unit, such as an apartment or dormitory. Multi-bedroom housing units are separate from one another and from common use spaces within a building.*

[BE] MULTILEVEL ASSEMBLY SEATING. Seating that is arranged in distinct levels where each level is composed of either multiple rows, or a single row of box seats accessed from a separate level.

[F] MULTIPLE-STATION ALARM DEVICE. Two or more single-station alarm devices that can be interconnected such that actuation of one causes all integral or separate audible alarms to operate. A multiple-station alarm device can consist of one single-station alarm device having connections to other detectors or to a manual fire alarm box.

[F] MULTIPLE-STATION SMOKE ALARM. Two or more single-station alarm devices that are capable of interconnection such that actuation of one causes the appropriate alarm signal to operate in all interconnected alarms.

MULTISTORY DWELLING UNIT. *[HCD 1-AC] A dwelling unit with finished living space located on one floor and the floor or floors immediately above or below it.*

[BE] MULTISTORY UNIT. A dwelling unit or sleeping unit with habitable space located on more than one story.

[BF] NAILABLE SUBSTRATE. A product or material such as framing, sheathing or furring, composed of wood, wood-based materials or other materials providing equivalent fastener withdrawal resistance.

[BS] NAILING, BOUNDARY. A special nailing pattern required by design at the boundaries of diaphragms.

[BS] NAILING, EDGE. A special nailing pattern required by design at the edges of each panel within the assembly of a diaphragm or shear wall.

[BS] NAILING, FIELD. Nailing required between the sheathing panels and framing members at locations other than boundary nailing and edge nailing.

DEFINITIONS

[BS] NATURALLY DURABLE WOOD. The heartwood of the following species except for the occasional piece with corner sapwood, provided 90 percent or more of the width of each side on which it occurs is heartwood.

Decay resistant. Redwood, cedar, black locust and black walnut.

Termite resistant. Redwood, Alaska yellow cedar, Eastern red cedar and Western red cedar.

NEWLY CONSTRUCTED. [HCD 1-AC] A building that has never before been used or occupied for any purpose.

NEXT GENERATION ATTENUATION WEST 2 (NGA WEST 2). [DSA-SS, DSA-SS/CC & OSHPD 1 & 4] Attenuation relations used for the 2014 United States Geological Survey (USGS) seismic hazards maps (for the Western United States) or their equivalent as determined by the enforcement agency.

NFPA. [DSA-AC] The National Fire Protection Association.

[BS] NOMINAL LOADS. The magnitudes of the loads specified in Chapter 16 (dead, live, soil, wind, snow, rain, flood and earthquake).

[BS] NOMINAL SIZE (LUMBER). The commercial size designation of width and depth, in standard sawn lumber and glued-laminated lumber grades; somewhat larger than the standard net size of dressed lumber, in accordance with DOCPS 20 for sawn lumber and with the ANSI/AWC NDS for glued-laminated lumber.

NON-GENERAL ACUTE CARE BUILDING (Non-GAC Building). [OSHPD 1R] A non-freestanding SPC building, which is removed from general acute care services in accordance with the Section 309A of the California Existing Building Code that remains under OSHPD jurisdiction as part of an OSHPD 1 Hospital building.

NONAMBULATORY PERSONS. Persons unable to leave a building unassisted under emergency conditions. It includes, but is not limited to, persons who depend on mechanical aids such as crutches, walkers and wheelchairs and any person who is unable to physically and mentally respond to a sensory signal approved by the state fire marshal or an oral instruction relating to fire danger.

The determination of ambulatory or nonambulatory status of persons with developmental disabilities shall be made by the Director of Social Services or his or her designated representative, in consultation with the director of Developmental Services or his or her designated representative. The determination of ambulatory or nonambulatory status of all other disabled persons placed after January 1, 1984, who are not developmentally disabled shall be made by the Director of Social Services or his or her designated representative.

NONCOMBUSTIBLE. [SFM] Noncombustible as applied to building construction material means a material which, in the form in which it is used, is either one of the following:

1. Material of which no part will ignite and burn when subjected to fire. Any material passing ASTM E136 shall be considered noncombustible.
2. Material having a structural base of noncombustible material as defined in Item 1 above, with a surfacing

material not over $\frac{1}{8}$ inch (3.2 mm) thick which has a flame-spread index of 50 or less.

“Noncombustible” does not apply to surface finish materials. Material required to be noncombustible for reduced clearances to flues, heating appliances or other sources of high temperature shall refer to material conforming to Item 1. No material shall be classed as noncombustible which is subject to increase in combustibility or flame-spread index, beyond the limits herein established, through the effects of age, moisture or other atmospheric condition.

[BG] NONCOMBUSTIBLE MEMBRANE STRUCTURE. A membrane structure in which the membrane and all component parts of the structure are noncombustible.

NONPATIENT-CARE SUITE. In Group I-2 occupancies, a group of rooms or spaces within a suite for use as administrative, business and professional offices.

[BS] NONSTRUCTURAL CONCRETE. Any element made of plain or reinforced concrete that is not part of a structural system required to transfer either gravity or lateral loads to the ground.

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

[F] NORMAL TEMPERATURE AND PRESSURE (NTP). A temperature of 70°F (21°C) and a pressure of 1 atmosphere [14.7 psia (101 kPa)].

[BE] NOSING. The leading edge of treads of stairs and of landings at the top of stairway flights.

NOTIFICATION ZONE. See “Zone, notification.”

NPC 1, NPC 2, NPC 3/NPC 3R, NPC 4 and NPC 5. [OSHPD 1] Building nonstructural performance categories for Hospital Buildings defined in Table 11.1 of California Administrative Code (Part 1, Title 24 CCR), Chapter 6.

[F] NUISANCE ALARM. An alarm caused by mechanical failure, malfunction, improper installation or lack of proper maintenance, or an alarm activated by a cause that cannot be determined.

[BG] NURSING HOMES. Facilities that provide care, including both intermediate care facilities and skilled nursing facilities where any of the persons are incapable of self-preservation or classified as nonambulatory or bedridden.

[BE] OCCUPANT LOAD. The number of persons for which the means of egress of a building or portion thereof is designed.

[BG] OCCUPIABLE SPACE. A room or enclosed space designed for human occupancy in which individuals congregate for amusement, educational or similar purposes or in which occupants are engaged at labor, and which is equipped with means of egress and light and ventilation facilities meeting the requirements of this code.

[BG] OPEN PARKING GARAGE. A structure or portion of a structure with the openings as described in Section 406.5.2 on two or more sides that is used for the parking or storage of private motor vehicles as described in Section 406.5.3.

OPEN RISER. The space between two adjacent stair treads not closed by a riser.

[BG] PROSCENIUM WALL. The wall that separates the stage from the auditorium or assembly seating area.

PROTECTIVE SOCIAL CARE FACILITY. [SFM] A facility housing persons, who are referred, placed or caused to be placed in the facility, by any governmental agency and for whom the services, or a portion thereof, are paid for by any governmental agency. These occupancies shall include, but are not limited to, those commonly referred to as “assisted living facilities,” “social rehabilitation facilities,” “certified family care homes,” “out-of-home placement facilities,” and “halfway houses.”

PSYCHIATRIC HOSPITALS. See “Hospitals and psychiatric hospitals.”

PUBLIC BUILDING OR FACILITY. [DSA-AC] A building or facility or portion of a building or facility designed, constructed, or altered by, on behalf of, or for the use of a public entity subject to Chapter 1, Section 1.9.1.1.

PUBLIC ENTITY. Any state or local government; any department, agency, special-purpose district, or other instrumentality of a state or local government.

[BE] PUBLIC ENTRANCE. An entrance that is not a service entrance or a restricted entrance.

PUBLIC HOUSING. [DSA-AC & HCD 1-AC] Housing facilities constructed or altered by, for, or on behalf of a public entity, or constructed or altered as part of a public entity’s program to provide housing pursuant to United States Code of Federal Regulations, 28 CFR Part 35, Section 35.102(a), including but not limited to the following:

1. One- or two-family dwelling units or congregate residences;
2. Buildings or complexes with three or more residential dwelling units;
3. Homeless shelters, group homes, halfway houses and similar social service establishments;
4. Transient lodging, such as hotels, motels, hostels and other facilities providing accommodations of a short-term nature of not more than 30 days duration;
5. Housing at a place of education, such as housing on or serving a public school, public college or public university.

Note: A public entity’s program to provide housing may include but is not limited to: the allocation of local, state or federal financial assistance, Community Development Block Grants, Low Income Housing Tax Credits, the California Multifamily Housing Program, loan agreements and housing bonds. Examples that are not considered a public entity’s program to provide housing may include but are not limited to: density bonuses, the receipt of public funds for the installation of energy efficiency features, seismic strengthening, water conservation and fire safety features. For additional information see “Guide to Public Housing Regulated in Chapter 11B of the California Building Code” and the “California Access Compliance Advisory Reference Manual” available on the Division of the State Architect’s website.

PUBLIC POOL. A pool other than a private pool.

PUBLIC USE. [DSA-AC] Interior or exterior rooms, spaces or elements that are made available to the public. Public use may be provided at a building or facility that is privately or publicly owned. Private interior or exterior rooms, spaces or elements associated with a residential dwelling unit provided by a public housing program or in a public housing facility are not public use areas and shall not be required to be made available to the public.

[A] PUBLIC WAY. A street, alley or other parcel of land open to the outside air leading to a street, that has been deeded, dedicated or otherwise permanently appropriated to the public for public use and which has a clear width and height of not less than 10 feet (3048 mm).

PUBLIC-USE AREAS. [HCD 1-AC] Interior or exterior rooms or spaces of a building or facility that are made available to the general public and do not include common use areas. Public use areas may be provided at a building or facility that is privately or publicly owned.

PUZZLE ROOM. A type of special amusement area in which occupants are encouraged to solve a challenge to escape from a room or series of rooms.

[F] PYROPHORIC. A chemical with an auto-ignition temperature in air, at or below a temperature of 130°F (54.4°C).

[F] PYROTECHNIC COMPOSITION. A chemical mixture that produces visible light displays or sounds through a self-propagating, heat-releasing chemical reaction which is initiated by ignition.

QUALIFIED HISTORIC BUILDING OR FACILITY. [DSA-AC] A building or facility that is listed in or eligible for listing in the National Register of Historic Places, or designated as historic under an appropriate State or local law. See C.C.R. Title 24, Part 8.

QUALITY ASSURANCE (QA). [DSA-SS, DSA-SS/CC, OSHPD 1R, 1, 2, 4 & 5] Special inspections and testing provided by an approved agency employed by the Owner. Project specific testing required by approved construction documents shall be performed by the approved agency responsible for Quality Assurance (QA), unless approved otherwise by the building official.

QUALITY CONTROL (QC). [DSA-SS, DSA-SS/CC, OSHPD 1R, 1, 2, 4 & 5] Inspections and materials/functionality testing provided by the fabricator, erector, manufacturer or other responsible contractor as applicable.

[BF] RADIANT BARRIER. A material having a low-emittance surface of 0.1 or less installed in building assemblies.

RAFTERTAIL. [SFM] (See Chapter 7A, Section 702A for defined term.)

[BE] RAMP. A walking surface that has a running slope steeper than one unit vertical in 20 units horizontal (5-percent slope).

RAMP, EXIT ACCESS. See “Exit access ramp.”

RAMP, EXTERIOR EXIT. See “Exterior exit ramp.”

RAMP, INTERIOR EXIT. See “Interior exit ramp.”

[BG] RAMP-ACCESS OPEN PARKING GARAGES. Open parking garages employing a series of continuously rising floors or a series of interconnecting ramps between floors permitting the movement of vehicles under their own power from and to the street level.

REASONABLE PORTION. [DSA-AC] *That segment of a building, facility, area, space or condition, which would normally be necessary if the activity therein is to be accessible by persons with disabilities.*

RECESSED STEPS. *A riser/tread or series of risers/treads extending down into the deck with the bottom riser or tread terminating at the pool wall (thus creating a “stairwell”).*

RECESSED TREADS. *A series of vertically spaced cavities in the pool wall creating tread areas for step holes.*

RECIRCULATION SYSTEM. *The interconnected system traversed by the recirculated water from the pool until it is returned to the pool, i.e., from the pool through the collector or surge tank, recirculation pump, filters, chemical treatment and heater (if provided), and returned to the pool.*

RECOMMEND. [DSA-AC, HCD 1 & HCD 2] *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.*

[A] RECORD DRAWINGS. Drawings (“as built”) that document the location of all devices, appliances, wiring sequences, wiring methods and connections of the components of a fire alarm system as installed.

[BF] REFLECTIVE PLASTIC CORE INSULATION. An insulation material packaged in rolls, that is less than 1/2 inch (12.7 mm) thick, with not less than one exterior low-emittance surface (0.1 or less) and a core material containing voids or cells.

[A] REGISTERED DESIGN PROFESSIONAL. An individual who is registered or licensed to practice their respective design profession as defined by the statutory requirements of the professional registration laws of the state or jurisdiction in which the project is to be constructed.

[A] REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. A registered design professional engaged by the owner or the owner’s authorized agent to review and coordinate certain aspects of the project, as determined by the building official, for compatibility with the design of the building or structure, including submittal documents prepared by others, deferred submittal documents and phased submittal documents.

[BG] RELIGIOUS WORSHIP, PLACE OF. A building or portion thereof intended for the performance of religious services.

[A] RELOCATABLE BUILDING. A partially or completely assembled building constructed and designed to be reused multiple times and transported to different building sites.

RELOCATABLE BUILDING (PUBLIC SCHOOL). *Any building with an integral floor structure which is capable of being readily moved. (See Education Code Section 17350.) Relocatable buildings that are to be placed on substandard foundations not complying with the requirements of Part 2, Title 24, C.C.R., require a statement from the school district*

stating that the durability requirements for those foundations may be waived and acknowledging the temporary nature of the foundations.

REMODELING. [DSA-AC] *See “Alteration.”*

REMOVED FROM ACUTE CARE SERVICE. [OSHDP 1R] *Buildings that previously provided basic and/or supplemental services, as defined in Section 1224.3 that have been removed from acute care service in compliance with Part 10 California Existing Building Code Chapter 3A through a project approved by OSHPD, and remain under the jurisdiction of OSHPD.*

[A] REPAIR. The reconstruction, replacement or renewal of any part of an existing building for the purpose of its maintenance or to correct damage.

[BG] REPAIR GARAGE. A building, structure or portion thereof used for servicing or repairing motor vehicles.

[BS] REROOFING. The process of recovering or replacing an existing roof covering. See “Roof recover” and “Roof replacement.”

[BG] RESIDENTIAL AIRCRAFT HANGAR. An accessory building less than 2,000 square feet (186 m²) and 20 feet (6096 mm) in building height constructed on a one- or two-family property where aircraft are stored. Such use will be considered as a residential accessory use incidental to the dwelling.

RESIDENTIAL CARE FACILITY FOR THE CHRONICALLY ILL (RCF/CI). *As termed, means a housing arrangement with a maximum capacity of 25 residents that provides a range of services to residents who have chronic, life-threatening illnesses.*

RESIDENTIAL CARE FACILITY FOR THE ELDERLY (RCFE). *As defined in Health and Safety Code Section 1569.2, shall mean a facility with a housing arrangement chosen voluntarily by persons 60 years of age or over, or their authorized representative, where varying levels and intensities of care and supervision, protective supervision or personal care are provided, based on their varying needs, as determined in order to be admitted and to remain in the facility. Persons under 60 years of age with compatible needs, as determined by the Department of Social Services in regulations, may be allowed to be admitted or retained in a residential-care facility for the elderly.*

Pursuant to Health and Safety Code Section 13133, regulations of the state fire marshal pertaining to Group R-2.1, Occupancies classified as residential facilities (RF) and residential-care facilities for the elderly (RCFE) shall apply uniformly throughout the state and no city, county, city and county, including a charter city or charter county, or fire protection district shall adopt or enforce any ordinance or local rule or regulation relating to fire and panic safety which is in consistent with these regulations. A city, county, city and county, including a charter city or charter county may pursuant to Health and Safety Code Section 13143.5, or a fire protection district may pursuant to Health and Safety Code Section 13869.7, adopt standards more stringent than those adopted by the state fire marshal that are reasonably necessary to accommodate local climate, geological or topographical conditions relating to roof coverings for residential-care facilities for the elderly.

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 3 – OCCUPANCY CLASSIFICATION AND USE

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC -CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X		X	X										
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below																					X		
Chapter / Section																							
302.1			X	X	X																		
302.1.3																					X		
303.1			X																				
303.2			X																				
303.7			X																				
303.8			X																				
304.1			X																				
305.1			X																				
305.2			X																				
305.2.1			X																				
306.2			X																				
Table 307.1(1)			X																				
Table 307.1(2)			X																				
307.1.1			X																				
307.4			X																				
307.5			X																				
308.1			X																				
308.3			X	†	†																		
308.4			X																				
308.4.6			X																				
308.4.7			X																				
308.4.8			X																				
308.4.9			X																				
308.5			X																				
308.5.2			X																				
308.5.3			X																				
308.5.4			X																				
310.1			X																				
310.2			X	X																			
310.3			X	X																			
310.3.1			X																				
310.3.2			X																				
310.4			X	X																			
310.4.1			X																				
310.5			X																				
310.6			X																				
313			X																				
314			X																				

The state agency does not adopt sections identified with the following symbol: †

The Office of the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures regulated by other state agencies pursuant to Section 1.11.

CHAPTER 3

OCCUPANCY CLASSIFICATION AND USE

User note:

About this chapter: Chapter 3 provides the criteria by which buildings and structures are classified into use groups and occupancies. Through the balance of the code, occupancy classification is fundamental in the setting of features of construction; occupant safety requirements, especially building limitations; means of egress; fire protection systems; and interior finishes.

SECTION 301 SCOPE

301.1 General. The provisions of this chapter shall control the classification of all buildings and structures as to occupancy and use. Different classifications of occupancy and use represent varying levels of hazard and risk to building occupants and adjacent properties.

SECTION 302 OCCUPANCY CLASSIFICATION AND USE DESIGNATION

302.1 Occupancy classification. Occupancy classification is the formal designation of the primary purpose of the building, structure or portion thereof. Structures shall be classified into one or more of the occupancy groups specified in this section based on the nature of the hazards and risks to building occupants generally associated with the intended purpose of the building or structure. An area, room or space that is intended to be occupied at different times for different purposes shall comply with all applicable requirements associated with such potential multipurpose. Structures containing multiple occupancy groups shall comply with Section 508. Where a structure is proposed for a purpose that is not specified in this section, such structure shall be classified in the occupancy it most nearly resembles based on the fire safety and relative hazard. Occupied roofs shall be classified in the group that the occupancy most nearly resembles, according to the fire safety and relative hazard, and shall comply with Section 503.1.4.

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. **[SFM]** *Organized Camps (see Section 450): Group C.*
4. Educational (see Section 305): Group E.
5. Factory and Industrial (see Section 306): Groups F-1 and F-2.
6. High Hazard (see Section 307): Groups H-1, H-2, H-3, H-4 and H-5.
7. Institutional (see Section 308): Groups I-2, I-3 and I-4.
8. **[SFM]** *Laboratory (see Section 202): Group B, unless classified as Group L (see Section 453) or Group H (see Section 307).*
9. **[SFM]** *Laboratory Suites (see Section 453): Group L.*

10. Mercantile (see Section 309): Group M.
11. Residential (see Section 310): Groups R-1, R-2, R-2.1, R-3, R-3.1 and R-4.
12. Storage (see Section 311): Groups S-1 and S-2.
13. Utility and Miscellaneous (see Section 312): Group U.
14. **[SFM]** *Existing buildings housing existing protective social care homes or facilities established prior to 1972 (see California Fire Code Chapter 11 and California Existing Building Code).*

302.1.1 Reserved

302.1.2 Reserved

302.1.3 Pharmacies; veterinary facilities; barbering, cosmetology or electrolysis establishments; and acupuncture offices. See Chapter 12.

302.2 Use designation. Occupancy groups contain subordinate uses having similar hazards and risks to building occupants. Uses include, but are not limited to, those functional designations specified within the occupancy group descriptions in Section 302.1. Certain uses require specific limitations and controls in accordance with the provisions of Chapter 4 and elsewhere in this code.

SECTION 303 ASSEMBLY GROUP A

303.1 Assembly Group A. Assembly Group A occupancy includes, among others, the use of a building or structure, or a portion thereof, for the gathering of persons for purposes such as civic, social or religious functions; recreation, food or drink consumption or awaiting transportation; *motion picture and television production studio sound stages, approved production facilities and production locations; or for the showing of motion pictures when an admission fee is charged and when such building or structure is open to the public and has a capacity of 10 or more persons.*

303.1.1 Small buildings and tenant spaces. A building or tenant space used for assembly purposes with an occupant load of less than 50 persons shall be classified as a Group B occupancy.

303.1.2 Small assembly spaces. The following rooms and spaces shall not be classified as Assembly occupancies:

1. A room or space used for assembly purposes with an occupant load of less than 50 persons and accessory

to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.

2. A room or space used for assembly purposes that is less than 750 square feet (70 m²) in area and accessory to another occupancy shall be classified as a Group B occupancy or as part of that occupancy.

303.1.3 Associated with Group E occupancies. A room or space used for assembly purposes that is associated with a Group E occupancy is not considered a separate occupancy.

303.1.4 Accessory to places of religious worship. Accessory religious educational rooms and religious auditoriums with occupant loads of less than 100 per room or space are not considered separate occupancies.

303.1.5 Special amusement areas. Special amusement areas shall comply with Section 411.

303.2 Assembly Group A-1. Group A-1 occupancy includes assembly uses, usually with fixed seating, intended for the production and viewing of the performing arts or motion pictures including, but not limited to:

Motion picture and television production studio sound stages, approved production facilities and production locations. (with live audiences).

Motion picture theaters

Symphony and concert halls

Television and radio studios admitting an audience

Theaters

303.3 Assembly Group A-2. Group A-2 occupancy includes assembly uses intended for food and/or drink consumption including, but not limited to:

Banquet halls

Casinos (gaming areas)

Nightclubs

Restaurants, cafeterias and similar dining facilities (including associated commercial kitchens)

Taverns and bars

303.4 Assembly Group A-3. Group A-3 occupancy includes assembly uses intended for worship, recreation or amusement and other assembly uses not classified elsewhere in Group A including, but not limited to:

Amusement arcades

Art galleries

Bowling alleys

Community halls

Courtrooms

Dance halls (not including food or drink consumption)

Exhibition halls

Funeral parlors

Greenhouses for the conservation and exhibition of plants that provide public access

Gymnasiums (without spectator seating)

Indoor swimming pools (without spectator seating)

Indoor tennis courts (without spectator seating)

Lecture halls

Libraries

Museums

Places of religious worship

Pool and billiard parlors

Waiting areas in transportation terminals

303.5 Assembly Group A-4. Group A-4 occupancy includes assembly uses intended for viewing of indoor sporting events and activities with spectator seating including, but not limited to:

Arenas

Skating rinks

Swimming pools

Tennis courts

303.6 Assembly Group A-5. Group A-5 occupancy includes assembly uses intended for participation in or viewing outdoor activities including, but not limited to:

Amusement park structures

Bleachers

Grandstands

Stadiums

303.7 Fixed guideway transit systems. [SFM] Fixed guideway transit system buildings shall conform to the requirements of this code for their occupancy classification in addition to the provisions set forth in Section 443.

303.8 Subterranean spaces for winery facilities in natural or manmade caves. [SFM] For fire and life safety requirements, see Section 446.

SECTION 304 BUSINESS GROUP B

304.1 Business Group B. Business Group B occupancy includes, among others, the use of a building or structure, or a portion thereof, for office, professional or service-type transactions, including storage of records and accounts. Business occupancies shall include, but not be limited to, the following:

Airport traffic control towers

Ambulatory care facilities *serving four or more patients*

Animal hospitals, kennels and pounds

Banks

Barber and beauty shops

Car wash

Civic administration

Clinic, outpatient

Dry cleaning and laundries: pick-up and delivery stations and self-service

Educational occupancies for students above the 12th grade

1, provided that such buildings conform to the requirements of the *California Fire Code*.

13. Display and storage of nonflammable solid and nonflammable or noncombustible liquid hazardous materials in quantities not exceeding the maximum allowable quantity per control area in Group M or S occupancies complying with Section 414.2.5.
14. The storage of black powder, smokeless propellant and small arms primers in Groups M and R-3 and special industrial explosive devices in Groups B, F, M and S, provided such storage conforms to the quantity limits and requirements prescribed in the *California Fire Code*.
15. Stationary fuel cell power systems installed in accordance with the *California Fire Code*.
16. Capacitor energy storage systems in accordance with the *California Fire Code*.
17. **[SFM]** Group L occupancies defined in Section 453.
18. Distilling or brewing of beverages conforming to the requirements of the *California Fire Code*.
19. The storage of beer, distilled spirits and wines in barrels and casks conforming to the requirements of the *California Fire Code*.

[F] 307.2 Hazardous materials. Hazardous materials in any quantity shall conform to the requirements of this code, including Section 414, and the *California Fire Code*.

[F] 307.3 High-hazard Group H-1. Buildings and structures containing materials that pose a detonation hazard shall be classified as Group H-1. Such materials shall include, but not be limited to, the following:

Detonable pyrophoric materials

Explosives:

- Division 1.1
- Division 1.2
- Division 1.3
- Division 1.4
- Division 1.5
- Division 1.6

Organic peroxides, unclassified detonable

Oxidizers, Class 4

Unstable (reactive) materials, Class 3 detonable and Class 4

[F] 307.3.1 Occupancies containing explosives not classified as H-1. The following occupancies containing explosive materials shall be classified as follows:

1. Division 1.3 explosive materials that are used and maintained in a form where either confinement or configuration will not elevate the hazard from a mass fire to mass explosion hazard shall be allowed in H-2 occupancies.
2. Articles, including articles packaged for shipment, that are not regulated as a Division 1.4 explosive under Bureau of Alcohol, Tobacco, Firearms and Explosives regulations, or unpackaged articles used in process operations that do not propagate a detona-

tion or deflagration between articles shall be allowed in H-3 occupancies.

[F] 307.4 High-hazard Group H-2. Buildings and structures containing materials that pose a deflagration hazard or a hazard from accelerated burning shall be classified as Group H-2. Such materials shall include, but not be limited to, the following:

Class I, II or IIIA flammable or combustible liquids that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch gauge (103.4 kPa).

Combustible dusts where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3.

Cryogenic fluids, flammable.

Category 1A flammable gases.

Category 1B flammable gases having a burning velocity greater than 3.9 inches per second (10 cm/s).

Organic peroxides, Class I.

Oxidizers, Class 3, that are used or stored in normally open containers or systems, or in closed containers or systems pressurized at more than 15 pounds per square inch gauge (103 kPa).

Pyrophoric liquids, solids and gases, nondetonable.

Unstable (reactive) materials, Class 3, nondetonable.

Water-reactive materials, Class 3.

[F] 307.5 High-hazard Group H-3. Buildings and structures containing materials that readily support combustion or that pose a physical hazard shall be classified as Group H-3. Such materials shall include, but not be limited to, the following:

Class I, II or IIIA flammable or combustible liquids that are used or stored in normally closed containers or systems pressurized at 15 pounds per square inch gauge (103.4 kPa) or less

Combustible fibers, other than densely packed baled cotton, where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3

Consumer fireworks, 1.4G (Class C, Common)

Cryogenic fluids, oxidizing

Flammable solids

Category 1B flammable gases having a burning velocity of 3.9 inches per second (10 cm/s) or less.

Organic peroxides, Class II and III

Oxidizers, Class 2

Oxidizers, Class 3, that are used or stored in normally closed containers or systems pressurized at 15 pounds per square inch gauge (103 kPa) or less

Oxidizing gases

Unstable (reactive) materials, Class 2

Water-reactive materials, Class 2

TABLE 307.1(1)

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD^{a, j, m, n, p}

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE ^b			USE-CLOSED SYSTEMS ^b			USE-OPEN SYSTEMS ^b	
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)
Combustible dust	NA	H-2	See Note q	NA	NA	See Note q	NA	NA	See Note q	NA
Combustible fiber ^q	Loose	H-3	(100)	NA	NA	(100)	NA	NA	(20)	NA
	Baled ^o		(1,000)			(1,000)			(200)	
Combustible liquid ^{c, i}	II	H-2 or H-3	NA	120 ^{d, e}	NA	NA	120 ^d	NA	NA	30 ^d
	IIIA	H-2 or H-3		330 ^{d, e}			330 ^d			80 ^d
	IIIB	NA		13,200 ^{c, f}			13,200 ^f			3,300 ^f
Cryogenic flammable	NA	H-2	NA	45 ^d	NA	NA	45 ^d	NA	NA	10 ^d
Cryogenic inert	NA	NA	NA	NA	NL	NA	NA	NL	NA	NA
Cryogenic oxidizing	NA	H-3	NA	45 ^d	NA	NA	45 ^d	NA	NA	10 ^d
Explosives	Division 1.1	H-1	1 ^{c, g}	(1) ^{c, g}	NA	0.25 ^g	(0.25) ^g	NA	0.25 ^g	(0.25) ^g
	Division 1.2	H-1	1 ^{c, g}	(1) ^{c, g}		0.25 ^g	(0.25) ^g		0.25 ^g	(0.25) ^g
	Division 1.3	H-1 or H-2	10 ^{c, g}	(10) ^{c, g}		1 ^g	(1) ^g		1 ^g	(1) ^g
	Division 1.4	H-3	50 ^{c, g}	(50) ^{c, g}		50 ^g	(50) ^g		NA	NA
	Division 1.4G	H-3	125 ^{c, l}	NA		NA	NA		NA	NA
	Division 1.5	H-1	1 ^{c, g}	(1) ^{c, g}		0.25 ^g	(0.25) ^g		0.25 ^g	(0.25) ^g
	Division 1.6	H-1	1 ^{c, g}	NA		NA	NA		NA	NA
Flammable gas	Gaseous Category 1A and 1B (High BV) ^r	H-2	NA	NA	1,000 ^{d, e}	NA	NA	1,000 ^{d, e}	NA	NA
	Category 1B (Low BV) ^r				162,500 ^{d, e}			162,500 ^{d, e}		
	Liquefied Category 1A and 1B (High BV) ^r			(150) ^{d, e}	NA		(150) ^{d, e}	NA		
	Category 1B (Low BV) ^r			(10,000) ^{d, e}			(10,000) ^{d, e}			
Flammable liquid ^c	IA	H-2 or H-3	NA	30 ^{d, e}	NA	NA	30 ^d	NA	NA	10 ^d
	IB and IC			120 ^{d, e}			120 ^d			30 ^d
Flammable liquid, combination (IA, IB, IC)	NA	H-2 or H-3	NA	120 ^{d, e, h}	NA	NA	120 ^{d, h}	NA	NA	30 ^{d, h}
Flammable solid	NA	H-3	125 ^{d, e}	NA	NA	125 ^d	NA	NA	25 ^d	NA
Inert gas	Gaseous	NA	NA	NA	NL	NA	NA	NL	NA	NA
	Liquefied	NA	NA	NA	NL	NA	NA	NL	NA	NA
Organic peroxide	UD	H-1	1 ^{c, g}	(1) ^{c, g}	NA	0.25 ^g	(0.25) ^g	NA	0.25 ^g	(0.25) ^g
	I	H-2	5 ^{d, e}	(5) ^{d, e}		1 ^d	(1) ^d		1 ^d	(1) ^d
	II	H-3	50 ^{d, e}	(50) ^{d, e}		50 ^d	(50) ^d		10 ^d	(10) ^d
	III	H-3	125 ^{d, e}	(125) ^{d, e}		125 ^d	(125) ^d		25 ^d	(25) ^d
	IV	NA	NL	NL		NL	NL		NL	NL
	V	NA	NL	NL		NL	NL		NL	NL

(continued)

TABLE 307.1(1)—continued

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD^{a, j, m, n, p}

MATERIAL	CLASS	GROUP WHEN THE MAXIMUM ALLOWABLE QUANTITY IS EXCEEDED	STORAGE ^b			USE-CLOSED SYSTEMS ^o			USE-OPEN SYSTEMS ^o	
			Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)	Gas (cubic feet at NTP)	Solid pounds (cubic feet)	Liquid gallons (pounds)
Oxidizer	4	H-1	1 ^g	(1) ^{c, g}	NA	0.25 ^g	(0.25) ^g	NA	0.25 ^g	(0.25) ^g
	3 ^k	H-2 or H-3	10 ^{d, e}	(10) ^{d, e}		2 ^d	(2) ^d		2 ^d	(2) ^d
	2	H-3	250 ^{d, e}	(250) ^{d, e}		250 ^d	(250) ^d		50 ^d	(50) ^d
	1	NA	4,000 ^{c, f}	(4,000) ^{c, f}		4,000 ^f	(4,000) ^f		1,000 ^f	(1,000) ^f
Oxidizing gas	Gaseous	H-3	NA	NA	1,500 ^{d, e}	NA	NA	1,500 ^{d, e}	NA	NA
	Liquefied			(150) ^{d, e}	NA		(150) ^{d, e}	NA		
Pyrophoric	NA	H-2	4 ^{c, g}	(4) ^{c, g}	50 ^{c, g}	1 ^g	(1) ^g	10 ^{c, g}	0	0
Unstable (reactive)	4	H-1	1 ^{c, g}	(1) ^{c, g}	10 ^{c, g}	0.25 ^g	(0.25) ^g	2 ^{c, g}	0.25 ^g	(0.25) ^g
	3	H-1 or H-2	5 ^{d, e}	(5) ^{d, e}	50 ^{d, e}	1 ^d	(1) ^d	10 ^{d, e}	1 ^d	(1) ^d
	2	H-3	50 ^{d, e}	(50) ^{d, e}	750 ^{d, e}	50 ^d	(50) ^d	750 ^{d, e}	10 ^d	(10) ^d
	1	NA	NL	NL	NL	NL	NL	NL	NL	NL
Water reactive	3	H-2	5 ^{d, e}	(5) ^{d, e}	NA	5 ^d	(5) ^d	NA	1 ^d	(1) ^d
	2	H-3	50 ^{d, e}	(50) ^{d, e}		50 ^d	(50) ^d		10 ^d	(10) ^d
	1	NA	NL	NL		NL	NL		NL	NL

For SI: 1 cubic foot = 0.028 m³, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

NL = Not Limited; NA = Not Applicable; UD = Unclassified Detonable.

a. For use of control areas, see Section 414.2.

b. The aggregate quantity in use and storage shall not exceed the quantity specified for storage.

c. The quantities of alcoholic beverages in retail and wholesale sales occupancies shall not be limited provided the liquids are packaged in individual containers not exceeding 1.3 gallons. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids with the remainder of the solutions not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.

d. **[SFM]** In other than Group L occupancies, maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied cumulatively.

e. Maximum allowable quantities shall be increased 100 percent when stored in approved storage cabinets, day boxes, gas cabinets, gas rooms or exhausted enclosures or in listed safety cans in accordance with Section 5003.9.10 of the *California Fire Code*. Where Note d also applies, the increase for both notes shall be applied cumulatively.

f. Quantities shall not be limited in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

g. Allowed only in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

h. Containing not more than the maximum allowable quantity per control area of Class IA, IB or IC flammable liquids.

i. The maximum allowable quantity shall not apply to fuel oil storage complying with Section 605.4.2 of the *California Fire Code*.

j. Quantities in parentheses indicate quantity units in parentheses at the head of each column.

k. A maximum quantity of 220 pounds of solid or 22 gallons of liquid Class 3 oxidizers is allowed when such materials are necessary for maintenance purposes, operation or sanitation of equipment when the storage containers and the manner of storage are approved.

l. Net weight of the pyrotechnic composition of the fireworks. Where the net weight of the pyrotechnic composition of the fireworks is not known, 25 percent of the gross weight of the fireworks, including packaging, shall be used.

m. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2 of the *California Fire Code*.

n. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 414.2.5, see Tables 414.2.5(1) and 414.2.5(2).

o. Densely packed baled cotton that complies with the packing requirements of ISO 8115 shall not be included in this material class.

p. The following shall not be included in determining the maximum allowable quantities:

1. Liquid or gaseous fuel in fuel tanks on vehicles.

2. Liquid or gaseous fuel in fuel tanks on motorized equipment operated in accordance with the *California Fire Code*.

3. Gaseous fuels in piping systems and fixed appliances regulated by the *International Fuel Gas Code*.

4. Liquid fuels in piping systems and fixed appliances regulated by the *California Mechanical Code*.

5. Alcohol-based hand rubs classified as Class I or II liquids in dispensers that are installed in accordance with Sections 5705.5 and 5705.5.1 of the *California Fire Code*. The location of the alcohol-based hand rub (ABHR) dispensers shall be provided in the construction documents.

q. Where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 414.1.3.

r. High Burning Velocity (High BV) Category 1B flammable gas has a burning velocity greater than 3.9 in./s (10 cm/s). Low Burning Velocity (Low BV) Category 1B flammable gas has a burning velocity of 3.9 in./s (10 cm/s) or less.

[F] TABLE 307.1(2)

MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A HEALTH HAZARD^{a, c, f, h, i}

MATERIAL	STORAGE ^b			USE-CLOSED SYSTEMS ^b			USE-OPEN SYSTEMS ^b	
	Solid pounds ^{d, e}	Liquid gallons (pounds) ^{d, e}	Gas cubic feet at NTP (pounds) ^d	Solid pounds ^d	Liquid gallons (pounds) ^d	Gas cubic feet at NTP (pounds) ^d	Solid pounds ^d	Liquid gallons (pounds) ^d
Corrosives	5,000	500	Gaseous 810 ^c	5,000	500	Gaseous 810 ^c	1,000	100
			Liquefied (150)			Liquefied (150)		
Highly Toxic	10	(10)	Gaseous 20 ^g	10	(10)	Gaseous 20 ^g	3	(3)
			Liquefied (4) ^g			Liquefied (4) ^g		
Toxic	500	(500)	Gaseous 810 ^c	500	(500)	Gaseous 810 ^c	125	(125)
			Liquefied (150) ^c			Liquefied (150) ^c		

For SI: 1 cubic foot = 0.028 m³, 1 pound = 0.454 kg, 1 gallon = 3.785 L.

a. For use of control areas, see Section 414.2.

b. The aggregate quantity in use and storage shall not exceed the quantity specified for storage.

c. In retail and wholesale sales occupancies, the quantities of medicines, foodstuffs or consumer products, and cosmetics containing not more than 50 percent by volume of water-miscible liquids and with the remainder of the solutions not being flammable, shall not be limited, provided that such materials are packaged in individual containers not exceeding 1.3 gallons.

d. **[SFM]** In other than Group L occupancies, maximum allowable quantities shall be increased 100 percent in buildings equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1. Where Note e also applies, the increase for both notes shall be applied cumulatively.

e. Maximum allowable quantities shall be increased 100 percent where stored in approved storage cabinets, gas cabinets or exhausted enclosures as specified in the *California Fire Code*. Where Note d also applies, the increase for both notes shall be applied cumulatively.

f. For storage and display quantities in Group M and storage quantities in Group S occupancies complying with Section 414.2.5, see Tables 414.2.5(1) and 414.2.5(2).

g. Allowed only where stored in approved exhausted gas cabinets or exhausted enclosures as specified in the *California Fire Code*.

h. Quantities in parentheses indicate quantity units in parentheses at the head of each column.

i. For gallons of liquids, divide the amount in pounds by 10 in accordance with Section 5003.1.2 of the *California Fire Code*.

[F] 307.6 High-hazard Group H-4. Buildings and structures containing materials that are health hazards shall be classified as Group H-4. Such materials shall include, but not be limited to, the following:

Corrosives

Highly toxic materials

Toxic materials

[F] 307.7 High-hazard Group H-5. Semiconductor fabrication facilities and comparable research and development areas in which hazardous production materials (HPM) are used and the aggregate quantity of materials is in excess of those specified in Table 307.1(1) and [F] Table 307.1(2) shall be classified as Group H-5. Such facilities and areas shall be designed and constructed in accordance with Section 415.11.

[F] 307.8 Multiple hazards. Buildings and structures containing a material or materials representing hazards that are classified in one or more of Groups H-1, H-2, H-3 and H-4 shall conform to the code requirements for each of the occupancies so classified.

SECTION 308 INSTITUTIONAL GROUP I

308.1 Institutional Group I. Institutional Group I occupancy includes, among others, the use of a building or structure, or a portion thereof, in which care or supervision is provided to persons who are or are incapable of self-preservation without physical assistance or in which persons are detained for penal

or correctional purposes or in which the liberty of the occupants is restricted. Institutional occupancies shall be classified as Group I-2, I-3 or I-4. *Restraint shall not be permitted in any building except in Group I-2 occupancies constructed for such use in accordance with Section 407.1.1 and Group I-3 occupancies constructed for such use in accordance with Section 408.1.2.*

Where occupancies house both ambulatory and nonambulatory persons, the more restrictive requirements shall apply.

308.2 Institutional Group I-1. Not used. (See Group R-2.1 Section 310.1).

308.3 Institutional Group I-2. Institutional Group I-2 occupancy shall include buildings and structures used for medical care on a 24-hour basis for more than five persons who are incapable of self-preservation or classified as nonambulatory or bedridden. This group shall include, but not be limited to, the following:

Detoxification facilities

Hospitals

Nursing homes

Psychiatric hospitals

308.3.1 Five or fewer persons receiving medical care. A facility with five or fewer persons receiving medical care shall be classified as Group R-3.1 or shall comply with the *California Residential Code* provided an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section R313 of the *California Residential Code*.

308.3.2 Reserved.

308.4 Institutional Group I-3. Institutional Group I-3 occupancy shall include buildings *or portions of buildings* and structures that are inhabited by *one or more* persons who are under restraint or security. A Group I-3 facility is occupied by persons who are generally incapable of self-preservation due to security measures not under the occupants' control *which includes persons restrained*. This group shall include, but not be limited to, the following:

- Correctional centers
- Correctional hospitals
- Correctional nursing facilities
- Correctional mental health facilities
- Correctional treatment centers
- Courthouse holding facility
- Detention centers
- Detention treatment room
- Jails
- Juvenile halls
- Prerelease centers
- Prisons
- Reformatories
- Secure interview rooms
- Temporary holding facility

Buildings of Group I-3 shall be classified as one of the occupancy conditions specified in Sections 308.4.1 through 308.5.8 and shall comply with Section 408.

308.4.1 Condition 1. This occupancy condition shall include buildings in which free movement is allowed from sleeping areas, and other spaces where access or occupancy is permitted, to the exterior via means of egress without restraint. A Condition 1 facility is permitted to be constructed as Group R.

308.4.2 Condition 2. This occupancy condition shall include buildings in which free movement is allowed from sleeping areas and any other occupied smoke compartment to one or more other smoke compartments. Egress to the exterior is impeded by locked exits.

308.4.3 Condition 3. This occupancy condition shall include buildings in which free movement is allowed within individual smoke compartments, such as within a residential unit composed of individual sleeping units and group activity spaces, where egress is impeded by remote-controlled release of means of egress from such a smoke compartment to another smoke compartment.

308.4.4 Condition 4. This occupancy condition shall include buildings in which free movement is restricted from an occupied space. Remote-controlled release is provided to permit movement from sleeping units, activity spaces and other occupied areas within the smoke compartment to other smoke compartments.

308.4.5 Condition 5. This occupancy condition shall include buildings in which free movement is restricted from an occupied space. Staff-controlled manual release is

provided to permit movement from sleeping units, activity spaces and other occupied areas within the smoke compartment to other smoke compartments.

308.4.6 Condition 6. This occupancy condition shall include buildings containing only one temporary holding facility with six or fewer persons under restraint or security where the building is protected throughout with a monitored automatic sprinkler system installed in accordance with Section 903.3.1.1 and where the temporary holding facility is protected throughout with an automatic fire alarm system with notification appliances. A Condition 6 building shall be permitted to be classified as a Group B occupancy.

308.4.7 Condition 7. This occupancy condition shall include buildings containing only one temporary holding facility with nine or less persons under restraint or security where limited to the first or second story, provided the building complies with Section 408.1.2.6. A Condition 7 building shall be permitted to be classified as a Group B occupancy.

308.4.8 Condition 8. This occupancy condition shall include buildings containing not more than four secure interview rooms located within the same fire area where not more than six occupants under restraint are located in the same fire area. A Condition 8 building shall be permitted to be classified as a Group B occupancy, provided the requirements in Section 408.1.2.7 are met.

308.4.9 Condition 9. This occupancy condition shall include buildings where the use of the building is for correctional medical care or correctional mental health care.

308.5 Institutional Group I-4, day care facilities. Institutional Group I-4 occupancy shall include buildings and structures occupied by more than six *clients* of any age who receive custodial care for fewer than 24 hours per day by persons other than parents or guardians; relatives by blood, marriage or adoption; and in a place other than the home of the *clients* cared for. This group shall include, but not be limited to, the following:

Adult day care

Child care (*not classified as Group E*)

308.5.1 Reserved.

308.5.2 Within a place of religious worship. Rooms and spaces within places of religious worship providing such care during religious functions shall be *licensed by the California State Department Health Services as required by Health and Safety Code Division 2 Chapter 3.5*.

308.5.3 Six or fewer persons receiving care. A facility having six or fewer persons receiving custodial care shall be *licensed pursuant to Health and Safety Code Division 2 Chapter 3.5 or 3.6*.

308.5.4 Six or fewer persons receiving care in a dwelling unit. A facility such as the above within a dwelling

unit and having *six* or fewer persons receiving custodial care shall be classified as a Group R-3 occupancy, *where occupants are not capable of responding to an emergency situation without physical assistance from the staff shall be classified as a Group I-4.*

SECTION 309 MERCANTILE GROUP M

309.1 Mercantile Group M. Mercantile Group M occupancy includes, among others, the use of a building or structure or a portion thereof for the display and sale of merchandise, and involves stocks of goods, wares or merchandise incidental to such purposes and where the public has access. Mercantile occupancies shall include, but not be limited to, the following:

- Department stores
- Drug stores
- Markets
- Greenhouses for display and sale of plants that provide public access.
- Motor fuel-dispensing facilities
- Retail or wholesale stores
- Sales rooms

309.2 Quantity of hazardous materials. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials stored or displayed in a single control area of a Group M occupancy shall not exceed the quantities in Table 414.2.5(1).

309.3 Motor fuel-dispensing facilities. Motor fuel-dispensing facilities shall comply with Section 406.7.

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 *California Residential Code*. Group R occupancies not constructed in accordance with the *California Residential Code* as permitted by Sections 310.4.1 and 310.4.2 shall comply with Section 420.

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

- Boarding houses (transient) with more than 10 occupants
- Congregate *residences* (transient) with more than 10 occupants
- Hotels (transient)
- Motels (transient)

[HCD 1] Efficiency dwelling units (transient)

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

Apartment houses

Large family child care

Small family child care

Congregate *residences* (nontransient) with more than 16 occupants

Boarding houses (nontransient)

Convents

Dormitories

Fraternities and sororities

Monasteries

Hotels (nontransient)

Live/work units

Motels (nontransient)

Vacation timeshare properties

[HCD 1] Efficiency dwelling units (transient)

310.3.1 Residential Group R-2.1. Residential Group R-2.1 occupancies shall include buildings, structures or parts thereof housing clients, 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.

This occupancy may contain more than six nonambulatory and/or bedridden clients. (See Section 435 Special Provisions for Licensed 24-Hour Care Facilities in a Group R-2.1, R-3.1 or R-4 Occupancy). This group shall include, but not be limited to, the following:

Assisted living facilities such as:

Residential care facilities,

Residential care facilities for the elderly (RCFEs),

Adult residential facilities,

Congregate living health facilities,

Group homes,

Residential care facilities for the chronically ill,

Congregate living health facilities for the terminally ill.

Social rehabilitation facilities such as:

Halfway houses,

Community correctional centers,

Community treatment programs,

Work furlough programs,

Alcoholism or drug abuse recovery or treatment facilities.

310.3.2 Residential Group R-2.2 (CDCR Only). Residential occupancies operated by CDCR in a community located facility that provides housing and community-based program services for nontransient ambulatory participants in a nonlicensed facility with 24/7 supervision.

310.4 Residential Group R-3. Residential Group R-3 occupancies where the occupants are primarily permanent in nature

and not classified as Group R-1, R-2, *R-2.1*, *R-2.2*, *R-3.1*, R-4 or I, including:

Buildings that do not contain more than two dwelling units
Care facilities that provide accommodations for five or fewer persons receiving care

Congregate *residences* (nontransient) with 16 or fewer occupants

Boarding houses (nontransient)

Convents

Dormitories

Fraternities and sororities

Monasteries

Congregate *residences* (transient) with 10 or fewer occupants

[HCD 1] Efficiency dwelling units

Boarding houses (transient)

Adult care facilities that provide accommodations for six or fewer clients of any age for less than 24 hours.

Licensing categories that may use this classification include Adult Day Programs.

Alcoholism or drug abuse recovery homes (ambulatory only)

Child-care facilities that provide accommodations for six or fewer clients of any age for less than 24 hours.

Licensing categories that may use this classification include, but are not limited to:

*Day-Care Center for Mildly Ill Children,
Infant Care Center,
School Age Child Day-Care Center.*

Family Day-Care Homes that provide accommodations for 14 or fewer children, in the provider's own home for less than 24-hours.

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

Lodging houses (transient) with five or fewer guest rooms and 10 or fewer occupants

310.4.1 Residential Group R-3.1. *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 435 Special Provisions For Licensed 24-Hour Care Facilities in a Group R-2.1, R-3.1 or R-4 Occupancy. This group may include:*

Adult residential facilities

Congregate living health facilities

Intermediate care facilities for the developmentally disabled habilitative

Intermediate care facilities for the developmentally disabled nursing

Nurseries for the full-time care of children under the age of six, but not including "infants" as defined in Chapter 2

Residential care facilities for the elderly

Small family homes and residential care facilities for the chronically ill

Exception: *Group Homes licensed by the Department of Social Services which provide nonmedical board, room and care for six or fewer ambulatory children or children two years of age or younger, and which do not have any nonambulatory clients shall not be subject to regulations found in Section 435.*

Pursuant to Health and Safety Code Section 13143 with respect to these exempted facilities, no city, county or public district shall adopt or enforce any requirement for the prevention of fire or for the protection of life and property against fire and panic unless the requirement would be applicable to a structure regardless of the special occupancy. Nothing shall restrict the application of state or local housing standards to such facilities if the standards are applicable to residential occupancies and are not based on the use of the structure as a facility for ambulatory children. For the purpose of this exception, ambulatory children do not include relatives of the licensee or the licensee's spouse.

310.4.2 Lodging houses. Owner-occupied lodging houses with five or fewer guest rooms and 10 or fewer total occupants shall be permitted to be constructed in accordance with the *California Residential Code*, provided that an automatic sprinkler system is installed in accordance with Section 903.3.1.3 or Section P2904 of the *California Residential Code*.

310.5 Residential Group R-4. Residential Group R-4 occupancy shall include buildings, structures or portions thereof for more than six ambulatory clients, but not more than 16 persons, excluding staff, who reside on a 24-hour basis in a supervised residential environment and receive custodial care. *The persons receiving care are capable of self-preservation. This occupancy classification may include a maximum six nonambulatory or bedridden clients (see Section 435, Special Provisions for Licensed 24-Hour Care Facilities in a Group R-2.1, R-3.1 or R-4).* Group R-4 occupancies shall meet the requirements in Section 420. This group shall include, but not be limited to, the following:

Assisted living facilities such as:

*Residential care facilities,
Residential care facilities for the elderly (RCFE),
Adult residential facilities,
Congregate living health facilities,
Group homes.*

Social rehabilitation facilities such as:

*Halfway houses,
Community treatment programs,
Work furlough programs,
Alcoholism or drug abuse recovery or treatment facilities.*

310.6 Large family day-care homes. See Section 455.

SECTION 311

STORAGE GROUP S

311.1 Storage Group S. Storage Group S occupancy includes, among others, the use of a building or structure, or a portion thereof, for storage that is not classified as a hazardous occupancy.

311.1.1 Accessory storage spaces. A room or space used for storage purposes that is accessory to another occupancy shall be classified as part of that occupancy.

311.1.2 Combustible storage. High-piled stock or rack storage, or attic, under-floor and concealed spaces used for storage of combustible materials, shall be in accordance with Section 413.

311.2 Moderate-hazard storage, Group S-1. Storage Group S-1 occupancies are buildings occupied for storage uses that are not classified as Group S-2, including, but not limited to, storage of the following:

- Aerosol products, Levels 2 and 3
- Aircraft hangar (storage and repair)
- Bags: cloth, burlap and paper
- Bamboos and rattan
- Baskets
- Belting: canvas and leather
- Beverages over 16-percent alcohol content
- Books and paper in rolls or packs
- Boots and shoes
- Buttons, including cloth covered, pearl or bone
- Cardboard and cardboard boxes
- Clothing, woolen wearing apparel
- Cordage
- Dry boat storage (indoor)
- Furniture
- Furs
- Glues, mucilage, pastes and size
- Grains
- Horns and combs, other than celluloid
- Leather
- Linoleum
- Lumber
- Motor vehicle repair garages complying with the maximum allowable quantities of hazardous materials specified in Table 307.1(1) (see Section 406.8)
- Photo engravings
- Resilient flooring
- Self-service storage facility (mini-storage)
- Silks
- Soaps
- Sugar
- Tires, bulk storage of
- Tobacco, cigars, cigarettes and snuff

Upholstery and mattresses

Wax candles

311.2.1 Aircraft hangers. Aircraft hangars used for storage or repair shall comply with Section 412.3.

311.2.2 Motor vehicle repair garages Motor vehicle repair garages shall comply with Section 406.8.

311.3 Low-hazard storage, Group S-2. Storage Group S-2 occupancies include, among others, buildings used for the storage of noncombustible materials such as products on wood pallets or in paper cartons with or without single thickness divisions; or in paper wrappings. Such products are permitted to have a negligible amount of plastic trim, such as knobs, handles or film wrapping. Group S-2 storage uses shall include, but not be limited to, storage of the following:

- Asbestos
- Beverages up to and including 16-percent alcohol
- Cement in bags
- Chalk and crayons
- Dairy products in nonwaxed coated paper containers
- Dry cell batteries
- Electrical coils
- Electrical motors
- Empty cans
- Food products
- Foods in noncombustible containers
- Fresh fruits and vegetables in nonplastic trays or containers
- Frozen foods
- Glass
- Glass bottles, empty or filled with noncombustible liquids
- Gypsum board
- Inert pigments
- Ivory
- Meats
- Metal cabinets
- Metal desks with plastic tops and *trim*
- Metal parts
- Metals
- Mirrors
- Oil-filled and other types of distribution transformers
- Public parking garages, open or enclosed
- Porcelain and pottery
- Stoves
- Talc and soapstones
- Washers and dryers

311.3.1 Public parking garages. Public parking garages shall comply with Section 406.4 and the additional requirements of Section 406.5 for open parking garages or Section 406.6 for enclosed parking garages.

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 4 – SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X		X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below						X	X						X								X		
Chapter / Section																							
403			X																				
403.1			X																				
403.1.1			X																				
403.2			X																				
403.2.1			X																				
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CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE
CHAPTER 4 – SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE—
continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X		X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below						X	X						X								X		
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CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE
CHAPTER 4 – SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USE—
continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1 R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X		X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below						X	X						X								X		
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408.3.6.4			X																				
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continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X		X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below						X	X						X								X		
Chapter / Section																							
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415.12.1.3			X																				
415.12.1.4			X																				
415.12.1.5			X																				
415.13			X																				
415.13.1			X																				
415.13.2			X																				
415.13.3			X																				
420.1			X	X	X																		
420.4			X																				
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420.11.1			X	X	X																		
420.12			X	X																			
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420.15			X																				
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452			X																				
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455			X																				

The state agency does not adopt sections identified with the following symbol: †

The Office of the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures regulated by other state agencies pursuant to Section 1.11.

406.2 Design. Private garages and carports, open and enclosed public parking garages, motor fuel-dispensing facilities and repair garages shall comply with Sections 406.2.1 through 406.2.9.

406.2.1 Automatic garage door openers and vehicular gates. Automatic garage door openers shall be listed and labeled in accordance with UL 325. Where provided, automatic vehicular gates shall comply with Section 3110. *See Health and Safety Code Sections 19890, 19891 and 19892 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 be not less than 7 feet (2134 mm). Canopies under which fuels are dispensed shall have a clear height in accordance with Section 406.7.2. *(DSA-AC, HCD 1-AC) The clear height of vehicle and pedestrian areas required to be accessible shall comply with Chapter 11A or 11B, as applicable.*

Exception: A lower clear height is permitted for a parking tier in mechanical-access open parking garages where approved by the building official.

406.2.3 Accessible parking spaces. Where parking is provided, accessible parking spaces, access aisles and vehicular routes serving accessible parking shall be provided in accordance with *Chapter 11A or Chapter 11B, as applicable.*

406.2.4 Floor surfaces. Floor surfaces shall be of concrete or similar approved noncombustible and nonabsorbent materials. The area of floor used for the parking of automobiles or other vehicles shall be sloped to facilitate the movement of liquids to a drain or toward the main vehicle entry doorway. The surface of vehicle fueling pads in motor fuel-dispensing facilities shall be in accordance with Section 406.7.1.

Exceptions:

1. Asphalt parking surfaces shall be permitted at ground level for public parking garages and private carports.
2. Slip-resistant, nonabsorbent, interior floor finishes having a critical radiant flux not more than 0.45 W/cm^2 , as determined by ASTM E648 or NFPA 253, shall be permitted in repair garages.

406.2.5 Sleeping rooms. Openings between a motor vehicle-related occupancy and a room used for sleeping purposes shall not be permitted.

406.2.6 Fuel dispensing. The dispensing of fuel shall only be permitted in motor fuel-dispensing facilities in accordance with Section 406.7.

406.2.7 Electric vehicle charging stations and systems. Where provided, electric vehicle charging systems shall be installed in accordance with *the California Electrical Code and the California Green Building Standards Code*. Electric vehicle charging system equipment shall be listed and labeled in accordance with UL 2202. Electric vehicle supply equipment shall be listed and labeled in accordance with UL 2594. Accessibility to electric vehicle charging

stations shall be provided in accordance with *Chapters 11A and/or 11B*.

406.2.8 Mixed occupancies and uses. Mixed uses shall be allowed in the same building as public parking garages and repair garages in accordance with Section 508.1. Mixed uses in the same building as an open parking garage are subject to Sections 402.4.2.3, 406.5.11, 508.1, 510.3, 510.4 and 510.7.

406.2.9 Equipment and appliances. Equipment and appliances shall be installed in accordance with Sections 406.2.9.1 through 406.2.9.3 and the *California Mechanical Code, California Plumbing Code and California Electrical Code*.

406.2.9.1 Elevation of ignition sources. Equipment and appliances having an ignition source and located in hazardous locations and public garages, private garages, repair garages, automotive motor fuel-dispensing facilities and parking garages shall be elevated such that the source of ignition is not less than 18 inches (457 mm) above the floor surface on which the equipment or appliance rests. For the purpose of this section, rooms or spaces that are not part of the living space of a dwelling unit and that communicate directly with a private garage through openings shall be considered to be part of the private garage.

Exception: Elevation of the ignition source is not required for appliances that are listed as flammable vapor ignition resistant.

406.2.9.1.1 Parking garages. Connection of a parking garage with any room in which there is a fuel-fired appliance shall be by means of a vestibule providing a two-doorway separation, except that a single door is permitted where the sources of ignition in the appliance are elevated in accordance with Section 406.2.9.

Exception: This section shall not apply to appliance installations complying with Section 406.2.9.2 or 406.2.9.3.

406.2.9.2 Public garages. Appliances located in public garages, motor fuel-dispensing facilities, repair garages or other areas frequented by motor vehicles shall be installed not less than 8 feet (2438 mm) above the floor. Where motor vehicles are capable of passing under an appliance, the appliance shall be installed at the clearances required by the appliance manufacturer and not less than 1 foot (305 mm) higher than the tallest vehicle garage door opening.

Exception: The requirements of this section shall not apply where the appliances are protected from motor vehicle impact and installed in accordance with Section 406.2.9.1 and NFPA 30A.

406.2.9.3 Private garages. Appliances located in private garages and carports shall be installed with a minimum clearance of 6 feet (1829 mm) above the floor.

Exception: The requirements of this section shall not apply where the appliances are protected from motor

vehicle impact and are installed in accordance with Section 406.2.9.1.

406.3 Private garages and carports. Private garages and carports shall comply with Sections 406.2 and 406.3, or they shall comply with Sections 406.2 and 406.4.

406.3.1 Classification. Private garages and carports shall be classified as Group U occupancies. Each private garage shall be not greater than 1,000 square feet (93 m²) in area. Multiple private garages are permitted in a building where each private garage is separated from the other private garages by 1-hour fire barriers in accordance with Section 707, or 1-hour horizontal assemblies in accordance with Section 711, or both.

Exception: The area of a private garage accessory to Group R-3 one- or two-family dwellings shall not be greater than 3,000 square feet in area.

406.3.2 Separation. For other than private garages adjacent to dwelling units, the separation of private garages from other occupancies shall comply with Section 508. Separation of private garages from dwelling units shall comply with Sections 406.3.2.1 and 406.3.2.2.

406.3.2.1 Dwelling unit separation. The private garage shall be separated from the dwelling unit and its attic area by means of gypsum board, not less than 1/2 inch (12.7 mm) in thickness, applied to the garage side. Garages beneath habitable rooms shall be separated from all habitable rooms above by not less than a 5/8-inch (15.9 mm) Type X gypsum board or equivalent and 1/2-inch (12.7 mm) gypsum board applied to structures supporting the separation from habitable rooms above the garage. Door openings between a private garage and the dwelling unit shall be equipped with either solid wood doors or solid or honeycomb core steel doors not less than 1 3/8 inches (34.9 mm) in thickness, or doors in compliance with Section 716.2.2.1 with a fire protection rating of not less than 20 minutes. Doors shall be self-closing and self-latching.

406.3.2.2 Ducts. Ducts in a private garage and ducts penetrating the walls or ceilings separating the dwelling unit from the garage, including its attic area, shall be constructed of sheet steel of not less than 0.019 inch (0.48 mm) in thickness and shall not have openings into the garage.

406.3.3 Carports. Carports shall be open on not fewer than two sides. Carports open on fewer than two sides shall be considered to be a garage and shall comply with the requirements for private garages.

406.3.3.1 Carport separation. A separation is not required between a Group R-3 and U carport, provided that the carport is entirely open on two or more sides and there are not enclosed areas above.

406.4 Public parking garages. Parking garages, other than private garages, shall be classified as public parking garages and shall comply with the provisions of Sections 406.2 and 406.4 and shall be classified as either an open parking garage or an enclosed parking garage. Open parking garages shall also comply with Section 406.5. Enclosed parking garages

shall also comply with Section 406.6. See Section 510 for special provisions for parking garages.

406.4.1 Guards. Guards shall be provided in accordance with Section 1015. Guards serving as vehicle barriers shall comply with Sections 406.4.2 and 1015.

406.4.2 Vehicle barriers. Vehicle barriers not less than 2 feet 9 inches (835 mm) in height shall be placed where the vertical distance from the floor of a drive lane or parking space to the ground or surface directly below is greater than 1 foot (305 mm). Vehicle barriers shall comply with the loading requirements of Section 1607.10.

Exception: Vehicle barriers are not required in vehicle storage compartments in a mechanical access parking garage.

406.4.3 Ramps. Vehicle ramps shall not be considered as required exits unless pedestrian facilities are provided. Vehicle ramps that are utilized for vertical circulation as well as for parking shall not exceed a slope of 1 unit vertical in 15 units horizontal (6.67-percent slope).

406.5 Open parking garages. Open parking garages shall comply with Sections 406.2, 406.4 and 406.5.

406.5.1 Construction. Open parking garages shall be of Type I, II or IV construction. Open parking garages shall meet the design requirements of Chapter 16. For vehicle barriers, see Section 406.4.2.

406.5.2 Openings. For natural ventilation purposes, the exterior side of the structure shall have uniformly distributed openings on two or more sides. The area of such openings in exterior walls on a tier shall be not less than 20 percent of the total perimeter wall area of each tier. The aggregate length of the openings considered to be providing natural ventilation shall be not less than 40 percent of the perimeter of the tier. Interior walls shall be not less than 20 percent open with uniformly distributed openings.

Exception: Openings are not required to be distributed over 40 percent of the building perimeter where the required openings are uniformly distributed over two opposing sides of the building.

406.5.2.1 Openings below grade. Where openings below grade provide required natural ventilation, the outside horizontal clear space shall be one and one-half times the depth of the opening. The width of the horizontal clear space shall be maintained from grade down to the bottom of the lowest required opening.

406.5.3 Mixed occupancies and uses. Mixed uses shall be allowed in the same building as an open parking garage subject to the provisions of Sections 402.4.2.3, 406.5.11, 508.1, 510.3, 510.4 and 510.7.

406.5.4 Area and height. Area and height of open parking garages shall be limited as set forth in Chapter 5 for Group S-2 occupancies and as further provided for in Section 508.1.

406.5.4.1 Single use. Where the open parking garage is used exclusively for the parking or storage of private motor vehicles, and the building is without other uses, the area and height shall be permitted to comply with

[F] 406.8.2 Gas detection system. Repair garages used for repair of vehicles fueled by nonodorized gases including but not limited to hydrogen and nonodorized LNG, shall be provided with a gas detection system that complies with Section 916. The gas detection system shall be designed to detect leakage of nonodorized gaseous fuel. Where lubrication or chassis service pits are provided in garages used for repairing nonodorized LNG-fueled vehicles, gas sensors shall be provided in such pits.

[F] 406.8.2.1 System activation. Activation of a gas detection alarm shall result in all of the following:

1. Initiation of distinct audible and visual alarm signals in the repair garage, where the ventilation system is interlocked with gas detection.
2. Deactivation of all heating systems located in the repair garage.
3. Activation of the mechanical ventilation system, where the system is interlocked with gas detection.

[F] 406.8.2.2 Failure of the gas detection system. Failure of the gas detection system shall automatically deactivate the heating system, activate the mechanical ventilation system where the system is interlocked with the gas detection system, and cause a trouble signal to sound at an approved location.

[F] 406.8.3 Automatic sprinkler system. A repair garage shall be equipped with an automatic sprinkler system in accordance with Section 903.2.9.1.

406.9 Electric vehicle. [SFM]

406.9.1 Charging. *In any building or interior area used for charging electric vehicles, electrical equipment shall be installed in accordance with the California Electrical Code.*

406.9.2 Ventilation. *Mechanical exhaust ventilation, when required by the California Electrical Code shall be provided at a rate as required by Article 625 or as required by Section 1203 of the California Building Code whichever is greater. The ventilation system shall include both the supply and exhaust equipment and shall be permanently installed and located to intake supply air from the outdoors, and vent the exhaust directly to, the outdoors without conducting the exhaust air through other spaces within the building.*

Exception: *Positive pressure ventilation systems shall only be allowed in buildings or areas that have been designed and approved for that application.*

406.9.3 Electrical interface. *The electrical supply circuit to electrically powered mechanical ventilation equipment shall be interlocked with the recharging equipment used to supply the vehicle(s) being charged, and shall remain energized during the entire charging cycle. Electric vehicle recharging equipment shall be marked or labeled in accordance with the California Electrical Code.*

Exceptions:

1. *Exhaust ventilation shall not be required in areas with an approved engineered ventilation system,*

which maintains a hydrogen gas concentration at less than 25 percent of the lower flammability limit.

2. *Mechanical exhaust ventilation for hydrogen shall not be required where the charging equipment utilized is installed and listed for indoor charging of electric vehicles without ventilation.*

SECTION 407 GROUP I-2

407.1 General. Occupancies in Group I-2 shall comply with the provisions of Sections 407.1 through 407.13 and other applicable provisions of this code.

407.1.1 Construction. *Group I-2 occupancies wherein mental health patients are restrained shall be housed in buildings of Type IA or Type IB construction.*

Exception: *Occupancies in Group I-2 wherein mental health patients are restrained are permitted to be housed in one-story buildings of Type IIA, Type IIIA or Type VA construction provided the floor area does not exceed 5,200 square feet (483 m²) between fire walls of two-hour fire-resistive construction with openings protected by fire assemblies having a 1½-hour fire protection rating.*

407.2 Corridors continuity and separation. Corridors in occupancies in Group I-2 shall be continuous to the exits and shall be separated from other areas in accordance with Section 407.3 except spaces conforming to Sections 407.2.1 through 407.2.5.

407.2.1 Waiting and similar areas. Waiting areas and similar public-use areas or group meeting spaces constructed as required for corridors shall be permitted to be open to a corridor, only where all of the following criteria are met:

1. The spaces are not occupied as care recipient's sleeping rooms, treatment rooms, incidental uses listed in Table 509, in accordance with Section 509, or hazardous uses.
2. The open space is protected by an automatic smoke detection system installed in accordance with Section 907.
3. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic smoke detection system installed in accordance with Section 907, and the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.
4. The space is arranged so as not to obstruct access to the required exits.
5. *Each space is located to permit direct visual supervision by the facility staff.*

407.2.2 Nurse stations. Spaces for care providers', supervisory staff, doctors' and nurses' charting, communications and related clerical areas shall be permitted to be open to, or

located within the corridor, provided the required construction along the perimeter of the corridor is maintained. Construction of nurse stations or portions of nurse stations, within the envelope of the corridor is not required to be fire-resistive rated. Nurse stations in new and existing facilities see the California Code of Regulations, Title 19, Division 1, Chapter 1, Subchapter 1, Article 3, Section 3.11(d) for storage and equipment requirements.

In detention or secure mental health facilities, the provisions above applies to enclosed nurse stations within the corridor.

407.2.3 Psychiatric treatment areas. Areas wherein psychiatric care recipients who are incapable of self-preservation are housed, or group meeting or multipurpose therapeutic spaces other than incidental uses in accordance with Section 509, under continuous supervision by facility staff, shall be permitted to be open to the corridor, where the following criteria are met:

1. Each area does not exceed 1,500 square feet (140 m²).
2. The area is located to permit supervision by the facility staff.
3. The area is arranged so as not to obstruct any access to the required exits.
4. The area is equipped with an automatic *smoke* detection system installed in accordance with Section 907.2.
5. Not more than one such space is permitted in any one smoke compartment.
6. The walls and ceilings of the space are constructed as required for corridors.

407.2.4 Gift shops. Gift shops and associated storage that are less than 500 square feet (455 m²) in area shall be permitted to be open to the corridor where such spaces are constructed as required for corridors.

407.2.5 Nursing home housing units. In Group I-2 occupancies, in areas where nursing home residents are housed, shared living spaces, group meeting or multipurpose therapeutic spaces shall be permitted to be open to the corridor, where all of the following criteria are met:

1. The walls and ceilings of the space are constructed as required for corridors.
2. The spaces are not occupied as resident sleeping rooms, treatment rooms, incidental uses in accordance with Section 509, or hazardous uses.
3. The open space is protected by an automatic *smoke* detection system installed in accordance with Section 907.
4. The corridors onto which the spaces open, in the same smoke compartment, are protected by an automatic *smoke* detection system installed in accordance with Section 907, and the smoke compartment in which the spaces are located is equipped throughout with quick-response sprinklers in accordance with Section 903.3.2.

5. The space is arranged so as not to obstruct access to the required exits.
6. Each space is located to permit direct visual supervision by the facility staff.

407.2.6 Nursing home cooking facilities. In Group I-2, Condition 1 occupancies, rooms or spaces that contain a cooking facility with domestic cooking appliances shall be permitted in fully sprinklered buildings where all of the following criteria are met:

1. The number of care recipients housed in the smoke compartment shall not be greater than 30.
2. The number of care recipients served by the cooking facility shall not be greater than 30.
3. Only one cooking facility area shall be permitted in a smoke compartment.
4. The space containing the domestic cooking facility shall be arranged so as not to obstruct access to the required exit.
5. The cooking appliance shall comply with Section 407.2.7.

407.2.7 Domestic cooking appliances. In Group I-2 occupancies, installation of cooking appliances used in domestic cooking facilities shall comply with all of the following:

1. The types of cooking appliances permitted shall be limited to ovens, cooktops, ranges, warmers and microwaves.
2. Domestic cooking hoods installed and constructed in accordance with the *California Mechanical Code* shall be provided over cooktops and ranges.
3. Cooktops and ranges shall be protected in accordance with Section 904.14.
4. A shut-off for the fuel and electrical power supply to the cooking equipment shall be provided in a location to which only staff has access.
5. A timer shall be provided that automatically deactivates the cooking appliances within a period of not more than 120 minutes.
6. A portable fire extinguisher shall be provided. Installation shall be in accordance with Section 906, and the extinguisher shall be located within a 30-foot (9144 mm) distance of travel from each domestic cooking appliance.

Exceptions:

1. Cooktops and ranges located within smoke compartments with no patient sleeping or patient care areas are not required to comply with *Items 3, 4 and 5 of this section*.
2. Cooktops and ranges used for care recipient training or nutritional counseling are not required to comply with Item 3 of this section.

407.3 Corridor wall construction. Corridor walls shall be constructed as *fire* partitions in accordance with Section 708.

407.3.1 Corridor doors. *In fully sprinklered buildings, corridor doors, other than those in a wall required to be rated by Section 509.4 or for the enclosure of a vertical opening or an exit, shall not have a required fire protection rating and shall not be required to be equipped with self-closing or automatic-closing devices, but shall provide an effective barrier to limit the transfer of smoke and shall be equipped with positive latching. In Group I-2 Occupancies, self-closing or automatic-closing devices are not required on corridor doors to patient sleeping rooms, treatment rooms and offices located in areas specified in Sections 1224 and 1225, excluding offices specified in Sections 1224.21 and 1225.8. Roller latches are not permitted. Other doors shall conform to Section 716.*

407.3.1.1 Door construction. *Corridor doors not required to have a fire protection rating shall comply with the following:*

1. Solid doors shall have close-fitting operational tolerances, head and jamb stops.
2. Dutch-style doors shall have an astragal, rabbet or bevel at the meeting edges of the upper and lower door sections. Both the upper and lower door sections shall have latching hardware. Dutch-style doors shall have hardware that connects the upper and lower sections to function as a single leaf.

407.3.1.2 Swing of corridor doors. *Corridor doors, other than those equipped with self-closing or automatic-closing devices shall not swing into the required width of corridors.*

Exception: *In detention and/or secure mental health facilities, doors may swing into required width of corridors as long as 44 inches clear is maintained with any one door open 90 degrees and clear corridor widths required in Chapter 12 can be maintained with doors open 180 degrees.*

407.3.2 Glazing. *In fully sprinklered buildings, fixed fully tempered or laminated glass in wood or metal frames may be used in corridor walls, provided the glazed area does not exceed 25 percent of the areas of the corridor wall of the room. The total area of glass in corridor walls is not limited when the glazing is fixed $1\frac{1}{3}$ -hour fire-protection-rated glazing in approved frames and the size of individual glazed panel does not exceed 1,296 square inches (0.836 m²).*

- > **407.4 Means of egress.** Group I-2 occupancies shall be provided with means of egress complying with Chapter 10 and Sections 407.4.1 through 407.4.4. The fire safety and evacuation plans provided in accordance with Section 1002.2 shall identify the building components necessary to support a defend-in-place emergency response in accordance with Sections 403 and 404 of the *California Fire Code*.

- > **407.4.1 Direct access to a corridor.** Habitable rooms in Group I-2 occupancies shall have an exit access door leading directly to a corridor.

Exceptions:

1. Rooms with exit doors opening directly to the outside at ground level.

2. Rooms arranged as care suites complying with Section 407.4.4.

407.4.1.1 Locking devices. Locking devices that restrict access to a care recipient's room from the corridor and that are operable only by staff from the corridor side shall not restrict the means of egress from the care recipient's room.

Exceptions:

1. This section shall not apply to rooms in psychiatric treatment and similar care areas.
2. Locking arrangements in accordance with Section 1010.2.14.

407.4.1.2 Basement exits. *All rooms below grade shall have not less than one exit access that leads directly to an exterior exit door opening directly to an exit discharge at grade plane or the public way.*

407.4.2 Distance of travel. The distance of travel between any point in a Group I-2 occupancy sleeping room, not located in a care suite, and an exit access door in that room shall be not greater than 50 feet (15 240 mm). <

407.4.2.1 Two means of egress. *Any sleeping room of more than 1,000 square feet (93 m²) shall have no fewer than two exit access doors from the sleeping room located in accordance with Section 1007.1. Any room, other than sleeping rooms, with an area of more than 2,500 square feet (232 m²) shall have no fewer than two exit access doors from the room located in accordance with Section 1007.1.*

407.4.3 Reserved.

407.4.4 Group I-2 care suites. Care suites in Group I-2 shall comply with Sections 407.4.4.1 through 407.4.4.4 and either Section 407.4.4.5 or 407.4.4.6. <

407.4.4.1 Exit access through care suites. Exit access from all other portions of a building not classified as a care suite shall not pass through a care suite. *In a care suite required to have more than one exit, one exit access is permitted to pass through an adjacent care suite provided that all of the other requirements of Sections 407.4 and 1016.2 are satisfied.* ||

407.4.4.2 Separation. Care suites shall be separated from other portions of the building, including other care suites, not less than a one-hour fire barrier complying with Section 707. Each suite of rooms shall be separated from the remainder of the building by not less than a one-hour fire barrier.

407.4.4.3 Access to corridor. Movement from habitable rooms shall be in accordance with Sections 407.4.4.3.1, 407.4.4.3.2 and 407.4.4.5.3.

407.4.4.3.1 One intervening room. Movement from habitable rooms shall not require passage through more than one intervening room and 100 feet (30 480 mm) distance of travel within the care suite.

407.4.4.3.2 Two intervening rooms. Movement from habitable rooms other than sleeping rooms located within a care suite, shall not require passage through

more than two intervening rooms and 50 feet (15 240 mm) distance of exit access travel within the care suite.

Exception: The distance of travel shall be permitted to be increased to 100 feet (38 100 mm) where an automatic fire sprinkler system is provided throughout the Group I-2 fire area and an automatic smoke detection system is provided throughout the care suite and installed in accordance with NFPA 72.

407.4.4.4 Doors within care suites. Doors in care suites serving habitable rooms shall be permitted to comply with one of the following:

1. Manually operated horizontal sliding doors permitted in accordance with Exception 9 to Section 1010.1.2.
2. Power-operated doors permitted in accordance with Section 1010.1.2, Exception 7.
3. Means of egress doors complying with Section 1010.

407.4.4.5 Care suites containing sleeping room areas. Sleeping rooms shall be permitted to be grouped into care suites where one of the following criteria is met:

1. The arrangement of the care suite allows for direct and constant visual supervision into the sleeping rooms by care providers.
2. In fully sprinklered buildings, an automatic smoke detection system is provided in the sleeping rooms and installed in accordance with Section 907.2.6.2.2, Item 1 and NFPA 72.

407.4.4.5.1 Area. Care suites containing sleeping rooms shall be not greater than 5,000 square feet (465 m²) in area.

Exceptions:

1. Care suites containing sleeping rooms shall be permitted to be not greater than 7,500 square feet (696 m²) in area where an automatic fire sprinkler system is provided throughout the Group I-2 fire area.
2. Care suites containing sleeping rooms shall be permitted to be not greater than 10,000 square feet (929 m²) in area where an automatic fire sprinkler system is provided throughout the Group I-2 fire area and where an automatic smoke detection system is provided throughout the care suite and installed in accordance with Section 907.

407.4.4.5.2 Exit access. Any sleeping room, or any care suite that contains sleeping rooms, of more than 1,000 square feet (93 m²) shall have not fewer than two exit access doors from the care suite located in accordance with Section 1007.

407.4.4.5.3 Travel distance. The travel distance between any point in a care suite containing sleeping rooms and an exit access door from that care suite shall be not greater than 100 feet (30 480 mm).

407.4.4.6 Care suites not containing sleeping rooms. Areas not containing sleeping rooms, but only treatment areas and the associated rooms, spaces or circulation space, shall be permitted to be grouped into care suites and shall conform to the limitations in Sections 407.4.4.6.1 and 407.4.4.6.2.

407.4.4.6.1 Area. Care suites of rooms, other than sleeping rooms, shall have an area not greater than 10,000 square feet (929 m²).

407.4.4.6.2 Exit access. Any room or care suite, other than sleeping rooms, with an area of more than 2,500 square feet (232 m²) shall have not fewer than two exit access doors from the room or care suite located in accordance with Section 1007.

407.4.5 Group I-2 nonpatient-care suites. The means of egress provisions for nonpatient-care suites shall be in accordance with the primary use and occupancy of the suite.

407.4.5.1 Separation. Nonpatient-care suites shall be separated from other portions of the building, including other suites, by not less than a 1-hour fire barrier complying with Section 707. Each suite of rooms shall be separated from the remainder of the building by not less than a 1-hour fire barrier.

407.4.5.2 Area. Nonpatient-care suites of rooms shall have an area not greater than 10,000 square feet (929 m²).

407.4.5.3 Automatic sprinkler system protection. Nonpatient-care suites shall be located in fully sprinklered buildings.

407.5 Smoke barriers. Smoke barriers shall be provided to subdivide every story used by persons receiving care, treatment or sleeping into not fewer than two smoke compartments. Smoke barriers shall be provided to subdivide other stories with an occupant load of 50 or more persons, regardless of occupancy or use, into not fewer than two smoke compartments. The smoke barrier shall be in accordance with Section 709.

Exceptions:

1. This requirement shall not apply to the following:
 - 1.1. Any story, not containing a Group I-2 occupancy, that is located above a story containing a Group I-2 occupancy. <
 - 1.2. Areas that do not contain a Group I-2 occupancy, where such areas are separated from the Group I-2 occupancy by a horizontal exit in accordance with Section 1026.2. <
 - 1.3. Any story, not containing a Group I-2 occupancy, that is located more than one story <

> below a story containing a Group I-2 occupancy.

|| 1.4. Any story housing only mechanical equipment where such story is located below a story containing a Group I-2 occupancy and is separated from the story above by a horizontal assembly having not less than a 2 hour fire resistance-rating.

407.5.1 Smoke compartment size. Stories shall be divided into smoke compartments with an area of not more than 22,500 square feet (2092 m²) in Group I-2 occupancies.

407.5.2 Exit access travel distance. The distance of travel from any point in a smoke compartment to a smoke barrier door shall be not greater than 200 feet (60 960 mm).

407.5.3 Refuge area. Refuge areas shall be provided within each smoke compartment. The size of the refuge area shall accommodate the occupants and care recipients from the adjoining smoke compartment. Where a smoke compartment is adjoined by two or more smoke compartments, the minimum area of the refuge area shall accommodate the largest occupant load of the adjoining compartments. The size of the refuge area shall provide the following:

1. Not less than 30 net square feet (2.8 m²) for each care recipient confined to bed or stretcher.
2. Not less than 6 square feet (0.56 m²) for each ambulatory care recipient not confined to bed or stretcher and for other occupants.

Areas or spaces permitted to be included in the calculation of refuge area are corridors, sleeping areas, treatment rooms, lounge or dining areas and other low-hazard areas.

407.5.4 Independent egress. A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated. Smoke compartments that do not contain an exit shall be provided with direct access to not less than two adjacent smoke compartments.

407.5.5 Horizontal assemblies. Horizontal assemblies supporting smoke barriers required by this section shall be designed to resist the movement of smoke. Elevator lobbies shall be in accordance with Section 3006.2.

407.6 Automatic-closing doors. Automatic-closing doors with hold-open devices shall comply with Sections 709.5 and 716.2.

407.6.1 Activation of automatic-closing doors. Automatic-closing doors on hold-open devices in accordance with Section 716.2.6.6 shall also close upon activation of a fire alarm system, an automatic sprinkler system, or both. The automatic release of the hold-open device on one door shall release all such doors within the same smoke compartment.

[F] 407.7 Automatic sprinkler system. Every facility as specified herein wherein more than six clients or patients are housed or cared for on the premises on a 24-hour per-day-

basis shall have installed and maintained in an operable condition in every building or portion thereof where clients or patients are housed, an automatic sprinkler system of a type approved by the state fire marshal. The provisions of this subsection shall apply to every person, firm or corporation establishing, maintaining or operating a hospital, children's home, children's nursery or institution, or a home or institution for the care of aged or persons with dementia or other cognitive impairments, or any institution for persons with mental illness or persons with developmental disabilities and any nursing or convalescent home, and to any state-owned or state-occupied building used for any of the types of facilities specified herein.

Exceptions:

1. This section shall not apply to homes or institutions for the 24-hour-per-day care of ambulatory children if all of the following conditions are satisfied:

1.1. The buildings or portions thereof in which children are housed are not more than two stories in height and are constructed and maintained in accordance with regulations adopted by the state fire marshal.

1.2. The buildings or portions thereof housing more than six such children shall have installed and maintained in an operable condition therein, a fire alarm system of a type approved by the state fire marshal. Such system shall be activated by detectors responding to invisible particles of combustion other than heat, except that detectors used in closets, usable under-floor areas, storage rooms, bathrooms, attached garages, attics, plenums, laundry rooms and rooms of similar use, may be heat-responsive devices.

1.3. The building or portions thereof do not house persons with mental illness or children with developmental disabilities.

2. This section shall not apply to any one-story building or structure of an institution or home for the care of the aged providing 24-hour-per-day care if such building or structure is used or intended to be used for the housing of no more than six ambulatory aged persons. Such buildings or institutions shall have installed and maintained in an operable condition herein a fire alarm system of a type approved by the state fire marshal. Such system shall be activated by detectors responding to either visible or invisible particles of combustion other than heat, except that detectors used in closets, usable under-floor areas, storage rooms, bathrooms, attached garages, attics, plenums, laundry rooms and rooms of similar use, may be heat-responsive devices.

3. This section shall not apply to occupancies or any alterations thereto conforming to the construction provisions of this exception which were under construction or in existence on March 4, 1972. "Under construction" as used in this exception shall mean

that actual work had been performed on the construction site and shall not be construed to mean that the hospital, home, nursery, institution, sanitarium or any portion thereof, was or is in the planning stage. The provisions of this exception shall apply to those buildings or structures having bearing walls and structural flame protected in accordance with the provisions of Column Type IA of Table 601.

4. In detention facilities where inmates are not restrained.

The provisions of this section shall not apply to any facility used to house six or less persons on the premises.

407.7.1 *When a new addition is to be made to an unsprinklered building or structure as permitted by this subsection, such new addition shall be sprinklered as required by this section and shall be separated from the existing building or structures by not less than a two-hour fire-resistive fire barrier.*

When a sprinkler system is added to an existing unsprinklered building or structure, the sprinklered area(s) shall be separated from the remainder of the building by not less than a one-hour fire-resistive fire barrier. The provisions of this section do not apply to any facility used to house six or less persons on the premises.

[F] 407.8 Fire alarm system. A fire alarm system shall be provided in accordance with Section 907.2.6.

[F] 407.9 Automatic smoke detection. Automatic smoke detection shall be provided in accordance with Section 907.2.6.2.2.

407.10 Secured yards. Grounds are permitted to be fenced and gates therein are permitted to be equipped with locks, provided that safe dispersal areas having 30 net square feet (2.8 m²) for bed and stretcher care recipients and 6 net square feet (0.56 m²) for ambulatory care recipients and other occupants are located between the building and the fence. Such provided safe dispersal areas shall be located not less than 50 feet (15 240 mm) from the building they serve. Each safe dispersal area shall have a minimum of two exits. The aggregate clear width of exits from a safe dispersal area shall be determined on the basis of not less than one exit unit of 22 inches (559 mm) for each 500 persons to be accommodated, and no exit shall be less than 44 inches (1118 mm) in width. Gates shall not be installed across corridors or passageways leading to such dispersal areas unless they comply with egress requirements. Keys to gate locks shall be provided in accordance with the California Fire Code.

> **[F] 407.11 Electrical systems.** In Group I-2 occupancies, electrical construction and installation shall be in accordance with the provisions of Chapter 27 and Article 517 of the California Electrical Code.

407.12 Technology equipment center. A technology equipment center serving a Group I-2 occupancy shall be separated from other portions of the building by not less than a 1-hour fire barrier constructed in accordance with Section 707 and a 1-hour horizontal assembly constructed in accordance with Section 711 or both.

407.13 Special Hazards.

407.13.1 Storage and handling of flammable, combustible liquids and hazardous materials shall be in accordance with the California Fire Code.

407.13.2 All exterior openings in a boiler room or room containing central heating equipment, if located below openings in another story, or if less than 10 feet (3048 mm) from other doors or windows of the same building, shall be protected by a fire assembly having a three-fourths-hour fire protection rating.

407.13.3 Safety padding. See Sections 308.1 and 408.14.

407.13.4 Floor surfaces. Rooms occupied by patients whose personal liberties are restrained shall have noncombustible floor surfaces see Sections 308.1 and 804.4.3.

**SECTION 408
GROUP I-3**

408.1 General. Occupancies in Group I-3 shall comply with the provisions of Sections 408.1 through 408.11 and other applicable provisions of this code (see Section 308.5).

408.1.2 Construction. Group I-3 Occupancies shall be housed in buildings of Type IA or Type IB.

Exception: Such occupancies may be housed in one-story buildings of Type IIA, Type IIIA or Type VA construction provided the floor area does not exceed 5,200 square feet (483 m²) between fire walls of two-hour fire-resistive construction with openings protected by fire assemblies having 1- and 1½-hour fire-protection rating.

408.1.2.1 Nonbearing walls and partitions interior. Nonbearing cell or dormitory walls within cell complexes shall be of noncombustible construction.

408.1.2.2 Intervening spaces. Common rooms and spaces within Group I-3 occupancies of Type I construction shall be considered an intervening space in accordance with Section 1016.2 when the area is contained within housing units or suites, and not considered a corridor, when they meet any of the following:

1. Within prisons and local detention facilities of Type I construction, the exit access within a housing unit may be non-rated provided the required exit occupant load from any dayroom does not exceed 64 persons.
2. Within prison, jails and courthouses: Circulation within any temporary holding suite of Type I construction and an occupant load less than 100.
3. Within prisons and local detention facilities, correctional medical or mental health housing suites, of Type I construction and an occupant load less than 100.
4. Within prisons and local detention facilities of Type I construction, detention program housing units or suites having an occupant load less than 100.

[F] 412.7.1 Size. The landing area for helicopters less than 3,500 pounds (1588 kg) shall be not less than 20 feet (6096 mm) in length and width. The landing area shall be surrounded on all sides by a clear area having an average width at roof level of 15 feet (4572 mm), and all widths shall be not less than 5 feet (1524 mm).

[F] 412.7.2 Design. Helicopter landing areas and the supports thereof on the roof of a building shall be noncombustible construction. Landing areas shall be designed to confine any flammable liquid spillage to the landing area itself and provisions shall be made to drain such spillage away from any exit or stairway serving the helicopter landing area or from a structure housing such exit or stairway. For structural design requirements, see Section 1607.6.

412.7.3 Means of egress. The means of egress from heliports and helistops shall comply with the provisions of Chapter 10. Landing areas located on buildings or structures shall have two or more exits or access to exits. For landing areas less than 60 feet (18 288 mm) in length or less than 2,000 square feet (186 m²) in area, the second means of egress is permitted to be a fire escape, alternating tread device or ladder leading to the floor below.

[F] 412.7.4 Rooftop heliports and helistops. Rooftop heliports and helistops shall comply with NFPA 418.

[F] 412.7.5 Standpipe system. In buildings equipped with a standpipe system, the standpipe shall extend to the roof level in accordance with Section 905.3.6.

SECTION 413 COMBUSTIBLE STORAGE

413.1 General. High-piled stock or rack storage in any occupancy group shall comply with the *California Fire Code*.

413.2 Attic, under-floor and concealed spaces. Attic, under-floor and concealed spaces used for storage of combustible materials shall be protected on the storage side as required for 1-hour fire-resistance-rated construction. Openings shall be protected by assemblies that are self-closing and are of noncombustible construction or solid wood core not less than 1³/₄ inches (45 mm) in thickness.

Exception: Neither fire-resistance-rated construction nor opening protectives are required in any of the following locations:

1. Areas protected by approved automatic sprinkler systems.
2. Group R-3 and U occupancies.

SECTION 414 HAZARDOUS MATERIALS

[F] 414.1 General. The provisions of Sections 414.1 through 414.6 shall apply to buildings and structures occupied for the manufacturing, processing, dispensing, use or storage of hazardous materials.

[F] 414.1.1 Other provisions. Buildings and structures with an occupancy in Group H shall comply with this section and the applicable provisions of Section 415 and

the *California Fire Code*. See Section 453 for Group L occupancies.

[F] 414.1.2 Materials. The safe design of hazardous material occupancies is material dependent. Individual material requirements are found in Sections 307 and 415, the *California Mechanical Code* and the *California Fire Code*.

[F] 414.1.2.1 Aerosol products, aerosol cooking spray products and plastic aerosol 3 products. Level 2 and 3 aerosol products, aerosol cooking spray products and plastic aerosol 3 products shall be stored and displayed in accordance with the *California Fire Code*. See Section 311.2 and the *California Fire Code* for occupancy group requirements.

[F] 414.1.3 Information required. A report shall be submitted to the building official identifying the maximum expected quantities of hazardous materials to be stored, used in a closed system and used in an open system, and subdivided to separately address hazardous material classification categories based on Tables 307.1(1) and 307.1(2). The methods of protection from such hazards, including but not limited to control areas, fire protection systems and Group H occupancies shall be indicated in the report and on the construction documents. The opinion and report shall be prepared by a qualified person, firm or corporation approved by the building official and provided without charge to the enforcing agency.

For buildings and structures with an occupancy in Group H, separate floor plans shall be submitted identifying the locations of anticipated contents and processes so as to reflect the nature of each occupied portion of every building and structure.

[F] 414.2 Control areas. Control areas shall comply with Sections 414.2.1 through 414.2.5 and the *California Fire Code*.

[F] 414.2.1 Construction requirements. Control areas shall be separated from each other by fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both.

[F] 414.2.2 Percentage of maximum allowable quantities. The percentage of maximum allowable quantities of hazardous materials per control area permitted at each floor level within a building shall be in accordance with Table 414.2.2.

[F] 414.2.3 Number. The maximum number of control areas within a building shall be in accordance with Table 414.2.2. For the purposes of determining the number of control areas within a building, each portion of a building separated by one or more fire walls complying with Section 706 shall be considered a separate building.

[F] 414.2.4 Fire-resistance rating requirements. The required fire-resistance rating for fire barriers shall be in accordance with Table 414.2.2. The floor assembly of the control area and the construction supporting the floor of the control area shall have a fire-resistance rating of not less than 2 hours.

Exception: The floor assembly of the control area and the construction supporting the floor of the control area are allowed to be 1-hour fire-resistance-rated in build-

**[F] TABLE 414.2.2
DESIGN AND NUMBER OF CONTROL AREAS**

STORY		PERCENTAGE OF THE MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA ^a	NUMBER OF CONTROL AREAS PER STORY	FIRE-RESISTANCE RATING FOR FIRE BARRIERS IN HOURS ^b
Above grade plane	Higher than 9	5	1	2
	7–9	5	2	2
	6	12.5	2	2
	5	12.5	2	2
	4	12.5	2	2
	3	50	2	1
	2	75	3	1
	1	100	4	1
Below grade plane	1	75	3	1
	2	50	2	1
	Lower than 2	Not Allowed	Not Allowed	Not Allowed

a. Percentages shall be of the maximum allowable quantity per control area shown in Tables 307.1(1) and 307.1(2), with all increases allowed in the notes to those tables.

b. Separation shall include fire barriers and horizontal assemblies as necessary to provide separation from other portions of the building.

ings of Types IIA, IIIA, IV and VA construction, provided that both of the following conditions exist:

1. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. The building is three or fewer stories above grade plane.

[F] 414.2.5 Hazardous material in Group M display and storage areas and in Group S storage areas. Hazardous materials located in Group M and Group S occupancies shall be in accordance with Sections 414.2.5.1 through 414.2.5.4.

[F] 414.2.5.1 Nonflammable solids and nonflammable and noncombustible liquids. The aggregate quantity of nonflammable solid and nonflammable or noncombustible liquid hazardous materials permitted within a single control area of a Group M display and storage area, a Group S storage area or an outdoor control area is permitted to exceed the maximum allowable quantities per control area specified in Tables 307.1(1) and 307.1(2) without classifying the building or use as a Group H occupancy, provided that the materials are displayed and stored in accordance with the *California Fire Code* and quantities do not exceed the maximum allowable specified in Table 414.2.5(1).

[F] 414.2.5.2 Flammable and combustible liquids. In Group M occupancy wholesale and retail sales uses, indoor storage of flammable and combustible liquids shall not exceed the maximum allowable quantities per control area as indicated in Table 414.2.5(2), provided that the materials are displayed and stored in accordance with the *California Fire Code*.

[F] 414.2.5.3 Aerosol products, aerosol cooking spray products or plastic aerosol 3 products. The maximum quantity of aerosol products, aerosol cooking spray products or plastic aerosol 3 products in Group M occupancy retail display areas, storage areas adjacent to retail display areas and retail storage areas shall be in accordance with the *California Fire Code*.

414.2.5.4 Flammable gas. *The aggregate quantity of Category 1B flammable gas having a burning velocity of 3.9 in./s (10 cm/s) or less stored and displayed within a single control area of a Group M occupancy or stored in a single control area of a Group S occupancy is allowed to exceed the maximum allowable quantities per control area specified in Table 307.1(1) without classifying the building or use as a Group H occupancy, provided the materials are stored and displayed in accordance with the California Fire Code and quantities do not exceed the amounts specified in Table 414.2.5(3).*

[F] 414.3 Ventilation. Rooms, areas or spaces in which explosive, corrosive, combustible, flammable or highly toxic dusts, mists, fumes, vapors or gases are or have the potential to be emitted due to the processing, use, handling or storage of materials shall be mechanically ventilated where required by this code, the *California Fire Code* or the *California Mechanical Code*.

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

[F] 414.4 Hazardous material systems. Systems involving hazardous materials shall be suitable for the intended application. Controls shall be designed to prevent materials from entering or leaving process or reaction systems at other than the intended time, rate or path. Automatic controls, where provided, shall be designed to be fail safe.

[F] 414.5 Inside storage, dispensing, handling and use. The inside storage, dispensing and use of hazardous materials shall be in accordance with Sections 414.5.1 through 414.5.3 of this code and the *California Fire Code*.

[F] 414.5.1 Explosion control. *Explosion control shall be provided in accordance with the California Fire Code as required by Table 414.5.1 where quantities of hazardous materials specified in that table exceed the maximum allowable quantities in Table 307.1(1) or where a structure, room or space is occupied for purposes involving explosion hazards as required by Section 415 or the California Fire Code.*

[F] TABLE 414.2.5(1)
MAXIMUM ALLOWABLE QUANTITY PER INDOOR AND OUTDOOR CONTROL AREA IN
GROUP M AND S OCCUPANCIES OF NONFLAMMABLE SOLIDS AND NONFLAMMABLE AND NONCOMBUSTIBLE LIQUIDS^{d, e, f}

CONDITION		MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA	
Material ^a	Class	Solids (pounds)	Liquids (gallons)
A. Health-hazard materials—nonflammable and noncombustible solids and liquids			
1. Corrosives ^{b, c}	Not Applicable	9,750	975
2. Highly toxics	Not Applicable	20 ^{b, c}	2 ^{b, c}
3. Toxics ^{b, c}	Not Applicable	1,000 ^k	100
B. Physical-hazard materials—nonflammable and noncombustible solids and liquids			
1. Oxidizers ^{b, c}	4	Not Allowed	Not Allowed
	3	1,350 ^g	115
	2	2,250 ^h	225
	1	18,000 ^{i, j}	1,800 ^{i, j}
2. Unstable (reactives) ^{b, c}	4	Not Allowed	Not Allowed
	3	550	55
	2	1,150	115
	1	Not Limited	Not Limited
3. Water reactives	3 ^{b, c}	550	55
	2 ^{b, c}	1,150	115
	1	Not Limited	Not Limited

For SI: 1 pound = 0.454 kg, 1 gallon = 3.785 L.

- Hazard categories are as specified in the *California Fire Code*.
- Maximum allowable quantities shall be increased 100 percent in buildings that are sprinklered in accordance with Section 903.3.1.1. Where Note c also applies, the increase for both notes shall be applied accumulatively.
- Maximum allowable quantities shall be increased 100 percent where stored in approved storage cabinets, in accordance with the *California Fire Code*. Where Note b also applies, the increase for both notes shall be applied accumulatively.
- See Table 414.2.2 for design and number of control areas.
- Allowable quantities for other hazardous material categories shall be in accordance with Section 307.
- Maximum quantities shall be increased 100 percent in outdoor control areas.
- Maximum amounts shall be increased to 2,250 pounds where individual packages are in the original sealed containers from the manufacturer or packager and do not exceed 10 pounds each.
- Maximum amounts shall be increased to 4,500 pounds where individual packages are in the original sealed containers from the manufacturer or packager and do not exceed 10 pounds each.
- The permitted quantities shall not be limited in a building equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
- Quantities are unlimited in an outdoor control area.
- Maximum allowable quantities of consumer products shall be increased to 10,000 pounds where individual packages are in the original, sealed containers from the manufacturer and the toxic classification is exclusively based on the LC threshold and no other hazardous materials classifications apply.

[F] TABLE 414.2.5(2)
MAXIMUM ALLOWABLE QUANTITY OF FLAMMABLE AND
COMBUSTIBLE LIQUIDS IN WHOLESALE AND RETAIL SALES OCCUPANCIES PER CONTROL AREA^a

TYPE OF LIQUID	MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA (gallons)		
	Sprinklered in accordance with Note b densities and arrangements	Sprinklered in accordance with Tables 5704.3.6.3(4) through 5704.3.6.3(8) and 5704.3.7.5.1 of the <i>California Fire Code</i>	Nonsprinklered
Class IA	60	60	30
Class IB, IC, II and IIIA	7,500 ^c	15,000 ^c	1,600
Class IIIB	Unlimited	Unlimited	13,200

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m², 1 gallon = 3.785 L, 1 gallon per minute per square foot = 40.75 L/min/m².

- Control areas shall be separated from each other by not less than a 1-hour fire barrier wall.
- To be considered as sprinklered, a building shall be equipped throughout with an approved automatic sprinkler system with a design providing minimum densities as follows:
 - For uncantoned commodities on shelves 6 feet or less in height where the ceiling height does not exceed 18 feet, quantities are those permitted with a minimum sprinkler design density of Ordinary Hazard Group 2.
 - For cartoned, palletized or racked commodities where storage is 4 feet 6 inches or less in height and where the ceiling height does not exceed 18 feet, quantities are those permitted with a minimum sprinkler design density of 0.21 gallon per minute per square foot over the most remote 1,500-square-foot area.
- Where wholesale and retail sales or storage areas exceed 50,000 square feet in area, the maximum allowable quantities are allowed to be increased by 2 percent for each 1,000 square feet of area in excess of 50,000 square feet, up to not more than 100 percent of the table amounts. A control area separation is not required. The cumulative amounts, including amounts attained by having an additional control area, shall not exceed 30,000 gallons.

TABLE 414.2.5(3)
MAXIMUM ALLOWABLE QUANTITY OF LOW BURNING VELOCITY (Low BV)
CATEGORY 1B FLAMMABLE GAS IN GROUP M AND S OCCUPANCIES PER CONTROL AREA^a

FLAMMABLE GAS CATEGORY	MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA	
	Sprinklered in accordance with Note b	Non-sprinklered
Category 1B (Low BV) ^d		
Gaseous	390,000 cu. ft.	195,000 cu. ft.
Liquefied	40,000 lbs. ^c	20,000 lbs.

For SI: 1 pound = 0.454 kg, 1 cu. ft. = 0.028 m³

a. Control areas shall be separated from each other by not less than a 1-hour fire barrier.

b. The building shall be equipped throughout with an approved automatic sprinkler system with minimum sprinkler design density of Ordinary Hazard Group 2 in the area where flammable gases are stored or displayed.

c. Where storage areas exceed 50,000 square feet in area, the maximum allowable quantities are allowed to be increased by 2 percent for each 1,000 square feet of area in excess of 50,000 square feet, up to not more than 100 percent of the table amounts. The aggregate amount shall not exceed 80,000 pounds.

d. Low Burning Velocity (Low BV) Category 1B flammable gas has a burning velocity of 3.9 in./s (10 cm/s) or less.

[F] 414.5.2 Emergency or standby power. Where required by the *California Fire Code* or this code, mechanical ventilation, treatment systems, temperature control, alarm, detection or other electrically operated systems shall be provided with emergency or standby power in accordance with Section 2702. For storage and use areas for highly toxic or toxic materials, see Sections 6004.2.2.8 and 6004.3.4.2 of the *California Fire Code*.

[F] 414.5.2.1 Exempt applications. Emergency or standby power is not required for the mechanical ventilation systems provided for any of the following:

1. Storage of Class IB and IC flammable and combustible liquids in closed containers not exceeding 6.5 gallons (25 L) capacity.
2. Storage of Class 1 and 2 oxidizers.
3. Storage of Class II, III, IV and V organic peroxides.
4. Storage of asphyxiant, irritant and radioactive gases.

[F] 414.5.2.2 Fail-safe engineered systems. Standby power for mechanical ventilation, treatment systems and temperature control systems shall not be required where an approved fail-safe engineered system is installed.

[F] 414.5.3 Spill control, drainage and containment. Rooms, buildings or areas occupied for the storage of solid and liquid hazardous materials shall be provided with a means to control spillage and to contain or drain off spillage and fire protection water discharged in the storage area where required in the *California Fire Code*. The methods of spill control shall be in accordance with the *California Fire Code*.

414.5.4 Hazardous material handling. The handling of hazardous materials shall be in accordance with *California Fire Code* Section 5003.

[F] 414.6 Outdoor storage, dispensing and use. The outdoor storage, dispensing and use of hazardous materials shall be in accordance with the *California Fire Code*.

[F] 414.6.1 Weather protection. Where weather protection is provided for sheltering outdoor hazardous material storage or use areas, such areas shall be considered outdoor storage or use where the weather protection structure complies with Sections 414.6.1.1 through 414.6.1.3.

[F] 414.6.1.1 Walls. Walls shall not obstruct more than one side of the structure.

Exception: Walls shall be permitted to obstruct portions of multiple sides of the structure, provided

that the obstructed area is not greater than 25 percent of the structure's perimeter.

[F] 414.6.1.2 Separation distance. The distance from the structure to buildings, lot lines, public ways or means of egress to a public way shall be not less than the distance required for an outside hazardous material storage or use area without weather protection.

[F] 414.6.1.3 Noncombustible construction. The overhead structure shall be of approved noncombustible construction with a maximum area of 1,500 square feet (140 m²).

Exception: The maximum area is permitted to be increased as provided by Section 506.

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

[F] 415.1 General. The provisions of Sections 415.1 through 415.11 shall apply to the storage and use of hazardous materials in excess of the maximum allowable quantities per control area listed in Section 307.1.

[F] 415.2 Compliance. Buildings and structures with an occupancy in Group H shall comply with the applicable provisions of Section 414 and the *California Fire Code*.

[F] 415.3 Automatic fire detection systems. Group H occupancies shall be provided with an automatic fire detection system in accordance with Section 907.2.

[F] 415.4 Automatic sprinkler system. Group H occupancies shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.2.5.

[F] 415.5 Emergency alarms. Emergency alarms for the detection and notification of an emergency condition in Group H occupancies shall be provided as set forth herein.

[F] 415.5.1 Storage. An approved manual emergency alarm system shall be provided in buildings, rooms or areas used for storage of hazardous materials. Emergency alarm-initiating devices shall be installed outside of each interior exit or exit access door of storage buildings, rooms or areas. Activation of an emergency alarm-initiating device shall sound a local alarm to alert occupants of an emergency situation involving hazardous materials.

[F] 415.5.2 Dispensing, use and handling. Where hazardous materials having a hazard ranking of 3 or 4 in accordance with NFPA 704 are transported through corridors, interior exit stairways or ramps, or exit passageways,

**[F] TABLE 414.5.1
EXPLOSION CONTROL REQUIREMENTS^{a, h}**

MATERIAL	CLASS	EXPLOSION CONTROL METHODS	
		Barricade construction	Explosion (deflagration) venting or explosion (deflagration) prevention systems ^b
HAZARD CATEGORY			
Combustible dusts ^c	—	Not Required	Required
Cryogenic flammables	—	Not Required	Required
Explosives	Division 1.1	Required	Not Required
	Division 1.2	Required	Not Required
	Division 1.3	Not Required	Required
	Division 1.4	Not Required	Required
	Division 1.5	Required	Not Required
	Division 1.6	Required	Not Required
Flammable gas	Gaseous	Not Required	Required ^j
	Liquefied	Not Required	Required ^j
Flammable liquid	IA ^d	Not Required	Required
	IB ^e	Not Required	Required
Organic peroxides	U	Required	Not Permitted
	I	Required	Not Permitted
Oxidizer liquids and solids	4	Required	Not Permitted
Pyrophoric gas	—	Not Required	Required
Unstable (reactive)	4	Required	Not Permitted
	3 Detonable	Required	Not Permitted
	3 Nondetonable	Not Required	Required
Water-reactive liquids and solids	3	Not Required	Required
	2 ^g	Not Required	Required
SPECIAL USES			
Acetylene generator rooms	—	Not Required	Required
Electrochemical energy storage system ⁱ	—	Not Required	Required
Energy storage system ⁱ	—	Not Required	Required
Grain processing	—	Not Required	Required
Liquefied petroleum gas-distribution facilities	—	Not Required	Required
Where explosion hazards exist ^f	Detonation	Required	Not Permitted
	Deflagration	Not Required	Required

a. See Section 414.1.3.

b. See the *California Fire Code*.

c. Combustible dusts where manufactured, generated or used in such a manner that the concentration and conditions create a fire or explosion hazard based on information prepared in accordance with Section 104.8.2 of the *California Fire Code*. See definition of “Combustible dust” in Chapter 2.

d. Storage or use.

e. In open use or dispensing.

f. Rooms containing dispensing and use of hazardous materials where an explosive environment can occur because of the characteristics or nature of the hazardous materials or as a result of the dispensing or use process.

g. A method of explosion control shall be provided where Class 2 water-reactive materials can form potentially explosive mixtures.

h. Explosion venting is not required for Group H-5 fabrication areas complying with Section 415.11.1 and the *California Fire Code*.

i. Where explosion control is required in Section 1207 of the *California Fire Code*.

j. Not required for Category 1B flammable gases having a burning velocity not exceeding 3.9 in./s (10 cm/s).

there shall be an emergency telephone system, a local manual alarm station or an approved alarm-initiating device at not more than 150-foot (45 720 mm) intervals and at each exit and exit access doorway throughout the transport route. The signal shall be relayed to an approved central, proprietary or remote station service or constantly attended on-site location and shall initiate a local audible alarm.

[F] 415.5.3 Supervision. Emergency alarm systems required by Section 415.5.1 or 415.5.2 shall be electrically supervised and monitored by an approved central, proprietary or remote station service or shall initiate an audible and visual signal at a constantly attended on-site location.

[F] 415.5.4 Emergency alarm systems. Emergency alarm systems required by Section 415.5.1 or 415.5.2 shall be provided with emergency or standby power in accordance with Section 2702.2.

[F] 415.6 Fire separation distance. Group H occupancies shall be located on property in accordance with the other provisions of this chapter. In Groups H-2 and H-3, not less than 25 percent of the perimeter wall of the occupancy shall be an exterior wall.

[F] 415.6.1 Rooms for flammable or combustible liquid use, dispensing or mixing in open systems. Rooms for flammable or combustible liquid use, dispensing or mixing

in open systems having a floor area of not more than 500 square feet (46.5 m²) need not be located on the outer perimeter of the building where they are in accordance with the *California Fire Code* and NFPA 30.

[F] 415.6.2 Liquid storage rooms and rooms for flammable or combustible liquid use in closed systems. Liquid storage rooms and rooms for flammable or combustible liquid use in closed systems, having a floor area of not more than 1,000 square feet (93 m²) need not be located on the outer perimeter where they are in accordance with the *California Fire Code* and NFPA 30.

[F] 415.6.3 Spray paint booths. Spray paint booths that comply with the *California Fire Code* need not be located on the outer perimeter.

[F] 415.6.4 Group H occupancy minimum fire separation distance. Regardless of any other provisions, buildings containing Group H occupancies shall be set back to the minimum fire separation distance as set forth in Sections 415.6.4.1 through 415.6.4.4. Distances shall be measured from the walls enclosing the occupancy to lot lines, including those on a public way. Distances to assumed lot lines established for the purpose of determining exterior wall and opening protection are not to be used to establish the minimum fire separation distance for buildings on sites where explosives are manufactured or used where separation is provided in accordance with the quantity distance tables specified for explosive materials in the *California Fire Code*.

[F] 415.6.4.1 Group H-1. Group H-1 occupancies shall be set back not less than 75 feet (22 860 mm) and not less than required by the *California Fire Code*.

Exception: Fireworks manufacturing buildings separated in accordance with NFPA 1124.

[F] 415.6.4.2 Group H-2. Group H-2 occupancies shall be set back not less than 30 feet (9144 mm) where the area of the occupancy is greater than 1,000 square feet (93 m²) and it is not required to be located in a detached building.

[F] 415.6.4.3 Groups H-2 and H-3. Group H-2 and H-3 occupancies shall be set back not less than 50 feet (15 240 mm) where a detached building is required (see Table 415.6.5).

[F] 415.6.4.4 Explosive materials. Group H-2 and H-3 occupancies containing materials with explosive characteristics shall be separated as required by the *California Fire Code*. Where separations are not specified, the distances required shall be determined by a technical report issued in accordance with Section 414.1.3.

[F] 415.6.5 Detached buildings for Group H-1, H-2 or H-3 occupancy. The storage or use of hazardous materials in excess of those amounts specified in Table 415.6.5 shall be in accordance with the applicable provisions of Sections 415.7 and 415.8.

[F] 415.6.5.1 Wall and opening protection. Where a detached building is required by Table 415.6.5, wall and opening protection based on fire separation distance is not required.

[F] 415.7 Special provisions for Group H-1 occupancies. Group H-1 occupancies shall be in detached buildings not used for other purposes. Roofs shall be of lightweight construction with suitable thermal insulation to prevent sensitive material

from reaching its decomposition temperature. Group H-1 occupancies containing materials that are in themselves both physical and health hazards in quantities exceeding the maximum allowable quantities per control area in Table 307.1(2) shall comply with requirements for both Group H-1 and H-4 occupancies.

[F] 415.7.1 Floors in storage rooms. Floors in storage areas for organic peroxides, pyrophoric materials and unstable (reactive) materials shall be of liquid-tight, noncombustible construction.

[F] 415.8 Special provisions for Group H-2 and H-3 occupancies. Group H-2 and H-3 occupancies containing quantities of hazardous materials in excess of those set forth in Table 415.6.5 shall be in detached buildings used for manufacturing, processing, dispensing, use or storage of hazardous materials. Materials specified for Group H-1 occupancies in Section 307.3 are permitted to be located within Group H-2 or H-3 detached buildings provided that the amount of materials per control area do not exceed the maximum allowed quantity specified in Table 307.1(1).

[F] 415.8.1 Multiple hazards. Group H-2 or H-3 occupancies containing materials that are in themselves both physical and health hazards in quantities exceeding the maximum allowable quantities per control area in Table 307.1(2) shall comply with requirements for Group H-2, H-3 or H-4 occupancies as applicable.

[F] 415.8.2 Separation of incompatible materials. Hazardous materials other than those specified in Table 415.6.5 shall be allowed in manufacturing, processing, dispensing, use or storage areas when separated from incompatible materials in accordance with the provisions of the *California Fire Code*.

[F] 415.8.3 Water reactives. Group H-2 and H-3 occupancies containing water-reactive materials shall be resistant to water penetration. Piping for conveying liquids shall not be over or through areas containing water reactives, unless isolated by approved liquid-tight construction.

Exception: Fire protection piping shall be permitted over or through areas containing water reactives without isolating it with liquid-tight construction.

[F] 415.8.4 Floors in storage rooms. Floors in storage areas for organic peroxides, oxidizers, pyrophoric materials, unstable (reactive) materials and water-reactive solids and liquids shall be of liquid-tight, noncombustible construction.

[F] 415.8.5 Waterproof room. Rooms or areas used for the storage of water-reactive solids and liquids shall be constructed in a manner that resists the penetration of water through the use of waterproof materials. Piping carrying water for other than approved automatic sprinkler systems shall not be within such rooms or areas.

[F] 415.9 Group H-2. Occupancies in Group H-2 shall be constructed in accordance with Sections 415.9.1 through 415.9.3 and the *California Fire Code*.

[F] 415.9.1 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 415.9.1.1 through 415.9.1.9, the *California Mechanical Code* and the *California Fire Code*.

be rated for sound and meet field verification requirements in the California Energy Code for low-rise and high-rise residential buildings.

420.11.2 Cooking appliances in sleeping rooms. Cooktops, ranges and ovens shall not be installed or used in sleeping rooms.

420.12 [HCD 1] Construction waste management. *Recycle and/or salvage for reuse a minimum of 65 percent of the non-hazardous construction and demolition waste in accordance with the California Green Building Standards Code (CALGreen), Chapter 4, Division 4.4.*

420.13 Special provisions for residential hotels. [HCD 1 & HCD 1-AC]

420.13.1 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.*

420.14 [HCD 1] Electric vehicle (EV) charging for new construction. *Newly constructed Group R-1, R-2 and R-3 buildings shall meet requirements for electric vehicle charging in accordance with the California Green Building Standards Code (CALGreen), Chapter 4, Division 4.1.*

420.15 Licensed 24-hour care facilities in a Group R-2.1, R-3.1 or R-4 occupancy. *See Section 435 for Special Provisions for licensed 24-hour care facilities in a Group R-2.1, R-3.1 or R-4 occupancy.*

420.16 Electronic monitoring. *In Group R-2.2 occupancies there shall be continuous electronic supervision via CCTV system camera coverage and monitoring the following areas: corridors, storage rooms over 100 square feet, central kitchen and main entryway of the facility.*

SECTION 421 HYDROGEN FUEL GAS ROOMS

[F] 421.1 General. Where required by the *California Fire Code*, hydrogen fuel gas rooms shall be designed and constructed in accordance with Sections 421.1 through 421.7.

[F] 421.2 Location. Hydrogen fuel gas rooms shall not be located below grade.

[F] 421.3 Design and construction. Hydrogen fuel gas rooms not classified as Group H shall be separated from other areas of the building in accordance with Section 509.1.

[F] 421.3.1 Pressure control. Hydrogen fuel gas rooms shall be provided with a ventilation system designed to maintain the room at a negative pressure in relation to surrounding rooms and spaces.

[F] 421.3.2 Windows. Operable windows in interior walls shall not be permitted. Fixed windows shall be permitted where in accordance with Section 716.

[F] 421.4 Exhaust ventilation. Hydrogen fuel gas rooms shall be provided with mechanical exhaust ventilation in accordance with the applicable provisions of Section 502.16.1 of the *California Mechanical Code*.

[F] 421.5 Gas detection system. Hydrogen fuel gas rooms shall be provided with a gas detection system that complies with Sections 421.5.1, 421.5.2, and 916.

[F] 421.5.1 System activation. Activation of a gas detection alarm shall result in both of the following:

1. Initiation of distinct audible and visible alarm signals both inside and outside of the hydrogen fuel gas room.
2. Automatic activation of the mechanical exhaust ventilation system.

[F] 421.5.2 Failure of the gas detection system. Failure of the gas detection system shall automatically activate the mechanical exhaust ventilation system, stop hydrogen generation, and cause a trouble signal to sound at an approved location.

[F] 421.6 Explosion control. Explosion control shall be provided where required by Section 414.5.1.

[F] 421.7 Standby power. Mechanical ventilation and gas detection systems shall be provided with a standby power system in accordance with Section 2702.

SECTION 422 AMBULATORY CARE FACILITIES

422.1 General. Occupancies classified as ambulatory care facilities shall comply with the provisions of Sections 422.1 through 422.7 and other applicable provisions of this code. **[For OSHPD 3]** *For clinics licensed by California Department of Public Health also refer to Section 1226.2.*

422.2 Separation. Ambulatory care facilities where the potential for four or more care recipients are to be incapable of self-preservation at any time shall be separated from adjacent spaces or tenants with a 1-hour fire barrier installed in accordance with Section 707.

422.3 Smoke compartments. Where the aggregate area of one or more ambulatory care facilities is greater than 10,000 square feet (929 m²) on one story, the story shall be provided with a smoke barrier to subdivide the story into not fewer than two smoke compartments. The area of any one such smoke compartment shall be not greater than 22,500 square feet (2092 m²). The distance of travel from any point in a smoke compartment to a smoke barrier door shall be not greater than 200 feet (60 960 mm). The smoke barrier shall be installed in accordance with Section 709 with the exception that smoke barriers shall be continuous from outside wall to an outside wall, a floor to a floor, or from a smoke barrier to a smoke barrier or a combination thereof.

422.3.1 Means of egress. Where ambulatory care facilities require smoke compartmentation in accordance with Section 422.3, the fire safety evacuation plans provided in accordance with Section 1002.2 shall identify the building components necessary to support a defend-in-place emergency response in accordance with Sections 403 and 404 of the *California Fire Code*.

422.3.2 Refuge area. Not less than 30 net square feet (2.8 m²) for each nonambulatory care recipient *and not less than 15 net square feet (1.4 m²) per ambulatory occupant*

shall be provided within the aggregate area of corridors, care recipient rooms, treatment rooms, lounge or dining areas and other low-hazard areas within each smoke compartment. Each occupant of an ambulatory care facility shall be provided with access to a refuge area without passing through or utilizing adjacent tenant spaces.

422.3.3 Independent egress. A means of egress shall be provided from each smoke compartment created by smoke barriers without having to return through the smoke compartment from which means of egress originated.

422.3.4 Distance of travel. *The distance of travel between any point in an ambulatory care facility and an exit shall be not greater than 200 feet (60 960 mm).*

[F] 422.4 Automatic sprinkler systems. Automatic sprinkler systems shall be provided for ambulatory care facilities in accordance with Section 903.2.2.

[F] 422.5 Fire alarm systems. A fire alarm system shall be provided for ambulatory care facilities in accordance with Section 907.2.2.

[F] 422.6 Electrical systems. In ambulatory care facilities, the essential electrical system for electrical components, equipment and systems shall be designed and constructed in accordance with the provisions of Chapter 27 and *California Electrical Code Article 517*.

422.7 Domestic cooking. Installation of cooking appliances used in domestic cooking facilities shall comply with all of the following:

1. The types of cooking appliances permitted are limited to ovens, cooktops, ranges, warmers and microwaves.
2. Domestic cooking hoods installed and constructed in accordance with the *California Mechanical Code* shall be provided over cooktops or ranges.
3. A shutoff for the fuel and electrical supply to the cooking equipment shall be provided in a location to which only staff has access.
4. A timer shall be provided that automatically deactivates the cooking appliances within a period of not more than 120 minutes.
5. A portable fire extinguisher shall be provided. Installation shall be in accordance with Section 906 and the extinguisher shall be located within a 30-foot (9144 mm) distance of travel from each domestic cooking appliance.

SECTION 423 STORM SHELTERS

423.1 General. This section applies to the construction of storm shelters constructed as separate detached buildings or constructed as rooms or spaces within buildings for the purpose of providing protection from storms that produce high winds, such as tornadoes and hurricanes, during the storm. This section specifies where storm shelters are required and provides requirements for the design and construction of storm shelters. Design of facilities for use as emergency shelters after the storm are outside the scope of

ICC 500 and shall comply with Table 1604.5 as a *Risk Category IV Structure*.

423.2 Construction. Storm shelters shall be constructed in accordance with this code and ICC 500 and shall be designated as hurricane shelters, tornado shelters, or combined hurricane and tornado shelters. Buildings or structures that are also designated as emergency shelters shall also comply with Table 1604.5 as *Risk Category IV structures*.

Any storm shelter not required by this section shall be permitted to be constructed, provided that such structures meet the requirements of this code and ICC 500.

423.3 Occupancy classification. The occupancy classification for a storm shelter shall be determined in accordance with this section.

423.3.1 Dedicated storm shelters. A facility designed to be occupied solely as a storm shelter shall be classified as Group A-3 for the determination of requirements other than those covered in ICC 500.

Exceptions:

1. The occupancy category for dedicated storm shelters with an occupant load of fewer than 50 persons as determined in accordance with ICC 500 shall be in accordance with Section 303.
2. The occupancy category for a dedicated residential storm shelter shall be the Group R occupancy served.

423.3.2 Storm shelters within host buildings. Where designated storm shelters are constructed as a room or space within a host building that will normally be occupied for other purposes, the requirements of this code for the occupancy of the building, or the individual rooms or spaces thereof, shall apply unless otherwise required by ICC 500.

423.4 Critical emergency operations. In areas where the shelter design wind speed for tornados in accordance with Figure 304.2(1) of ICC 500 is 250 mph, 911 call stations, emergency operation centers and fire, rescue, ambulance and police stations shall comply with Table 1604.5 as a *Risk Category IV structure* and shall be provided with a storm shelter constructed in accordance with ICC 500.

423.5 Group E occupancies. In areas where the shelter design wind speed for tornados is 250 mph in accordance with Figure 304.2(1) of ICC 500, all Group E occupancies with an occupant load of 50 or more shall have a storm shelter constructed in accordance with ICC 500.

Exceptions:

1. Group E day care facilities.
2. Group E occupancies accessory to places of religious worship.
3. Buildings meeting the requirements for shelter design in ICC 500.

423.5.1 Required occupant capacity. The required occupant capacity of the storm shelter shall include all of the buildings on the site and shall be the greater of the following:

1. The total occupant load of the classrooms, vocational rooms and offices in the Group E occupancy.

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 5 – GENERAL BUILDING HEIGHTS AND AREAS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting Agency	BSC	BSC -CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X	X	X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below																							
Chapter / Section																							
503.1, <i>Exception 1</i>			X	X																			
Figure 5-1			X																				
Table 504.3			X																				
Table 504.4			X																				
Table 506.2			X																				
506.2.1			X																				
506.2.3			X																				
506.2.4			X																				
508.2.4			X																				
508.3.3			X																				
Table 508.4			X																				
508.5				X	X																		
508.5.3 <i>Exception</i>				X	X																		
508.5.8 <i>Exception</i>				X	X																		
508.5.9						X	X																
508.5.10				X	X																		
508.5.11						X																	
Table 509.1			X																				
509.3			X																				

The state agency does not adopt sections identified with the following symbol: †

The Office of the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures regulated by other state agencies pursuant to Section 1.11.

SECTION 504 BUILDING HEIGHT AND NUMBER OF STORIES

504.1 General. The height, in feet, and the number of stories of a building shall be determined based on the type of construction, occupancy classification and whether there is an automatic sprinkler system installed throughout the building.

Exception: The building height of one-story aircraft hangars, aircraft paint hangars and buildings used for the manufacturing of aircraft shall not be limited where the building is provided with an automatic sprinkler system or automatic fire-extinguishing system in accordance with Chapter 9 and is entirely surrounded by public ways or yards not less in width than one and one-half times the building height.

504.1.1 Unlimited area buildings. The height of unlimited area buildings shall be designed in accordance with Section 507.

504.1.2 Special provisions. The special provisions of Section 510 permit the use of special conditions that are exempt from, or modify, the specific requirements of this chapter regarding the allowable heights of buildings based on the occupancy classification and type of construction, provided the special condition complies with the provisions specified in Section 510.

504.2 Mixed occupancy. In a building containing mixed occupancies in accordance with Section 508, no individual occupancy shall exceed the height and number of story limits specified in this section for the applicable occupancies.

504.3 Height in feet. The maximum height, in feet, of a building shall not exceed the limits specified in Table 504.3.

Exception: Towers, spires, steeples and other rooftop structures shall be constructed of materials consistent with the required type of construction of the building except where other construction is permitted by Section 1511.2.4. Such structures shall not be used for habitation or storage. The structures shall be unlimited in height where of noncombustible materials and shall not extend more than 20 feet (6096 mm) above the allowable building height where of combustible materials (see Chapter 15 for additional requirements).

504.4 Number of stories. The maximum number of stories above grade plane of a building shall not exceed the limits specified in Table 504.4.

SECTION 505 MEZZANINES AND EQUIPMENT PLATFORMS

505.1 General. Mezzanines shall comply with Section 505.2. Equipment platforms shall comply with Section 505.3.

505.2 Mezzanines. A mezzanine or mezzanines in compliance with Section 505.2 shall be considered a portion of the story below. Such mezzanines shall not contribute to either the building area or number of stories as regulated by Section 503.1. The area of the mezzanine shall be included in deter-

mining the fire area. The clear height above and below the mezzanine floor construction shall be not less than 7 feet (2134 mm).

505.2.1 Area limitation. The aggregate area of a mezzanine or mezzanines within a room shall be not greater than one-third of the floor area of that room or space in which they are located. The enclosed portion of a room shall not be included in a determination of the floor area of the room in which the mezzanine is located. In determining the allowable mezzanine area, the area of the mezzanine shall not be included in the floor area of the room.

Exceptions:

1. The aggregate area of mezzanines in buildings and structures of Type I or II construction for special industrial occupancies in accordance with Section 503.1.1 shall be not greater than two-thirds of the floor area of the room.
2. The aggregate area of mezzanines in buildings and structures of Type I or II construction shall be not greater than one-half of the floor area of the room in buildings and structures equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 and an approved emergency voice/alarm communication system in accordance with Section 907.5.2.2.
3. The aggregate area of a mezzanine within a dwelling unit that is located in a building equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 shall not be greater than one-half of the floor area of the room, provided that:
 - 3.1. Except for enclosed closets and bathrooms, the mezzanine shall be open to the room in which such mezzanine is located;
 - 3.2. The opening to the room shall be unobstructed except for walls not more than 42 inches (1067 mm) in height, columns and posts; and
 - 3.3. Exceptions to Section 505.2.3 shall not be permitted.

505.2.1.1 Aggregate area of mezzanines and equipment platforms. Where a room contains both a mezzanine and an equipment platform, the aggregate area of the two raised floor levels shall be not greater than two-thirds of the floor area of that room or space in which they are located. The area of the mezzanine shall not exceed the area determined in accordance with Section 505.2.1.

505.2.2 Means of egress. The means of egress for mezzanines shall comply with the applicable provisions of Chapter 10.

TABLE 504.3
ALLOWABLE BUILDING HEIGHT IN FEET ABOVE GRADE PLANE ^{a, i}

OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
B, F, M, S, U	NS ^b	UL	160	65	55	65	55	65	65	65	65	50	40
	S	UL	180	85	75	85	75	270	180	85	85	70	60
A, E	NS ^b	UL	160	65	55	65	55	65	65	65	65	50	40
	S (without area increase)	UL	180	85	75	85	75	270	180	85	85	70	60
	S (with area increase)	UL	160	65	55	65	55	250	160	65	65	50	40
H-1, H-2, H-3, H-5, L	NS ^{c, d}	UL	160	65	55	65	55	120	90	85	65	50	40
	S (without area increase)	UL	160	65	55	65	55						
	S (with area increase)	UL	160	65	55	65	55						
H-4	NS ^{c, d}	UL	160	65	55	65	55	65	65	65	65	50	40
	S (without area increase)	UL	180	85	75	85	75	140	100	85	85	70	60
	S (with area increase)	UL	160	65	55	65	55	120	160	65	65	50	40
I-3	NS ^{d, e}	UL	160	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	S (without area increase)	UL	180	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	S (with area increase)	UL	160	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
I-2	NS ^{d, e, f}	UL	160	65	55	65	55	NP	NP	NP	65	50	40
	S (without area increase)	UL	180	85				NP	NP	NP			
	S (with area increase)	UL	160	65				NP	NP	NP			
I-4	NS ^{d, g}	UL	160	65	55	65	55	65	65	65	65	50	40
	S (without area increase)	UL	180	85	75	85	75	180	120	85	85	70	60
	S (with area increase)	UL	160	65	55	65	55	160	100	65	65	50	50
R-1 ^h	NS ^d	UL	160	65	55	65	55	65	65	65	65	50	40
	S13D	60	60	60	60	60	60	60	60	60	60	50	40
	S13R	60	60	60	55	60	55	60	60	60	60	60	60
	S (without area increase)	UL	180	85	75	85	75	270	180	85	85	70	60
	S (with area increase)	UL	160	65	55	65	55	250	160	65	65	50	40
R-2 ^h	NS ^d	UL	160	65	55	65	55	65	65	65	65	50	40
	S13R	60	60	60	55	60	55	60	60	60	60	50	40
	S (without area increase)	UL	180	85	75	85	75	270	180	85	85	70	60
	S (with area increase)	UL	160	65	55	65	55	250	160	65	65	60 ^j	40
R-2.1 ^h	NS ^d	UL	160	65	55	65	55	65	NP	NP	NP	50	40
	S13D	60	60	60	55	60	55	60	NP	NP	NP	50	40
	S13R	60	60	60	55	60	55	60	NP	NP	NP	50	40
	S	UL	160	65	55	65	55	270	NP	NP	NP	50	40
R-2.2 ^h	NS ^d	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	S (without area increase)	UL	180	85	NP	85	NP	270	180	85	85	70	NP
	S (with area increase)	UL	160	65	NP	65	NP	250	160	65	65	60 ^j	NP
R-3, R-3.1 ^h	NS ^d	UL	160	65	55	65	55	65	65	65	65	50	40
	S13D	60	60	60	60	60	60	60	60	60	60	50	40
	S13R	60	60	60	55	60	55	60	60	60	60	60	60
	S	UL	160	65	55	65	55	270	180	85	65	70	60
R-4 ^h	NS ^d	UL	160	65	55	65	55	65	65	65	65	50	40
	S13D	60	60	60	55	60	55	60	60	60	60	50	40
	S13R	60	60	60	55	60	55	60	60	60	60	50	40
	S	UL	160	65	55	65	55	270	180	85	65	50	40

For SI: 1 foot = 304.8 mm.

UL = Unlimited; NP = Not Permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.3.

a. See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.

b. See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.

c. New Group H and all Group L occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.

d. The NS value is only for use in evaluation of existing building height in accordance with the *California Existing Building Code*.

e. New Group I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6.

f. New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6.

g. For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.

h. New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.

i. In other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, the S increases for height and stories in Tables 504.3 and 504.4 are permitted in addition to the S area increase in accordance with Table 506.2.

j. For Group R-2 buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, S area increase is permitted in addition to the height and story increase provided the height shall not exceed 60 feet and 4 stories.

TABLE 504.4
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE^{a, b, n}

OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A-1	NS	UL	5	3	2	3	2	3	3	3	3	2	1
	<i>S (without area increase)</i>	UL	6	4	3	4	3	9	6	4	4	3	2
	<i>S (with area increase)</i>	UL	5	3	2	3	2	8	5	3	3	2	1
A-2	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	<i>S (without area increase)</i>	UL	12	4	3	4	3	18	12	6	4	3	2
	<i>S (with area increase)</i>	UL	11	3	2	3	2	17	11	5	3	2	1
A-3	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	<i>S (without area increase)</i>	UL	12	4	3	4	3	18	12	6	4	3	2
	<i>S (with area increase)</i>	UL	11	3	2	3	2	17	11	5	3	2	1
A-4	NS	UL	11	3	2	3	2	3	3	3	3	2	1
	<i>S (without area increase)</i>	UL	12	4	3	4	3	18	12	6	4	3	2
	<i>S (with area increase)</i>	UL	11	3	2	3	2	17	11	5	3	2	1
A-5	NS	UL	UL	UL	UL	UL	UL	1	1	1	UL	UL	UL
	S	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
B	NS	UL	11	5	3	5	3	5	5	5	5	3	2
	S	UL	12	6	4	6	4	18	12	9	6	4	3
E	NS	UL	5	3	2	3	2	3	3	3	3	1	1
	<i>S (without area increase)</i>	UL	6	4	3	4	3	9	6	4	4	2	2
	<i>S (with area increase)</i>	UL	5	3	2	3	2	8	7	3	3	1	1
F-1	NS	UL	11	4	2	3	2	3	3	3	4	2	1
	S	UL	12	5	3	4	3	10	7	5	5	3	2
F-2	NS	UL	11	5	3	4	3	5	5	5	5	3	2
	S	UL	12	6	4	5	4	12	8	6	6	4	3
H-1	NS ^{c, d}	1	1	1	1	1	1	NP	NP	NP	1	1	NP
	S							1	1	1			
H-2	NS ^{c, d}	20	3	2	1	2	1	1	1	1	2	1	1
	S							2	2	2			
H-3	NS ^{c, d}	20	6	4	2	4	2	3	3	3	4	2	1
	S							4	4	4			
H-4	NS ^{c, d}	20	7	5	3	5	3	5	5	5	5	3	2
	<i>S (without area increase)</i>	20	8	6	4	6	4	8	7	6	6	4	3
	<i>S (with area increase)</i>	20	7	5	3	5	3	7	6	5	5	3	2
H-5	NS ^{c, d}	4	4	3	3	3	3	2	2	2	3	3	2
	S							3	3	3			
I-2 ^{j, i}	NS ^{d, f}	UL	4	2	1	1	NP	NP	NP	NP	1	1	NP
	<i>S (without area increase)</i>	UL	5	3				NP	NP	NP			
	<i>S (with area increase)</i>	UL	4	2				NP	NP	NP			
I-3	NS ^{d, e}	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	<i>S (without area increase)</i>	UL	3	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	<i>S (with area increase)</i>	UL	2	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
I-4 ^p	NS ^{d, g}	UL	5	3	2	3	2	3	3	3	3	1	1
	<i>S (without area increase)</i>	UL	6	4	3	4	3	9	6	4	4	2	2
	<i>S (with area increase)</i>	UL	5	3	2	3	2	8	5	3	3	1	1
L	NS	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	S	20	6	5	3	5	3	8	6	5	5	3	2
M	NS	UL	11	4	2	4	2	4	4	4	4	3	1
	S	UL	12	5	3	5	3	12	8	6	5	4	2

(continued)

TABLE 504.4—continued
ALLOWABLE NUMBER OF STORIES ABOVE GRADE PLANE^{a, b, n}

OCCUPANCY CLASSIFICATION	TYPE OF CONSTRUCTION												
	See Footnotes	Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
R-1 ^h	NS ^d	UL	11	4	4	4	4	4	4	4	4	3	2
	S13R	4	4									3	2
	S (without area increase)	UL	12	5	5	5	5	18	12	8	5	4	3
	S (with area increase)	UL	11	4	4	4	4	17	11	7	4	3	2
R-2 ^h	NS ^d	UL	11	4	4	4	4	4	4	4	4	3	2
	S13R	4	4									3	2
	S (without area increase)	UL	12	5	5	5	5	18	12	8	5	4	3
	S (with area increase)	UL	11	4	4	4	4	17	11	7	4	4 ^o	2
R-2.1 ^h	NS ^d	UL	6 ^l	3 ^k	NP	3 ^k	NP	4	NP	NP	NP	3 ^k	NP
	S13R	UL	4 ^l	3 ^k	NP	3 ^k	NP	4	NP	NP	NP	3 ^k	NP
	S	UL	6 ^l	3 ^k	NP	3 ^k	NP	10	NP	NP	NP	3 ^k	NP
R-2.2 ^h	NS ^d	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	S (without area increase)	UL	12	5	NP	5	NP	18	12	8	5	4	NP
	S (with area increase)	UL	11	4	NP	4	NP	17	11	7	4	4 ^o	NP
R-3, R 3-1 ^h	NS ^d	UL	11	4	4	4	4	4	4	4	4	3	3
	S13D	4	4									3	3
	S13R	4	4									4	4
	S	UL	12	5	5	5	5	18	12	5	5	4	4
R-4 ^h	NS ^d	UL	11 ^l	4 ^k	4 ^m	4 ^k	4 ^m	4 ^m	4 ^m	4 ^m	4 ^m	3 ^k	2 ^m
	S13D	4	4 ^l									3 ^k	2 ^m
	S13R	4	4 ^l									4	3
	S	UL	11 ^l	5	5	5	5	11 ^l	5	5	5	4	3
S-1	NS	UL	11	4	2	3	2	4	4	4	4	3	1
	S	UL	12	5	4	4	4	10	7	5	5	4	2
S-2 ⁱ	NS	UL	11	5	3	4	3	4	4	4	5	4	2
	S	UL	12	6	4	5	4	12	8	5	6	5	3
U	NS	UL	5	4	2	3	2	4	4	4	4	2	1
	S	UL	6	5	3	4	3	9	6	5	5	3	2

UL = Unlimited; NP = Not Permitted; NS = Buildings not equipped throughout with an automatic sprinkler system; S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1; S13R = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2; S13D = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.3.

a. See Chapters 4 and 5 for specific exceptions to the allowable height in this chapter.

b. See Section 903.2 for the minimum thresholds for protection by an automatic sprinkler system for specific occupancies.

c. New Group H occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.5.

d. The NS value is only for use in evaluation of existing building height in accordance with the *California Existing Building Code*.

e. Group I-3 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6.

f. New and existing Group I-2 occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.6.

g. For new Group I-4 occupancies, see Exceptions 2 and 3 of Section 903.2.6.

h. New Group R occupancies are required to be protected by an automatic sprinkler system in accordance with Section 903.2.8.

i. See Sections 407.1.1 and 408.1.2 for specific exceptions to construction type, allowable building areas and allowable heights.

j. Restraint shall not be permitted in any building except in Group I-3 occupancies constructed for such use (see Section 408.1.2).

k. Nonambulatory persons shall be limited to the first 2 stories.

l. Nonambulatory persons shall be limited to the first 5 stories.

m. Nonambulatory elderly clients are not permitted in buildings of these types of construction. See Sections 435.3.3 and 435.3.4.

n. In other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, the S increases for height and stories in Tables 504.3 and 504.4 are permitted in addition to the S area increase in accordance with Table 506.2.

o. For Group R-2 buildings of Type VA construction equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, S area increase is permitted in addition to the height and story increase provided the height shall not exceed 60 feet and 4 stories.

p. See Section 436.1 for additional regulations for child-care centers and adult day care.

505.2.3 Openness. A mezzanine shall be open and unobstructed to the room in which such mezzanine is located except for walls not more than 42 inches (1067 mm) in height, columns and posts.

Exceptions:

1. Mezzanines or portions thereof are not required to be open to the room in which the mezzanines are located, provided that the occupant load of the aggregate area of the enclosed space is not greater than 10.
2. A mezzanine having two or more exits or access to exits is not required to be open to the room in which the mezzanine is located.
3. Mezzanines or portions thereof are not required to be open to the room in which the mezzanines are located, provided that the aggregate floor area of the enclosed space is not greater than 10 percent of the mezzanine area.
4. In industrial facilities, mezzanines used for control equipment are permitted to be glazed on all sides.
5. In occupancies other than Groups H and I, which are no more than two stories above grade plane and equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, a mezzanine having two or more exits or access to exits shall not be required to be open to the room in which the mezzanine is located.

505.3 Equipment platforms. Equipment platforms in buildings shall not be considered as a portion of the floor below. Such equipment platforms shall not contribute to either the building area or the number of stories as regulated by Section 503.1. The area of the equipment platform shall not be included in determining the fire area in accordance with Section 903. Equipment platforms shall not be a part of any mezzanine and such platforms and the walkways, stairways, alternating tread devices and ladders providing access to an equipment platform shall not serve as a part of the means of egress from the building.

505.3.1 Area limitation. The aggregate area of all equipment platforms within a room shall be not greater than two-thirds of the area of the room in which they are located. Where an equipment platform is located in the same room as a mezzanine, the area of the mezzanine shall be determined by Section 505.2.1 and the combined aggregate area of the equipment platforms and mezzanines shall be not greater than two-thirds of the room in which they are located. The area of the mezzanine shall not exceed the area determined in accordance with Section 505.2.1.

505.3.2 Automatic sprinkler system. Where located in a building that is required to be protected by an automatic sprinkler system, equipment platforms shall be fully protected by sprinklers above and below the platform, where required by the standards referenced in Section 903.3.

505.3.3 Guards. Equipment platforms shall have guards where required by Section 1015.2.

SECTION 506 BUILDING AREA

506.1 General. The floor area of a building shall be determined based on the type of construction, occupancy classification, whether there is an automatic sprinkler system installed throughout the building and the amount of building frontage on public way or open space.

506.1.1 Unlimited area buildings. Unlimited area buildings shall be designed in accordance with Section 507.

506.1.2 Special provisions. The special provisions of Section 510 permit the use of special conditions that are exempt from, or modify, the specific requirements of this chapter regarding the allowable areas of buildings based on the occupancy classification and type of construction, provided the special condition complies with the provisions specified in Section 510.

506.1.3 Basements. Basements need not be included in the total allowable floor area of a building provided the total area of such basements does not exceed the area permitted for a one-story above grade plane building.

506.2 Allowable area determination. The allowable area of a building shall be determined in accordance with the applicable provisions of Sections 506.2.1, 506.2.2 and 506.3.

506.2.1 Single-occupancy buildings. The allowable area of each story of a single-occupancy building shall be determined in accordance with Equation 5-1:

$$A_a = A_t + (NS \times I_f) \quad \text{(Equation 5-1)}$$

where:

A_a = Allowable area (square feet).

A_t = Tabular allowable area factor (NS, S1, S13R or S13D value, as applicable) in accordance with Table 506.2.

NS = Tabular allowable area factor in accordance with Table 506.2 for nonsprinklered building (regardless of whether the building is sprinklered).

I_f = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.

The allowable area per story of a single-occupancy building with a maximum of three stories above grade shall be determined by Equation 5-1. The total allowable area of a single-occupancy building more than three stories above grade plane shall be determined in accordance with Equation 5-2:

$$A_a = [A_t + (NS \times I_f)] \times S_a \quad \text{(Equation 5-2)}$$

where:

A_a = Allowable area (square feet).

A_t = Tabular allowable area factor (NS, S13R, S13D or SM value, as applicable) in accordance with Table 506.2.

NS = Tabular allowable area factor in accordance with Table 506.2 for a nonsprinklered building (regardless of whether the building is sprinklered).

I_f = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.

S_a = For other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, 3 where the actual number of stories above grade plane exceeds three. For Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, actual number of building stories above grade plane, not to exceed two.

S_a = 4 where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.2.

The actual area of any individual floor shall not exceed the allowable area per Equation 5-1.

506.2.2 Mixed-occupancy buildings. The allowable area of each story of a mixed-occupancy building shall be determined in accordance with the applicable provisions of, Section 508.3.2 for nonseparated occupancies and Section 508.4.2 for separated occupancies.

For buildings with more than three stories above grade plane, the total building area shall be such that the aggregate sum of the ratios of the actual area of each story divided by the allowable area of such stories, determined in accordance with Equation 5-3 based on the applicable provisions of Section 508.1, shall not exceed three, *provided the aggregate sum of the ratios for portions of mixed-occupancy, multistory buildings containing A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, including any other associated non-separated occupancies, shall not exceed two.*

$$A_a = [A_i + (NS \times I_f)] \quad \text{(Equation 5-3)}$$

A_a = Allowable area (square feet).

A_i = Tabular allowable area factor (NS , S13R, S13D or SM value, as applicable) in accordance with Table 506.2.

NS = Tabular allowable area factor in accordance with Table 506.2 for a nonsprinklered building, regardless of whether the building is sprinklered.

I_f = Area factor increase due to frontage (percent) as calculated in accordance with Section 506.3.

506.2.2.1 Group H-2 or H-3 mixed occupancies. For a building containing Group H-2 or H-3 occupancies, the allowable area shall be determined in accordance with Section 508.4.2, with the sprinkler system increase applicable only to the portions of the building not classified as Group H-2 or H-3.

506.3 Frontage increase. Every building shall adjoin or have access to a public way to receive an area factor increase based

on frontage. Area factor increase shall be determined in accordance with Sections 506.3.1 through 506.3.3.

506.3.1 Minimum percentage of perimeter. To qualify for an area factor increase based on frontage, a building shall have not less than 25 percent of its perimeter on a public way or open space. Such open space shall be either on the same lot or dedicated for public use and shall be accessed from a street or approved fire lane.

506.3.2 Minimum frontage distance. To qualify for an area factor increase based on frontage, the public way or open space adjacent to the building perimeter shall have a minimum distance (W) of 20 feet (6096 mm) measured at right angles from the building face to any of the following:

1. The closest interior lot line.
2. The entire width of a street, alley or public way.
3. The exterior face of an adjacent building on the same property.

The frontage increase shall be based on the smallest public way or open space that is 20 feet (6096 mm) or greater, and the percentage of building perimeter having a minimum 20 feet (6096 mm) public way or open space.

506.3.3 Amount of increase. The area factor increase based on frontage shall be determined in accordance with Table 506.3.3.

506.3.3.1 Section 507 buildings. Where a building meets the requirements of Section 507, as applicable, except for compliance with the minimum 60-foot (18 288 mm) public way or yard requirement, the area factor increase based on frontage shall be determined in accordance with Table 506.3.3.1.

SECTION 507 UNLIMITED AREA BUILDINGS

507.1 General. The area of buildings of the occupancies and configurations specified in Sections 507.1 through 507.13 shall not be limited. Basements not more than one story below grade plane shall be permitted.

507.1.1 Accessory occupancies. Accessory occupancies shall be permitted in unlimited area buildings in accordance with the provisions of Section 508.2, otherwise the requirements of Sections 507.3 through 507.13 shall be applied, where applicable.

507.2 Measurement of open spaces. Where Sections 507.3 through 507.13 require buildings to be surrounded and adjoined by public ways and yards, those open spaces shall be determined as follows:

1. Yards shall be measured from the building perimeter in all directions to the closest interior lot lines or to the exterior face of an opposing building located on the same lot, as applicable.
2. Where the building fronts on a public way, the entire width of the public way shall be used.

TABLE 506.2
ALLOWABLE AREA FACTOR (A_t = NS, S1, S13R, S13D or SM, as applicable) IN SQUARE FEET^{a, b, j}

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
A-1	NS	UL	UL	15,500	8,500	14,000	8,500	45,000	30,000	18,750	15,000	11,500	5,500
	S1	UL	UL	62,000	34,000	56,000	34,000	180,000	120,000	75,000	60,000	46,000	22,000
	SM (without height increase)	UL	UL	46,500	25,500	42,000	25,500	135,000	90,000	56,250	45,000	34,500	16,500
	SM (with height increase)	UL	UL	15,500	8,500	14,000	8,500	45,000	30,000	18,750	15,000	11,500	5,500
A-2	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM (without height increase)	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
	SM (with height increase)	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
A-3	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM (without height increase)	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
	SM (with height increase)	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
A-4	NS	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
	S1	UL	UL	62,000	38,000	56,000	38,000	180,000	120,000	75,000	60,000	46,000	24,000
	SM (without height increase)	UL	UL	46,500	28,500	42,000	28,500	135,000	90,000	56,250	45,000	34,500	18,000
	SM (with height increase)	UL	UL	15,500	9,500	14,000	9,500	45,000	30,000	18,750	15,000	11,500	6,000
A-5	NS	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S1												
	SM												
B	NS	UL	UL	37,500	23,000	28,500	19,000	108,000	72,000	45,000	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	432,000	288,000	180,000	144,000	72,000	36,000
	SM	UL	UL	112,500	69,000	85,500	57,000	324,000	216,000	135,000	108,000	54,000	27,000
E	NS	UL	UL	26,500	14,500	23,500	14,500	76,500	51,000	31,875	25,500	18,500	9,500
	S1	UL	UL	106,000	58,000	94,000	58,000	306,000	204,000	127,500	102,000	74,000	38,000
	SM (without height increase)	UL	UL	79,500	43,500	70,500	43,500	229,500	153,000	95,625	76,500	55,500	28,500
	SM (with height increase)	UL	UL	26,500	14,500	23,500	14,500	76,500	51,000	31,875	25,500	18,500	9,500
F-1	NS	UL	UL	25,000	15,500	19,000	12,000	100,500	67,000	41,875	33,500	14,000	8,500
	S1	UL	UL	100,000	62,000	76,000	48,000	402,000	268,000	167,500	134,000	56,000	34,000
	SM	UL	UL	75,000	46,500	57,000	36,000	301,500	201,000	125,625	100,500	42,000	25,500
F-2	NS	UL	UL	37,500	23,000	28,500	18,000	151,500	101,000	63,125	50,500	21,000	13,000
	S1	UL	UL	150,000	92,000	114,000	72,000	606,000	404,000	252,500	202,000	84,000	52,000
	SM	UL	UL	112,500	69,000	85,500	54,000	454,500	303,000	189,375	151,500	63,000	39,000
H-1	NS ^c	21,000	16,500	11,000	7,000	9,500	7,000	10,500	10,500	10,500	10,500	7,500	NP
	S1												
H-2	NS ^c	21,000	16,500	11,000	7,000	9,500	7,000	10,500	10,500	10,500	10,500	7,500	3,000
	S1												
	SM												
H-3	NS ^c	UL	60,000	26,500	14,000	17,500	13,000	25,500	25,500	25,500	25,500	10,000	5,000
	S1												
	SM												
H-4	NS ^{c, d}	UL	UL	37,500	17,500	28,500	17,500	72,000	54,000	40,500	36,000	18,000	6,500
	S1	UL	UL	150,000	70,000	114,000	70,000	288,000	216,000	162,000	144,000	72,000	26,000
	SM (without height increase)	UL	UL	112,500	52,500	85,500	52,500	216,000	162,000	121,500	108,000	54,000	19,500
	SM (with height increase)	UL	UL	37,500	17,500	28,500	17,500	72,000	54,000	40,500	36,000	18,000	6,500
H-5	NS ^{c, d}	UL	UL	37,500	23,000	28,500	19,000	72,000	54,000	40,500	36,000	18,000	9,000
	S1	UL	UL	150,000	92,000	114,000	76,000	288,000	216,000	162,000	144,000	72,000	36,000
	SM (without height increase)	UL	UL	112,500	69,000	85,500	57,000	216,000	162,000	121,500	108,000	54,000	27,000
	SM (with height increase)	UL	UL	37,500	23,000	28,500	19,000	72,000	54,000	40,500	36,000	18,000	9,000

(continued)

TABLE 506.2—continued
ALLOWABLE AREA FACTOR (A_t = NS, S1, S13R, S13D or SM, as applicable) IN SQUARE FEET^{a, b, j}

OCCUPANCY CLASSIFICATION	SEE FOOTNOTES	TYPE OF CONSTRUCTION											
		Type I		Type II		Type III		Type IV				Type V	
		A	B	A	B	A	B	A	B	C	HT	A	B
I-2	NS ^{d, f}	UL	UL	15,000	11,000	12,000	NP	NP	NP	NP	12,000	9,500	NP
	S1	UL	UL	60,000	44,000	48,000	NP	NP	NP	NP	48,000	38,000	NP
	SM (without height increase)	UL	UL	45,000	33,000	36,000	NP	NP	NP	NP	36,000	28,500	NP
	SM (with height increase)	UL	UL	15,000	11,000	12,000	NP	NP	NP	NP	12,000	9,500	NP
I-3	NS ^{d, e}	UL	15,100	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	S1	UL	45,300	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	SM (without height increase)	UL	30,200	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
	SM (with height increase)	UL	15,100	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP
I-4	NS ^{d, g}	UL	60,500	26,500	13,000	23,500	13,000	76,500	51,000	25,500	25,500	18,500	9,000
	S1	UL	121,000	106,000	52,000	94,000	52,000	306,000	204,000	102,000	102,000	74,000	36,000
	SM (without height increase)	UL	181,500	79,500	39,000	70,500	39,000	229,500	153,000	76,500	76,500	55,500	27,000
	SM (with height increase)	UL	60,500	26,500	13,000	23,500	13,000	76,500	51,000	25,500	25,500	18,500	9,000
L	NS ^c	UL	60,000	37,500	17,500	28,500	17,500	60,000	37,500	36,000	36,000	18,000	6,500
	S1												
	SM												
M	NS	UL	UL	21,500	12,500	18,500	12,500	61,500	41,000	25,625	20,500	14,000	9,000
	S1	UL	UL	86,000	50,000	74,000	50,000	246,000	164,000	102,500	82,000	56,000	36,000
	SM	UL	UL	64,500	37,500	55,500	37,500	184,500	123,000	76,875	61,500	42,000	27,000
R-1 ^h	NS ^d	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
	S13R												
	S1	UL	UL	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
	SM (without height increase)	UL	UL	72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000
	SM (with height increase)	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
R-2 ^h	NS ^d	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
	S13R												
	S1	UL	UL	96,000	64,000	96,000	64,000	246,000	164,000	102,500	82,000	48,000	28,000
	SM (without height increase)	UL	UL	72,000	48,000	72,000	48,000	184,500	123,000	76,875	61,500	36,000	21,000
	SM (with height increase)	UL	UL	24,000	16,000	24,000	16,000	61,500	41,000	25,625	20,500	12,000	7,000
R-2 Type VA construction ^k	NS ^d	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	12,000	NP
	S13R	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	12,000	NP
	S1	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	48,000	NP
	SM (without height increase)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	36,000	NP
	SM (with height increase)	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	36,000 ^j	NP
R-2.1 ^h	NS ^d	UL	55,000	19,000	NP	16,500	NP	54,000	NP	NP	NP	10,500	NP
	S13R	UL	55,000	19,000	NP	16,500	NP					10,500	NP
	S1	UL	220,000	76,000	NP	66,000	NP	216,000	NP	NP	NP	42,000	NP
	SM (without height increase)	UL	165,000	57,000	NP	49,500	NP	162,000	NP	NP	NP	31,500	NP
	SM (with height increase)	UL	55,000	19,000	NP	16,500	NP	54,000	NP	NP	NP	10,500	NP
R-2.2 ^h	NS ⁱ	UL	UL	24,000	NP	24,000	NP	61,500	41,000	25,625	20,500	12,000	NP
	S1	UL	UL	96,000	NP	96,000	NP	246,000	164,000	102,500	82,000	48,000	NP
	SM (without height increase)	UL	UL	72,000	NP	72,000	NP	184,500	123,000	76,875	61,500	36,000	NP
	SM (with height increase)	UL	UL	24,000	NP	24,000	NP	61,500	41,000	25,625	20,500	12,000	NP
R-3, R-3-1 ^h	NS ^d	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL	UL
	S13D												
	S13R												
	S1												
	SM												

(continued)

construction, with not more than one story above grade plane and used as a place of religious worship, community hall, dance hall, exhibition hall, gymnasium, lecture hall, indoor swimming pool or tennis court, shall not be limited provided that the following criteria are met:

1. The building shall not have a stage other than a platform.
2. The building shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. The assembly floor shall be located at or within 21 inches (533 mm) of street or grade level and all exits are provided with ramps complying with Section 1012 to the street or grade level.
4. The building shall be surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.

507.8 Group H-2, H-3 and H-4 occupancies. Group H-2, H-3 and H-4 occupancies shall be permitted in unlimited area buildings containing Group F or S occupancies in accordance with Sections 507.4 and 507.5 and the provisions of Sections 507.8.1 through 507.8.4.

507.8.1 Allowable area. The aggregate floor area of Group H occupancies located in an unlimited area building shall not exceed 10 percent of the area of the building *nor* the area limitations for the Group H occupancies as specified in Section 506 based on the perimeter of each Group H floor area that fronts on a public way or open space.

507.8.1.1 Located within the building. The aggregate floor area of Group H occupancies not located at the perimeter of the building shall not exceed 25 percent of the area limitations for the Group H occupancies as specified in Section 506.

507.8.1.1.1 Rooms for flammable or combustible liquid use, dispensing or mixing in open systems. Rooms for flammable or combustible liquid use, dispensing or mixing in open systems having a floor area of not more than 500 square feet (46.5 m²) need not be located on the outer perimeter of the building where they are in accordance with the *California Fire Code* and NFPA 30.

507.8.1.1.2 Liquid storage rooms and rooms for flammable or combustible liquid use in closed systems. Liquid storage rooms and rooms for flammable or combustible liquid use in closed systems having a floor area of not more than 1,000 square feet (93 m²) need not be located on the outer perimeter where they are in accordance with the *California Fire Code* and NFPA 30.

507.8.1.1.3 Spray paint booths. Spray paint booths that comply with the *California Fire Code* need not be located on the outer perimeter.

507.8.2 Located on building perimeter. Except as provided for in Section 507.8.1.1, Group H occupancies shall be located on the perimeter of the building. In Group H-2 and H-3 occupancies, not less than 25 percent of the perimeter of such occupancies shall be an exterior wall.

507.8.3 Occupancy separations. Group H occupancies shall be separated from the remainder of the unlimited area building and from each other in accordance with Table 508.4.

507.8.4 Height limitations. For two-story, unlimited area buildings, Group H occupancies shall not be located more than one story above grade plane unless permitted based on the allowable height and number of stories and feet as specified in Section 504 based on the type of construction of the unlimited area building.

507.9 Unlimited mixed occupancy buildings with Group H-5. The area of a Group B, F, H-5, M or S building not more than two stories above grade plane shall not be limited where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, and is surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width, provided that the following criteria are met:

1. Buildings containing Group H-5 occupancy shall be of Type I or II construction.
2. Each area used for Group H-5 occupancy shall be separated from other occupancies as required in Sections 415.11 and 508.4.
3. Each area used for Group H-5 occupancy shall not exceed the maximum allowable area permitted for such occupancies in Section 503.1 including modifications of Section 506.

Exception: Where the Group H-5 occupancy exceeds the maximum allowable area, the Group H-5 shall be subdivided into areas that are separated by 2-hour fire barriers.

507.10 Aircraft paint hangar. The area of a Group H-2 aircraft paint hangar not more than one story above grade plane shall not be limited where such aircraft paint hangar complies with the provisions of Section 412.5 and is surrounded and adjoined by public ways or yards not less in width than one and one-half times the building height.

507.11 Group E buildings. The area of a Group E building not more than one story above grade plane, of Type II, IIIA or IV construction, shall not be limited provided that the following criteria are met:

1. Each classroom shall have not less than two means of egress, with one of the means of egress being a direct exit to the outside of the building complying with Section 1022.
2. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. The building is surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.

507.12 Motion picture theaters. In buildings of Type II construction, the area of a motion picture theater located on the first story above grade plane shall not be limited where the building is provided with an automatic sprinkler system throughout in accordance with Section 903.3.1.1 and is

surrounded and adjoined by public ways or yards not less than 60 feet (18 288 mm) in width.

507.13 Covered and open mall buildings and anchor buildings. The area of *covered and open mall buildings* and *anchor buildings* not exceeding three stories in height that comply with Section 402 shall not be limited.

SECTION 508 MIXED USE AND OCCUPANCY

508.1 General. Each portion of a building shall be individually classified in accordance with Section 302.1. Where a building contains more than one occupancy group, the building or portion thereof shall comply with the applicable provisions of Section 508.2, 508.3, 508.4 or 508.5, or a combination of these sections.

Exceptions:

1. Occupancies separated in accordance with Section 510.
2. Where required by Table 415.6.5, areas of Group H-1, H-2 and H-3 occupancies shall be located in a detached building or structure.

508.2 Accessory occupancies. Accessory occupancies are those occupancies that are ancillary to the main occupancy of the building or portion thereof. Accessory occupancies shall comply with the provisions of Sections 508.2.1 through 508.2.4.

508.2.1 Occupancy classification. Accessory occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space.

508.2.2 Allowable building height. The allowable height and number of stories of the building containing accessory occupancies shall be in accordance with Section 504 for the main occupancy of the building.

508.2.3 Allowable building area. The allowable area of the building shall be based on the applicable provisions of Section 506 for the main occupancy of the building. Aggregate accessory occupancies shall not occupy more than 10 percent of the floor area of the story in which they are located and shall not exceed the tabular values for nonsprinklered buildings in Table 506.2 for each such accessory occupancy.

508.2.4 Separation of occupancies. No separation is required between accessory occupancies and the main occupancy.

Exceptions:

1. Group H-2, H-3, H-4 and H-5 and L occupancies shall be separated from all other occupancies in accordance with Section 508.4.
2. Group R-1, R-2, R-2.1, R-2.2 and R-3 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from acces-

sory occupancies contiguous to them in accordance with the requirements of Section 420.

3. Group I-2 shall be separated from all other occupancies in accordance with Section 508.4. <

Exception: No separation is required between Group B, E and R-1 sleeping units accessory to Group I-2 and covered exterior entrances required by Section 11B-206.4.10 or Section 1224.33.2.1 accessory to Group I-2. || <

4. Group I-3 and vehicle sally-ports shall be separated from all other occupancies in accordance with Section 508.4.

Exception: No separation is required between Group B, E, and R-1 sleeping units and S-2 occupancies accessory to Group I-3 of Type I construction. ||

508.3 Nonseparated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as nonseparated occupancies.

508.3.1 Occupancy classification. Nonseparated occupancies shall be individually classified in accordance with Section 302.1. The requirements of this code shall apply to each portion of the building based on the occupancy classification of that space. In addition, the most restrictive provisions of Chapter 9 that apply to the nonseparated occupancies shall apply to the total nonseparated occupancy area.

508.3.1.1 High-rise buildings. Where nonseparated occupancies occur in a high-rise building, the most restrictive requirements of Section 403 that apply to the nonseparated occupancies shall apply throughout the high-rise building.

508.3.2 Allowable building area, height and number of stories. The allowable building area, height and number of stories of the building or portion thereof shall be based on the most restrictive allowances for the occupancy groups under consideration for the type of construction of the building in accordance with Section 503.1.

508.3.3 Separation. No separation is required between nonseparated occupancies.

Exceptions:

1. Group H-2, H-3, H-4 and H-5, I-2 and L occupancies shall be separated from all other occupancies in accordance with Section 508.4. <
2. Group R-1, R-2, R-2.1, R-2.2 and R-3 dwelling units and sleeping units shall be separated from other dwelling or sleeping units and from other occupancies contiguous to them in accordance with the requirements of Section 420.
3. Separation is required between Group I-3 and vehicle sally ports.
4. Where Group I-3 is not the main occupancy and the area is greater than 10 percent of the floor area, it shall be separated per Table 508.4.

508.4 Separated occupancies. Buildings or portions of buildings that comply with the provisions of this section shall be considered as separated occupancies.

508.4.1 Occupancy classification. Separated occupancies shall be individually classified in accordance with Section 302.1. Each separated space shall comply with this code based on the occupancy classification of that portion of the building. The most restrictive provisions of Chapter 9 that apply to the separate occupancies shall apply to the total nonfire-barrier-separated occupancy areas. Occupancy separations that serve to define fire area limits established in Chapter 9 for requiring a fire protection system shall also comply with Section 901.7.

508.4.2 Allowable building area. In each story, the building area shall be such that the sum of the ratios of the actual building area of each separated occupancy divided by the allowable building area of each separated occupancy shall not exceed 1.

508.4.3 Allowable building height and number of stories. Each separated occupancy shall comply with the building height limitations and story limitations based on the type of construction of the building in accordance with Section 503.1.

Exception: Special provisions of Section 510 shall permit occupancies at building heights and number of stories other than provided in Section 503.1.

508.4.4 Separation. Individual occupancies shall be separated from adjacent occupancies in accordance with Table 508.4.

508.4.4.1 Construction. Required separations shall be fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both, so as to completely separate adjacent occupancies. Mass timber elements serving as fire barriers or horizontal assemblies to separate occu-

TABLE 508.4
REQUIRED SEPARATION OF OCCUPANCIES (HOURS)^a

OCCUPANCY	A, E		I-4 ⁱ , R-2.1		I-2 ^j		I-3		R-1 ^a , R-2 ^a , R-2.2 ^a , R-3 ^a , R-3.1 ^a , R-4 ^a		F-2, S-2 ^b , U		B ^c , F-1 ^{g, h} , M, S-1		L		H-1		H-2		H-3, H-4		H-5	
	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS	S	NS
A, E	N	N	2	2	2	NP	2	NP	1	2	N	1	1	2	2	NP	NP	NP	3	4	2	3	2	NP
I-4 ⁱ , R-2.1	2	2	1 ^e	NP	2	NP	2	NP	1	NP	1	2	1	2	2	NP	NP	NP	4	NP	4	NP	4	NP
I-2 ^j	2	NP	2	NP	N	NP	2	NP	2	NP	2	NP	2	NP	2	NP	NP	NP	4	NP	4	NP	4	NP
I-3	2	NP	2	NP	2	NP	N	NP	2	NP	2	2	2	2	2	NP	NP	NP	4	NP	4	NP	4	NP
R-1 ^a , R-2 ^a , R-2.2 ^a , R-3 ^a , R-3.1 ^a , R-4 ^a	1	2	1	NP	2	NP	2	NP	N	N	1 ^c	2 ^c	1	2	4	NP	NP	NP	3	NP	2	NP	2	NP
F-2, S-2 ^b , U	N	1	1	2	2	NP	2	2	1 ^c	2 ^c	N	N	1	2	1	NP	NP	NP	3	4	2	3	2	NP
B ^c , F-1 ^{g, h} , M, S-1	1	2	1	2	2	NP	2	2	1	2	1	2	N	N	1	NP	NP	NP	2	3	1	2	1	NP
L	2	NP	2	NP	2	NP	2	NP	4	NP	1	NP	1	NP	1	NP	NP	NP	2	NP	1	NP	1	NP
H-1	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	NP	N	NP	NP	NP	NP	NP	NP	NP
H-2	3	4	4	NP	4	NP	4	NP	3	NP	3	4	2	3	2	NP	NP	NP	N	NP	1	NP	1	NP
H-3, H-4	2	3	4	NP	4	NP	4	NP	2	NP	2	3	1	2	1	NP	NP	NP	1	NP	1 ^d	NP	1	NP
H-5	2	NP	4	NP	4	NP	4	NP	2	NP	2	NP	1	NP	1	NP	NP	NP	1	NP	1	NP	N	NP

S = Buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

NS = Buildings not equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1.

N = No separation requirement.

NP = Not Permitted.

a. See Section 420.

b. The required separation from areas used only for private or pleasure vehicles shall be reduced by 1 hour but not to less than 1 hour.

c. See Sections 406.3.2 and 406.6.4.

d. Separation is not required between occupancies of the same classification.

e. See Section 422.2 for ambulatory care facilities.

f. Occupancy separations that serve to define fire area limits established in Chapter 9 for requiring fire protection systems shall also comply with Section 707.3.10 and Table 707.3.10 in accordance with Section 901.7.

g. **[SFM]** Group I and F1 occupancies and Group R-2.1 and F-1 occupancies shall have a 3 hour separation.

h. **[SFM]** Commercial kitchens not associated with cafeterias and similar dining facilities in Group I-2 and Group R-2.1 shall have a 2-hour separation and shall be protected by an automatic sprinkler system.

i. **[SFM]** Group E child-care separation with I-4 child care can be reduced to 1 hour with the installation of automatic fire sprinklers in accordance with Section 903.3.1.1.

j. When not considered an accessory use in accordance with Section 508.2.4, the required separation between Group I-2 and required covers for accessible entrances and emergency vehicle entrances, when in accordance with Section 406.5.2 and protected by an automatic sprinkler system, shall be reduced by 1 hour but not to less than 1 hour. See Section 903.2.21.

pancies in Type IV-B or IV-C construction shall be separated from the interior of the building with an approved thermal barrier consisting of gypsum board that is not less than $\frac{1}{2}$ inch (12.7 mm) in thickness or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.

508.5 Live/work units. A live/work unit shall comply with Sections 508.5 through 508.5.11.

Exceptions:

1. Dwelling or sleeping units that include an office that is less than 10 percent of the area of the dwelling unit are permitted to be classified as dwelling units with accessory occupancies in accordance with Section 508.2.
2. Live/work units complying with the requirements of Section 508.5 shall be permitted to be constructed as one- and two-family dwellings or townhouses in accordance with the California Residential Code, as applicable.

508.5.1 Limitations. The following shall apply to live/work areas:

1. The live/work unit is permitted to be not greater than 3,000 square feet (279 m²) in area.
2. The nonresidential area is permitted to be not more than 50 percent of the area of each live/work unit.
3. The nonresidential area function shall be limited to the first or main floor only of the live/work unit.
4. Not more than five nonresidential workers or employees are allowed to occupy the nonresidential area at any one time.

508.5.2 Occupancies. Live/work units shall be classified as a Group R-2 occupancy. Separation requirements found in Sections 420 and 508 shall not apply within the live/work unit where the live/work unit is in compliance with Section 508.5. Nonresidential uses that would otherwise be classified as either a Group H or S occupancy shall not be permitted in a live/work unit.

Exception: Storage shall be permitted in the live/work unit provided that the aggregate area of storage in the nonresidential portion of the live/work unit shall be limited to 10 percent of the space dedicated to nonresidential activities.

508.5.3 Means of egress. Except as modified by this section, the means of egress components for a live/work unit shall be designed in accordance with Chapter 10 for the function served.

Exception: Residential areas of live/work units constructed in accordance with the California Residential Code shall not be required to comply with Chapter 10.

508.5.4 Egress capacity. The egress capacity for each element of the live/work unit shall be based on the occupant load for the function served in accordance with Table 1004.5.

508.5.5 Spiral stairways. Spiral stairways that conform to the requirements of Section 1011.10 shall be permitted.

508.5.6 Vertical openings. Floor openings between floor levels of a live/work unit are permitted without enclosure.

[F] 508.5.7 Fire protection. The live/work unit shall be provided with a monitored fire alarm system where required by Section 907.2.9 and an automatic sprinkler system in accordance with Section 903.2.8.

508.5.8 Structural. Floors within a live/work unit shall be designed for the live loads in Table 1607.1, based on the function within the space.

Exception: Residential areas of live/work units constructed in accordance with the California Residential Code shall not be required to comply with Table 1607.1.

508.5.9 Accessibility. Accessibility shall be designed in accordance with Chapter 11A and/or 11B, when applicable, for the function served.

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

508.5.11 Plumbing facilities. The nonresidential area of the live/work unit shall be provided with minimum plumbing facilities as specified by the California Plumbing Code, based on the function of the nonresidential area. Where the nonresidential area of the live/work unit is required to be accessible, the plumbing fixtures specified by the California Plumbing Code shall be accessible.

SECTION 509 INCIDENTAL USES

509.1 General. Incidental uses located within single occupancy or mixed occupancy buildings shall comply with the provisions of this section. Incidental uses are ancillary functions associated with a given occupancy that generally pose a greater level of risk to that occupancy and are limited to those uses specified in Table 509.1.

Exception: Incidental uses within and serving a dwelling unit are not required to comply with this section.

509.2 Occupancy classification. Incidental uses shall not be individually classified in accordance with Section 302.1. Incidental uses shall be included in the building occupancies within which they are located.

509.3 Area limitations. The aggregate floor area of incidental uses shall not occupy more than 10 percent of the building area of the story in which they are located.

Exception: Group E laboratories that are not classified as a Group H and are separated by a 1-hour fire barrier.

509.4 Separation and protection. The incidental uses specified in Table 509.1 shall be separated from the remainder of the building or equipped with an automatic sprinkler system, or both, in accordance with the provisions of that table.

509.4.1 Separation. Where Table 509.1 specifies a fire-resistance-rated separation, the incidental uses shall be separated from the remainder of the building by a fire barrier constructed in accordance with Section 707 or a horizontal assembly constructed in accordance with Section 711, or both. Construction supporting 1-hour fire barriers or horizontal assemblies used for incidental use separations in buildings of Type IIB, IIIB and VB construction is not required to be fire-resistance rated unless required by other sections of this code.

509.4.1.1 Type IV-B and IV-C construction. Where Table 509.1 specifies a fire-resistance-rated separation, mass timber elements serving as fire barriers or horizontal assemblies in Type IV-B or IV-C construction shall be separated from the interior of the incidental use with an approved thermal barrier consisting of gypsum board that is not less than $\frac{1}{2}$ inch (12.7 mm) in thickness or a material that is tested in accordance with and meets the acceptance criteria of both the Temperature Transmission Fire Test and the Integrity Fire Test of NFPA 275.

509.4.2 Protection. Where Table 509.1 permits an automatic sprinkler system without a fire barrier, the incidental uses shall be separated from the remainder of the building by construction capable of resisting the passage of smoke. The walls shall extend from the top of the foundation or floor assembly below to the underside of the ceiling that is a component of a fire-resistance-rated floor assembly or roof assembly above or to the underside of the floor or roof sheathing, deck or slab above. Doors shall be self- or automatic-closing upon detection of smoke in accordance with Section 716.2.6.6. Doors shall not have air transfer openings and shall not be undercut in excess of the clearance permitted in accordance with NFPA 80. Walls surrounding the incidental use shall not have air transfer openings unless provided with smoke dampers in accordance with Section 710.8.

509.4.2.1 Protection limitation. Where an automatic sprinkler system is provided in accordance with Table 509.1, only the space occupied by the incidental use need be equipped with such a system.

**[F]TABLE 509.1
INCIDENTAL USES**

ROOM OR AREA	SEPARATION AND/OR PROTECTION
Furnace room where any piece of equipment is over 400,000 Btu per hour input	1 hour or provide automatic sprinkler system
Rooms with boilers where the largest piece of equipment is over 15 psi and 10 horsepower	1 hour or provide automatic sprinkler system
Refrigerant machinery room	1 hour or provide automatic sprinkler system
Hydrogen fuel gas rooms, not classified as Group H	1 hour in Group B, F, M, S and U occupancies; 2 hours in Group A, E, I and R occupancies.
Incinerator rooms	2 hours and provide automatic sprinkler system
Paint shops, not classified as Group H, located in occupancies other than Group F	2 hours; or 1 hour and provide automatic sprinkler system
In Group E occupancies, laboratories and vocational shops not classified as Group H	1 hour or provide automatic sprinkler system
<i>[SFM] Rooms or areas with special hazards such as laboratories, vocational shops and other such areas not classified as Group H, located in Group E occupancies where hazardous materials in quantities not exceeding the maximum allowable quantity are used or stored.</i>	1 hour
In Group I-2 occupancies, laboratories not classified as Group H	1 hour ^a
In ambulatory care facilities, laboratories not classified as Group H	1 hour or provide automatic sprinkler system
Laundry rooms over 100 square feet	1 hour or provide automatic sprinkler system
In Group I-2 laundry rooms over 100 square feet	1 hour ^a
Group I-3 cells and Group I-2 patient rooms equipped with padded surfaces	1 hour ^a
In Group I-2 physical plant maintenance shops	1 hour ^a
In ambulatory care facilities or Group I-2 occupancies, waste and linen collection rooms with containers that have an aggregate volume of 10 cubic feet or greater	1 hour ^a
In other than ambulatory care facilities and Group I-2 occupancies, waste and linen collection rooms over 100 square feet	1 hour or provide automatic sprinkler system
In ambulatory care facilities or Group I-2 occupancies, storage rooms greater than 100 square feet	1 hour ^a
Electrical installations and transformers	See Sections 110.26 through 110.34 and Sections 450.8 through 450.48 of the <i>California Electrical Code</i> for protection and separation requirements.

For SI: 1 square foot = 0.0929 m², 1 pound per square inch (psi) = 6.9 kPa, 1 British thermal unit (Btu) per hour = 0.293 watts, 1 horsepower = 746 watts, 1 gallon = 3.785 L, 1 cubic foot = 0.0283 m³.

a. *[SFM] Fire barrier protection and automatic sprinkler protection required throughout the fire area in I-2 occupancies as indicated.*

SECTION 510 SPECIAL PROVISIONS

510.1 General. The provisions in Sections 510.2 through 510.9 shall permit the use of special conditions that are exempt from, or modify, the specific requirements of this chapter regarding the allowable building heights and areas of buildings based on the occupancy classification and type of construction, provided the special condition complies with the provisions specified in this section for such condition and other applicable requirements of this code. The provisions of Sections 510.2 through 510.8 are to be considered independent and separate from each other.

510.2 Horizontal building separation allowance. A building shall be considered as separate and distinct buildings for the purpose of determining area limitations, continuity of fire walls, limitation of number of stories and type of construction where the following conditions are met:

1. The buildings are separated with a horizontal assembly having a fire-resistance rating of not less than 3 hours. Where vertical offsets are provided as part of a horizontal assembly, the vertical offset and the structure supporting the vertical offset shall have a fire-resistance rating of not less than 3 hours.
2. The building below, including the horizontal assembly, is of Type IA construction.
3. Shaft, stairway, ramp and escalator enclosures through the horizontal assembly shall have not less than a 2-hour fire-resistance rating with opening protectives in accordance with Section 716.

Exception: Where the enclosure walls below the horizontal assembly have not less than a 3-hour fire-resistance rating with opening protectives in accordance with Section 716, the enclosure walls extending above the horizontal assembly shall be permitted to have a 1-hour fire-resistance rating, provided that the following conditions are met:

1. The building above the horizontal assembly is not required to be of Type I construction.
2. The enclosure connects fewer than four stories.
3. The enclosure opening protectives above the horizontal assembly have a fire protection rating of not less than 1 hour.
4. Interior exit stairways located within the Type IA building are permitted to be of combustible materials where the following requirements are met:
 - 4.1. The building above the Type IA building is of Type III, IV, or V construction.
 - 4.2. The stairway located in the Type IA building is enclosed by 3-hour fire-resistance-rated construction with opening protectives in accordance with Section 716.
5. The building or buildings above the horizontal assembly shall be permitted to have multiple Group A occu-

pancy uses, each with an occupant load of less than 300, or Group B, M, R or S occupancies.

6. The building below the horizontal assembly shall be protected throughout by an approved automatic sprinkler system in accordance with Section 903.3.1.1, and shall be permitted to be any occupancy allowed by this code except Group H.
7. The maximum building height in feet (mm) shall not exceed the limits set forth in Section 504.3 for the building having the smaller allowable height as measured from the grade plane.

510.3 Group S-2 enclosed parking garage with Group S-2 open parking garage above. A Group S-2 enclosed parking garage with not more than one story above grade plane and located below a Group S-2 open parking garage shall be classified as a separate and distinct building for the purpose of determining the type of construction where the following conditions are met:

1. The allowable area of the building shall be such that the sum of the ratios of the actual area divided by the allowable area for each separate occupancy shall not exceed 1.
2. The Group S-2 enclosed parking garage is of Type I or II construction and is at least equal to the fire-resistance requirements of the Group S-2 open parking garage.
3. The height and the number of tiers of the Group S-2 open parking garage shall be limited as specified in Table 406.5.4.
4. The floor assembly separating the Group S-2 enclosed parking garage and Group S-2 open parking garage shall be protected as required for the floor assembly of the Group S-2 enclosed parking garage. Openings between the Group S-2 enclosed parking garage and Group S-2 open parking garage, except exit openings, shall not be required to be protected.
5. The Group S-2 enclosed parking garage is used exclusively for the parking or storage of private motor vehicles, but shall be permitted to contain an office, waiting room and toilet room having a total area of not more than 1,000 square feet (93 m²) and mechanical equipment rooms associated with the operation of the building.

510.4 Parking beneath Group R. Where a maximum one story above grade plane Group S-2 parking garage, enclosed or open, or combination thereof, of Type I construction or open of Type IV construction, with grade entrance, is provided under a building of Group R, the number of stories to be used in determining the minimum type of construction shall be measured from the floor above such a parking area. The floor assembly between the parking garage and the Group R above shall comply with the type of construction required for the parking garage and shall also provide a fire-resistance rating not less than the mixed occupancy separation required in Section 508.4.

510.5 Group R-1 and R-2 buildings of Type IIIA construction. For buildings of Type IIIA construction in Groups R-1 and R-2, the maximum allowable height in Table

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 7 – FIRE AND SMOKE PROTECTION FEATURES

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC -CG	SFM	HCD			DSA			OSHDP						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X	X	X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below																							
Chapter / Section																							
704.6.1			X																				
705.2.3.2			X																				
705.5			X																				
705.12			X																				
Table 706.4			X																				
Table 707.3.10			X																				
707.4			X																				
708.1			X																				
708.3			X																				
709.3			X																				
709.5			X																				
709.5.1			X																				
710.2			X																				
710.8			X																				
716.2.2.1			X																				
716.2.6			X																				
716.2.6.6			X																				
716.2.9.4			X																				
717.5.2			X																				
717.5.4			X																				
717.5.4.1			X																				
717.5.5			X																				
721.2				X	X																		
721.2.1				X	X																		

The state agency does not adopt sections identified with the following symbol: †

The Office of the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures regulated by other state agencies pursuant to Section 1.11.

705.2.3 Projection protection. Projections extending to within 5 feet (1524 mm) of the line used to determine the fire separation distance shall be one of the following:

1. Noncombustible materials.
2. Combustible materials of not less than 1-hour fire-resistance-rated construction.
3. Heavy timber construction complying with Section 2304.11.
4. Fire-retardant-treated wood.
5. As permitted by Section 705.2.3.1.

Exception: Type VB construction shall be allowed for combustible projections in Group R-3 and U occupancies with a fire separation distance greater than or equal to 5 feet (1524 mm).

705.2.3.1 Balconies and similar projections. Balconies and similar projections of combustible construction other than fire-retardant-treated wood shall be fire-resistance rated where required by Table 601 for floor construction or shall be of heavy timber construction in accordance with Section 2304.11. The aggregate length of the projections shall not exceed 50 percent of the building's perimeter on each floor.

Exceptions:

1. On buildings of Types I and II construction, three stories or less above grade plane, fire-retardant-treated wood shall be permitted for balconies, porches, decks and exterior stairways not used as required exits.
2. Untreated wood and plastic composites that comply with ASTM D7032 and Section 2612 are permitted for pickets, rails and similar guard components that are limited to 42 inches (1067 mm) in height.
3. Balconies and similar projections on buildings of Types III, IV and V construction shall be permitted to be of Type V construction and shall not be required to have a fire-resistance rating where sprinkler protection is extended to these areas.
4. Where sprinkler protection is extended to the balcony areas, the aggregate length of the balcony on each floor shall not be limited.

705.2.3.2 Vents. *[SFM] Vents required by Section 2304.12.2.5 in fire-rated exterior balconies or elevated walkway surfaces shall be designed where the voids created at the intersection of the exterior curtain wall and the balcony floor are sealed with an approved material or system to retard the interior spread of flame, hot gases and products of combustion. Rated assemblies shall comply with Section 715. Ventilation openings shall comply with the fire sprinkler protection as required by Section 903.3.1.1 or 903.3.1.2 and the reference standard.*

705.2.4 Bay and oriel windows. Bay and oriel windows constructed of combustible materials shall conform to the

type of construction required for the building to which they are attached.

Exception: Fire-retardant-treated wood shall be permitted on buildings three stories or less above grade plane of Type I, II, III or IV construction.

705.3 Buildings on the same lot. For the purposes of determining the required wall and opening protection, projections and roof-covering requirements, buildings on the same lot shall be assumed to have an imaginary line between them.

Where a new building is to be erected on the same lot as an existing building, the location of the assumed imaginary line with relation to the existing building shall be such that the exterior wall and opening protection of the existing building meet the criteria as set forth in Sections 705.5 and 705.8.

Exceptions:

1. Two or more buildings on the same lot shall be either regulated as separate buildings or shall be considered as portions of one building if the aggregate area of such buildings is within the limits specified in Chapter 5 for a single building. Where the buildings contain different occupancy groups or are of different types of construction, the area shall be that allowed for the most restrictive occupancy or construction.
2. Where an S-2 parking garage of Construction Type I or IIA is erected on the same lot as a Group R-2 building, and there is no fire separation distance between these buildings, then the adjoining exterior walls between the buildings are permitted to have occupant use openings in accordance with Section 706.8. However, opening protectives in such openings shall only be required in the exterior wall of the S-2 parking garage, not in the exterior wall openings in the R-2 building, and these opening protectives in the exterior wall of the S-2 parking garage shall be not less than 1½-hour fire protection rating.

705.4 Materials. Exterior walls shall be of materials permitted by the building's type of construction.

705.5 Fire-resistance ratings. *For other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 exterior walls shall be fire-resistance rated in accordance with Table 601, based on the type of construction, and Table 705.5, based on the fire separation distance. The required fire-resistance rating of exterior walls with a fire separation distance of greater than 10 feet (3048 mm) shall be rated for exposure to fire from the inside. The required fire-resistance rating of exterior walls with a fire separation distance of less than or equal to 10 feet (3048 mm) shall be rated for exposure to fire from both sides.*

For Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, exterior walls shall be fire-resistance rated in accordance with Tables 601 and 705.5 and this section. The required fire-resistance rating of exterior walls shall be rated for exposure to fire from both sides.

705.6 Structural stability. Exterior walls shall extend to the height required by Section 705.11. Interior structural elements that brace the exterior wall but that are not located within the plane of the exterior wall shall have the minimum fire-resistance rating required in Table 601 for that structural element. Structural elements that brace the exterior wall but are located outside of the exterior wall or within the plane of the exterior wall shall have the minimum fire-resistance rating required in Table 601 and Table 705.5 for the exterior wall.

705.7 Unexposed surface temperature. Where protected openings are not limited by Section 705.8, the limitation on the rise of temperature on the unexposed surface of exterior walls as required by ASTM E119 or UL 263 shall not apply. Where protected openings are limited by Section 705.8, the limitation on the rise of temperature on the unexposed surface of exterior walls as required by ASTM E119 or UL 263 shall not apply provided that a correction is made for radiation from the unexposed exterior wall surface in accordance with the following formula:

$$A_e = A + (A_f \times F_{eo}) \quad \text{(Equation 7-1)}$$

where:

A_e = Equivalent area of protected openings.

A = Actual area of protected openings.

A_f = Area of exterior wall surface in the story under consideration exclusive of openings, on which the temperature limitations of ASTM E119 or UL 263 for walls are exceeded.

F_{eo} = An “equivalent opening factor” derived from Figure 705.7 based on the average temperature of the unexposed wall surface and the fire-resistance rating of the wall.

705.8 Openings. Openings in exterior walls shall comply with Sections 705.8.1 through 705.8.6.

705.8.1 Allowable area of openings. The maximum area of unprotected and protected openings permitted in an exterior wall in any story of a building shall not exceed the percentages specified in Table 705.8 based on the fire separation distance of each individual story.

Exceptions:

1. In other than Group H occupancies, unlimited unprotected openings are permitted in the first story above grade plane where the wall faces one of the following:
 - 1.1. A street and has a fire separation distance of more than 15 feet (4572 mm).
 - 1.2. An unoccupied space. The unoccupied space shall be on the same lot or dedicated for public use, shall be not less than 30 feet (9144 mm) in width and shall have access from a street by a posted fire lane in accordance with the *California Fire Code*.
2. Buildings whose exterior bearing walls, exterior nonbearing walls and exterior primary structural frame are not required to be fire-resistance rated shall be permitted to have unlimited unprotected openings.

705.8.2 Protected openings. Where openings are required to be protected, opening protectives shall comply with Section 716.

Exception: Opening protectives are not required where the building is equipped throughout with an automatic

TABLE 705.5
FIRE-RESISTANCE RATING REQUIREMENTS FOR EXTERIOR WALLS BASED ON FIRE SEPARATION DISTANCE^{a, d, g}

FIRE SEPARATION DISTANCE = X (feet)	TYPE OF CONSTRUCTION	OCCUPANCY GROUP H ^a , L	OCCUPANCY GROUP F-1, M, S-1 ^f	OCCUPANCY GROUP A, B, E, F-2, I, R ⁱ , S-2, U ^h
$X < 5^b$	All	3	2	1
$5 \leq X < 10$	IA, IVA	3	2	1
	Others	2	1	1
$10 \leq X < 30$	IA, IB, IVA, IVB	2	1	1 ^c
	IIB, VB	1	0	0
	Others	1	1	1 ^c
$X \geq 30$	All	0	0	0

For SI: 1 foot = 304.8 mm.

- a. Load-bearing exterior walls shall also comply with the fire-resistance rating requirements of Table 601.
- b. See Section 706.1.1 for party walls.
- c. Open parking garages complying with Section 406 shall not be required to have a fire-resistance rating.
- d. 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.
- e. For special requirements for Group H occupancies, see Section 415.6.
- f. For special requirements for Group S aircraft hangars, see Section 412.3.1.
- g. Where Table 705.8 permits nonbearing exterior walls with unlimited area of unprotected openings, the required fire-resistance rating for the exterior walls is 0 hours.
- h. For a building containing only a Group U occupancy private garage or carport, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater *or where equipped throughout with an automatic sprinkler system in accordance with Section 903.3 the fire-resistance rating shall not be required where the fire separation distance is 3 feet or greater.*
- i. For a Group R-3 building of Type II-B or Type V-B construction, the exterior wall shall not be required to have a fire-resistance rating where the fire separation distance is 5 feet (1523 mm) or greater *or where equipped throughout with an automatic sprinkler system in accordance with Section 903.3 the fire-resistance rating shall not be required where the fire separation distance is 3 feet or greater.*

walls and the fire-resistance-rated enclosure or separation requirements shall not apply.

Exceptions:

1. Exterior walls required to be fire-resistance rated in accordance with Section 1021 for exterior egress balconies, Section 1023.7 for interior exit stairways and ramps, Section 1024.8 for exit passageways and Section 1027.6 for exterior exit stairways and ramps.
2. Exterior walls required to be fire-resistance rated in accordance with Section 1207 of the *California Fire Code* for enclosure of energy storage systems.

707.5 Continuity. Fire barriers 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 and shall be securely attached thereto. Such fire barriers shall be continuous through concealed space, such as the space above a suspended ceiling. Joints and voids at intersections shall comply with Sections 707.8 and 707.9

Exceptions:

1. Shaft enclosures shall be permitted to terminate at a top enclosure complying with Section 713.12.
2. Interior exit stairway and ramp enclosures required by Section 1023 and exit access stairway and ramp enclosures required by Section 1019 shall be permitted to terminate at a top enclosure complying with Section 713.12.
3. An exit passageway enclosure required by Section 1024.3 that does not extend to the underside of the roof sheathing, slab or deck above shall be enclosed at the top with construction of the same fire-resistance rating as required for the exit passageway.

707.5.1 Supporting construction. The supporting construction for a *fire barrier* shall be protected to afford the required fire-resistance rating of the fire barrier supported. Hollow vertical spaces within a fire barrier shall be fireblocked in accordance with Section 718.2 at every floor level.

Exceptions:

1. The maximum required fire-resistance rating for assemblies supporting fire barriers separating tank storage as provided for in Section 415.9.1.2 shall be 2 hours, but not less than required by Table 601 for the building construction type.
2. Supporting construction for 1-hour fire barriers required by Table 509.1 in buildings of Types IIB, IIIB and VB construction is not required to be fire-resistance rated unless required by other sections of this code.

707.6 Openings. Openings in a fire barrier shall be protected in accordance with Section 716. Openings shall be limited to a maximum aggregate width of 25 percent of the length of the wall, and the maximum area of any single opening shall not

exceed 156 square feet (15 m²). Openings in enclosures for exit access stairways and ramps, interior exit stairways and ramps and exit passageways shall also comply with Sections 1019, 1023.4 and 1024.5, respectively.

Exceptions:

1. Openings shall not be limited to 156 square feet (15 m²) where adjoining floor areas are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. Openings shall not be limited to 156 square feet (15 m²) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door serving enclosures for exit access stairways and ramps, and interior exit stairways and ramps.
3. Openings shall not be limited to 156 square feet (15 m²) or an aggregate width of 25 percent of the length of the wall where the opening protective has been tested in accordance with ASTM E119 or UL 263 and has a minimum fire-resistance rating not less than the fire-resistance rating of the wall.
4. Fire window assemblies permitted in atrium separation walls shall not be limited to a maximum aggregate width of 25 percent of the length of the wall.
5. Openings shall not be limited to 156 square feet (15 m²) or an aggregate width of 25 percent of the length of the wall where the opening protective is a fire door assembly in a fire barrier separating an enclosure for exit access stairways and ramps, and interior exit stairways and ramps from an exit passageway in accordance with Section 1023.3.1.

707.7 Penetrations. Penetrations of fire barriers shall comply with Section 714.

707.7.1 Prohibited penetrations. Penetrations into enclosures for exit access stairways and ramps, interior exit stairways and ramps, and exit passageways shall be allowed only where permitted by Sections 1019, 1023.5 and 1024.6, respectively.

707.8 Joints. Joints made in or between fire barriers, and joints made at the intersection of fire barriers with underside of a fire-resistance-rated floor or roof sheathing, slab or deck above, and the exterior vertical wall intersection shall comply with Section 715.

707.9 Voids at intersections. The voids created at the intersection of a fire barrier and a non-fire-resistance-rated roof assembly or a non-fire-resistance-rated exterior wall assembly shall be filled. An approved material or system shall be used to fill the void, and shall be securely installed in or on the intersection for its entire length so as not to dislodge, loosen or otherwise impair its ability to accommodate expected building movements and to retard the passage of fire and hot gases.

707.10 Ducts and air transfer openings. Penetrations in a fire barrier by ducts and air transfer openings shall comply with Section 717.

SECTION 708 FIRE PARTITIONS

708.1 General. The following wall assemblies shall comply with this section:

1. Separation walls as required by Section 420.2 for Group R occupancies.
2. Walls separating tenant spaces in covered and open mall buildings as required by Section 402.4.2.1.
3. Corridor walls as required by Section 1020.3 *and in Group I-2 as required by Section 407.3.*
4. Enclosed elevator lobby separation as required by Section 3006.3.
5. Egress balconies as required by Section 1021.2
6. Walls separating ambulatory care facilities from adjacent spaces, corridors or tenant as required by Section 422.2.
7. Walls separating dwelling and sleeping units in Groups R-1 and R-2 in accordance with Sections 907.2.8.1 and 907.2.9.1.
8. Vestibules in accordance with Section 1028.2.
9. *Walls separating enclosed tenant spaces in high-rise buildings and in buildings of Types I, IIA, IIIA, IV or VA construction of Group A, E, H, I, L and R-2.1 occupancies and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal.*

708.2 Materials. The walls shall be of materials permitted by the building type of construction.

708.3 Fire-resistance rating. Fire partitions shall have a fire-resistance rating of not less than 1 hour.

Exceptions:

1. Corridor walls permitted to have a $\frac{1}{2}$ -hour fire-resistance rating by Table 1020.2.
2. Dwelling unit and sleeping unit separations in buildings of Types IIB, IIIB and VB construction shall have fire-resistance ratings of not less than $\frac{1}{2}$ hour in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
3. *Walls separating enclosed tenant spaces in Group B high-rise buildings of Type I and II construction equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.*

708.4 Continuity. Fire partitions shall extend from the top of the foundation or floor/ceiling assembly below and be securely attached to one of the following:

1. The underside of the floor or roof sheathing, deck or slab above.
2. The underside of a floor/ceiling or roof/ceiling assembly having a fire-resistance rating that is not less than the fire-resistance rating of the fire partition.

Exceptions:

1. Fire partitions shall not be required to extend into a crawl space below where the floor above the crawl space has a minimum 1-hour fire-resistance rating.

2. Fire partitions serving as a corridor wall shall not be required to extend above the lower membrane of a corridor ceiling provided that the corridor ceiling membrane is equivalent to corridor wall membrane, and either of the following conditions is met:
 - 2.1. The room-side membrane of the corridor wall extends to the underside of the floor or roof sheathing, deck or slab of a fire-resistance-rated floor or roof above.
 - 2.2. The building is equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1 or 903.3.1.2, including automatic sprinklers installed in the space between the top of the fire partition and underside of the floor or roof sheathing, deck or slab above.

3. Fire partitions serving as a corridor wall shall be permitted to terminate at the upper membrane of the corridor ceiling assembly where the corridor ceiling is constructed as required for the corridor wall.

4. Fire partitions separating tenant spaces in a covered or open mall building complying with Section 402.4.2.1 shall not be required to extend above the underside of a ceiling. Such ceiling shall not be required to be part of a fire-resistance-rated assembly, and the attic or space above the ceiling at tenant separation walls shall not be required to be subdivided by fire partitions.

708.4.1 Supporting construction. The supporting construction for a fire partition shall have a fire-resistance rating that is equal to or greater than the required fire-resistance rating of the supported fire partition.

Exception: In buildings of Types IIB, IIIB and VB construction, the supporting construction requirement shall not apply to fire partitions separating tenant spaces in covered and open mall buildings, fire partitions separating dwelling units, fire partitions separating sleeping units, fire partitions serving as corridor walls, fire partitions separating ambulatory care facilities from adjacent spaces or corridors, fire partitions separating dwelling and sleeping units from Group R-1 and R-2 occupancies and fire partitions separating vestibules from the level of exit discharge.

708.4.2 Fireblocks and draftstops in combustible construction. In combustible construction where fire partitions do not extend to the underside of the floor or roof sheathing, deck or slab above, the space above and along the line of the fire partition shall be provided with one of the following:

1. Fireblocking up to the underside of the floor or roof sheathing, deck or slab above using materials complying with Section 718.2.1.
2. Draftstopping up to the underside of the floor or roof sheathing, deck or slab above using materials com-

plying with Section 718.3.1 for floors or Section 718.4.1 for attics.

Exceptions:

1. Buildings equipped with an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1, or in accordance with Section 903.3.1.2 provided that protection is provided in the space between the top of the fire partition and underside of the floor or roof sheathing, deck or slab above as required for systems complying with Section 903.3.1.1.
2. Where corridor walls provide a sleeping unit or dwelling unit separation, draftstopping shall only be required above one of the corridor walls.
3. In Group R-2 occupancies with fewer than four dwelling units, fireblocking and draftstopping shall not be required.
4. In Group R-2 occupancies up to and including four stories in height in buildings not exceeding 60 feet (18 288 mm) in height above grade plane, the attic space shall be subdivided by draftstops into areas not exceeding 3,000 square feet (279 m²) or above every two dwelling units, whichever is smaller.
5. In Group R-3 occupancies with fewer than three dwelling units, fireblocking and draftstopping shall not be required in floor assemblies.

708.5 Exterior walls. Where exterior walls serve as a part of a required fire-resistance-rated separation, such walls shall comply with the requirements of Section 705 for exterior walls, and the fire-resistance-rated separation requirements shall not apply.

Exception: Exterior walls required to be fire-resistance rated in accordance with Section 1021.2 for exterior egress balconies, Section 1023.7 for interior exit stairways and ramps and Section 1027.6 for exterior exit stairways and ramps.

708.6 Openings. Openings in a fire partition shall be protected in accordance with Section 716.

708.7 Penetrations. Penetrations of fire partitions shall comply with Section 714.

708.8 Joints. Joints made in or between fire partitions shall comply with Section 715.

708.9 Ducts and air transfer openings. Penetrations in a fire partition by ducts and air transfer openings shall comply with Section 717.

SECTION 709 SMOKE BARRIERS

709.1 General. Vertical and horizontal smoke barriers shall comply with this section.

709.2 Materials. Smoke barriers shall be of materials permitted by the building type of construction.

709.3 Fire-resistance rating. A 1-hour fire-resistance rating is required for smoke barriers.

709.4 Continuity. Smoke barriers shall form an effective membrane continuous from the top of the foundation or floor/ceiling assembly below to the underside of the floor or roof sheathing, deck or slab above, including continuity through concealed spaces, such as those found above suspended ceilings, and interstitial structural and mechanical spaces. The supporting construction shall be protected to afford the required fire-resistance rating of the wall or floor supported in buildings of other than Type IIB, IIIB or VB construction. Smoke-barrier walls used to separate smoke compartments shall comply with Section 709.4.1. Smoke-barrier walls used to enclose areas of refuge in accordance with Section 1009.6.4 or to enclose elevator lobbies in accordance with Section 405.4.3, 3007.6.2, or 3008.6.2 shall comply with Section 709.4.2.

Exception: Smoke-barrier walls are not required in interstitial spaces where such spaces are designed and constructed with ceilings or exterior walls that provide resistance to the passage of fire and smoke equivalent to that provided by the smoke-barrier walls.

709.4.1 Smoke-barrier assemblies separating smoke compartments. Smoke-barrier assemblies used to separate smoke compartments shall form an effective membrane enclosure that is continuous from an outside wall or smoke barrier wall to an outside wall or another smoke barrier wall and to the horizontal assemblies.

709.4.2 Smoke-barrier walls enclosing areas of refuge or elevator lobbies. Smoke-barrier walls used to enclose areas of refuge in accordance with Section 1009.6.4, or to enclose elevator lobbies in accordance with Section 405.4.3, 3007.6.2, or 3008.6.2, shall form an effective membrane enclosure that terminates at a fire barrier wall having a level of fire protection rating not less than 1 hour, another smoke barrier wall or an outside wall. A smoke and draft control door assembly as specified in Section 716.2.2.1.1 shall not be required at each elevator hoistway door opening or at each exit doorway between an area of refuge and the exit enclosure.

709.5 Openings. Openings in a smoke barrier shall be protected in accordance with Section 716.

Exceptions:

1. In Group I-2, *R-2.1* and ambulatory care facilities, where a pair of opposite-swinging doors are installed across a corridor in accordance with Section 709.5.1, the doors shall be protected in accordance with Section 716. The doors shall not have a center mullion. Factory-applied or field-applied protective plates are not required to be labeled. *Doors installed across corridors shall comply with Section 1010.1.1.*
2. In Group I-2, *R-2.1* and ambulatory care facilities, special purpose horizontal sliding, accordion or folding doors installed in accordance with Section 1010.3.3 and protected in accordance with Section

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716. *Doors installed across corridors shall comply with Section 1010.1.1.*

> **709.5.1 Group I-2, R-2.1 and ambulatory care facilities.** In Group I-2, R-2.1 and ambulatory care facilities, where doors protecting openings in smoke barriers are installed across a corridor and have hold-open devices, the doors shall be automatic-closing in accordance with Section 716.2.6.6. Such doors shall have a vision panel with fire-protection-rated glazing materials in fire-protection-rated frames, the area of which shall not exceed that tested. *In Group I-2, where swinging doors are installed across a corridor, such doors shall be opposite swinging pairs.*

709.6 Penetrations. Penetrations of smoke barriers shall comply with Section 714.

709.7 Joints. Joints made in or between smoke barriers shall comply with Section 715.

709.8 Ducts and air transfer openings. Penetrations in a smoke barrier by ducts and air transfer openings shall comply with Section 717.

SECTION 710 SMOKE PARTITIONS

710.1 General. Smoke partitions installed as required elsewhere in the code shall comply with this section.

> **710.2 Materials.** The walls shall be of materials permitted by the building type of construction. *In Group I-2, smoke partitions shall have framing covered with noncombustible materials having an approved thermal barrier with an index of not less than 15 in accordance with FM 4880, UL 1040, NFPA 286 or UL 1715.*

710.3 Fire-resistance rating. Unless required elsewhere in the code, smoke partitions are not required to have a fire-resistance rating.

710.4 Continuity. Smoke partitions shall extend from the top of the foundation or floor below to the underside of the floor or roof sheathing, deck or slab above or to the underside of the ceiling above where the ceiling membrane is constructed to limit the transfer of smoke.

710.5 Openings. Openings in smoke partitions shall comply with Sections 710.5.1 through 710.5.3.

710.5.1 Windows. Windows in smoke partitions shall be sealed to resist the free passage of smoke or be automatic-closing upon detection of smoke.

710.5.2 Doors. Doors in smoke partitions shall comply with Sections 710.5.2.1 through 710.5.2.3.

710.5.2.1 Louvers. Doors in smoke partitions shall not include louvers.

Exception: Where permitted in accordance with Section 407.3.1.1.

710.5.2.2 Smoke and draft control doors. Where required elsewhere in the code, doors in smoke partitions shall meet the requirements for a smoke and draft control door assembly tested in accordance with

UL 1784. The air leakage rate of the door assembly shall not exceed 3.0 cubic feet per minute per square foot [$0.015424 \text{ m}^3/(\text{s} \times \text{m}^2)$] of door opening at 0.10 inch (24.9 Pa) of water for both the ambient temperature test and the elevated temperature exposure test. Installation of smoke doors shall be in accordance with NFPA 105.

710.5.2.2.1 Smoke and draft control door labeling. Smoke and draft control doors complying only with UL 1784 shall be permitted to show the letter “S” on the manufacturer’s labeling.

710.5.2.3 Self- or automatic-closing doors. Where required elsewhere in the code, doors in smoke partitions shall be self- or automatic-closing by smoke detection in accordance with Section 716.2.6.6.

710.5.3 Pass-through openings in Group I-2, Condition 2. Where pass-through openings are provided in smoke partitions in Group I-2, Condition 2 occupancies, such openings shall comply with the following:

1. The smoke compartment in which the pass-through openings occur does not contain a patient care suite or sleeping room.
2. Pass-through openings are installed in a wall, door or vision panel that is not required to have a fire-resistance rating.
3. The top of the pass-through opening is located a maximum of 48 inches (1219 mm) above the floor.
4. The aggregate area of all such pass-through openings within a single room shall not exceed 80 square inches (0.05 m^2).

710.6 Penetrations. The space around penetrating items shall be filled with an approved material to limit the free passage of smoke.

710.7 Joints. Joints shall be filled with an approved material to limit the free passage of smoke.

710.8 Ducts and air transfer openings. The space around a duct penetrating a smoke partition shall be filled with an approved material to limit the free passage of smoke. Air transfer openings in smoke partitions shall be provided with a smoke damper complying with Section 717.3.2.2. *For Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, duct openings in smoke partitions shall also be provided with a smoke damper complying with Section 717.3.2.2.*

Exceptions:

1. Where the installation of a smoke damper will interfere with the operation of a required smoke control system in accordance with Section 909, approved alternative protection shall be utilized.
2. *[SFM] Smoke dampers are not required in corridor penetrations where the duct is constructed of steel not less than 0.019-inch (0.40 mm) in thickness and there are no openings serving the corridor.*

SECTION 711 FLOOR AND ROOF ASSEMBLIES

711.1 General. Horizontal assemblies shall comply with Section 711.2. Nonfire-resistance-rated floor and roof assemblies shall comply with Section 711.3.

711.2 Horizontal assemblies. Horizontal assemblies shall comply with Sections 711.2.1 through 711.2.6.

711.2.1 Materials. Assemblies shall be of materials permitted by the building type of construction.

711.2.2 Continuity. Assemblies shall be continuous without vertical openings, except as permitted by this section and Section 712.

711.2.3 Supporting construction. The supporting construction shall be protected to afford the required fire-resistance rating of the horizontal assembly supported.

Exception: In buildings of Type IIB, IIIB or VB construction, the construction supporting the horizontal assembly is not required to be fire-resistance rated at the following:

1. Horizontal assemblies at the separations of incidental uses as specified by Table 509.1 provided that the required fire-resistance rating does not exceed 1 hour.
2. Horizontal assemblies at the separations of dwelling units and sleeping units as required by Section 420.3.
3. Horizontal assemblies at smoke barriers constructed in accordance with Section 709.

711.2.4 Fire-resistance rating. The fire-resistance rating of horizontal assemblies shall comply with Sections 711.2.4.1 through 711.2.4.6 but shall be not less than that required by the building type of construction.

711.2.4.1 Separating mixed occupancies. Where the horizontal assembly separates mixed occupancies, the assembly shall have a fire-resistance rating of not less than that required by Section 508.4 based on the occupancies being separated.

711.2.4.2 Separating fire areas. Where the horizontal assembly separates a single occupancy into different fire areas, the assembly shall have a fire-resistance rating of not less than that required by Section 707.3.10.

711.2.4.3 Dwelling units and sleeping units. Horizontal assemblies serving as dwelling or sleeping unit separations in accordance with Section 420.3 shall be not less than 1-hour fire-resistance-rated construction.

Exception: Horizontal assemblies separating dwelling units and sleeping units shall be not less than 1/2-hour fire-resistance-rated construction in a building of Types IIB, IIIB and VB construction, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

711.2.4.4 Separating smoke compartments. Where the horizontal assembly is required to be a smoke barrier, the assembly shall comply with Section 709.

711.2.4.5 Separating incidental uses. Where the horizontal assembly separates incidental uses from the remainder of the building, the assembly shall have a fire-resistance rating of not less than that required by Section 509.

711.2.4.6 Other separations. Where a horizontal assembly is required by other sections of this code, the assembly shall have a fire-resistance rating of not less than that required by that section.

711.2.5 Ceiling panels. Where the weight of lay-in ceiling panels, used as part of fire-resistance-rated floor/ceiling or roof/ceiling assemblies, is not adequate to resist an upward force of 1 pound per square foot (48 Pa), wire or other approved devices shall be installed above the panels to prevent vertical displacement under such upward force.

711.2.6 Unusable space. In 1-hour fire-resistance-rated floor/ceiling assemblies, the ceiling membrane is not required to be installed over unusable crawl spaces. In 1-hour fire-resistance-rated roof assemblies, the floor membrane is not required to be installed where unusable attic space occurs above.

711.3 Nonfire-resistance-rated floor and roof assemblies. Nonfire-resistance-rated floor, floor/ceiling, roof and roof/ceiling assemblies shall comply with Sections 711.3.1 and 711.3.2.

711.3.1 Materials. Assemblies shall be of materials permitted by the building type of construction.

711.3.2 Continuity. Assemblies shall be continuous without vertical openings, except as permitted by Section 712.

SECTION 712 VERTICAL OPENINGS

712.1 General. Each vertical opening shall comply in accordance with one of the protection methods in Sections 712.1.1 through 712.1.16.

712.1.1 Shaft enclosures. Vertical openings contained entirely within a shaft enclosure complying with Section 713 shall be permitted.

712.1.2 Individual dwelling unit. Unconcealed vertical openings totally within an individual residential dwelling unit and connecting four stories or less shall be permitted.

712.1.3 Escalator openings. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, vertical openings for escalators shall be permitted where protected in accordance with Section 712.1.3.1 or 712.1.3.2.

712.1.3.1 Opening size. Protection by a draft curtain and closely spaced sprinklers in accordance with NFPA 13 shall be permitted where the area of the vertical opening between stories does not exceed twice the horizontal projected area of the escalator. In other than

Groups B and M, this application is limited to openings that do not connect more than four stories.

712.1.3.2 Automatic shutters. Protection of the vertical opening by approved shutters at every penetrated floor shall be permitted in accordance with this section. 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 907.3.1 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.

712.1.4 Penetrations. Penetrations, concealed and uncealed, shall be permitted where protected in accordance with Section 714.

712.1.5 Joints. Joints shall be permitted where complying with Section 712.1.5.1 or 712.1.5.2, as applicable.

712.1.5.1 Joints in or between horizontal assemblies. Joints made in or between horizontal assemblies shall comply with Section 715. The void created at the intersection of a floor/ceiling assembly and an exterior curtain wall assembly shall be permitted where protected in accordance with Section 715.4.

712.1.5.2 Joints in or between nonfire-resistance-rated floor assemblies. Joints in or between floor assemblies without a required fire-resistance rating shall be permitted where they comply with one of the following:

1. The joint shall be concealed within the cavity of a wall.
2. The joint shall be located above a ceiling.
3. The joint shall be sealed, treated or covered with an approved material or system to resist the free passage of flame and the products of combustion.

Exception: Joints meeting one of the exceptions specified in Section 715.3.

712.1.6 Ducts and air transfer openings. Penetrations by ducts and air transfer openings shall be protected in accordance with Section 717. Grease ducts shall be protected in accordance with the *California Mechanical Code*.

712.1.7 Atriums. Atriums complying with Section 404 that connect two or more stories in Group I-2 or I-3 occupancies or three or more stories in other occupancies shall be permitted.

Exceptions:

1. Atriums shall not be permitted within Group H occupancies.
2. Balconies or stories within Groups A-1, A-4 and A-5 and mezzanines that comply with Section

505 shall not be considered a story as it applies to this section

712.1.8 Masonry chimney. Approved vertical openings for masonry chimneys shall be permitted where the annular space is fireblocked at each floor level in accordance with Section 718.2.5.

712.1.9 Two-story openings. In other than Groups I-2 and I-3, a vertical opening that is not used as one of the applications specified in this section shall be permitted if the opening complies with all of the following items:

1. Does not connect more than two stories.
2. Does not penetrate a horizontal assembly that separates fire areas or smoke barriers that separate smoke compartments.
3. Is not concealed within the construction of a wall or a floor/ceiling assembly.
4. Is not open to a corridor in Group I and R occupancies.
5. Is not open to a corridor on nonsprinklered floors.
6. Is separated from floor openings and air transfer openings serving other floors by construction conforming to required shaft enclosures.

712.1.10 Parking garages. Vertical openings in parking garages for automobile ramps, elevators and duct systems shall comply with Section 712.1.10.1, 712.1.10.2 or 712.1.10.3, as applicable.

712.1.10.1 Automobile ramps. Vertical openings for automobile ramps in parking garages shall be permitted where constructed in accordance with Sections 406.5 and 406.6.

712.1.10.2 Elevators. Vertical openings for elevator hoistways in parking garages that serve only the parking garage, and complying with Sections 406.5 and 406.6, respectively, shall be permitted.

712.1.10.3 Duct systems. Vertical openings for mechanical exhaust or supply duct systems in parking garages complying with Sections 406.5 and 406.6, respectively, shall be permitted to be unenclosed where such duct system is contained within and serves only the parking garage.

712.1.11 Mezzanine. Vertical openings between a mezzanine complying with Section 505 and the floor below shall be permitted.

712.1.12 Exit access stairways and ramps. Vertical openings containing exit access stairways or ramps in accordance with Section 1019 shall be permitted.

712.1.13 Openings. Vertical openings for floor fire doors and access doors shall be permitted where protected by Section 712.1.13.1 or 712.1.13.2.

712.1.13.1 Horizontal fire door assemblies. Horizontal fire door assemblies used to protect openings in fire-resistance-rated horizontal assemblies shall be tested in accordance with NFPA 288, and shall achieve a fire-resistance rating not less than the assembly being pene-

TABLE 716.1(2)—continued
OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

For SI: 1 square inch = 645.2 mm.

- a. Fire-resistance-rated glazing tested to ASTM E119 in accordance with Section 716.1.2.3 shall be permitted, in the maximum size tested.
- b. Under the column heading “Fire-rated glazing marking door vision panel,” W refers to the fire-resistance rating of the glazing, not the frame.
- c. See Section 716.1.2.2.1 and Table 716.1(1) for additional permitted markings.
- d. Two doors, each with a fire protection rating of 1½ hours, installed on opposite sides of the same opening in a fire wall, shall be deemed equivalent in fire protection rating to one 3-hour fire door.
- e. As required in Section 706.4.
- f. As allowed in Section 4.6 of NFPA 221.
- g. See Section 716.2.5.1.2.
- h. Fire-protection-rated glazing is not permitted for fire barriers required by Section 1207 of the *California Fire Code* to enclose energy storage systems. Fire-resistance-rated glazing assemblies tested to ASTM E119 or UL 263, as specified in Section 716.1.2.3, shall be permitted.
- i. Two doors, each with a fire rating of 20 minutes, installed on opposite sides of the same opening in a fire partition, shall be deemed equivalent in fire protection rating to one 45-minute fire door.

TABLE 716.1(3)
FIRE WINDOW ASSEMBLY FIRE PROTECTION RATINGS

TYPE OF WALL ASSEMBLY	REQUIRED WALL ASSEMBLY RATING (hours)	MINIMUM FIRE WINDOW ASSEMBLY RATING (hours)	FIRE-RATED GLAZING MARKING
Interior walls			
Fire walls	All	NP ^a	W-XXX ^b
Fire barriers	>1	NP ^a	W-XXX ^b
	1	NP ^a	W-XXX ^b
Atrium separations (Section 707.3.6), Incidental use areas (Section 707.3.7), ^c Mixed occupancy separations (Section 707.3.9)	1	¾	OH-45 or W-60
Fire partitions	1	¾	OH-45 or W-60
	0.5	⅓	OH-20 or W-30
Smoke barriers	1	¾	OH-45 or W-60
Exterior walls	>1	1½	OH-90 or W-XXX ^b
	1	¾	OH-45 or W-60
	0.5	⅓	OH-20 or W-30
Party wall	All	NP	Not Applicable

NP = Not Permitted.

- a. Not permitted except fire-resistance-rated glazing assemblies tested to ASTM E119 or UL 263, as specified in Section 716.1.2.3.
- b. XXX = The fire rating duration period in minutes, which shall be equal to the fire-resistance rating required for the wall assembly.
- c. Fire-protection-rated glazing is not permitted for fire barriers required by Section 1207 of the *California Fire Code* to enclose energy storage systems. Fire-resistance-rated glazing assemblies tested to ASTM E119 or UL 263, as specified in Section 716.1.2.3, shall be permitted.

716.1.2.2.2 Fire-protection-rated glazing identification. For fire-protection-rated glazing, the label shall bear the following identification required in Tables 716.1(1) and 716.1(3): “OH – XXX.” “OH” indicates that the glazing meets both the fire protection and the hose-stream requirements of NFPA 257 or UL 9 and is permitted to be used in fire window openings. The placeholder “XXX” represents the fire-rating period, in minutes.

716.1.2.2.3 Fire-resistance-rated glazing identification. For fire-resistance-rated glazing, the label shall bear the identification required in Section 703.4 and Table 716.1(1).

716.1.2.2.4 Fire-rated glazing that exceeds the code requirements. Fire-rated glazing assemblies marked as complying with hose stream requirements (H) shall

be permitted in applications that do not require compliance with hose stream requirements. Fire-rated glazing assemblies marked as complying with temperature rise requirements (T) shall be permitted in applications that do not require compliance with temperature rise requirements. Fire-rated glazing assemblies marked with ratings (XXX) that exceed the ratings required by this code shall be permitted.

716.1.2.3 Fire-resistance-rated glazing. Fire-resistance-rated glazing tested as part of a fire-resistance-rated wall or floor/ceiling assembly in accordance with ASTM E119 or UL 263 and labeled in accordance with Section 703.4 shall not otherwise be required to comply with this section where used as part of a wall or floor/ceiling assembly.

716.1.2.3.1 Glazing in fire door and fire window assemblies. Fire-resistance-rated glazing shall be permitted in fire door and fire window assemblies where tested and installed in accordance with their listings and where in compliance with the requirements of this section.

716.2 Fire door assemblies. Fire door assemblies required by other sections of this code shall comply with the provisions of this section. Fire door frames with transom lights, sidelights or both shall be permitted in accordance with Section 716.2.5.4.

716.2.1 Testing requirements. Approved fire door and fire shutter assemblies shall be constructed of any material or assembly of component materials that conforms to the test requirements of Sections 716.2.1.1 through 716.2.1.4 and the fire protection rating indicated in Table 716.1(2).

Exceptions:

1. Labeled protective assemblies that conform to the requirements of this section or UL 10A, UL 14B and UL 14C for tin-clad fire door assemblies.
2. Floor fire door assemblies in accordance with Section 712.1.13.1.

716.2.1.1 Side-hinged or pivoted swinging doors.

Fire door assemblies with side-hinged and pivoted swinging doors shall be tested in accordance with NFPA 252 or UL 10C. For tests conducted in accordance with NFPA 252, the fire test shall be conducted using the positive pressure method specified in the standard.

716.2.1.2 Other types of assemblies. Fire door assemblies with other types of doors, including swinging elevator doors, horizontal sliding fire doors, rolling steel fire doors, fire shutters, bottom- and side-hinged chute intake doors, and top-hinged chute discharge doors, shall be tested in accordance with NFPA 252 or UL 10B. For tests conducted in accordance with NFPA 252, the neutral pressure plane in the furnace shall be maintained as nearly equal to the atmospheric pressure as possible at the top of the door, as specified in the standard.

716.2.1.3 Glazing in transoms lights and sidelights in corridors and smoke barriers. Glazing material in any other part of the door assembly, including transom lights and sidelights, shall be tested in accordance with NFPA 257 or UL 9, including the hose stream test, in accordance with Section 716.3.1.1.

716.2.1.4 Smoke and draft control. Fire door assemblies that serve as smoke and draft control assemblies shall be tested in accordance with UL 1784.

716.2.2 Performance requirements. Fire door assemblies shall be installed in the assemblies specified in Table 716.1(2) and shall comply with the fire protection rating specified.

716.2.2.1 Door assemblies in corridors and smoke barriers. Fire door assemblies required to have a minimum fire protection rating of 20 minutes where located

in corridor walls or smoke barrier walls having a fire-resistance rating in accordance with Table 716.1(2) shall be tested in accordance with NFPA 252 or UL 10C without the hose stream test.

Exceptions:

1. Viewports that require a hole not larger than 1 inch (25 mm) in diameter through the door, have not less than a 0.25-inch-thick (6.4 mm) glass disc and the holder is of metal that will not melt out where subject to temperatures of 1,700°F (927°C).
2. Corridor door assemblies in occupancies of Group I-2 *in fully sprinklered buildings* shall be in accordance with Section 407.3.1.
3. Unprotected openings shall be permitted for corridors in multitheater complexes where each motion picture auditorium has not fewer than one-half of its required exit or exit access doorways opening directly to the exterior or into an exit passageway.
4. Horizontal sliding doors in smoke barriers that comply with Sections 408.6 and 408.8.1 in occupancies in Group I-3.
5. *Group I-3 occupancy cell or room doors that have any of the following as integral parts of the rated door assembly:*
Sidelights, Cuff Ports, Speaker Ports and open into a required exit corridor within a cell complex, medical suite, mental health suite, program office, family visiting area or complex control area.
6. *Safety room doors with a food pass with a lockable shutter, no more than 4 inches (102 mm) high, and located between 26 inches (660 mm) and 32 inches (813 mm) as measured from the bottom of the food pass to the floor.*

716.2.2.1.1 Smoke and draft control. The air leakage rate of the door assembly shall not exceed 3.0 cubic feet per minute per square foot (0.01524 m³/s × m²) of door opening at 0.10 inch (24.9 Pa) of water for both the ambient temperature and elevated temperature tests. Louvers shall be prohibited. Terminated stops shall be prohibited on doors required by Section 405.4.3 to comply with Section 716.2.2.1 and prohibited on doors required by Item 3 of Section 3006.3, or Section 3007.6.3 or 3008.6.3 to comply with this section.

716.2.2.2 Door assemblies in other fire partitions.

Fire door assemblies required to have a minimum fire protection rating of 20 minutes where located in other fire partitions having a fire-resistance rating of 0.5 hour in accordance with Table 716.1(2) shall be tested in accordance with NFPA 252, UL 10B or UL 10C with the hose stream test.

716.2.2.3 Doors in interior exit stairways and ramps and exit passageways. Fire door assemblies in interior exit stairways and ramps and exit passageways shall

have a maximum transmitted temperature rise of not more than 450°F (250°C) above ambient at the end of 30 minutes of standard fire test exposure.

Exception: The maximum transmitted temperature rise is not required in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

716.2.2.3.1 Glazing in doors. Fire-protection-rated glazing in excess of 100 square inches (0.065 m²) is not permitted. Fire-resistance-rated glazing in excess of 100 square inches (0.065 m²) shall be permitted in fire doors. Listed fire-resistance-rated glazing in a fire door shall have a maximum transmitted temperature rise in accordance with Section 716.2.2.3 when the fire door is tested in accordance with NFPA 252, UL 10B or UL 10C.

716.2.3 Fire doors Fire doors installed within a fire door assembly shall meet the fire rating indicated in Table 716.1(2).

716.2.4 Fire door frames. Fire door frames installed as part of a fire door assembly shall meet the fire rating indicated in Table 716.1(2).

716.2.5 Glazing in fire door assemblies. Fire-rated glazing conforming to the opening protection requirements in Section 716.2.1 shall be permitted in fire door assemblies.

716.2.5.1 Size limitations. Fire-resistance-rated glazing shall comply with the size limitations in Section 716.2.5.1.1. Fire-protection-rated glazing shall comply with the size limitations of NFPA 80, and as provided in Section 716.2.5.1.2.

716.2.5.1.1 Fire-resistance-rated glazing in door assemblies in fire walls and fire barriers rated greater than 1 hour. Fire-resistance-rated glazing tested to ASTM E119 or UL 263 and NFPA 252, UL 10B or UL 10C shall be permitted in fire door assemblies located in fire walls and in fire barriers in accordance with Table 716.1(2) to the maximum size tested and in accordance with their listings.

716.2.5.1.2 Fire-protection-rated glazing in door assemblies in fire walls and fire barriers rated greater than 1 hour. Fire-protection-rated glazing shall be prohibited in fire walls and fire barriers except as provided in Sections 716.2.5.1.2.1 and 716.2.5.1.2.2.

716.2.5.1.2.1 Horizontal exits. Fire-protection-rated glazing shall be permitted as vision panels in self-closing swinging fire door assemblies serving as horizontal exits in fire walls where limited to 100 square inches (0.065 m²).

716.2.5.1.2.2 Fire barriers. Fire-protection-rated glazing shall be permitted in fire doors having a 1½-hour fire protection rating intended for installation in fire barriers, where limited to 100 square inches (0.065 m²).

716.2.5.2 Elevator, stairway and ramp protectives. Approved fire-protection-rated glazing used in fire

door assemblies in elevator, stairway and ramp enclosures shall be so located as to furnish clear vision of the passageway or approach to the elevator, stairway or ramp.

716.2.5.3 Glazing in door assemblies in corridors and smoke barriers. In a 20-minute fire door assembly, the glazing material in the door itself shall have a minimum fire-protection-rated glazing of 20 minutes and shall be exempt from the hose stream test.

716.2.5.4 Fire door frames with transom lights and sidelights. Fire-protection-rated glazing shall be permitted in door frames with transom lights, sidelights or both, where a ¾-hour fire protection rating or less is required and in 2-hour fire-resistance-rated exterior walls in accordance with Table 716.1(2). Fire door frames with transom lights, sidelights or both, installed with fire-resistance-rated glazing tested as an assembly in accordance with ASTM E119 or UL 263 shall be permitted where a fire protection rating exceeding ¾ hour is required in accordance with Table 716.1(2).

716.2.5.4.1 Energy storage system separation.

Fire-protection-rated glazing shall not be permitted in fire door frames with transom lights and sidelights in fire barriers required by Section 1207 of the *California Fire Code* to enclose energy storage systems.

716.2.6 Fire door hardware and closers. Fire door hardware and *closers* shall be installed on fire door assemblies in accordance with the requirements of this section.

716.2.6.1 Door closing. Fire doors shall be latching and self- or automatic-closing in accordance with this section.

Exceptions:

1. Fire doors located in common walls separating sleeping units in Group R-1 shall be permitted without automatic- or self-closing devices.
2. The elevator car doors and the associated hoistway enclosure doors at the floor level designated for recall in accordance with Section 3003.2 shall be permitted to remain open during Phase I emergency recall operation.

716.2.6.2 Latch required. Unless otherwise specifically permitted, single side-hinged swinging fire doors and both leaves of pairs of side-hinged swinging fire doors shall be provided with an active latch bolt that will secure the door when it is closed.

716.2.6.3 Chute intake door latching. Chute intake doors shall be positive latching, remaining latched and closed in the event of latch spring failure during a fire emergency.

716.2.6.4 Automatic-closing fire door assemblies. Automatic-closing fire door assemblies shall be self-closing in accordance with NFPA 80.

716.2.6.5 Delayed-action closers. Doors required to be self-closing and not required to be automatic closing shall be permitted to be equipped with delayed-action closers.

716.2.6.6 Smoke-activated doors. Automatic-closing doors installed in the following locations shall be permitted to have hold-open devices. Doors shall automatically close by the actuation of smoke detectors installed in accordance with Section 907.3 or by loss of power to the smoke detector or hold-open device. Doors that are automatic-closing by smoke detection shall not have more than a 10-second delay before the door starts to close after the smoke detector is actuated. Automatic-closing doors that protect openings installed in the following locations shall comply with this section:

1. In walls that separate incidental uses in accordance with Section 509.4.
2. In fire walls in accordance with Section 706.8.
3. In fire barriers in accordance with Section 707.6.
4. In fire partitions in accordance with Section 708.6.
5. In smoke barriers in accordance with Section 709.5.
6. In smoke partitions in accordance with Section 710.5.2.3.
7. In shaft enclosures in accordance with Section 713.7.
8. In waste and linen chutes, discharge openings and access and discharge rooms in accordance with Section 713.13. Loading doors installed in waste and linen chutes shall meet the requirements of Sections 716.2.6.1 and 716.2.6.3.
9. *[SFM] Doors installed in walls required to be fire rated in accordance with Section 509.4.*
10. *[SFM] Doors installed in walls required to be fire rated in accordance with Section 508.4.*

In Group I-2 occupancies smoke activated doors installed in the above locations shall be automatic closing by actuation of the fire alarm system, or actuation of smoke detectors installed in accordance with Section 907.3, or activation of the sprinkler system installed in accordance with Section 903.1.

716.2.6.7 Doors in pedestrian ways. Vertical sliding or vertical rolling steel fire doors in openings through which pedestrians travel shall be heat activated or activated by smoke detectors with alarm verification.

716.2.7 Swinging fire shutters. Where fire shutters of the swinging type are installed in exterior openings, not less than one row in every three vertical rows shall be arranged to be readily opened from the outside, and shall be identified by distinguishing marks or letters not less than 6 inches (152 mm) high.

716.2.8 Rolling fire shutters. Where fire shutters of the rolling type are installed, such shutters shall include approved automatic-closing devices.

716.2.9 Labeled protective assemblies. Fire door assemblies shall be labeled by an approved agency. The labels

shall comply with NFPA 80, and shall be permanently affixed to the door or frame.

716.2.9.1 Fire door labeling requirements. Fire doors shall be labeled showing the name of the manufacturer or other identification readily traceable back to the manufacturer, the name or trademark of the third-party inspection agency, the fire protection rating and, where required for fire doors in interior exit stairways and ramps and exit passageways by Section 716.2.2.3, the maximum transmitted temperature end point. Smoke and draft control doors complying with UL 1784 shall be labeled as such and shall comply with Section 716.2.9.3. Labels shall be approved and permanently affixed. The label shall be applied at the factory or location where fabrication and assembly are performed.

716.2.9.1.1 Light kits, louvers and components.

Listed light kits and louvers and their required preparations shall be considered as part of the labeled door where such installations are done under the listing program of the third-party agency. Fire doors and fire door assemblies shall be permitted to consist of components, including glazing, vision light kits and hardware that are listed or classified and labeled for such use by different third-party agencies.

716.2.9.2 Oversized doors. Oversized fire doors shall bear an oversized fire door label by an approved agency or shall be provided with a certificate of inspection furnished by an approved testing agency. Where a certificate of inspection is furnished by an approved testing agency, the certificate shall state that the door conforms to the requirements of design, materials and construction, but has not been subjected to the fire test.

716.2.9.3 Smoke and draft control door labeling requirements. Smoke and draft control doors complying with UL 1784 shall be labeled in accordance with Section 716.2.9.1 and shall show the letter "S" on the fire-rating label of the door. This marking shall indicate that the door and frame assembly are in compliance where listed or labeled gasketing is installed.

716.2.9.4 Fire door frame labeling requirements. Fire door frames shall be labeled showing the names of the manufacturer and the third-party inspection agency.

Exception: In Group I-3 doors that are required to be 45 minutes or higher shall be fire-rated assemblies or certified by the manufacturer as being equivalent to the required standard.

716.2.9.5 Labeling. Fire-rated glazing shall bear a label or other identification showing the name of the manufacturer, the test standard and information required in Table 716.1(1) that shall be issued by an approved agency and shall be permanently identified on the glazing.

716.2.9.6 Fire door operator labeling requirements. Fire door operators for horizontal sliding doors shall be labeled and listed for use with the assembly.

5. Fire dampers and combination fire/smoke dampers are not required in kitchen and clothes dryer exhaust *California* where dampers are prohibited by the *California Mechanical Code*.

717.5.3.1 Continuous upward airflow. Fire dampers and smoke dampers shall not be installed in shafts that are required to maintain a continuous upward airflow path where closure of the damper would result in the loss of the airflow.

717.5.4 Fire partitions. *In other than Group A, E, I and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal,* 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 and L, 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 714.
2. Tenant partitions in covered and open 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 *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 not less than 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 1½-inch by 1½-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.

4. Such walls are penetrated by ducted HVAC systems, have a required fire-resistance rating of 1 hour or less, and are in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. For the purposes of this exception, a ducted HVAC system shall be a duct system for conveying supply, return or exhaust air as part of the structure's HVAC system. Such a duct system shall be constructed of sheet steel not less than No. 26 gage thickness and shall be continuous from the air-handling appliance or equipment to the air outlet and inlet terminals.

For Group A, E, I and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, ducts and air transfer openings that penetrate fire partitions shall be protected with listed fire dampers installed in accordance with their listings.

Exceptions:

1. Fire dampers are not required in corridor penetrations where the duct is constructed of steel not less than 0.019 inch (0.48 mm) in thickness, protected as a through penetration in accordance with Section 713 and there are no openings serving the corridor.
2. Fire dampers are not required where the duct system is constructed of approved materials in accordance with the *California Mechanical Code* and the duct penetrating the wall complies with all of the following requirements:
 - 2.1. For other than corridors in Group I-2 occupancies the duct shall not exceed 100 square inches (0.6 m²).
 - 2.2. The duct shall be constructed of steel a minimum of 0.0217 inch (0.55 mm) in thickness.
 - 2.3. The duct shall not have openings that communicate the corridor with adjacent spaces or rooms.
 - 2.4. The duct shall be installed above a ceiling.
 - 2.5. The duct shall not terminate at a wall register in the fire-resistance rated wall.
 - 2.6. The duct shall be protected as a through penetration in accordance with Section 714 or shall comply with the all of the following:
 1. A minimum 12-inch-long (305 mm) by 0.060-inch-thick (1.52 mm) steel sleeve shall be centered in each duct opening.
 2. The sleeve shall be secured to both sides of the wall and for all four sides of the sleeve with minimum 1½-inch by 1½-inch by 0.060-inch (38 mm by 38 mm by 1.52 mm) steel retaining angles.
 3. The retaining angles shall be secured to the sleeve and the wall with No. 10 (M5) screws.

4. *The annular space between the steel sleeve and the wall opening shall be filled with mineral wool batting on all sides.*

717.5.4.1 Corridors. *In other than Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, duct and air transfer openings that penetrate corridors shall be protected with dampers as follows:*

1. A corridor damper shall be provided where corridor ceilings, constructed as required for the corridor walls as permitted in Section 708.4, Exception 3, are penetrated.
2. A ceiling radiation damper shall be provided where the ceiling membrane of a fire-resistance-rated floor-ceiling or roof-ceiling assembly, constructed as permitted in Section 708.4, Exception 2, is penetrated.
3. A listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a corridor enclosure required to have smoke and draft control doors in accordance with Section 716.2.2.1.

Exceptions:

1. Smoke dampers are not required where the building is equipped throughout with an approved smoke control system in accordance with Section 909, and smoke dampers are not necessary for the operation and control of the system.
2. Smoke dampers are not required in corridor penetrations where the duct is constructed of steel not less than 0.019 inch (0.48 mm) in thickness and there are no openings serving the corridor.

[SFM] *For Group A, E, H, I, L and R occupancies, high-rise buildings, and other applications listed in Section 1.11 regulated by the Office of the State Fire Marshal, a listed smoke damper designed to resist the passage of smoke shall also be provided at each point a duct or air transfer opening penetrates a fire-resistance rated corridor enclosure required to have smoke and draft doors in accordance with Section 716.2.2.1 or doors that provide an effective barrier to limit the transfer of smoke in accordance with Section 407.3.1.*

Exceptions:

1. *Smoke dampers are not required 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.*
2. *Smoke damper are not required in corridor penetrations where the duct is constructed of steel not less than 0.019 inch (0.48 mm) in*

thickness and there are no openings serving the corridor.

717.5.5 Smoke barriers. A listed smoke damper designed to resist the passage of smoke shall be provided at each point a duct or air transfer opening penetrates a smoke barrier. Smoke dampers and smoke damper actuation methods shall comply with Section 717.3.3.2.

Exception: Smoke dampers are not required where the openings in ducts are limited to a single smoke compartment and the ducts are constructed of steel.

717.5.6 Exterior walls. Ducts and air transfer openings in fire-resistance-rated exterior walls required to have protected openings in accordance with Section 705.10 shall be protected with listed fire dampers installed in accordance with their listing.

717.5.7 Smoke partitions. A listed smoke damper designed to resist the passage of smoke shall be provided at each point that an air transfer opening penetrates a smoke partition. Smoke dampers and smoke damper actuation methods shall comply with Section 717.3.3.2.

Exception: Where the installation of a smoke damper will interfere with the operation of a required smoke control system in accordance with Section 909, approved alternative protection shall be utilized.

717.6 Horizontal assemblies. Penetrations by ducts and air transfer openings of a floor, floor/ceiling assembly or the ceiling membrane of a roof/ceiling assembly shall be protected by a shaft enclosure that complies with Section 713 or shall comply with Sections 717.6.1 through 717.6.3.

717.6.1 Through penetrations. In occupancies other than Groups I-2 and I-3, a duct constructed of approved materials in accordance with the *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 that a listed fire damper is installed at the floor line or the duct is protected in accordance with Section 714.5. For air transfer openings, see Section 712.1.9.

Exception: A duct is permitted to penetrate three floors or less without a fire damper at each floor, provided that such duct 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 0.0187 inches (0.4712 mm) (No. 26 gage).
2. The duct shall open into only one dwelling unit 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 E119 or UL 263 time-

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 7A – MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC-CG	SFM	HCD			DSA			OSHDP						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter			X																				
Adopt entire chapter as amended (amended sections listed below)																							
Adopt only those sections that are listed below																							
Chapter / Section																							

CHAPTER 7A [SFM]

MATERIALS AND CONSTRUCTION METHODS FOR EXTERIOR WILDFIRE EXPOSURE

SECTION 701A SCOPE, PURPOSE AND APPLICATION

701A.1 Scope. This chapter applies to building materials, systems and/or assemblies used in the exterior design and construction of new buildings located within a Wildland-Urban Interface (WUI) area as defined in Section 702A.

701A.2 Purpose. The purpose of this chapter is to establish minimum standards for the protection of life and property by increasing the ability of a building located in any Fire Hazard Severity Zone within a State Responsibility Area (SRA) or Local Responsibility Areas (LRA) or any Wildland-Urban Interface (WUI) areas as specified in Section 701A.3.1 to resist the intrusion of flames or burning embers projected by a vegetation fire and contributes to a systematic reduction in conflagration losses.

701A.3 Application. New buildings located in any Fire Hazard Severity Zone or any Wildland-Urban Interface (WUI) area designated by the enforcing agency constructed after the application date shall comply with the provisions of this chapter. This shall include all new buildings with residential, commercial, educational, institutional or similar occupancy type use, which shall be referred to in this chapter as “applicable building(s)” (see definition in Section 702A), as well as new buildings and structures accessory to those applicable buildings (see Exceptions 1 and 4).

Exceptions:

- Group U occupancy accessory buildings of any size located at least 50 feet (15 240 mm) from an applicable building on the same lot.
- Group U occupancy agricultural buildings, as defined in Section 202 of this code of any size located at least 50 feet (15 240 mm) from an applicable building.

- Group C occupancy special buildings conforming to the limitations specified in Section 450.4.1.
- New accessory buildings and miscellaneous structures specified in Section 710A shall comply only with the requirements of that section.
- Additions to and remodels of buildings originally constructed prior to July 1, 2008.

701A.3.1 Application date and where required. New buildings for which an application for a building permit is submitted on or after July 1, 2008, located in any Fire Hazard Severity Zone or Wildland-Urban Interface area shall comply with all sections of this chapter, including all the following areas:

- All unincorporated lands designated by the State Board of Forestry and Fire Protection as State Responsibility Area (SRA) including:
 - Moderate Fire Hazard Severity Zones.
 - High Fire Hazard Severity Zones.
 - Very-High Fire Hazard Severity Zones.
- Land designated as Very-High Fire Hazard Severity Zone by cities and other local agencies.
- Land designated as a Wildland-Urban Interface area by cities and other local agencies.

Exceptions:

- New buildings located in any Fire Hazard Severity Zone within a State Responsibility Area, for which an application for a building permit is submitted on or after January 1, 2008, shall comply with all sections of this chapter.
- New buildings located in any Fire Hazard Severity Zone within a State Responsibility

Area, or any Wildland-Urban Interface area designated by cities and other local agencies for which an application for a building permit is submitted on or after December 1, 2005, but prior to July 1, 2008, shall only comply with the following sections of this chapter:

2.1. Section 705A – Roofing.

2.2. Section 706A – Attic Ventilation.

701A.4 Inspection and certification. Building permit applications and final completion approvals for buildings within the scope and application of this chapter shall comply with the following:

1. **Building permit issuance.** The local building official shall, prior to construction, provide the owner or applicant a certification that the building as proposed to be built complies with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this chapter. Issuance of a building permit by the local building official for the proposed building shall be considered as complying with this section.
2. **Building permit final.** The local building official shall, upon completion of construction, provide the owner or applicant with a copy of the final inspection report that demonstrates the building was constructed in compliance with all applicable state and local building standards, including those for materials and construction methods for wildfire exposure as described in this chapter. Issuance of a certificate of occupancy by the local building official for the proposed building shall be considered as complying with this section.

701A.5 Vegetation management compliance. Prior to building permit final approval, the property shall be in compliance with the vegetation management requirements prescribed in California Fire Code Section 4906, including California Public Resources Code 4291 or California Government Code Section 51182. Acceptable methods of compliance inspection and documentation shall be determined by the enforcing agency and shall be permitted to include any of the following:

1. Local, state or federal fire authority or designee authorized to enforce vegetation management requirements.
2. Enforcing agency.
3. Third party inspection and certification authorized to enforce vegetation management requirements.
4. Property owner certification authorized by the enforcing agency.

SECTION 702A DEFINITIONS

For the purposes of this chapter, certain terms are defined below:

APPLICABLE BUILDING. A building that has residential, commercial, educational, institutional or similar occupancy type use.

DIRECTOR. Director of the California Department of Forestry and Fire Protection (CAL FIRE).

EXTERIOR WALL ASSEMBLY. A system or assembly of exterior wall components, including exterior wall covering materials, that provides protection of the building structural members, including framing and sheathing materials, and conditioned interior space, from the detrimental effects of the exterior environment.

EXTERIOR WALL COVERING. A material or assembly of materials applied on the exterior side of exterior walls for the purpose of providing a weather-resisting barrier, insulation or for aesthetics, including but not limited to veneers, siding, exterior insulation and finish systems, architectural trim, and embellishments such as cornices, soffits, fascias, gutters and leaders.

FIRE HAZARD SEVERITY ZONES. Geographical areas designated pursuant to California Public Resources Codes Sections 4201 through 4204 and classified as Very High, High or Moderate in a State Responsibility Area or as Local Responsibility Areas in Very High Fire Hazard Severity Zones designated pursuant to California Government Code, Sections 51175 through 51189. See California Fire Code Chapter 49.

The California Code of Regulations, Title 14, Section 1280, entitles the maps of these geographical areas as “Maps of the Fire Hazard Severity Zones in the State Responsibility Area of California.”

FIRE PROTECTION PLAN. A document prepared for a specific project or development proposed for a Wildland-Urban Interface (WUI) area. It describes ways to minimize and mitigate potential for loss from wildfire exposure.

The Fire Protection Plan shall be in accordance with this chapter and the California Fire Code, Chapter 49.

FIRE-RESISTANT VEGETATION. Plants, shrubs, trees and other vegetation that exhibit properties, such as high moisture content, little accumulation of dead vegetation, and low sap or resin content, that make them less likely to ignite or contribute heat or spread flame in a fire than native vegetation typically found in the region.

Note: The following sources contain examples of types of vegetation that can be considered as fire-resistant vegetation. (Fire-resistant Plants for Home Landscapes, A Pacific Northwest Extension publication; Home Landscaping for Fire, University of California Division of Agriculture and Natural Resources; Sunset Western Garden Book)

IGNITION-RESISTANT MATERIAL. A type of building material that complies with the requirements in Section 704A.2.

LOCAL RESPONSIBILITY AREA (LRA). Areas of the state in which the financial responsibility of preventing and suppressing fires is the primary responsibility of a city, county, city and county, or district.

LOG WALL CONSTRUCTION. A type of construction in which exterior walls are constructed of solid wood members and where the smallest horizontal dimension of each solid wood member is at least 6 inches (152 mm).

RAFTER TAIL. The portion of roof rafter framing in a sloping roof assembly that projects beyond and overhangs an exterior wall.

ROOF EAVE. The lower portion of a sloping roof assembly that projects beyond and overhangs an exterior wall at the lower end of the rafter tails. Roof eaves may be either “open” or “enclosed.” Open roof eaves have exposed rafter tails and an unenclosed space on the underside of the roof deck. Enclosed roof eaves have a boxed-in roof eave soffit with a horizontal underside or sloping rafter tails with an exterior covering applied to the underside of the rafter tails.

ROOF EAVE SOFFIT. An enclosed boxed-in soffit under a roof eave with exterior covering material applied to the soffit framing creating a horizontal surface on the exposed underside.

STATE RESPONSIBILITY AREA (SRA). Lands that are classified by the Board of Forestry pursuant to Public Resources Code Section 4125 where the financial responsibility of preventing and suppressing forest fires is primarily the responsibility of the state.

WILDFIRE. Any uncontrolled fire spreading through vegetative fuels that threatens to destroy life, property or resources as defined in Public Resources Code Sections 4103 and 4104.

WILDFIRE EXPOSURE. One or a combination of radiant heat, convective heat, direct flame contact and burning embers being projected by vegetation fire to a structure and its immediate environment.

WILDLAND-URBAN INTERFACE (WUI). A geographical area identified by the state as a “Fire Hazard Severity Zone” in accordance with the Public Resources Code Sections 4201 through 4204 and Government Code Sections 51175 through 51189, or other areas designated by the enforcing agency to be at a significant risk from wildfires.

SECTION 703A STANDARDS OF QUALITY

703A.1 General. Building material, systems, assemblies and methods of construction used in this chapter shall be in accordance with Section 703A.

703A.2 Qualification by testing. Material and material assemblies tested in accordance with the requirements of Section 703A shall be accepted for use when the results and conditions of those tests are met. Product evaluation testing of material and material assemblies shall be approved or listed by the State Fire Marshal, or identified in a current report issued by an approved agency.

703A.3 Approved agency. Product evaluation testing shall be performed by an approved agency as defined in Section 1702. The scope of accreditation for the approved agency shall include building product compliance with this code.

703A.4 Labeling. Material and material assemblies tested in accordance with the requirements of Section 703A shall bear an identification label showing the fire test results. That identification label shall be issued by a testing and/or inspecting agency approved by the State Fire Marshal.

1. Identification mark of the approved testing and/or inspecting agency.
2. Contact and identification information of the manufacturer.

3. Model number or identification of the product or material.
4. Pre-test weathering specified in this chapter.
5. Compliance standard as described under Section 703A.7.

703A.5 Weathering and surface treatment protection.

703A.5.1 General. Material and material assemblies tested in accordance with the requirements of Section 703A shall maintain their fire test performance under conditions of use, when installed in accordance with the manufacturers instructions.

703A.5.2 Weathering. Fire-retardant-treated wood and fire-retardant-treated wood shingles and shakes shall meet the fire test performance requirements of this chapter after being subjected to the weathering conditions contained in the following standards, as applicable to the materials and the conditions of use.

703A.5.2.1 Fire-retardant-treated wood. Fire-retardant-treated wood shall be tested in accordance with ASTM D2898 (Method A) and the requirements of Section 2303.2.

703A.5.2.2 Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes shall be approved and listed by the State Fire Marshal in accordance with Section 208(c), Title 19 California Code of Regulations.

703A.5.3 Surface treatment protection. The use of paints, coatings, stains or other surface treatments are not an approved method of protection as required in this chapter.

703A.6 Alternates for materials, design, tests and methods of construction. The enforcing agency is permitted to modify the provisions of this chapter for site-specific conditions in accordance with Section 1.11.2.4. When required by the enforcing agency for the purposes of granting modifications, a fire protection plan shall be submitted in accordance with the California Fire Code, Chapter 49.

703A.7 Standards of quality. The State Fire Marshal standards for exterior wildfire exposure protection listed below and as referenced in this chapter are located in the California Referenced Standards Code, Part 12 and Chapter 35 of this code.

SFM Standard 12-7A-1, Exterior Wall Siding and Sheathing. A fire resistance test standard consisting of a 150 kW intensity direct flame exposure for a 10-minute duration.

SFM Standard 12-7A-2, Exterior Windows. A fire resistance test standard consisting of a 150 kW intensity direct flame exposure for an 8-minute duration.

SFM Standard 12-7A-3, Horizontal Projection Underside A fire resistance test standard consisting of a 300 kW intensity direct flame exposure for a 10-minute duration.

SFM Standard 12-7A-4, Decking. A two-part test consisting of a heat release rate (Part A) deck assembly combustion test with an under deck exposure of 80 kW intensity direct flame for a 3-minute duration, and a (Part B) sustained deck assembly combustion test consisting of a deck upper surface burning ember exposure with a 12 mph wind for 40 minutes

using a 2.2lb (1kg) burning “Class A” size 12" x 12" x 2.25" (300 mm x 300 mm x 57 mm) roof test brand.

SFM Standard 12-7A-4A, Decking Alternate Method A. A heat release rate deck assembly combustion test with an under deck exposure of 80 kW intensity direct flame for a 3-minute duration.

ASTM D2898 Standard Practice for Accelerated Weathering of Fire-Retardant-Treated Wood for Fire Testing.

ASTM D3909/D3909M Standard Specification for Asphalt Roll Roofing (Glass Felt) Surfaced with Mineral Granules.

ASTM E84 Standard Test Method for Surface Burning Characteristics of Building Materials.

ASTM E119 Standard Test Methods for Fire Tests of Building Construction and Materials.

ASTM E2632/E2632M Standard Test Method for Evaluating the Under-Deck Fire Test Response of Deck Materials.

ASTM E2707 Standard Test Method for Determining Fire Penetration of Exterior Wall Assemblies Using a Direct Flame Impingement Exposure.

ASTM E2726/E2726M Standard Test Method for Evaluating the Fire Test Response of Deck Structures to Burning Brands.

ASTM E2768 Standard Test Method for Extended Duration Surface Burning Characteristics of Building Materials (30-minute Tunnel Test).

ASTM E2886/E2886M Standard Test Method for Evaluating the Ability of Exterior Vents to Resist the Entry of Embers and Direct Flame Impingement.

ASTM E2957 Standard Test Method for Resistance to Wild-fire Penetration of Eaves, Soffits and Other Projections.

NFPA 257 Standard on Fire Test for Window and Glass Block Assemblies.

UL 263 Standard for Fire Tests of Building Construction and Materials.

UL 723 Standard for Test for Surface Burning Characteristics of Building Materials.

SECTION 704A IGNITION-RESISTANT CONSTRUCTION

704A.1 General. The materials prescribed herein for ignition resistance shall conform to the requirements of this chapter.

704A.2 Ignition-resistant materials. Ignition-resistant materials shall comply with one of the following:

1. The requirements in Section 704A.3, or
2. One of the alternative methods in Section 704A.4.

704A.3 Conditions of acceptance for ignition-resistant materials. The material shall comply with the conditions of acceptance in Items 1 and 2 below or with the conditions of acceptance of ASTM E2768.

1. The material shall exhibit a listed flame spread index not exceeding 25 when tested in accordance with ASTM E84 or UL 723.

2. Additionally, the ASTM E84 or UL 723 test shall be continued for an additional 20-minute period, and the material shall exhibit a flame front that does not progress more than 10¹/₂ feet (3200 mm) beyond the centerline of the burner at any time during the test period.

704A.3.1 Fire testing of wood structural panels. Wood structural panels shall be tested with a ripped or cut longitudinal gap of ¹/₈ inch (3.2 mm).

704A.4 Alternative methods for determining ignition-resistant material. Any one of the following shall be accepted as meeting the definition of ignition-resistant material:

1. Noncombustible material. Material that complies with the definition for noncombustible materials in Section 202.
2. Fire-retardant-treated wood. Fire-retardant-treated wood identified for exterior use that complies with the requirements of Section 2303.2.
3. Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shingles and shakes, as defined in Section 1505.6 and listed by State Fire Marshal for use as “Class B” roof covering, shall be accepted as an ignition-resistant wall covering material when installed over solid sheathing.

SECTION 705A ROOFING

705A.1 General. Roofs shall comply with the requirements of Chapter 7A and Chapter 15. Roof assemblies in Fire Hazard Severity Zones shall be tested in accordance with ASTM E108 or UL 790 and meet a Class A fire classification. For additional compliance see Chapter 15, Section 1505.2 for Class A roof assemblies. The roof assembly shall be installed in accordance with its listing and the manufacturer’s installation instructions.

The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any 1-year period; the entire roof covering of every new structure; and any roof covering applied in the alteration, repair, or replacement of the roof of every existing structure shall be a fire-retardant roof covering that meets a Class A fire classification.

705A.2 Roof covering voids. Where there is a void under the roof covering it shall comply with Section 705A.2.1 or 705A.2.2.

705A.2.1 Airspace under roof covering. Where the roofing profile has an airspace under the roof covering, installed over a combustible deck, a 72 lb. (32.7 kg) cap sheet complying with ASTM D3909 Standard Specification for “Asphalt Rolled Roofing (Glass Felt) Surfaced with Mineral Granules,” shall be installed over the roof deck. Bird stops shall be used at the eaves when the profile fits, to prevent debris at the eave. Hip and ridge caps shall be mudded in to prevent intrusion of fire or embers.

Exception: Cap sheet is not required when no less than 1” of mineral wool board or other noncombustible material is located between the roofing material and wood framing or deck.

705A.2.2 Roof underlayment. A Class A fire classification roof underlayment, tested in accordance with ASTM E108 or UL 790, shall be permitted to be used. If the sheathing consists of exterior fire-retardant-treated wood, the underlayment shall not be required to comply with a Class A classification. Bird stops shall be used at the eaves when the profile fits, to prevent debris at the eave. Hip and ridge caps shall be mudded in to prevent intrusion of fire or embers.

705A.3 Roof valleys. Where valley flashing is installed, the flashing shall be not less than 0.019-inch (0.48 mm) No. 26 gage galvanized sheet corrosion-resistant metal installed over not less than one layer of minimum 72 pound (32.4 kg) mineral-surfaced nonperforated cap sheet complying with ASTM D3909, at least 36-inch-wide (914 mm) running the full length of the valley.

705A.4 Roof gutters. Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.

SECTION 706A VENTS

706A.1 General. Where provided, ventilation openings for enclosed attics, gable ends, ridge ends, under eaves and cornices, enclosed eave soffit spaces, enclosed rafter spaces formed where ceilings are applied directly to the underside of roof rafters, underfloor ventilation, foundations and crawl spaces, or any other opening intended to permit ventilation, either in a horizontal or vertical plane, shall be in accordance with Section 1202 and Sections 706A.1 through 706A.2 to resist building ignition from the intrusion of burning embers and flame through the ventilation openings.

706A.2 Requirements. Ventilation openings shall be fully covered with Wildfire Flame and Ember Resistant vents approved and listed by the California State Fire Marshal, or WUI vents tested to ASTM E2886 and listed, by complying with all of the following requirements:

1. There shall be no flaming ignition of the cotton material during the Ember Intrusion Test.
2. There shall be no flaming ignition during the Integrity Test portion of the Flame Intrusion Test.
3. The maximum temperature of the unexposed side of the vent shall not exceed 662°F (350°C).

706A.2.1 Off ridge and ridge vents. Vents that are installed on a sloped roof, such as dormer vents, shall comply with all of the following:

1. Vents shall be covered with a mesh where the dimensions of the mesh therein shall be a minimum of $\frac{1}{16}$ -inch (1.6 mm) and shall not exceed $\frac{1}{8}$ -inch (3.2 mm) in diameter.
2. The mesh material shall be noncombustible.
3. The mesh material shall be corrosion resistant.

SECTION 707A EXTERIOR COVERING

707A.1 Scope. The provisions of this section shall govern the materials and construction methods used to resist building

ignition and/or safeguard against the intrusion of flames resulting from small ember and short-term direct flame contact exposure.

707A.2 General. The following exterior covering materials and/or assemblies shall comply with this section:

1. Exterior wall coverings.
2. Exterior wall assemblies.
3. Exterior exposed underside of roof eave overhangs.
4. Exterior exposed underside of roof eave soffits.
5. Exposed underside of exterior porch ceilings.
6. Exterior exposed underside of floor projections.
7. Exterior underfloor areas.

Exceptions to Section 707A.2:

1. Exterior wall architectural trim, embellishments, fascias and gutters.
2. Roof or wall top cornice projections and similar assemblies.
3. Deck walking surfaces shall comply with Section 709A.4 only.

707A.3 Exterior wall coverings. The exterior wall covering shall comply with one or more of the following requirements, except as permitted for exterior wall assemblies complying with Section 707A.4:

1. Noncombustible material.
2. Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section 704A.2.
3. Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2.

707A.3.1 Extent of exterior wall covering. Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2 inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.

707A.4 Exterior wall assemblies. Exterior wall assemblies of buildings or structures shall be constructed using one or more of the following methods, unless they are covered by an exterior wall covering complying with Section 707A.3:

1. Assembly of sawn lumber or glue-laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks splined, tongue-and-groove, or set close together and well spiked.
2. Log wall construction assembly.
3. Assembly that has been tested in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in ASTM E2707 with the conditions of acceptance shown in Section 707A.4.1.
4. Assembly that meets the performance criteria in accordance with the test procedures for a 10-minute direct flame contact exposure test set forth in SFM Standard 12-7A-1.

5. Assembly suitable for exterior fire exposure with a 1-hour fire-resistance rating, rated from the exterior side, as tested in accordance with ASTM E119 or UL 263.
6. Assembly suitable for exterior fire exposure containing one layer of $\frac{5}{8}$ -inch (15.9 mm) Type X gypsum sheathing applied behind the exterior wall covering or cladding on the exterior side of the framing.
7. Assembly suitable for exterior fire exposure containing any of the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual as complying with a 1-hour fire-resistance rating, as tested in accordance with ASTM E119 or UL 263.

707A.4.1 Conditions of acceptance when tested in accordance with ASTM E2707. The ASTM E2707 test shall be conducted on a minimum of three test specimens, and the conditions of acceptance in Items 1 and 2 below shall be met. If any one of the three tests do not meet the conditions of acceptance, three additional tests shall be run. All the additional tests shall meet the conditions of acceptance.

1. Absence of flame penetration through the wall assembly at any time.
2. Absence of evidence of glowing combustion on the interior surface of the assembly at the end of the 70-minute test.

707A.5 Open roof eaves. The exposed roof deck on the underside of unenclosed roof eaves shall consist of one or more of the following:

1. Noncombustible material.
2. Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section 704A.2.
3. Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2.
4. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.
5. One layer of $\frac{5}{8}$ -inch (15.9 mm) Type X gypsum sheathing applied behind an exterior covering on the underside of the roof deck.
6. The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the roof deck designed for exterior fire exposure, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.

707A.6 Enclosed roof eaves and roof eave soffits. The exposed underside of enclosed roof eaves having either a boxed-in roof eave soffit with a horizontal underside, or sloping rafter tails with an exterior covering applied to the underside of the rafter tails, shall be protected by one or more of the following:

1. Noncombustible material.

2. Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section 704A.2.
3. Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2.
4. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.
5. One layer of $\frac{5}{8}$ -inch (15.9 mm) Type X gypsum sheathing applied behind the exterior covering or cladding on the underside of the rafter tails or soffit.
6. The exterior portion of a 1-hour fire-resistance-rated exterior assembly applied to the underside of the rafter tails or soffit, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
7. Boxed-in roof eave soffit assemblies with a horizontal underside that meet the performance criteria in Section 707A.11 when tested in accordance with the test procedures set forth in ASTM E2957.
8. Boxed-in roof eave soffit assemblies with a horizontal underside that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

707A.7 Exterior porch ceilings. The exposed underside of exterior porch ceilings shall be protected by one or more of the following:

1. Noncombustible material.
2. Ignition-resistant material. The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section 704A.2.
3. Fire-retardant-treated wood. The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2.
4. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.
5. One layer of $\frac{5}{8}$ -inch (15.9 mm) Type X gypsum sheathing applied behind the exterior covering or cladding on the underside of the rafter tails or soffit.
6. The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119, applied to the underside of the ceiling assembly, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
7. Porch ceiling assemblies with a horizontal underside that meet the performance criteria in Section 707A.11 when tested in accordance with the test procedures set forth in ASTM E2957.
8. Porch ceiling assemblies with a horizontal underside that meet the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

707A.8 Floor projections. *The exposed underside of a cantilevered floor projection where a floor assembly extends over an exterior wall shall be protected by one or more of the following:*

1. Noncombustible material.
2. Ignition-resistant material. *The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section 704A.2.*
3. Fire-retardant-treated wood. *The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2.*
4. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.
5. One layer of $\frac{5}{8}$ -inch (15.9 mm) Type X gypsum sheathing applied behind the exterior covering on the underside of the ceiling.
6. The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119, applied to the underside of the ceiling assembly, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
7. The underside of a floor projection assembly that meets the performance criteria in Section 707A.10 when tested in accordance with the test procedures set forth in ASTM E2957.
8. The underside of a floor projection assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

707A.9 Underfloor protection. *The underfloor area of elevated or overhanging buildings shall be enclosed to grade in accordance with the requirements of this chapter or the underside of the exposed underfloor shall be protected by one or more of the following:*

1. Noncombustible material.
2. Ignition-resistant material. *The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section 704A.2.*
3. Fire-retardant-treated wood. *The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2.*
4. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.
5. One layer of $\frac{5}{8}$ -inch (15.9 mm) Type X gypsum sheathing applied behind an exterior covering on the underside of the floor projection.
6. The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the floor, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
7. The underside of a floor assembly that meets the performance criteria in Section 707A.11 when tested in accordance with the test procedures set forth in ASTM E2957.

8. The underside of a floor assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

Exception to Section 707A.9: *Structural columns and beams do not require protection when constructed with sawn lumber or glue-laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks shall be splined, tongue-and-groove, or set close together and well spiked.*

707A.10 Underside of appendages. *When required by the enforcing agency, the underside of overhanging appendages shall be enclosed to grade in accordance with the requirements of this chapter, or the underside of the exposed underfloor shall be protected by one or more of the following:*

1. Noncombustible material.
2. Ignition-resistant material. *The ignition-resistant material shall be labeled for exterior use and shall meet the requirements of Section 704A.2.*
3. Fire-retardant-treated wood. *The fire-retardant-treated wood shall be labeled for exterior use and shall meet the requirements of Section 2303.2.*
4. Materials approved for not less than 1-hour fire-resistance-rated construction on the exterior side, as tested in accordance with ASTM E119 or UL 263.
5. One layer of $\frac{5}{8}$ -inch (15.9 mm) Type X gypsum sheathing applied behind the exterior covering on the underside of the appendage projection.
6. The exterior portion of a 1-hour fire-resistance-rated exterior assembly, as tested in accordance with ASTM E119 or UL 263, applied to the underside of the appendage, including assemblies using the gypsum panel and sheathing products listed in the Gypsum Association Fire Resistance Design Manual.
7. The underside of an appendage assembly that meets the performance criteria in Section 707A.11 when tested in accordance with the test procedures set forth in ASTM E2957.
8. The underside of an appendage assembly that meets the performance criteria in accordance with the test procedures set forth in SFM Standard 12-7A-3.

Exception to Section 707A.10: *Structural columns and beams do not require protection when constructed with sawn lumber or glue laminated wood with the smallest minimum nominal dimension of 4 inches (102 mm). Sawn or glue-laminated planks shall be splined, tongue-and-groove, or set close together and well spiked.*

707A.11 Conditions of acceptance when tested in accordance with ASTM E2957. *The test shall be conducted on a minimum of three test specimens and the conditions of acceptance in Items 1 through 3 below shall be met. If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All of the additional tests shall meet the conditions of acceptance.*

1. Absence of flame penetration of the eaves or horizontal projection assembly at any time.

2. Absence of structural failure of the eaves or horizontal projection subassembly at any time.
3. Absence of sustained combustion of any kind at the conclusion of the 40-minute test.

SECTION 708A EXTERIOR WINDOWS, SKYLIGHTS AND DOORS

708A.1 General.

708A.2 Exterior glazing. The following exterior glazing materials and/or assemblies shall comply with this section:

1. Exterior windows.
2. Exterior glazed doors.
3. Glazed openings within exterior doors.
4. Glazed openings within exterior garage doors.
5. Exterior structural glass veneer.
6. Skylights.
7. Vents.

708A.2.1 Exterior windows, skylights and exterior glazed door assembly requirements. Exterior windows, skylights and exterior glazed door assemblies shall comply with one of the following requirements:

1. Be constructed of multipane glazing with a minimum of one tempered pane meeting the requirements of Section 2406 Safety Glazing, or
2. Be constructed of glass block units, or
3. Have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 257, or
4. Be tested to meet the performance requirements of SFM Standard 12-7A-2.

708A.2.2 Operable skylights. Operable skylights shall be protected by a non-combustible mesh screen where the dimensions of the openings in the screen shall not exceed $\frac{1}{8}$ -inch (3.2 mm).

708A.2.3 Structural glass veneer. The wall assembly behind structural glass veneer shall comply with Section 707A.3.

708A.3 Exterior doors. Exterior doors shall comply with one of the following:

1. The exterior surface or cladding shall be of noncombustible material.
2. The exterior surface or cladding shall be of ignition-resistant material.
3. The exterior door shall be constructed of solid core wood that complies with the following requirements:
 - 3.1. Stiles and rails shall not be less than $1\frac{3}{8}$ inches thick.
 - 3.2. Panels shall not be less than $1\frac{1}{4}$ inches thick, except for the exterior perimeter of the panel that shall be permitted to taper to a tongue not less than $\frac{3}{8}$ inch thick.
4. The exterior door assembly shall have a fire-resistance rating of not less than 20 minutes when tested according to NFPA 252.

5. The exterior surface or cladding shall be tested to meet the performance requirements of Section 707A.3.1 when tested in accordance with ASTM E2707.
6. The exterior surface or cladding shall be tested to meet the performance requirements of SFM Standard 12-7A-1.

708A.3.1 Exterior door glazing. Glazing in exterior doors shall comply with Section 708A.2.1.

708A.4 Garage door perimeter gap. Exterior garage doors shall resist the intrusion of embers from entering by preventing gaps between doors and door openings, at the bottom, sides and tops of doors, from exceeding $\frac{1}{8}$ inch (3.2 mm). Gaps between doors and door openings shall be controlled by one of the following methods:

1. Weather-stripping products made of materials that:
 - (a) have been tested for tensile strength in accordance with ASTM D638 (Standard Test Method for Tensile Properties of Plastics) after exposure to ASTM G155 (Standard Practice for Operating Xenon Arc Light Apparatus for Exposure of Non-Metallic Materials) for a period of 2,000 hours, where the maximum allowable difference in tensile strength values between exposed and non-exposed samples does not exceed 10%; and
 - (b) exhibit a V-2 or better flammability rating when tested to UL 94, Standard for Tests for Flammability of Plastic Materials for Parts in Devices and Appliances.
2. Door overlaps onto jambs and headers.
3. Garage door jambs and headers covered with metal flashing.

SECTION 709A DECKING

709A.1 General. The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this section.

709A.1.1 Flashing. A minimum of a 6-inch (150 mm) metal flashing, applied vertically on the exterior of the wall, shall be installed at all deck-to-wall intersections.

709A.2 Where required. The walking surface material of decks, porches, balconies and stairs shall comply with the requirements of this section when any portion of such surface is within 10 feet (3048 mm) of the building.

709A.3 Decking Surfaces. The walking surface material of decks, porches, balconies and stairs shall be constructed with one of the following materials:

1. Material that complies with the performance requirements of Section 709A.4 when tested in accordance with both ASTM E2632 and ASTM E2726.
2. Ignition-resistant material that complies with the performance requirements of Section 704A.3.
3. Material that complies with the performance requirements of both SFM Standard 12-7A-4 and Section 704A.3.
4. Exterior fire-retardant-treated wood.
5. Noncombustible material.

6. Any material that complies with the performance requirements of SFM Standard 12-7A-4A when attached exterior wall covering is also composed of noncombustible or ignition-resistant material.

Exception: Wall material shall be permitted to be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements ASTM E84 with a Class B flame spread index.

7. Any material that complies with the performance requirements of Section 709A.5 when tested in accordance with ASTM E2632 and when attached exterior wall covering is also composed of only noncombustible or ignition-resistant materials.

Exception: Wall material shall be permitted to be of any material that otherwise complies with this chapter when the decking surface material complies with the performance requirements ASTM E84 with a Class B flame spread index.

709A.4 Requirements for type of material in Section 709A.3, Item 1. The material shall be tested in accordance with both ASTM E2632 and ASTM E2726 and shall comply with the conditions of acceptance in Sections 709A.4.1 and 709A.4.2. The material shall also be tested in accordance with ASTM E84 or UL 723 and comply with the performance requirements of Section 704A.3.

709A.4.1 Conditions of acceptance for ASTM E2632. The ASTM E2632 test shall be conducted on a minimum of three test specimens and the conditions of acceptance in Items 1 through 3 below shall be met. If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All of the additional tests shall meet the conditions of acceptance.

1. Peak heat release rate of less than or equal to 25 kW/ft² (269 kW/m²).
2. Absence of sustained flaming or glowing combustion of any kind at the conclusion of the 40-min observation period.
3. Absence of falling particles that are still burning when reaching the burner or floor.

709A.4.2 Conditions of acceptance for ASTM E2726. The ASTM E2726 test shall be conducted, using a "Class A" size roof test brand, on a minimum of three test specimens and the conditions of acceptance in Items 1 and 2 below shall be met. If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All of the additional tests shall meet the conditions of acceptance.

1. Absence of sustained flaming or glowing combustion of any kind at the conclusion of the 40-min observation period.
2. Absence of falling particles that are still burning when reaching the burner or floor.

709A.5 Requirements for type of material in Section 709A.3, Item 7. The material shall be tested in accordance with ASTM E2632 and shall comply with the following condition of acceptance. The ASTM E2632 test shall be conducted

on a minimum of three test specimens and the peak heat release rate shall be less than or equal to 25 kW/ft² (269 kW/m²). If any one of the three tests does not meet the conditions of acceptance, three additional tests shall be run. All the additional tests shall meet the condition of acceptance.

SECTION 710A ACCESSORY BUILDINGS AND MISCELLANEOUS STRUCTURES

710A.1 General. Group U occupancy accessory buildings and miscellaneous structures that have the potential to pose a significant exterior fire exposure hazard during wildfires shall be constructed to conform to the ignition-resistance requirements of this section.

710A.2 Applicability. Unless otherwise addressed by the exceptions of Section 710A.3, the provisions of this section shall apply to buildings accessory to an applicable building on the same lot. This section shall also apply to attached and detached miscellaneous structures that require a building permit, including but not limited to trellises, arbors, patio covers, gazebos and similar structures.

Exceptions:

1. Decks shall comply with the requirements of Section 709A.
2. Awnings and canopies shall comply with the requirements of Section 3105.

710A.3 Where required. Miscellaneous structures that require a permit, and accessory buildings of any size, when separated from an applicable building on the same lot by a distance of less than 3 feet (914 mm), shall comply with Section 710A.3.1. Accessory buildings that are greater than 120 square feet (11.15 m²), when separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 240 mm) shall comply with Section 710A.3.2.

When required by the enforcing agency, miscellaneous structures that require a permit, and accessory buildings that are 120 square feet (11.15 m²) or less, when separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 240 mm), shall comply with either Section 710A.3.4 or Section 710A.3.3, respectively.

No requirements shall apply to accessory buildings or miscellaneous structures when located 50 feet (15 240 mm) or more from an applicable building on the same lot.

710A.3.1 Structures and accessory buildings within 3 feet (914 mm). Miscellaneous structures that require a permit, and accessory buildings, attached to or separated from an applicable building on the same lot by a distance of less than 3 feet (914 mm), shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.

710A.3.2 Accessory buildings greater than 120 square feet (11.15 m²), located 3 feet (914 mm) or more but less than 50 feet (15 240 mm). Accessory buildings that are greater than 120 square feet (11.15 m²) in size and separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet

(15 240 mm) shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.

710A.3.3 Accessory buildings 120 square feet (11.15 m²) or less, located 3 feet (914 mm) or more but less than 50 feet (15 240 mm). When required by the enforcing agency, accessory buildings 120 square feet (11.15 m²) or less and separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 240 mm) shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.

710A.3.4 Miscellaneous structures located 3 feet (914 mm) or more but less than 50 feet (15 240 mm). When

required by the enforcing agency, miscellaneous structures that require a permit and are separated from an applicable building on the same lot by a distance of 3 feet (914 mm) or more but less than 50 feet (15 240 mm) shall be constructed of noncombustible materials or of ignition-resistant materials as described in Section 704A.2.

710A.4 Roof construction. Roofs of accessory buildings required to be constructed entirely of noncombustible materials or of ignition-resistant materials shall comply with the requirements of Chapter 7A and Chapter 15. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions. Roof assemblies in Fire Hazard Severity Zones shall comply with a Class A rating when tested in accordance with ASTM E108 or UL 790.

SECTION 711A MODEL ORDINANCE FOR FIRE HAZARD SEVERITY ZONE ADOPTION

ORDINANCE NO. _____

An ordinance of the City (or County or District) of _____ to designate fire hazard severity zones.

The _____ Council (or Board) of the _____ ordains as follows:

The City (or County or District) hereby designates the Fire Hazard Severity Zones as recommended by the California Department of Forestry and Fire Protection pursuant to Government Code Section 51178.

or

- ☐ The City (or County or District) hereby designates areas not identified as Very High Fire Hazard Severity Zones by the State Fire Marshal, as Very High Fire Hazard Severity Zones following a finding supported by substantial evidence in the record that the requirements of Government Code Section 51182 are necessary for effective fire protection within the area.

(and/or)

- ☐ The City (or County or District) hereby designates areas not identified as Moderate and High Fire Hazard Severity Zones by the State Fire Marshal, as Moderate and High Fire Hazard Severity Zones, respectively.

The map, approved by the city (or county or district), is hereby incorporated by reference, and entitled "City (or County or District) Fire Hazard Severity Zones."

Dated (_____) .

The official map is also located electronically on the following website: _____

On the motion of Member _____, seconded by Member: _____

The roll call vote:

Ayes: _____ Noes: _____ Abstain: _____ Absent: _____

The foregoing ordinance was passed and adopted this day of _____, 20____

Ordinance _____

(Name)

(City or County or Board of _____)

Attest: _____ Approved as to form: _____

(Name) _____ (Name) _____

Clerk _____ City or County or District Counsel _____

TABLE 803.13
INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY^k

GROUP	SPRINKLERED ^l			NONSPRINKLERED		
	Interior exit stairways and ramps and exit passageways ^{a, b}	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces ^c	Interior exit stairways and ramps and exit passageways ^{a, b}	Corridors and enclosure for exit access stairways and ramps	Rooms and enclosed spaces ^c
A-1 & A-2	B	B	C	A	A ^d	B ^e
A-3 ^f , A-4, A-5	B	B	C	A	A ^d	C
B, E, M, R-1	B	C ^m	C	A	B	C
R-4 ⁿ	B	C	C	A	B	B
F	C	C	C	B	C	C
H, L	B	B	C ^g	NP	NP	NP
I-2 ⁿ	B	B	B ^{h, i}	A	A	B
I-3	A	A ^j	B	NP	NP	NP
I-4	B	B	B ^{h, i}	A	A	B
R-2	C	C	C	B	B	C
R-2.1	B	C	C	A	B	B
R-2.2	C	C	C	B	B	C
R-3 ⁿ , R-3.1	C	C	C	C	C	C
S	C	C	C	B	B	C
U	No restrictions			No restrictions		

For SI: 1 inch = 25.4 mm, 1 square foot = 0.0929 m².

NP = Not permitted [SFM]

- a. Class C interior finish materials shall be permitted for wainscoting or paneling of not more than 1,000 square feet of applied surface area in the grade lobby where applied directly to a noncombustible base or over furring strips applied to a noncombustible base and fireblocked as required by Section 803.15.1.
- b. In other than Group I-3 occupancies in buildings less than three stories above grade plane, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted in interior exit stairways and ramps.
- c. Requirements for rooms and enclosed spaces shall be based on spaces enclosed by partitions. Where a fire-resistance rating is required for structural elements, the enclosing partitions shall extend from the floor to the ceiling. Partitions that do not comply with this shall be considered to be enclosing spaces and the rooms or spaces on both sides shall be considered to be one room or space. In determining the applicable requirements for rooms and enclosed spaces, the specific occupancy thereof shall be the governing factor regardless of the group classification of the building or structure.
- d. Lobby areas in Group A-1, A-2 and A-3 occupancies shall be not less than Class B materials.
- e. Class C interior finish materials shall be permitted in places of assembly with an occupant load of 300 persons or less.
- f. For places of religious worship, wood used for ornamental purposes, trusses, paneling or chancel furnishing shall be permitted.
- g. Class B material is required where the building exceeds two stories.
- h. Class C interior finish materials shall be permitted in administrative spaces.
- i. Class C interior finish materials shall be permitted in rooms with a capacity of four persons or less.
- j. Class B materials shall be permitted as wainscoting extending not more than 48 inches above the finished floor in corridors and exit access stairways and ramps.
- k. Finish materials as provided for in other sections of this code.
- l. Applies when protected by an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
- m. Corridors in ambulatory care facilities shall be provided with Class A or B materials.
- n. Where Group R-3 and R-4 occupancies are permitted in Section 903.2.8 to be protected by an automatic sprinkler system installed in accordance with Section 903.3.1.3, the requirements for a non-sprinklered building shall apply.
- o. Where patients are restrained in psychiatric treatment areas of Group I-2, finishes shall comply with the requirements of a Group I-3.

803.14 Stability. Interior finish materials regulated by this chapter shall be applied or otherwise fastened in such a manner that such materials will not readily become detached where subjected to room temperatures of 200°F (93°C) for not less than 30 minutes.

803.15 Application of interior finish materials to fire-resistance-rated or noncombustible building elements. Where interior finish materials are applied on walls, ceilings or structural elements required to have a fire-resistance rating or to be of noncombustible construction,

these finish materials shall comply with the provisions of this section.

803.15.1 Direct attachment and furred construction.

Where walls, ceilings or structural elements are required by any provision in this code to be of fire-resistance-rated or noncombustible construction, the interior finish material shall be applied directly against such construction or to furring strips not exceeding 1³/₄ inches (44 mm), applied directly against such surfaces.

803.15.1.1 Furred construction. If the interior finish material is applied to furring strips, the intervening spaces between such furring strips shall comply with one of the following:

1. Be filled with material that is inorganic or non-combustible.
2. Be filled with material that meets the requirements of a Class A material in accordance with Section 803.1.1 or 803.1.2.
3. Be fireblocked at not greater than 8 feet (2438 mm) in every direction in accordance with Section 718.

Exception: Compliance with Item 1, 2 or 3 is not required where the materials used to create the concealed space are noncombustible.

803.15.2 Set-out construction. Where walls and ceilings are required to be of fire-resistance-rated or noncombustible construction and walls are set out or ceilings are dropped distances greater than specified in Section 803.15.1, Class A finish materials, in accordance with Section 803.1.1 or 803.1.2, shall be used.

Exceptions:

1. Where interior finish materials are protected on both sides by an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
2. Where interior finish materials are attached to noncombustible backing or furring strips installed as specified in Section 803.15.1.1.
3. Where the combustible void is filled with a non-combustible material.

803.15.2.1 Hangers and assembly members. The hangers and assembly members of such dropped ceilings that are below the horizontal fire-resistance-rated floor or roof assemblies shall be of noncombustible materials. The construction of each set-out wall and horizontal fire-resistance-rated floor or roof assembly shall be of fire-resistance-rated construction as required elsewhere in this code.

Exception: In Types III and V construction, fire-retardant-treated wood shall be permitted for use as hangers and assembly members of dropped ceilings.

803.15.3 Heavy timber construction. Wall and ceiling finishes of all classes as permitted in this chapter that are installed directly against the wood decking or planking of heavy timber construction in Section 602.4.4.2 or 2304.11 or to wood furring strips applied directly to the wood decking or planking shall be fireblocked as specified in Section 803.15.1.1.

803.15.4 Materials. An interior wall or ceiling finish material that is not more than $\frac{1}{4}$ inch (6.4 mm) thick shall be applied directly onto the wall, ceiling or structural element without the use of furring strips and shall not be

suspended away from the building element to which that finish material it is applied.

Exceptions:

1. Noncombustible interior finish materials.
2. Materials that meet the requirements of Class A materials in accordance with Section 803.1.1 or 803.1.2 where the qualifying tests were made with the material furred out from the noncombustible backing shall be permitted to be used with furring strips.
3. Materials that meet the requirements of Class A materials in accordance with Section 803.1.1 or 803.1.2 where the qualifying tests were made with the material suspended away from the noncombustible backing shall be permitted to be used suspended away from the building element.

SECTION 804 INTERIOR FLOOR FINISH

804.1 General. Interior floor finish and floor covering materials shall comply with Sections 804.2 through 804.4.2.

Exception: *In areas except Groups I-2 with detention and I-3, floor finishes and coverings of a traditional type, such as wood, vinyl, linoleum or terrazzo, and resilient floor covering materials that are not composed of fibers.*

804.2 Classification. Interior floor finish and floor covering materials required by Section 804.4.2 to be of Class I or II materials shall be classified in accordance with ASTM E648 or NFPA 253. The classification referred to herein corresponds to the classifications determined by ASTM E648 or NFPA 253 as follows: Class I, 0.45 watts/cm² or greater; Class II, 0.22 watts/cm² or greater.

804.3 Testing and identification. Interior floor finish and floor covering materials shall be tested by an agency in accordance with ASTM E648 or NFPA 253 and identified by a hang tag or other suitable method so as to identify the manufacturer or supplier and style, and shall indicate the interior floor finish or floor covering classification in accordance with Section 804.2. Carpet-type floor coverings shall be tested as proposed for use, including underlayment. Test reports confirming the information provided in the manufacturer's product identification shall be furnished to the building official on request.

804.4 Interior floor finish requirements. Interior floor covering materials shall comply with Sections 804.4.1 and 804.4.2 and interior floor finish materials shall comply with Section 804.4.3.

804.4.1 Test requirement. In all occupancies, interior floor finish and interior floor covering materials shall comply with the requirements of the *ASTM Standard E648, and having a specific optical density smoke rating not to exceed 450 per ASTM E662. For Group I-3 occu-*

pancies and Group I-2 areas where patients are restrained, see Section 804.4.3.

804.4.2 Minimum critical radiant flux. In all occupancies, interior floor finish and floor covering materials in enclosures for stairways and ramps, exit passageways, corridors and rooms or spaces not separated from corridors by partitions extending from the floor to the underside of the ceiling shall withstand a minimum critical radiant flux. The minimum critical radiant flux shall be not less than Class I in Groups I-2 and I-3 areas where restraint is not used and R-2.1 and not less than Class II in Groups A, B, E, H, I-4, M, R-1, R-2, R-2.2 and S. For Group I-3 areas occupied by inmates or Group I-2 areas where patients are restrained, see Section 804.4.3.

Exception: Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, Class II materials are permitted in any area where Class I materials are required, and materials complying with *ASTM Standard E648*, and having a specific optical density smoke rating not to exceed 450 per *ASTM E662* are permitted in any area where Class II materials are required.

804.4.3 Group I-2 and Group I-3 Occupancy floor surfaces. Interior floor finish and floor coverings occupied by inmates or patients whose personal liberties are restrained shall be noncombustible.

Exception: Carpet or other floor covering materials may be used in areas protected by an automatic sprinkler system installed throughout in accordance with Section 903.3.1.1. Carpet or other floor coverings shall comply with the requirements of *ASTM Standard E648*; the minimum critical radiant flux shall be not less than Class I and the specific optical density smoke rating shall not exceed 450 per *ASTM E662*. Carpeting and carpet padding shall be tested as a unit in accordance with floor covering radiant panel test meeting class I and has a critical radiant flux limit of not less than 0.45 watt per centimeter square. The carpeting and padding shall be identified by a hang-tag or other suitable method as to manufacturer and style and shall indicate the classification of the material based on the limits set forth above.

SECTION 805 COMBUSTIBLE MATERIALS IN TYPES I AND II CONSTRUCTION

805.1 Application. Combustible materials installed on or embedded in floors of buildings of Type I or II construction shall comply with Sections 805.1.1 through 805.1.3.

Exception: Stages and platforms constructed in accordance with Sections 410.2 and 410.3, respectively.

805.1.1 Subfloor construction. Floor sleepers, bucks and nailing blocks shall not be constructed of combustible materials, unless the space between the fire-resistance-rated floor assembly and the flooring is either solidly filled with noncombustible materials or fireblocked in accordance with Section 718, and provided that such open

spaces shall not extend under or through permanent partitions or walls.

805.1.2 Wood finish flooring. Wood finish flooring is permitted to be attached directly to the embedded or fire-blocked wood sleepers and shall be permitted where cemented directly to the top surface of fire-resistance-rated floor assemblies or directly to a wood subfloor attached to sleepers as provided for in Section 805.1.1.

805.1.3 Insulating boards. Combustible insulating boards not more than 1/2 inch (12.7 mm) thick and covered with finish flooring are permitted where attached directly to a noncombustible floor assembly or to wood subflooring attached to sleepers as provided for in Section 805.1.1.

SECTION 806 DECORATIVE MATERIALS AND TRIM

[F] 806.1 General. The following requirements shall apply to all occupancies:

1. Furnishings or decorative materials of an explosive or highly flammable character shall not be used.
2. Fire-retardant coatings in existing buildings shall be maintained so as to retain the effectiveness of the treatment under service conditions encountered in actual use.
3. Furnishings or other objects shall not be placed to obstruct exits, access thereto, egress therefrom or visibility thereof.
4. The permissible amount of decorative vegetation and noncombustible decorative materials shall not be limited.

[F] 806.2 Combustible decorative materials. In Groups A, B, E, I, M and R-1 and in dormitories in Group R-2, curtains, draperies, fabric hangings and similar combustible decorative materials suspended from walls or ceilings shall comply with Section 806.4 and shall not exceed 10 percent of the specific wall or ceiling area to which such materials are attached.

Fixed or movable walls and partitions, paneling, wall pads and crash pads applied structurally or for decoration, acoustical correction, surface insulation or other purposes shall be considered to be interior finish, shall comply with Section 803 and shall not be considered to be decorative materials or furnishings.

Exceptions:

1. In auditoriums in Group A, the permissible amount of curtains, draperies, fabric hangings and similar combustible decorative materials suspended from walls or ceilings shall not exceed 75 percent of the aggregate wall area where the building is equipped throughout with an approved automatic sprinkler system in accordance with Section 903.3.1.1, and where the material is installed in accordance with Section 803.15 of this code.
2. In Group R-2 dormitories, within sleeping units and dwelling units, the permissible amount of curtains, draperies, fabric hangings and similar decorative

materials suspended from walls or ceiling shall not exceed 50 percent of the aggregate wall areas where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.

3. In Group B and M occupancies, the amount of combustible fabric partitions suspended from the ceiling and not supported by the floor shall comply with Section 806.4 and shall not be limited.
4. The 10-percent limit shall not apply to curtains, draperies, fabric hangings and similar combustible decorative materials used as window coverings.

806.3 Occupancy-based requirements. Occupancy-based requirements for combustible decorative materials, other than decorative vegetation, not complying with Section 806.4 shall comply with Sections 807.5.1 through 807.5.6 of the *California Fire Code*.

[F] 806.4 Acceptance criteria and reports. Where required to exhibit improved fire performance, curtains, draperies, fabric hangings and similar combustible decorative materials suspended from walls or ceilings shall be tested by an approved agency and *shall be flame resistant in accordance with the provisions set forth in CCR, Title 19, Division 1, Chapter 8*. Reports of test results shall be prepared in accordance with the test method used and furnished to the building official on request.

[F] 806.5 Foam plastic. Foam plastic used as trim in any occupancy shall comply with Section 2604.2.

[F] 806.6 Pyroxylin plastic. Imitation leather or other material consisting of or coated with a pyroxylin or similarly hazardous base shall not be used in Group A occupancies.

[F] 806.7 Interior trim. Material, other than foam plastic used as interior trim, shall have a minimum *Class B flame spread and 450 smoke-developed index in Group I-3 and for all other occupancies* Class C flame spread and smoke-developed index when tested in accordance with ASTM E84 or UL 723, as described in Section 803.1.2. Combustible trim, excluding handrails and guardrails, shall not exceed 10 percent of the specific wall or ceiling area to which it is attached.

[F] 806.8 Interior floor-wall base. Interior floor-wall base that is 6 inches (152 mm) or less in height shall be tested in accordance with Section 804.2 and shall be not less than Class II. Where a Class I floor finish is required, the floor-wall base shall be Class I.

Exception: Interior trim materials that comply with Section 806.7.

[F] 806.9 Combustible lockers. Where lockers constructed of combustible materials are used, the lockers shall be considered to be interior finish and shall comply with Section 803.

Exception: Lockers constructed entirely of wood and noncombustible materials shall be permitted to be used wherever interior finish materials are required to meet a Class C classification in accordance with Section 803.1.2.

SECTION 807 INSULATION

807.1 Insulation. Thermal and acoustical insulation shall comply with Section 720.

SECTION 808 ACOUSTICAL CEILING SYSTEMS

808.1 Acoustical ceiling systems. The quality, design, fabrication and erection of metal suspension systems for acoustical tile and lay-in panel ceilings in buildings or structures shall conform to generally accepted engineering practice, the provisions of this chapter and other applicable requirements of this code.

808.1.1 Materials and installation. Acoustical materials complying with the interior finish requirements of Section 803 shall be installed in accordance with the manufacturer's recommendations and applicable provisions for applying interior finish.

808.1.1.1 Suspended acoustical ceilings. Suspended acoustical ceiling systems shall be installed in accordance with the provisions of ASTM C635 and ASTM C636.

808.1.1.2 Fire-resistance-rated construction. Acoustical ceiling systems that are part of fire-resistance-rated construction shall be installed in the same manner used in the assembly tested and shall comply with the provisions of Chapter 7.

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 9 – FIRE PROTECTION AND LIFE SAFETY SYSTEMS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X	X	X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below						X	X															X	
Chapter / Section																							
901.5			X																				
Table 901.6			X																				
901.7			X																				
902.1			X																				
903.1.1			X																				
903.2			X																				
903.2.1.2			X																				
903.2.1.3			X																				
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903.2.4.1			X																				
903.2.5.4			X																				
903.2.6			X																				
903.2.6.1			X																				
903.2.6.2			X																				
903.2.7			X																				
903.2.8			X																				
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Table 903.2.11.6			X																				
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903.2.20			X																				
903.2.21			X																				
903.3			X																				

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 9 – FIRE PROTECTION AND LIFE SAFETY SYSTEMS—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDP						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X	X	X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below						X	X															X	
Chapter / Section																							
903.3.1.1			X																				
903.3.1.1.1			X																				
903.3.1.1.3			X																				
903.3.1.2			X																				
903.3.1.3			X																				
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903.3.9			X																				
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907.1.3			X																				
907.1.4			X																				
907.1.5			X																				
907.2			X																				
907.2.1			X																				

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CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 9 – FIRE PROTECTION AND LIFE SAFETY SYSTEMS—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X	X	X	X	X	X	X								
Adopt entire chapter as amended (amended sections listed below)			X	X	X																		
Adopt only those sections that are listed below						X	X															X	
Chapter / Section																							
907.2.1.1			X																				
907.2.1.3			X																				
907.2.2			X																				
907.2.2.2			X																				
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907.2.11.2.1 – 907.2.11.2.5			X																				
907.2.11.3			X																				
907.2.11.4			X																				
907.2.11.5			X																				

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 9 – FIRE PROTECTION AND LIFE SAFETY SYSTEMS—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5							
Adopt entire chapter	X							X	X	X	X	X	X	X	X							
Adopt entire chapter as amended (amended sections listed below)			X	X	X																	
Adopt only those sections that are listed below						X	X														X	
Chapter / Section																						
907.2.11.6			X																			
907.2.11.8			X																			
907.2.12.1.2			X																			
907.2.13			X																			
907.2.24			X																			
907.2.24.1			X																			
907.2.24.2			X																			
907.2.24.3			X																			
907.2.24.4			X																			
907.2.24.4.1			X																			
907.2.24.4.2			X																			
907.2.24.4.3			X																			
907.2.25			X																			
907.2.25.1			X																			
907.2.25.2			X																			
907.2.26			X																			
907.2.26.1			X																			
907.2.26.2			X																			
907.2.26.3			X																			
907.2.26.4			X																			
907.2.26.4.1			X																			
907.2.26.4.2			X																			
907.2.27			X																			
907.2.28			X																			
907.2.28.1			X																			
907.2.29			X																			
907.2.29.1			X																			
907.3			X																			
907.3.2			X																			
907.3.2.1			X																			
907.3.2.2			X																			
907.3.2.3			X																			
907.3.2.4			X																			
907.3.2.5			X																			
907.3.3			X																			
907.3.3.1			X																			
907.4.2.1			X																			
907.4.2.2			X				X															
907.4.2.7			X																			
907.5 – 907.5.1.1			X																			
907.5.2.1			X																			
907.5.2.1.4			X																			
907.5.2.2			X																			
907.5.2.2.4			X																			
907.5.2.3			X				X															

(continued)

or more buildings by fire walls of not less than four-hour fire-resistance rating without openings.

[F] 903.2.1.3 Group A-3. An automatic sprinkler system shall be provided throughout stories containing Group A-3 occupancies and throughout all stories from the Group A-3 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. *The structure exceeds 12,000 square feet (1115 m²), contains more than one fire area containing exhibition and display rooms, and is separated into two or more buildings by fire walls of not less than four-hour fire-resistance rating without openings.*

[F] 903.2.1.4 Group A-4. An automatic sprinkler system shall be provided throughout stories containing Group A-4 occupancies and throughout all stories from the Group A-4 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 12,000 square feet (1115 m²).
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

[F] 903.2.1.5 Group A-5. An automatic sprinkler system shall be provided for all enclosed Group A-5 accessory use areas in excess of 1,000 square feet (93 m²).

[F] 903.2.1.5.1 Spaces under grandstands or bleachers. Enclosed spaces under grandstands or bleachers shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 where either of the following exist:

1. The enclosed area is 1,000 square feet (93 m²) or less and is not constructed in accordance with Section 1030.1.1.1.
2. The enclosed area exceeds 1,000 square feet (93 m²).

[F] 903.2.1.6 Assembly occupancies on roofs. Where an occupied roof has an assembly occupancy with an occupant load exceeding 100 for Group A-2 and 300 for other Group A occupancies, all floors between the occupied roof and the level of exit discharge shall be equipped with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.

Exception: Open parking garages of Type I or Type II construction.

903.2.1.7 Multiple fire areas. An automatic sprinkler system shall be provided where multiple fire areas of

Group A-1, A-2, A-3 or A-4 occupancies share exit or exit access components and the combined occupant load of these fire areas is 300 or more.

[F] 903.2.2 Ambulatory care facilities. An automatic sprinkler system shall be installed throughout the entire floor containing an ambulatory care facility where either of the following conditions exist at any time:

1. Four or more care recipients are incapable of self-preservation.
2. One or more care recipients that are incapable of self-preservation are located at other than the level of exit discharge serving such a facility.

In buildings where ambulatory care is provided on levels other than the level of exit discharge, an automatic sprinkler system shall be installed throughout the entire floor as well as all floors below where such care is provided, and all floors between the level of ambulatory care and the nearest level of exit discharge, the level of exit discharge, and all floors below the level of exit discharge.

Exception: Floors classified as an open parking garage are not required to be sprinklered.

[F] 903.2.3 Group E. An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 12,000 square feet (1115 m²) in area.
2. The Group E fire area is located on a floor other than a level of exit discharge serving such occupancies.

Exception: In buildings where every classroom has not fewer than one exterior exit door at ground level, an automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area.

3. The Group E fire area has an occupant load of 300 or more.

4. *In rooms or areas with special hazards such as laboratories, vocational shops and other such areas where hazardous materials in quantities not exceeding the maximum allowable quantity are used or stored.*

5. *Throughout any Group E structure greater than 12,000 square feet (1115 m²) in area, which contains more than one fire area, and which is separated into two or more buildings by fire walls of not less than four hour fire resistance rating without openings.*

6. *For public school state funded construction projects see Section 903.2.19.*

7. *For public school campuses: Kindergarten through 12th grade, see Section 903.2.20.*

[F] 903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 12,000 square feet (1115 m²).

2. A Group F-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).

[F] 903.2.4.1 Woodworking operations. An automatic sprinkler system shall be provided throughout all Group F-1 occupancy fire areas that contain wood-working operations in excess of 2,500 square feet (232 m²) in area that generate finely divided combustible waste or use finely divided combustible materials.

[SFM] A fire wall of less than four-hour fire-resistance rating without openings, or any fire wall with openings, shall not be used to establish separate fire areas.

[F] 903.2.4.2 Group F-1 distilled spirits. An automatic sprinkler system shall be provided throughout a Group F-1 fire area used for the manufacture of distilled spirits.

[F] 903.2.4.3 Group F-1 upholstered furniture or mattresses. An automatic sprinkler system shall be provided throughout a Group F-1 fire area that exceeds 2,500 square feet (232 m²) used for the manufacture of upholstered furniture or mattresses.

[F] 903.2.5 Group H. Automatic sprinkler systems shall be provided in high-hazard occupancies as required in Sections 903.2.5.1 through 903.2.5.3.

[F] 903.2.5.1 General. An automatic sprinkler system shall be installed in Group H occupancies.

[F] 903.2.5.2 Group H-5 occupancies. An automatic sprinkler system shall be installed throughout buildings containing Group H-5 occupancies. The design of the sprinkler system shall be not less than that required by this code for the occupancy hazard classifications in accordance with Table 903.2.5.2.

Where the design area of the sprinkler system consists of a corridor protected by one row of sprinklers, the maximum number of sprinklers required to be calculated is 13.

**[F] TABLE 903.2.5.2
GROUP H-5 SPRINKLER DESIGN CRITERIA**

LOCATION	OCCUPANCY HAZARD CLASSIFICATION
Fabrication areas	Ordinary Hazard Group 2
Service corridors	Ordinary Hazard Group 2
Storage rooms without dispensing	Ordinary Hazard Group 2
Storage rooms with dispensing	Extra Hazard Group 2
Corridors	Ordinary Hazard Group 2

[F] 903.2.5.3 Pyroxylin plastics. An automatic sprinkler system shall be provided in buildings, or portions thereof, where cellulose nitrate film or pyroxylin plastics are manufactured, stored or handled in quantities exceeding 100 pounds (45 kg).

***[F] 903.2.5.4 Group H occupancies located on the 11th story and above.** The fire sprinkler system shall be*

designed and zoned to provide separate indication upon water-flow for each side of the 2-hour fire-smoke barrier on the 11th story and above.

[F] 903.2.6 Group I. An automatic sprinkler system shall be provided throughout buildings with a Group I fire area.

Exceptions:

1. Those areas exempted by Section 407.6 of the California Building Code.
2. Pursuant to Health and Safety Code Section 13113(d), Group I-2 occupancies, or any alterations thereto, located in Type IA construction in existence on March 4, 1972.

[F] 903.2.6.1 Group I-2. In an existing, unsprinklered Group I-2, nurse station open to fire-resistive exit access corridors shall be protected by an automatic sprinkler system located directly above the nurse station. It shall be permitted to connect the automatic sprinkler system to the domestic water service.

[F] 903.2.6.2 Group I-3. Every building, or portion thereof, where inmates or persons are in custody or restrained shall be protected by an automatic sprinkler system conforming to NFPA 13. The main sprinkler control valve or valves and all other control valves in the system shall be locked in the open position and electrically supervised so that at least an audible and visual alarm will sound at a constantly attended location when valves are closed. The sprinkler branch piping serving cells may be embedded in the concrete construction.

[F] 903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 12,000 square feet (1115 m²).
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).
4. The structure exceeds 24,000 square feet (465 m²), contains more than one fire area containing a Group M occupancy, and is separated into two or more buildings by fire walls of not less than 4-hour fire resistance rating without openings.

[F] 903.2.7.1 High-piled storage. An automatic sprinkler system shall be provided in accordance with the California Fire Code in all buildings of Group M where storage of merchandise is in high-piled or rack storage arrays.

[F] 903.2.7.2 Group M upholstered furniture or mattresses. An automatic sprinkler system shall be provided throughout a Group M fire area where the area used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet (464 m²).

[F] 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. Existing Group R-3 occupancies converted to Group R-3.1 occupancies not housing bedridden clients, not housing nonambulatory clients above the first floor and not housing clients above the second floor.
2. Existing Group R-3 occupancies converted to Group R-3.1 occupancies housing only one bedridden client and complying with Section 435.8.3.3.
3. Pursuant to Health and Safety Code Section 13113 occupancies housing ambulatory children only, none of whom are mentally ill children or children with intellectual disabilities, and the buildings or portions thereof in which such children are housed are not more than two stories in height, and buildings or portions thereof housing such children have an automatic fire alarm system activated by approved smoke detectors.
4. Pursuant to Health and Safety Code Section 13143.6 occupancies licensed for protective social care which house ambulatory clients only, none of whom is a child (under the age of 18 years) or who is elderly (65 years of age or over).

When not used for height increases or for area increases, an automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be allowed in Group R-2.1 occupancies.

An automatic sprinkler system designed in accordance with Section 903.3.1.3 shall not be utilized in Group R-2.1 or R-4 occupancies.

[F] 903.2.8.1 Group R-3. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in Group R-3 occupancies.

[F] 903.2.8.2 Reserved.

[F] 903.2.8.3 Group R-4. An automatic sprinkler system installed in accordance with Section 903.3.1.2 shall be permitted in Group R-4 occupancies.

[F] 903.2.8.4 Care facilities. An automatic sprinkler system installed in accordance with Section 903.3.1.3 shall be permitted in care facilities with five or fewer individuals in a single-family dwelling.

[F] 903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 12,000 square feet (1115 m²).

2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 24,000 square feet (2230 m²).
4. A Group S-1 fire area used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).

[F] 903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 10,000 square feet (929 m²).
2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 12,000 square feet (1115 m²).
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).

[F] 903.2.9.2 Bulk storage of tires. Buildings and structures where the area for the storage of tires exceeds 20,000 cubic feet (566 m³) shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

[F] 903.2.9.3 Group S-1 Distilled spirits or wine. An automatic sprinkler system shall be provided throughout a Group S-1 fire area used for the bulk storage of distilled spirits or wine.

[F] 903.2.9.4 Group S-1 upholstered furniture and mattresses. An automatic sprinkler system shall be provided throughout a Group S-1 fire area where the area used for the storage of upholstered furniture or mattresses exceeds 2,500 square feet (232 m²).

Exception: Self-service storage facilities not greater than one story above grade plane where all storage spaces can be accessed directly from the exterior.

[F] 903.2.10 Group S-2 parking garages. An automatic sprinkler system shall be provided throughout buildings classified as parking garages where any of the following conditions exists:

1. Where the fire area of the enclosed parking garage in accordance with Section 406.6 exceeds 12,000 square feet (1115 m²).
2. Where the enclosed parking garage in accordance with Section 406.6 is located beneath other groups.

Exception: Enclosed parking garages located beneath Group R-3 occupancies.

- Where the fire area of the open parking garage in accordance with Section 406.5 exceeds 48,000 square feet (4460 m²).

[F] 903.2.10.1 Commercial parking garages. An automatic sprinkler system shall be provided throughout buildings used for storage of commercial motor vehicles where the fire area exceeds 5,000 square feet (464 m²).

[F] 903.2.10.2 Mechanical-access enclosed parking garages. An approved automatic sprinkler system shall be provided throughout buildings used for the storage of motor vehicles in a mechanical-access enclosed parking garage. The portion of the building that contains the mechanical-access enclosed parking garage shall be protected with a specially engineered automatic sprinkler system.

[F] 903.2.11 Specific building areas and hazards. In all occupancies other than Group U, an automatic sprinkler system shall be installed for building design or hazards in the locations set forth in Sections 903.2.11.1 through 903.2.11.6.

[F] 903.2.11.1 Stories without openings. An automatic sprinkler system shall be installed throughout all stories, including basements, of all buildings where the floor area exceeds 1,500 square feet (139.4 m²) and where the story does not comply with the following criteria for exterior wall openings:

- Openings below grade that lead directly to ground level by an exterior stairway complying with Section 1011 or an outside ramp complying with Section 1012. Openings shall be located in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on not fewer than one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm).
- Openings entirely above the adjoining ground level totaling not less than 20 square feet (1.86 m²) in each 50 linear feet (15 240 mm), or fraction thereof, of exterior wall in the story on not fewer than one side. The required openings shall be distributed such that the lineal distance between adjacent openings does not exceed 50 feet (15 240 mm). The height of the bottom of the clear opening shall not exceed 44 inches (1118 mm) measured from the floor.

[F] 903.2.11.1.1 Opening dimensions and access. Openings shall have a minimum dimension of not less than 30 inches (762 mm). Access to such openings shall be provided for the fire department from the exterior and shall not be obstructed in a manner such that fire fighting or rescue cannot be accomplished from the exterior.

[F] 903.2.11.1.2 Openings on one side only. Where openings in a story are provided on only one side and the opposite wall of such story is more than 75 feet (22 860 mm) from such openings, the story shall be equipped throughout with an approved automatic sprinkler system, or openings shall be provided on not fewer than two sides of the story.

[F] 903.2.11.1.3 Basements. Where any portion of a basement is located more than 75 feet (22 860 mm) from openings required by Section 903.2.11.1, or where walls, partitions or other obstructions are installed that restrict the application of water from hose streams, the basement shall be equipped throughout with an approved automatic sprinkler system.

[F] 903.2.11.2 Rubbish and linen chutes. An automatic sprinkler system shall be installed at the top of rubbish and linen chutes and in their terminal rooms. Chutes shall have additional sprinkler heads installed at alternate floors and at the lowest intake. Where a rubbish chute extends through a building more than one floor below the lowest intake, the extension shall have sprinklers installed that are recessed from the drop area of the chute and protected from freezing in accordance with Section 903.3.1.1. Such sprinklers shall be installed at alternate floors, beginning with the second level below the last intake and ending with the floor above the discharge. Access to sprinklers in chutes shall be provided for servicing.

[F] 903.2.11.3 Buildings 55 feet or more in height. An automatic sprinkler system shall be installed throughout buildings that have one or more stories with an occupant load of 30 or more located 55 feet (16 764 mm) or more above the lowest level of fire department vehicle access, measured to the finished floor.

Exception: Occupancies in Group F-2.

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

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

[F] 903.2.11.5 Commercial cooking operations. An automatic sprinkler system shall be installed in commercial kitchen exhaust hood and duct systems where an automatic sprinkler system is used to comply with Section 904.

[F] 903.2.11.6 Other required fire protection systems. In addition to the requirements of Section 903.2, the provisions indicated in Table 903.2.11.6 require the installation of a fire protection system for certain buildings and areas.

accordance with Section 907.2 that will respond to visible or invisible particles of combustion. Sprinklers shall not be omitted from a room merely because it is damp, of fire-resistance-rated construction or contains electrical equipment.

1. A room where the application of water, or flame and water, constitutes a serious life or fire hazard *as determined by the authority having jurisdiction*.
2. A room or space where sprinklers are considered undesirable because of the nature of the contents *as determined by the authority having jurisdiction*.
3. *Machine rooms, machinery spaces, control rooms, control spaces and hoistways associated with fire service access elevators provided in accordance with Section 3007.*
4. *Machine rooms, machinery spaces, control rooms and control spaces and hoistways associated with occupant evacuation elevators designed in accordance with Section 3008.*
5. *Spaces or areas in telecommunications buildings used exclusively for telecommunications equipment, and associated electrical power distribution equipment, provided those spaces or areas are equipped throughout with an automatic smoke detection system in accordance with Section 907.2 and are separated from the remainder of the building by not less than 1-hour fire barriers constructed in accordance with Section 707 or not less than 2-hour horizontal assemblies constructed in accordance with Section 712, or both.*
6. *Elevator hoistways, machine rooms, machinery spaces, control spaces and control rooms in accordance with Section 3005.4.1 of the California Building Code.*

[F] 903.3.1.1.2 Bathrooms. In Group R occupancies sprinklers shall not be required in bathrooms that do not exceed 55 square feet (5 m²) in area and are located within individual dwelling units or sleeping units, provided that walls and ceilings, including the walls and ceilings behind a shower enclosure or tub, are of noncombustible or limited-combustible materials with a 15-minute thermal barrier rating.

903.3.1.1.3 Solar photovoltaic power systems. Automatic sprinklers shall not be required in the following areas:

1. Solar photovoltaic panel structures with no use underneath. Signs may be provided, as determined by the enforcing agency prohibiting any use underneath, including storage.
2. Solar photovoltaic (PV) panels supported by framing that have sufficient uniformly distributed and unobstructed openings throughout the top of the array (horizontal plane) to allow heat and gases to escape, as determined by the enforcing agency.

[F] 903.3.1.2 NFPA 13R sprinkler systems. Automatic sprinkler systems in Group R occupancies shall be permitted to be installed throughout in accordance with NFPA 13R *as amended in Chapter 35* where the Group R occupancy meets all of the following conditions:

1. Four stories or fewer above grade plane.
2. The floor level of the highest story is 30 feet (9144 mm) or less above the lowest level of fire department vehicle access.
3. The floor level of the lowest story is 30 feet (9144 mm) or less below the lowest level of fire department vehicle access.

The number of stories of Group R occupancies constructed in accordance with Sections 510.2 and 510.4 shall be measured from grade plane.

[F] 903.3.1.2.1 Balconies and decks. Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units and sleeping units where either of the following conditions exists:

1. The building is of Type V construction, provided that there is a roof or deck above.
2. Exterior balconies, decks and ground floor patios of dwelling units and sleeping units are constructed in accordance with Section 705.2.3.1, Exception 3.

Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25 mm) to 6 inches (152 mm) below the structural members and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction.

[F] 903.3.1.2.2 Corridors and balconies in the means of egress. Sprinkler protection shall be provided in corridors and for balconies in the means of egress where any of the following conditions apply:

1. Corridors with combustible floor or walls.
2. Corridors with an interior change of direction exceeding 45 degrees (0.79 rad).
3. Corridors that are less than 50 percent open to the outside atmosphere at the ends.
4. Open-ended corridors and associated exterior stairways and ramps as specified in Section 1027.6, Exception 3.

5. Egress balconies not complying with Sections 1021.2 and 1021.3.

[F] 903.3.1.2.3 Attics. Attic protection shall be provided as follows:

1. Attics that are used or intended for living purposes or storage shall be protected by an automatic sprinkler system.
2. Where fuel-fired equipment is installed in an unsprinklered attic, not fewer than one quick-response intermediate temperature sprinkler shall be installed above the equipment.
3. Where located in a building of Type III, Type IV or Type V construction designed in accordance with Section 510.2 or 510.4, attics not required by Item 1 to have sprinklers shall comply with one of the following if the roof assembly is located more than 55 feet (16 764 mm) above the lowest level of fire department vehicle access needed to meet the provisions in Section 503.
 - 3.1. Provide automatic sprinkler system protection.
 - 3.2. Construct the attic using noncombustible materials.
 - 3.3. Construct the attic using fire-retardant-treated wood complying with Section 2303.2.
 - 3.4. Fill the attic with noncombustible insulation.

The height of the roof assembly shall be determined by measuring the distance from the lowest required fire vehicle access road surface adjacent to the building to the eave of the highest pitched roof, the intersection of the highest roof to the exterior wall, or the top of the highest parapet, whichever yields the greatest distance. For the purpose of this measurement, required fire vehicle access roads shall include only those roads that are necessary for compliance with Section 503 of the *California Fire Code*.

[F] 903.3.1.3 NFPA 13D sprinkler systems. Automatic sprinkler systems installed in one- and two-family dwellings; Group R-3; Group R-4, Condition 1; and townhouses shall be permitted to be installed throughout in accordance with NFPA 13D *as amended in Chapter 35*.

[F] 903.3.2 Quick-response and residential sprinklers. Where automatic sprinkler systems are required by this code, quick-response or residential automatic sprinklers shall be installed in all of the following areas in accordance with Section 903.3.1 and their listings:

1. Throughout all spaces within a smoke compartment containing care recipient sleeping units in Group I-2 in accordance with this code.

2. *Reserved.*

3. Throughout all spaces within a smoke compartment containing treatment rooms in ambulatory care facilities.

4. Dwelling units and sleeping units in Group R occupancies.

5. Light-hazard occupancies as defined in NFPA 13.

[F] 903.3.3 Obstructed locations. Automatic sprinklers shall be installed with regard to obstructions that will delay activation or obstruct the water distribution pattern and shall be in accordance with the applicable automatic sprinkler system standard that is being used. Automatic sprinklers shall be installed in or under covered kiosks, displays, booths, concession stands, or equipment that exceeds 4 feet (1219 mm) in width. Not less than a 3-foot (914 mm) clearance shall be maintained between automatic sprinklers and the top of piles of combustible fibers.

Exception: Kitchen equipment under exhaust hoods protected with a fire-extinguishing system in accordance with Section 904.

[F] 903.3.4 Actuation. Automatic sprinkler systems shall be automatically actuated unless specifically provided for in this code.

[F] 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 Health and Safety Code Section 13114.7*. For connections to public waterworks systems, the water supply test used for design of fire protection systems shall be adjusted to account for seasonal and daily pressure fluctuations based on information from the water supply authority and as approved by the fire code official.

[F] 903.3.5.1 Domestic services. Where the domestic service provides the water supply for the automatic sprinkler system, the supply shall be in accordance with this section.

[F] 903.3.5.2 Residential combination services. A single combination water supply shall be allowed provided that the domestic demand is added to the sprinkler demand as required by NFPA 13R.

[F] 903.3.6 Hose threads. Fire hose threads and fittings used in connection with automatic sprinkler systems shall be as prescribed by the fire code official.

[F] 903.3.7 Fire department connections. Fire department connections for automatic sprinkler systems shall be installed in accordance with Section 912.

[F] 903.3.8 Limited area sprinkler systems. Limited area sprinkler systems shall be in accordance with the standards listed in Section 903.3.1 except as provided in Sections 903.3.8.1 through 903.3.8.5.

SECTION 907 FIRE ALARM AND DETECTION SYSTEMS

[F] 907.1 General. This section covers the application, installation, performance and maintenance of fire alarm systems and their components.

[F] 907.1.1 Construction documents. Construction documents for fire alarm systems shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this code, the *California Fire Code*; and relevant laws, ordinances, rules and regulations, as determined by the fire code official.

[F] 907.1.2 Fire alarm shop drawings. Shop drawings for fire alarm systems shall be prepared in accordance with NFPA 72 and submitted for review and approval prior to system installation.

[F] 907.1.3 Equipment. Systems and components shall be *California State Fire Marshal* listed and approved in accordance with *California Code of Regulations, Title 19, Division 1* for the purpose for which they are installed.

[F] 907.1.4 Fire-walls and fire barrier walls. For the purpose of Section 907 fire walls and fire barrier walls shall not define separate buildings.

[F] 907.1.5 Fire alarm use. A fire alarm system shall not be used for any purpose other than fire warning or mass notification and where permitted by NFPA 72.

[F] 907.2 Where required—new buildings and structures. An approved fire alarm system installed in accordance with the provisions of this code and NFPA 72 shall be provided in new buildings and structures in accordance with Sections 907.2.1 through 907.2.29 and provide occupant notification in accordance with Section 907.5, unless other requirements are provided by another section of this code.

Not fewer than one manual fire alarm box shall be provided in an approved location to initiate a fire alarm signal for fire alarm systems employing automatic fire detectors or waterflow detection devices. Where other sections of this code allow elimination of fire alarm boxes due to sprinklers, or automatic fire alarm systems, a single fire alarm box shall be installed at a location approved by the enforcing agency.

Exceptions:

1. The manual fire alarm box is not required for fire alarm control units dedicated to elevator recall control, supervisory service and fire sprinkler monitoring.
2. The manual fire alarm box is not required for Group R-2 occupancies unless required by the fire code official to provide a means for fire watch personnel to initiate an alarm during a sprinkler system impairment event. Where provided, the manual fire alarm box shall not be located in an area that is open to the public.
3. The manual fire alarm box is not required to be installed when approved by the fire code official.

[F] 907.2.1 Group A. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group A occupancies where the occupant load due to the assembly occupancy is 300 or more, or where the Group A occupant load is more than 100 persons above or below the lowest level of exit discharge. Group A occupancies not separated from one another in accordance with Section 707.3.10 shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes with an occupant load of less than 1,000, shall be provided with a fire alarm system as required for the Group E occupancy.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

Every Group A building used for educational purposes shall be provided with a manual or automatic fire alarm system. This provision shall apply to, but shall not necessarily be limited to, every community college and university.

Exception: Privately owned trade or vocational schools or any firm or company which provides educational facilities and instructions for its employees.

[F] 907.2.1.1 System initiation in Group A occupancies with an occupant load of 1,000 or more. Activation of the fire alarm in Group A occupancies with an occupant load of 1,000 or more shall initiate a signal using an emergency voice/alarm communications system in accordance with Section 907.5.2.2. Group A occupancies with an occupant load of 10,000 or more, see Section 907.2.1.3.

Exception: Where approved, the prerecorded announcement is allowed to be manually deactivated for a period of time, not to exceed 3 minutes, for the sole purpose of allowing a live voice announcement from an approved, constantly attended location.

[F] 907.2.1.2 Emergency voice/alarm communication captions. Stadiums, arenas and grandstands required to caption audible public announcements shall be in accordance with Section 907.5.2.2.4.

907.2.1.3 Public address system. Pursuant to Health and Safety Code Section 13108.9, for all buildings or structures constructed on or after July 1, 1991, which are intended for public assemblies of 10,000 or more persons a public address system with an emergency backup power system shall be required.

[F] 907.2.2 Group B. A manual fire alarm system, which activates the occupant notification system in accordance with Section 907.5, shall be installed in Group B occupancies where one of the following conditions exists:

1. The combined Group B occupant load of all floors is 500 or more.

2. The Group B occupant load is more than 100 persons above or below the lowest level of exit discharge.
3. The fire area contains an ambulatory care facility.
4. *Group B occupancies containing educational facilities, see Section 907.2.2.2.*

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

[F] 907.2.2.1 Ambulatory care facilities. Fire areas containing ambulatory care facilities shall be provided with an electronically supervised automatic smoke detection system installed within the ambulatory care facility and in public use areas outside of tenant spaces, including public corridors and elevator lobbies.

Exception: Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, provided that the occupant notification appliances will activate throughout the notification zones upon sprinkler waterflow.

907.2.2.2 Group B Educational facilities. Every Group B building used for educational purposes shall be provided with a manual or automatic fire alarm system. This provision shall apply to, but shall not necessarily be limited to, every community college and university.

Exception: Privately owned trade or vocational schools or any firm or company which provides educational facilities and instructions for its employees.

[F] 907.2.3 Group E. An automatic fire alarm system that initiates the occupant notification signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E occupancies with an occupant load of 50 or more persons or containing more than one classroom or one or more rooms used for Group E or I-4 child-care purposes in accordance with this section. Where automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system. One additional manual fire alarm box shall be located at the administration office or location approved by the AHJ.

Exceptions:

1. For public school state funded construction projects see Section 907.2.29.
2. For public schools see Section 907.2.3.7.
3. For private schools see Section 907.2.3.8.

907.2.3.1 System connection. Where more than one fire alarm control unit is used at the school campus,

they shall be interconnected and shall operate all notification appliances.

Exception: Interconnection of fire alarm control units is not required when all the following are provided:

1. Buildings that are separated a minimum of 20 feet (6096 mm) and in accordance with the California Building Code; and
2. There is a method of two way communication between each classroom and the school administrative office approved by the fire enforcing agency; and
3. A method of manual activation of each fire alarm system is provided.

907.2.3.2 Assemblies located within a Group E occupancy. Assembly occupancies with an occupant load of less than 1,000 and located within a Group E occupancy campus or building shall be provided with a fire alarm system as required for the Group E occupancy.

907.2.3.3 Notification. The fire alarm system notification shall comply with the requirements of Section 907.5.

907.2.3.4 Annunciation. Annunciation of the fire alarm system shall comply with the requirements of Section 907.6.3.1.

907.2.3.5 Monitoring. School fire alarm systems shall be monitored in accordance with Section 907.6.6.2.

907.2.3.6 Automatic fire alarm system. Automatic detection shall be provided in accordance with this section.

907.2.3.6.1 Smoke detectors. Smoke detectors shall be installed at the ceiling of every room and in "ceiling-plenums" utilized for environmental air. Where the ceiling is attached directly to the underside of the roof structure, smoke detectors shall be installed on the ceiling only.

Exception: Where the environment or ambient conditions exceed smoke detector installation guidelines; heat detectors or fire sprinklers shall be used.

907.2.3.6.2 Heat detectors. Heat detectors shall be installed in combustible spaces where sprinklers or smoke detectors are not installed.

907.2.3.7 Public school campuses. An automatic fire alarm system in compliance with Section 907.2.3 shall be provided in new buildings for all occupancies on Kindergarten through 12th grade public school campuses.

Exceptions:

1. A manual fire alarm system may be provided for a relocatable building that is sited with the intent that it be at the site for less than three years and is sited upon a temporary founda-

tion in a manner that is designed to permit easy removal. Also see CCR, Title 24, Part 1, California Administrative Code, Section 4-314 for definition of relocatable building.

2. A fire alarm system is not required for detached buildings designed and used for non-instructional purposes that meet the applicable requirements for that occupancy. Buildings would include but not be limited to a:

Concession Stand
Press Box
Restroom Facility
Shade Structure
Snack Bar
Storage Building
Ticket Booth

907.2.3.8 Private schools. An automatic fire alarm system shall be provided in new buildings of private schools.

Exception: Automatic detection devices are not required where an approved automatic sprinkler system is installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.

907.2.3.9 Day-care, Group E.

907.2.3.9.1 An automatic fire alarm system shall be provided in all buildings used as or containing a Group E day-care.

Exception: Automatic detection devices are not required where an approved automatic sprinkler system is installed in accordance with Section 903.3.1.1 and the occupant notification appliances will activate on sprinkler water flow and manual activation is provided from a normally occupied location.

907.2.3.9.2 Smoke detectors shall be installed in every room used for sleeping or napping.

907.2.3.10 Day-care, Group E or Group I-4 located on a public school campus. An automatic fire alarm system shall be provided in all buildings used as or containing a Group E or Group I-4 day-care.

[F] 907.2.4 Group F. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group F occupancies where both of the following conditions exist:

1. The Group F occupancy is two or more stories in height.
2. The Group F occupancy has a combined occupant load of 500 or more above or below the lowest level of exit discharge.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with

Section 903.3.1.1 and the occupant notification appliances will activate throughout the notification zones upon sprinkler water flow.

[F] 907.2.5 Group H. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group H-5 occupancies and in occupancies used for the manufacture of organic coatings. An automatic smoke detection system shall be installed for highly toxic gases, organic peroxides and oxidizers in accordance with Chapters 60, 62 and 63, respectively, of the California Fire Code.

907.2.5.1 Group H occupancies located on the 11th story and above. Manual fire alarm boxes shall be required on each side of the 2-hour fire-smoke barrier and at each exit on the 11th story and above.

[F] 907.2.6 Group I. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group I occupancies. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be provided in accordance with Sections 907.2.6.1, 907.2.6.2 and 907.2.6.3.3.

Exceptions:

1. Large family day-care.
2. Manual fire alarm boxes in sleeping units of Group I-1 and I-2 occupancies shall not be required at exits if located at all care providers' control stations or other constantly attended staff locations, provided that such manual fire alarm boxes are visible and provided with ready access, and the distances of travel required in Section 907.4.2.1 are not exceeded.
3. Occupant notification systems are not required to be activated where private mode signaling installed in accordance with NFPA 72 is approved by the fire code official and staff evacuation responsibilities are included in the fire safety and evacuation plan required by Section 404 of the California Fire Code.

[F] 907.2.6.1 Reserved.

[F] 907.2.6.2 Group I-2. A manual and automatic fire alarm system shall be installed in Group I-2 occupancies. Where automatic fire suppression systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exception: Where an entire facility is used for the housing of persons, none of whom are physically or mentally handicapped or nonambulatory, and are between the ages of 18 and 64, the buildings or structures comprising such facility shall be exempt from the provisions of this subsection relating to the installation of an automatic fire alarm system.

907.2.6.2.1 Notification. The fire alarm notification system shall be in accordance with Section 907.5.2.5.

907.2.6.2.2 Automatic fire detection. Smoke detectors shall be provided in accordance with this section.

1. In patient and client sleeping rooms. Actuation of such detectors shall cause a visual display on the corridor side of the room in which the detector is located and shall cause an audible and visual alarm at the respective nurse station. A nurse call system listed for this function is an acceptable means of providing the audible and visual alarm at the respective nurse station and corridor room display. Operation of the smoke detector shall not include any alarm verification feature.

Exception: In patient and client rooms equipped with existing automatic door closers having integral smoke detector, the integral detector is allowed to substitute for the room smoke detector, provided it meets all the required alerting functions.

2. Group I-2 nurse stations. A minimum of one (1) smoke detector shall be installed at the nurse station and centrally located.
3. In waiting areas and corridors onto which they open, in the same smoke compartment, in accordance with Section 407.2.1.
4. In areas where patients are restrained, smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces of smoke compartments and in adjacent smoke compartments where occupants of those compartments utilize the same means of egress.

[F] 907.2.6.3 Group I-3 occupancies. Group I-3 occupancies shall be equipped with a manual fire alarm system and automatic smoke detection system installed for alerting staff.

Exception: An automatic smoke detection system is not required within temporary holding cells.

[F] 907.2.6.3.1 System initiation. Actuation of an automatic fire-extinguishing system, automatic sprinkler system, a manual fire alarm box or a fire detector shall initiate an approved fire alarm signal that automatically notifies staff.

[F] 907.2.6.3.2 Manual fire alarm boxes. Manual fire alarm boxes are not required to be located in accordance with Section 907.4.2 where the fire alarm boxes are provided at staff-attended locations having direct supervision over areas where manual fire alarm boxes have been omitted.

[F] 907.2.6.3.2.1 Manual fire alarm boxes in detainee areas. Manual fire alarm boxes are allowed to be locked in areas occupied by detainees, provided that staff members are present within the subject area and have keys readily available to operate the manual fire alarm boxes.

[F] 907.2.6.3.3 Automatic smoke detection system.

An automatic smoke detection system shall be installed throughout resident housing areas, including sleeping units and contiguous day rooms, group activity spaces and other common spaces normally open to inmates.

Exceptions:

1. Other approved smoke detection arrangements may be used to prevent damage or tampering or for other purposes provided the function of detecting any fire is fulfilled and the location of the detectors is such that the speed of detection will be equivalent to that provided by the spacing and location required in accordance with NFPA 72 as referenced in Chapter 35. This may include the location of detectors in return air ducts from cells, behind grilles or in other locations. Spot type, combination duct and open area smoke detectors may be used when located not more than 14 inches (356 mm) from the return air grill. For initiation and annunciation purposes, these detectors may be combined in groups of four. The fire code official having jurisdiction, however, must approve the proposed equivalent performance of the design.
2. For detention housing and/or mental health housing area(s), including correctional medical and mental health uses, automatic smoke detection system in sleeping units shall not be required when all of the following conditions are met:
 - 2.1. All rooms, including the inmate cells are provided with an automatic sprinkler system in accordance with Section 903.3.1.1.
 - 2.2. Building is continuously staffed by a correctional officer at all times.
3. Smoke detectors are not required to be installed in inmate cells with two or fewer occupants in detention facilities which do not have a correctional medical and mental health use.
4. Smoke detectors are not required to be installed in inmate day rooms of detention facilities where 24-hour direct visual supervision is provided by a correctional officer(s) and a manual fire alarm box is located in the control room.

907.2.6.3.4 System annunciation. A staff alerting fire alarm shall sound at all staff control stations on the floor of activation and an audible and visual signal shall be indicated on an annunciator at the facility control center upon activation of any automatic extinguishing system, automatic detection system, or any smoke detector or manual actuating

or initiating device. In addition, where there are staff-control stations on the floor, an audible, visual and manual alarm shall be located in each staff control station.

Fire and trouble signals of fire alarm systems and sprinkler water-flow and supervisory signals of extinguishing systems shall be annunciated in an area designated as the facility control center which shall be constantly attended by staff personnel. All such signals shall produce both an audible signal and visual display at the facility control center indicating the building, floor zone or other designated area from which the signal originated in accordance with Section 907.6.4.

All local detention facilities within the scope of Section 6031.4 of the Penal Code shall have an automatic smoke detection system. A manual fire alarm-initiating device shall be installed in all guard control stations and shall be capable of alerting personnel in a central control point to the presence of fire or smoke within the facility.

907.2.6.4 Group I-4. *An automatic smoke detection system shall be installed throughout the Group I-4, including contiguous day rooms, group activity spaces and other common spaces normally occupied by the clients. Group I-4 facilities located above the first story shall comply with the provisions of Section 436.1.*

907.2.6.5 Large family day-care. *Every large family day-care home shall be provided with at least one manual fire alarm box at a location approved by the authority having jurisdiction. Such device shall actuate a fire alarm signal, which shall be audible throughout the facility at a minimum level of 15 dB above ambient noise level. These devices need not be interconnected to any other fire alarm device, have a control unit or be electrically supervised or provided with emergency power. Such device or devices shall be attached to the structure and must be a device that is listed and approved by the Office of the State Fire Marshal.*

[F] 907.2.7 Group M. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group M occupancies where one of the following conditions exists:

1. The combined Group M occupant load of all floors is 500 or more persons.
2. The Group M occupant load is more than 100 persons above or below the lowest level of exit discharge.

Exceptions:

1. A manual fire alarm system is not required in covered or open mall buildings complying with Section 402.
2. Manual fire alarm boxes are not required where the building is equipped throughout with an auto-

matic sprinkler system installed in accordance with Section 903.3.1.1 and the occupant notification appliances will automatically activate throughout the notification zones upon sprinkler water flow.

[F] 907.2.7.1 Occupant notification. During times that the building is occupied, the initiation of a signal from a manual fire alarm box or from a waterflow switch shall not be required to activate the alarm notification appliances when an alarm signal is activated at a constantly attended location from which evacuation instructions shall be initiated over an emergency voice/alarm communication system installed in accordance with Section 907.5.2.2.

[F] 907.2.8 Group R-1. Fire alarm systems and smoke alarms shall be installed in Group R-1 occupancies as required in Sections 907.2.8.1 through 907.2.8.3.

[F] 907.2.8.1 Manual fire alarm system. A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-1 occupancies.

Exceptions:

1. A manual fire alarm system is not required in buildings not more than two stories in height where all individual sleeping units and contiguous attic and crawl spaces to those units are separated from each other and public or common areas by not less than 1-hour fire partitions and each individual sleeping unit has an exit directly to a public way, egress court or yard.
2. Manual fire alarm boxes are not required throughout the building where all of the following conditions are met:
 - 2.1. The building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.
 - 2.2. The notification appliances will activate upon sprinkler water flow.
 - 2.3. Not fewer than one manual fire alarm box is installed at an approved location.

[F] 907.2.8.2 Automatic smoke detection system. An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed throughout all interior corridors serving sleeping units.

Exception: An automatic smoke detection system is not required in buildings that do not have interior corridors serving sleeping units and where each sleeping unit has a means of egress door opening directly to an exit or to an exterior exit access that leads directly to an exit.

[F] **907.2.8.3 Smoke alarms.** Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

[F] **907.2.9 Group R-2, R-2.1 and R-2.2.** Fire alarm systems and smoke alarms shall be installed in Group R-2 and R-2.1 occupancies as required in Sections 907.2.9.1 and 907.2.9.4.1. *Group R-2.2 shall be equipped throughout with an automatic fire alarm system and shall have a manual fire alarm pull station at the 24-hour staff watch office.*

[F] **907.2.9.1 Manual fire alarm system.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies where any of the following conditions apply:

1. Any dwelling unit or sleeping unit is located three or more stories above the lowest level of exit discharge.
2. Any dwelling unit or sleeping unit is located more than one story below the highest level of exit discharge of exits serving the dwelling unit or sleeping unit.
3. The building contains more than 16 dwelling units or sleeping units.
4. *Congregate residences with more than 16 occupants.*

Exceptions:

1. A fire alarm system is not required in buildings not more than two stories in height where all dwelling units or sleeping units and contiguous attic and crawl spaces are separated from each other and public or common areas by not less than 1-hour fire partitions and each dwelling unit or sleeping unit has an exit directly to a public way, egress court or yard.
2. Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and the occupant notification appliances will automatically activate throughout the notification zones upon a sprinkler water flow.
3. A fire alarm system is not required in buildings that do not have interior corridors serving dwelling units and are protected by an approved automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, provided that dwelling units either have a means of egress door opening directly to an exterior exit access that leads directly to the exits or are served by open-ended corri-

dors designed in accordance with Section 1027.6, Exception 3.

[F] **907.2.9.2 Smoke alarms.** Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.

[F] **907.2.9.3 Group R-2 college and university buildings.** An automatic smoke detection system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group R-2 occupancies operated by a college or university for student or staff housing in all of the following locations:

1. Common spaces outside of dwelling units and sleeping units.
2. Laundry rooms, mechanical equipment rooms and storage rooms.
3. All interior corridors serving sleeping units or dwelling units.

Required smoke alarms *and detectors listed in accordance with UL 268*, in dwelling units and sleeping units in Group R-2 occupancies operated by a college or university for student or staff housing shall be interconnected with the fire alarm system to *activate the occupant notification* in accordance with NFPA 72 and shall comply with Section 907.2.11.7.

907.2.9.4 Licensed Group R-2.1 occupancies. *Licensed Group R-2.1 occupancies housing more than six nonambulatory, elderly clients shall be provided with an approved manual and automatic fire alarm system.*

Exceptions: *Buildings housing nonambulatory clients on the first story only and which are protected throughout by the following:*

1. *An approved and supervised automatic sprinkler system, as specified in Sections 903.3.1.1 or 903.3.1.2, which upon activation will initiate the fire alarm system to notify all occupants.*
2. *A manual fire alarm system.*
3. *Smoke alarms required by Section 907.2.11.*

907.2.9.4.1 Smoke alarms. *Single- and multiple-station smoke alarms shall be installed in accordance with Section 907.2.11.*

[F] **907.2.10 Group S.** A manual fire alarm system that activates the occupant notification system in accordance with Section 907.5 shall be installed in Group S public- and self-storage occupancies three stories or greater in height for interior corridors and interior common areas. Visible notification appliances are not required within storage units.

Exception: Manual fire alarm boxes are not required where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1, and the occupant notification appli-

- (11) *For stairways leading up from a basement, smoke alarms or smoke detectors shall be located on the basement ceiling near the entry to the stairs.*
- (12) *For tray-shaped ceilings (coffered ceilings), smoke alarms and smoke detectors shall be installed on the highest portion of the ceiling or on the sloped portion of the ceiling within 12 inches (300 mm) vertically down from the highest point.*
- (13) *Smoke alarms and detectors installed in rooms with joists or beams shall comply with the requirements of 17.7.3.2.4 of NFPA 72.*
- (14) *Heat alarms and detectors installed in rooms with joists or beams shall comply with the requirements of 17.6.3 of NFPA 72.*

**For additional requirements or clarification see NFPA 72.*

907.2.11.9 Existing Group R occupancies. *See the California Residential Code for existing Group R-3 occupancies or Chapter 11 of the California Fire Code for all other existing Group R occupancies.*

[F] 907.2.12 Special amusement areas. An automatic smoke detection system shall be provided in special amusement areas and throughout the exit access to the point of exit discharge in accordance with Sections 907.2.12.1 through 907.2.12.3.

[F] 907.2.12.1 Alarm. Activation of any single smoke detector, the automatic sprinkler system or any other automatic fire detection device shall immediately activate an audible and visible alarm at the building at a constantly attended location from which emergency action can be initiated, including the capability of manual initiation of requirements in Section 907.2.12.2.

[F] 907.2.12.2 System response. The activation of two or more smoke detectors, a single smoke detector equipped with an alarm verification feature, the automatic sprinkler system or other approved fire detection device shall automatically do all of the following:

1. Cause illumination of the means of egress with light of not less than 1 footcandle (11 lux) at the walking surface level.
2. Stop any conflicting or confusing sounds and visual distractions.
3. Activate an approved directional exit marking that will become apparent in an emergency.
4. Activate a prerecorded message, audible throughout the special amusement area and throughout the exit access to the point of exit discharge, instructing patrons to proceed to the nearest exit. Alarm signals used in conjunction with the prerecorded message shall produce a sound that is distinctive from other sounds used during normal operation.

[F] 907.2.12.3 Emergency voice/alarm communication system. An emergency voice/alarm communication system, which is allowed to serve as a public address system, shall be installed in accordance with Section 907.5.2.2 and be audible throughout the entire special amusement area and throughout the exit access to the point of exit discharge.

[F] 907.2.13 High-rise buildings and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access. High-rise buildings and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access shall be provided with an automatic smoke detection system in accordance with Section 907.2.13.1, a fire department communication system in accordance with Section 907.2.13.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.

Exceptions:

1. Airport traffic control towers in accordance with Sections 412 and 907.2.22.
2. Open parking garages in accordance with Section 406.5.
3. Buildings with an occupancy in Group A-5 in accordance with Section 303.1.
4. Low-hazard special occupancies in accordance with Section 503.1.1.
5. Buildings with an occupancy in Group H-1, H-2 or H-3 in accordance with Section 415.
6. In Group I-2 and R-2.1 occupancies, the alarm shall sound at a constantly attended location and occupant notification shall be broadcast by the emergency voice/alarm communication system.

[F] 907.2.13.1 Automatic smoke detection. Automatic smoke detection in high-rise buildings and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access shall be in accordance with Sections 907.2.13.1.1 and 907.2.13.1.2.

[F] 907.2.13.1.1 Area smoke detection. Area smoke detectors shall be provided in accordance with this section. Smoke detectors shall be connected to an automatic fire alarm system. The activation of any detector required by this section shall activate the emergency voice/alarm communication system in accordance with Section 907.5.2.2. In addition to smoke detectors required by Sections 907.2.1 through 907.2.9, smoke detectors shall be located as follows:

1. In each mechanical equipment, electrical, transformer, telephone equipment or similar room that is not provided with sprinkler protection.
2. In each elevator machine room, machinery space, control room and control space and in elevator lobbies.

[F] 907.2.13.1.2 Duct smoke detection. *Smoke detectors listed for use in air duct systems shall be provided in accordance with this section and the California Mechanical Code. The activation of any detector required by this section shall initiate a visible and audible supervisory signal at a constantly attended location.* Duct smoke detectors complying with Section 907.3.1 shall be located as follows:

1. In the main return air and exhaust air plenum of each air-conditioning system having a capacity greater than 2,000 cubic feet per minute (cfm) (0.94 m³/s). Such detectors shall be located in a serviceable area downstream of the last duct inlet.
2. At each connection to a vertical duct or riser serving two or more stories from a return air duct or plenum of an air-conditioning system. In Group R-1 and R-2 occupancies, a smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cfm (2.4 m³/s) and serving not more than 10 air-inlet openings.

[F] 907.2.13.2 Fire department communication system. Where a wired communication system is approved in lieu of an in-building two-way emergency responder communication coverage system in accordance with Section 510 of the *California Fire Code*, the wired fire department communication system shall be designed and installed in accordance with NFPA 72 and shall operate between a fire command center complying with Section 911, elevators, elevator lobbies, emergency and standby power rooms, fire pump rooms, areas of refuge and inside interior exit stairways. The fire department communication device shall be provided at each floor level within the interior exit stairway.

[F] 907.2.13.3 Multiple-channel voice evacuation. In buildings with an occupied floor more than 120 feet (36 576 mm) above the lowest level of fire department vehicle access, voice evacuation systems for high-rise buildings shall be multiple-channel systems.

[F] 907.2.14 Atriums connecting more than two stories. A fire alarm system shall be installed in occupancies with an atrium that connects more than two stories, with smoke detection installed in locations required by a rational analysis in Section 909.4 and in accordance with the system operation requirements in Section 909.17. The system shall be activated in accordance with Section 907.5. Such occupancies in Group A, E or M shall be provided with an emergency voice/alarm communication system complying with the requirements of Section 907.5.2.2.

[F] 907.2.15 High-piled combustible storage areas. An automatic smoke detection system shall be installed throughout high-piled combustible storage areas where required by Section 3206.5 of the *California Fire Code*.

[F] 907.2.16 Aerosol storage uses. Aerosol product rooms and general-purpose warehouses containing aerosol

products shall be provided with an *approved* manual fire alarm system where required by the *California Fire Code*.

[F] 907.2.17 Lumber, wood structural panel and veneer mills. Lumber, wood structural panel and veneer mills shall be provided with a manual fire alarm system.

[F] 907.2.18 Underground buildings with smoke control systems. Where a smoke control system is installed in an underground building in accordance with this code, automatic smoke detectors shall be provided in accordance with Section 907.2.18.1.

[F] 907.2.18.1 Smoke detectors. Not fewer than one smoke detector listed for the intended purpose shall be installed in all of the following areas:

1. Mechanical equipment, electrical, transformer, telephone equipment, elevator machine or similar rooms.
2. Elevator lobbies.
3. The main return and exhaust air plenum of each air-conditioning system serving more than one story and located in a serviceable area downstream of the last duct inlet.
4. Each connection to a vertical duct or riser serving two or more floors from return air ducts or plenums of heating, ventilating and air-conditioning systems, except that in Group R occupancies, a listed smoke detector is allowed to be used in each return air riser carrying not more than 5,000 cubic feet per minute (2.4 m³/s) and serving not more than 10 air-inlet openings.

[F] 907.2.18.2 Alarm required. Activation of the smoke control system shall activate an audible alarm at a constantly attended location.

[F] 907.2.19 Deep underground buildings. Where the lowest level of a structure is more than 60 feet (18 288 mm) below the finished floor of the lowest level of exit discharge, the structure shall be equipped throughout with a manual fire alarm system, including an emergency voice/alarm communication system installed in accordance with Section 907.5.2.2.

[F] 907.2.20 Covered and open mall buildings. Where the total floor area exceeds 50,000 square feet (4645 m²) within either a covered mall building or within the perimeter line of an open mall building, an emergency voice/alarm communication system shall be provided. Access to emergency voice/alarm communication systems serving a mall, required or otherwise, shall be provided for the fire department. The system shall be provided in accordance with Section 907.5.2.2.

[F] 907.2.21 Residential aircraft hangars. Not fewer than one single-station smoke alarm shall be installed within a residential aircraft hangar as defined in Chapter 2 and shall be interconnected into the residential smoke alarm or other sounding device to provide an alarm that will be audible in all sleeping areas of the dwelling.

[F] 907.2.22 Airport traffic control towers. An automatic smoke detection system that activates the occupant

[F] 907.3 Fire safety functions. Automatic fire detectors utilized for the purpose of performing fire safety functions shall be connected to the building's fire alarm control unit where a fire alarm system is *installed*. Detectors shall, upon actuation, perform the intended function and activate the alarm notification appliances or activate a visible and audible supervisory signal at a constantly attended location. In buildings not equipped with a fire alarm system, the automatic fire detector shall be powered by normal electrical service and, upon actuation, perform the intended function. The detectors shall be located in accordance with NFPA 72.

[F] 907.3.1 Duct smoke detectors. Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit where a fire alarm system is required by Section 907.2. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the *California Mechanical Code*. In facilities that are required to be monitored by a supervising station, duct smoke detectors shall report only as a supervisory signal and not as a fire alarm. They shall not be used as a substitute for required open area detection.

Exceptions:

1. The supervisory signal at a constantly attended location is not required where duct smoke detectors activate the building's alarm notification appliances.
2. In occupancies not required to be equipped with a fire alarm system, actuation of a smoke detector shall activate a visible and an audible signal in an approved location. Smoke detector trouble conditions shall activate a visible or audible signal in an approved location and shall be identified as air duct detector trouble.

[F] 907.3.2 Special locking systems. Where special locking systems are installed on means of egress doors in accordance with Sections 1010.2.13 or 1010.2.14, an automatic smoke detection system shall be installed as required by those sections and Sections 907.3.2.1 through 907.3.2.5.

907.3.2.1 Delayed egress. *In other than Groups I, R-2.1 and R-4 occupancies for single-story building, smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces. For multiple-story buildings, smoke detectors shall be installed throughout all occupied areas and mechanical/electrical spaces for the story where delayed egress devices are installed. Additional detectors are required on adjacent stories where occupants of those stories utilize the same means of egress.*

Exception: Refer to Section 907.3.2.4 for Group A courthouse occupancies.

907.3.2.2 Delayed egress for Group I and R-2.1 occupancies. *Smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces of smoke-compartments where delayed egress devices are installed. Additional detectors are required*

in adjacent smoke-compartments where occupants of those compartments utilize the same means of egress.

907.3.2.3 Delayed egress for Group R-4. *Occupancies licensed as residential care facilities for the elderly, and housing clients with Alzheimer's disease or dementia residential facilities, smoke detectors shall be installed at ceilings throughout all occupiable rooms and areas and mechanical/ electrical rooms and spaces.*

907.3.2.4 Delayed egress for Group A Courthouse occupancies. *An approved automatic smoke detection system shall be installed at ceilings in all occupied corridors and mechanical/electrical spaces of occupancies where delayed egress devices are installed.*

907.3.2.5 Controlled egress doors for Group I-2 occupancies. *Smoke detectors shall be installed at ceilings throughout all occupied areas and mechanical/electrical spaces of smoke-compartments where controlled egress doors are installed.*

[F] 907.3.3 Elevator emergency operation. Automatic fire detectors installed for elevator emergency operation shall be installed in accordance with the provisions of *California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders* and NFPA 72.

907.3.3.1 Hoist way fire detection. *Smoke detectors or other automatic fire detection shall be provided in hoist ways in accordance with NFPA 72 for the following:*

1. *Where required by California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders, to initiate elevator phase I emergency recall.*
2. *Where required by Section 3003.4.3 to activate a hoist way ventilation system.*

[F] 907.3.4 Wiring. The wiring to the auxiliary devices and equipment used to accomplish the fire safety functions shall be monitored for integrity in accordance with NFPA 72.

[F] 907.4 Initiating devices. Where a fire alarm system is required by another section of this code, occupant notification in accordance with Section 907.5 shall be initiated by one or more of the following. Initiating devices shall be installed in accordance with Sections 907.4.1 through 907.4.3.1.

1. Manual fire alarm boxes.
2. Automatic fire detectors.
3. Automatic sprinkler system waterflow devices.
4. Automatic fire-extinguishing systems.

[F] 907.4.1 Protection of fire alarm control unit. In areas that are not continuously occupied, a single smoke detector shall be provided at the location of each fire alarm control unit, notification appliance circuit power extenders, and supervising station transmitting equipment.

Exception: Where ambient conditions prohibit installation of a smoke detector, a heat detector shall be permitted.

[F] 907.4.2 Manual fire alarm boxes. Where a manual fire alarm system is required by another section of this code, it shall be activated by fire alarm boxes installed in accordance with Sections 907.4.2.1 through 907.4.2.6.

[F] 907.4.2.1 Location. Manual fire alarm boxes shall be located not more than 5 feet (1524 mm) from the entrance to each exit. In buildings not protected by an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, additional manual fire alarm boxes shall be located so that the distance of travel to the nearest box does not exceed 200 feet (60 960 mm).

Exception: When individual dwelling units are served by a single exit stairway, additional boxes at other than the ground floor may be omitted.

[F] 907.4.2.2 Height. The height of the manual fire alarm boxes shall be not less than 42 inches (1067 mm) and not more than 48 inches (1219 mm) measured vertically, from the floor level to the *highest point of the activating handle or lever of the box. Manual fire alarm boxes shall also comply with Section 11B-309.*

[F] 907.4.2.3 Color. Manual fire alarm boxes shall be red in color.

[F] 907.4.2.4 Signs. Where fire alarm systems are not monitored by an approved supervising station in accordance with Section 907.6.6, an approved permanent sign shall be installed adjacent to each manual fire alarm box that reads: WHEN ALARM SOUNDS CALL FIRE DEPARTMENT.

Exception: Where the manufacturer has permanently provided this information on the manual fire alarm box.

[F] 907.4.2.5 Protective covers. The fire code official is authorized to require the installation of listed manual fire alarm box protective covers to prevent malicious false alarms or to provide the manual fire alarm box with protection from physical damage. The protective cover shall be transparent or red in color with a transparent face to permit visibility of the manual fire alarm box. Each cover shall include proper operating instructions. A protective cover that emits a local alarm signal shall not be installed unless approved. Protective covers shall not project more than that permitted by Section 1003.3.3.

[F] 907.4.2.6 Unobstructed and unobscured. Manual fire alarm boxes shall be provided with ready access, unobstructed, unobscured and visible at all times.

907.4.2.7 Operation. *Manual fire alarm boxes shall be operable with one hand including boxes with protective covers.*

[F] 907.4.3 Automatic smoke detection. Where an automatic smoke detection system is required, it shall utilize smoke detectors unless ambient conditions prohibit such an installation. In spaces where smoke detectors cannot be utilized due to ambient conditions, approved automatic heat detectors shall be permitted.

[F] 907.4.3.1 Automatic sprinkler system. For conditions other than specific fire safety functions noted in Section 907.3, in areas where ambient conditions prohibit the installation of smoke detectors, an automatic sprinkler system installed in such areas in accordance with Section 903.3.1.1 or 903.3.1.2 and that

is connected to the fire alarm system shall be approved as automatic heat detection.

[F] 907.5 Occupant notification. Occupant notification by fire alarms shall be in accordance with Sections 907.5.1 through 907.5.2.5. Occupant notification by smoke alarms in Group R-1 and R-2 occupancies shall comply with Section 907.5.2.1.3.2.

907.5.1 Alarm activation and annunciation. Upon activation, fire alarm systems shall initiate occupant notification and shall annunciate at the fire alarm control unit, or where allowed elsewhere by Section 907, at a constantly attended location.

907.5.1.1 Presignal feature. A presignal feature shall be provided only where approved. The presignal shall be annunciated at an approved, constantly attended location, having the capability to activate the occupant notification system in the event of fire or other emergency.

Exception: A presignal feature shall not be permitted to be installed in a Group I-2 or R-2.1 occupancy.

[F] 907.5.2 Alarm notification appliances. Alarm notification appliances shall be provided and shall be listed for their purpose.

[F] 907.5.2.1 Audible alarms. Audible alarm notification appliances shall be provided and emit a distinctive sound that is not to be used for any purpose other than that of a fire alarm. *In Group I-2 occupancies, audible appliances located in patient areas shall be only chimes or similar sounding appliances for alerting staff. See Section 907.5.2.5.*

Exceptions:

1. Audible alarm notification appliances are not required in *patient* areas of Group I-2 occupancies that are in compliance with Section 907.5.2.5.
2. A visible alarm notification appliance installed in a nurses' control station or other continuously attended staff location in a Group I-2 *care* suite shall be an acceptable alternative to the installation of audible alarm notification appliances throughout a *care* suite in Group I-2 occupancies that are in compliance with Section 907.5.2.5.
3. Where provided, audible notification appliances located in each enclosed occupant evacuation elevator lobby in accordance with Section 3008.9.1 shall be connected to a separate notification zone for manual paging only.

[F] 907.5.2.1.1 Average sound pressure. The audible alarm notification appliances shall provide a sound pressure level of 15 decibels (dBA) above the average ambient sound level or 5 dBA above the maximum sound level having a duration of not less than 60 seconds, whichever is greater, in every occupiable space within the building.

[F] 907.5.2.1.2 Maximum sound pressure. The total sound pressure level produced by combining the ambient sound pressure level with all audible notifica-

tion appliances operating shall not exceed 110 dBA at the minimum hearing distance from the audible appliance. Where the average ambient noise is greater than 105 dBA, visible alarm notification appliances shall be provided in accordance with NFPA 72 and audible alarm notification appliances shall not be required.

[F] 907.5.2.1.3 Audible signal frequency in Group R-1 and R-2 sleeping rooms. Audible signal frequency in Group R-1 and R-2 occupancies shall be in accordance with Sections 907.5.2.1.3.1 and 907.5.2.1.3.2.

[F] 907.5.2.1.3.1 Fire alarm system signal. In sleeping rooms of Group R-1 and R-2 occupancies, the audible alarm activated by a fire alarm system shall be a 520-Hz low-frequency signal complying with NFPA 72.

[F] 907.5.2.1.3.2 Smoke alarm signal in sleeping rooms. In sleeping rooms of Group R-1 and R-2 occupancies that are required by Section 907.2.8 or 907.2.9 to have a fire alarm system, the audible alarm signal activated by single- or multiple-station smoke alarms in the dwelling unit or sleeping unit shall be a 520-Hz signal complying with NFPA 72. Where a sleeping room smoke alarm is unable to produce a 520-Hz signal, the 520-Hz alarm signal shall be provided by a listed notification appliance or a smoke detector with an integral 520-Hz sounder.

907.5.2.1.4 Audible alarm signal. *The audible signal shall be the standard fire alarm evacuation signal, ANSI S3.41 Audible Emergency Evacuation Signal, "three pulse temporal pattern," as described in NFPA 72.*

Exception: *The use of the existing evacuation signaling scheme shall be permitted where approved by the enforcing agency.*

[F] 907.5.2.2 Emergency voice/alarm communication systems. Emergency voice/alarm communication systems required by this code shall be designed and installed in accordance with NFPA 72. The operation of any automatic fire detector, sprinkler waterflow device or manual fire alarm box shall automatically sound an alert tone followed by voice instructions giving approved information and directions for a general or staged evacuation in accordance with the building's fire safety and evacuation plans required by Section 404 of the *California Fire Code*. In high-rise buildings, and Group I-2 occupancies having occupied floors located more than 75 feet above the lowest level of fire department vehicle access the system shall operate on at least the alarming floor, the floor above and the floor below. Speakers shall be provided throughout the building by paging zones. At a minimum, paging zones shall be provided as follows:

1. Elevator groups.
2. Interior exit stairways.
3. Each floor.

4. Areas of refuge as defined in Chapter 2.

Exception: In Group I-2 occupancies, where in accordance with Section 907.5.2.5, audible fire alarm notification devices are not provided, upon receipt of an alarm at a constantly attended location, a general occupant notification shall be broadcast over the public-address system.

[F] 907.5.2.2.1 Manual override. A manual override for emergency voice communication shall be provided on a selective and all-call basis for all paging zones.

[F] 907.5.2.2.2 Live voice messages. The emergency voice/alarm communication system shall have the capability to broadcast live voice messages by paging zones on a selective and all-call basis.

[F] 907.5.2.2.3 Alternative uses. The emergency voice/alarm communication system shall be allowed to be used for other announcements, provided that the manual fire alarm use takes precedence over any other use.

[F] 907.5.2.2.4 Emergency voice/alarm communication captions. Where stadiums, arenas and grandstands have 15,000 fixed seats or more and provide audible public announcements, the emergency/voice alarm communication system shall provide prerecorded or real-time captions. Prerecorded or live emergency captions shall be from an approved location constantly attended by personnel trained to respond to an emergency.

[F] 907.5.2.2.5 Standby power. Emergency voice/alarm communications systems shall be provided with standby power in accordance with Section 2702.

[F] 907.5.2.3 Visible alarms. Visible alarm notification appliances shall be provided in accordance with Sections 907.5.2.3.1 through 907.5.2.3.4.

Exceptions:

1. In other than Group I-2, visible alarm notification appliances are not required in alterations, except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.
2. Visible alarm notification appliances shall not be required in enclosed exit stairways, enclosed exit ramps, exterior exit stairs and exterior exit ramps.
3. Visible alarm notification appliances shall not be required in elevator cars.
4. Visual alarm notification appliances are not required in critical care areas of Group I-2 occupancies that are in compliance with Section 907.5.2.5.
5. A visible alarm notification appliance installed in a nurses' control station or other continuously attended staff location in a Group I-2 care suite shall be an acceptable alternative to the installation of visible alarm notification appliances throughout the care

suite in Group I-2 occupancies that are in compliance with Section 907.5.2.5.

[F] 907.5.2.3.1 Public use areas and common use areas. Visible alarm notification appliances shall be provided in public use areas and common use areas, *including but not limited to:*

1. *Band rooms*
2. *Classrooms*
3. *Corridors*
4. *Gymnasiums*
5. *Lobbies*
6. *Meeting and conference rooms*
7. *Multipurpose rooms*
8. *Music practice rooms*
9. *Occupational shops*
10. *Occupied rooms where ambient noise impairs hearing of the fire alarm*
11. *Sanitary facilities including restrooms, bathrooms and shower rooms.*
12. *Shared office rooms used by two or more persons.*
13. *Normally occupied room(s) used by two or more persons such as mother's room, phone room, quiet room, wellness room, etc.*
14. *Normally occupied storage room/area.*
15. *Exam rooms in medical office buildings.*

Exception: Where employee work areas have audible alarm coverage, the notification appliance circuits serving the employee work areas shall be initially designed with not less than 20-percent spare capacity to account for the potential of adding visible notification appliances in the future to accommodate hearing-impaired employee(s).

[F] 907.5.2.3.2 Groups R-1 and R-2.1. Habitable spaces in dwelling units and sleeping units in Group R-1 and R-2.1 occupancies in accordance with Table 907.5.2.3.2 shall be provided with visible alarm notification. Visible alarms shall be activated by the in-room smoke alarm and the building fire alarm system.

**[F] TABLE 907.5.2.3.2
VISIBLE ALARMS**

NUMBER OF SLEEPING UNITS	SLEEPING ACCOMMODATIONS WITH VISIBLE ALARMS
6 to 25	2
26 to 50	4
51 to 75	7
76 to 100	9
101 to 150	12
151 to 200	14
201 to 300	17
301 to 400	20
401 to 500	22
501 to 1,000	5% of total
1,001 and over	50 plus 3 for each 100 over 1,000

[SFM] Also see Chapter 11B, Section 11B-224.4 and Table 11B-224.4.

[F] 907.5.2.3.3 Group R-2. In Group R-2 occupancies required by Section 907 to have a fire alarm system, each story that contains dwelling units and sleeping units shall be provided with the capability to support future visible alarm notification appliances in accordance with NFPA 72. Such capability shall accommodate wired or wireless equipment.

[F] 907.5.2.3.3.1 Wired equipment. Where wired equipment is used to comply with the future capability required by Section 907.5.2.3.3, the system shall include one of the following capabilities:

1. The replacement of audible appliances with combination audible/visible appliances or additional visible notification appliances.
2. The future extension of the existing wiring from the unit smoke alarm locations to required locations for visible appliances.
3. For wired equipment, the fire alarm power supply and circuits shall have not less than 5-percent excess capacity to accommodate the future addition of visible alarm notification appliances, and a single access point to such circuits shall be available on every story. Such circuits shall not be required to be extended beyond a single access point on a story. The fire alarm system shop drawings required by Section 907.1.2 shall include the power supply and circuit documentation to accommodate the future addition of visible notification appliances.

907.5.2.3.4 Groups R-2.1, R-3.1 and R-4. *Protective social care facilities which house persons who are hearing impaired, shall be provided with notification appliances for the hearing impaired installed in accordance with NFPA 72 and which shall activated upon initiation of the fire alarm system or the smoke alarms.*

907.5.2.4 Group E schools. *One audible alarm notification appliance shall be mounted on the exterior of a buildings to alert occupants at each playground area.*

907.5.2.5 Group I-2. *Audible notification appliances shall be used in nonpatient areas. Visible appliances are allowed to be used in lieu of audible appliances in patient occupied areas. Audible appliances located in patient areas shall be only chimes or similar sounding appliances for alerting staff.*

Where audible fire alarm notification devices are not provided, upon receipt of an alarm at a constantly attended location, a general occupant notification shall be broadcast over the public-address system.

In occupancies housing nonambulatory persons where restraint is practiced, staff and attendants shall be provided and housed or located in such a manner that such supervisory personnel will also be alerted upon activation of the fire alarm system or any detector required by this section.

system, the signal produced at the fire alarm control unit shall be a supervisory signal.

SECTION 909 SMOKE CONTROL SYSTEMS

[F] 909.1 Scope and purpose. This section applies to mechanical or passive smoke control systems where 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-removal provisions found in Section 910. Mechanical smoke control systems shall not be considered exhaust systems under Chapter 5 of the *California Mechanical Code*.

[F] 909.2 General design requirements. Buildings, structures or parts thereof required by this code to have a smoke control system or systems shall have such systems designed in accordance with the applicable requirements of Section 909 and the generally accepted and well-established principles of engineering relevant to the design. The construction documents shall include sufficient information and detail to adequately describe the elements of the design necessary for the proper implementation of the smoke control systems. These documents shall be accompanied by sufficient information and analysis to demonstrate compliance with these provisions.

[F] 909.3 Special inspection and test requirements. In addition to the ordinary inspection and test requirements that buildings, structures and parts thereof are required to undergo, smoke control systems subject to the provisions of Section 909 shall undergo special inspections and tests sufficient to verify the proper commissioning of the smoke control design in its final installed condition. The design submission accompanying the construction documents shall clearly detail procedures and methods to be used and the items subject to such inspections and tests. Such commissioning shall be in accordance with generally accepted engineering practice and, where possible, based on published standards for the particular testing involved. The special inspections and tests required by this section shall be conducted under the same terms in Section 1704.

[F] 909.4 Analysis. A rational analysis supporting the types of smoke control systems to be employed, their methods of operation, the systems supporting them and the methods of construction to be utilized shall accompany the submitted construction documents and shall include, but not be limited to, the items indicated in Sections 909.4.1 through 909.4.7.

[F] 909.4.1 Stack effect. The system shall be designed such that the maximum probable normal or reverse stack effect will not adversely interfere with the system's capabilities. In determining the maximum probable stack

effect, altitude, elevation, weather history and interior temperatures shall be used.

[F] 909.4.2 Temperature effect of fire. Buoyancy and expansion caused by the design fire in accordance with Section 909.9 shall be analyzed. The system shall be designed such that these effects do not adversely interfere with the system's capabilities.

[F] 909.4.3 Wind effect. The design shall consider the adverse effects of wind. Such consideration shall be consistent with the wind-loading provisions of Chapter 16.

[F] 909.4.4 HVAC systems. The design shall consider the effects of the heating, ventilating and air-conditioning (HVAC) systems on both smoke and fire transport. The analysis shall include all permutations of systems status. The design shall consider the effects of the fire on the HVAC systems.

[F] 909.4.5 Climate. The design shall consider the effects of low temperatures on systems, property and occupants. Air inlets and exhausts shall be located so as to prevent snow or ice blockage.

[F] 909.4.6 Duration of operation. All portions of active or engineered smoke control systems shall be capable of continued operation after detection of the fire event for a period of not less than either 20 minutes or 1.5 times the calculated egress time, whichever is greater.

909.4.7 Smoke control system interaction. The design shall consider the interaction effects of the operation of multiple smoke control systems for all design scenarios.

[F] 909.5 Smoke barrier construction. Smoke barriers required for passive smoke control and a smoke control system using the pressurization method shall comply with Section 709. The maximum allowable leakage area shall be the aggregate area calculated using the following leakage area ratios:

1. Walls $A/A_w = 0.00100$
2. Interior exit stairways and ramps and exit passageways: $A/A_w = 0.00035$
3. Enclosed exit access stairways and ramps and all other shafts: $A/A_w = 0.00150$
4. Floors and roofs: $A/A_F = 0.00050$

where:

A = Total leakage area, square feet (m^2).

A_F = Unit floor or roof area of barrier, square feet (m^2).

A_w = Unit wall area of barrier, square feet (m^2).

The leakage area ratios shown do not include openings due to gaps around doors and operable windows. The total leakage area of the smoke barrier shall be determined in accordance with Section 909.5.1 and tested in accordance with Section 909.5.2.

[F] 909.5.1 Total leakage area. Total leakage area of the barrier is the product of the smoke barrier gross area multiplied by the allowable leakage area ratio, plus the area of other openings such as gaps around doors and operable windows.

[F] **909.5.2 Testing of leakage area.** Compliance with the maximum total leakage area shall be determined by achieving the minimum air pressure difference across the barrier with the system in the smoke control mode for mechanical smoke control systems utilizing the pressurization method. Compliance with the maximum total leakage area of passive smoke control systems shall be verified through methods such as door fan testing or other methods, as approved by the fire code official.

[F] **909.5.3 Opening protection.** Openings in smoke barriers shall be protected by automatic-closing devices actuated by the required controls for the mechanical smoke control system. Door openings shall be protected by fire door assemblies complying with Section 716.

Exceptions:

1. Passive smoke control systems with automatic-closing devices actuated by spot-type smoke detectors listed for releasing service installed in accordance with Section 907.3. *When used in Group I-2, such detectors shall activate the fire alarm system and shall close all the smoke barrier doors within the effected zone.*
2. Fixed openings between smoke zones that are protected utilizing the airflow method *in other than Group I-2.*
3. In Group I-2, R-2.1 and ambulatory care facilities, where a pair of opposite-swinging doors are installed across a corridor in accordance with Section 909.5.3.1, the doors shall be protected in accordance with Section 716. The doors shall not have a center mullion. *Positive-latching devices are required. Doors installed across corridors shall comply with Section 1010.1.1.*
4. In Group I-2, R-2.1 and ambulatory care facilities, where such doors are special-purpose horizontal sliding, accordion or folding door assemblies installed in accordance with Section 1010.3.3 and are automatic closing by smoke detection in accordance with Section 716.2.6.6, *they shall be protected in accordance with Section 716. Doors installed across corridors shall comply with Section 1010.1.1.*
5. Group I-3.
6. Openings between smoke zones with clear ceiling heights of 14 feet (4267 mm) or greater and bank-down capacity of greater than 20 minutes as determined by the design fire size.
7. *In Group I-2, smoke damper activation may be accomplished by a fire alarm control unit provided that an open area smoke detection system is provided within all areas served by an HVAC system.*

909.5.3.1 Group I-2, R-2.1 and ambulatory care facilities. In Group I-2, R-2.1 and ambulatory care facilities, where doors are installed across a corridor, the doors shall be automatic closing by smoke detec-

tion in accordance with Section 716.2.6.5 and shall have a vision panel with fire-protection-rated glazing materials in fire protection-rated frames, the area of which shall not exceed that tested. *Vision panels consisting of fire-rated glazing in approved frames shall be provided in each cross-corridor swinging door and at each cross-corridor horizontal-sliding door in a smoke barrier. In Group I-2, where swinging doors are installed across a corridor, such doors shall be opposite swinging pairs.*

[F] **909.5.3.2 Ducts and air transfer openings.** Ducts and air transfer openings are required to be protected with a minimum Class II, 250°F (121°C) smoke damper complying with Section 717.

[F] **909.6 Pressurization method.** The primary mechanical means of controlling smoke shall be by pressure differences across smoke barriers. Maintenance of a tenable environment is not required in the smoke control zone of fire origin.

[F] **909.6.1 Minimum pressure difference.** The pressure difference across a smoke barrier used to separate smoke zones shall be not less than 0.05-inch water gage (0.0124 kPa) in fully sprinklered buildings.

In buildings permitted to be other than fully sprinklered, the smoke control system shall be designed to achieve pressure differences not less than two times the maximum calculated pressure difference produced by the design fire.

[F] **909.6.2 Maximum pressure difference.** The maximum air pressure difference across a smoke barrier shall be determined by required door-opening or closing forces. The actual force required to open exit doors when the system is in the smoke control mode shall be in accordance with Section 1010.1.3. Opening and closing forces for other doors shall be determined by standard engineering methods for the resolution of forces and reactions. The calculated force to set a side-hinged, swinging door in motion shall be determined by:

$$F = F_{dc} + K(WA\Delta P)/2(W-d) \quad (\text{Equation 9-1})$$

where:

A = Door area, square feet (m²).

d = Distance from door handle to latch edge of door, feet (m).

F = Total door opening force, pounds (N).

F_{dc} = Force required to overcome closing device, pounds (N).

K = Coefficient 5.2 (1.0).

W = Door width, feet (m).

ΔP = Design pressure difference, inches of water (Pa).

[F] **909.6.3 Pressurized stairways and elevator hoistways.** Where stairways or elevator hoistways are pressurized, such pressurization systems shall comply with Section 909 as smoke control systems, in addition to the requirements of Sections 909.20 of this code and 909.21 of the *California Fire Code*.

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 10 – MEANS OF EGRESS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.

See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC-CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X				X										
Adopt entire chapter as amended (amended sections listed below)			X	X	X	X				X	X	X		X	X								
Adopt only those sections that are listed below							X																
Chapter / Section																							
1001.1			X																				
1003.1, not SFM exception							X																
1003.1			X			X																	
1003.1.1										X													
1003.1.2											X	X			X								
1003.2			X																				
1003.3 Exc.			X																				
1003.3.1			X																				
1003.3.3.1			X																				
1003.3.4				X	X	X																	
1003.5				X	X	X																	
Table 1004.5			X																				
1004.9			X																				
1005.3.1			X																				
1005.3.2			X																				
1005.7.1			X																				
1005.7.2			X																				
1006.2.1			X																				
Table 1006.2.1			X																				
1006.2.2			X																				
1006.2.2.2			X																				
1006.2.2.3			X																				
1006.2.2.4			X																				
1006.2.2.6			X																				
1006.2.2.7			X																				
1006.2.2.8			X																				
1006.3.3			X																				
Table 1006.3.4(1)			X																				
Table 1006.3.4(2)			X																				
1008.2			X																				
1008.3.2			X																				
1009.1			X	X	X	X	X																
1009.2						X	X																
1009.2.1							X																
1009.3						X	X																
1009.4			X				X																
1009.4.1			X																				
1009.4.2							X																

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 10 – MEANS OF EGRESS—continued

Adopting agency	BSC	BSC-CG	SFM	HCD			DSA			OSHDPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter	X							X	X				X										
Adopt entire chapter as amended (amended sections listed below)			X	X	X	X				X	X	X		X	X								
Adopt only those sections that are listed below							X																
Chapter / Section																							
1009.5			X	X	X	X	X																
1009.6							X																
1009.6.1							X																
1009.6.2							X																
1009.6.3			X	X	X	X	X																
1009.6.4							X																
1009.6.5							X																
1009.7							X																
1009.7.1							X																
1009.7.2							X																
1009.7.3							X																
1009.7.4							X																
1009.8							X																
1009.8.1							X																
1009.8.1.1						X	X																
1009.8.2			X			X	X																
1009.9						X	X																
1009.10							X																
1009.11						X	X																
1009.12			X			X	X																
1010 (1st paragraph below title only)							X																
1010.1.1			X			X																	
1010.1.1.1			X																				
1010.1.2			X																				
1010.1.2.1			X																				
1010.1.4						X	X																
1010.1.6						X	X																
1010.1.7						X	X																
1010.1.14			X																				
1010.2.1			X																				
1010.2.2			X			X	X																
1010.2.4			X																				
1010.2.9			X																				
1010.2.8.2			X																				
1010.2.12.1			X																				
1010.2.13			X																				
1010.2.13.1			X																				
1010.2.13.1 (Item 4, 6.3 & 6.4 only)							X																
1010.2.14			X																				

(continued)

CHAPTER 10

MEANS OF EGRESS

User notes:

About this chapter: Chapter 10 provides the general criteria for designing the means of egress established as the primary method for protection of people in buildings by allowing timely relocation or evacuation of building occupants. Both prescriptive and performance language is utilized in this chapter to provide for a basic approach in the determination of a safe exiting system for all occupancies. It addresses all portions of the egress system (exit access, exits and exit discharge) and includes design requirements as well as provisions regulating individual components. The requirements detail the size, arrangement, number and protection of means of egress components. Functional and operational characteristics that will permit the safe use of components without special knowledge or effort are specified.

The means of egress protection requirements work in coordination with other sections of the code, such as protection of vertical openings (see Chapter 7), interior finish (see Chapter 8), fire suppression and detection systems (see Chapter 9) and numerous others, all having an impact on life safety. Chapter 10 is subdivided into four main sections: general (Sections 1003–1015), exit access (Sections 1016–1021), exit (Sections 1022–1027) and exit discharge (Sections 1028–1029). Special allowances for the unique requirements for assembly spaces (Section 1030) and emergency escape and rescue openings (Section 1031) complete the chapter. Chapter 10 of this code is duplicated in Chapter 10 of the California Fire Code; however, the California Fire Code contains one additional section on maintenance of the means of egress system in existing buildings.

Section 1010 was extensively reorganized for the 2021 edition. For complete information, see the moved sections table in the preface information for the California Building Code.

SECTION 1001 ADMINISTRATION

1001.1 General. Buildings or portions thereof shall be provided with a means of egress system as required by this chapter. The provisions of this chapter shall control the design, construction and arrangement of means of egress components required to provide an approved means of egress from structures and portions thereof.

1001.2 Minimum requirements. It shall be unlawful to alter a building or structure in a manner that will reduce the number of exits or the minimum width or required capacity of the means of egress to less than required by this code.

[F] SECTION 1002 MAINTENANCE AND PLANS

[F] 1002.1 Maintenance. Means of egress shall be maintained in accordance with the *California Fire Code*.

[F] 1002.2 Fire safety and evacuation plans. Fire safety and evacuation plans shall be provided for all occupancies and buildings where required by the *California Fire Code*. Such fire safety and evacuation plans shall comply with the applicable provisions of Sections 401.2 and 404 of the *California Fire Code*.

SECTION 1003 GENERAL MEANS OF EGRESS

1003.1 Applicability. The general requirements specified in Sections 1003 through 1015 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.

[DSA-AC & HCD 1-AC] In addition to the requirement 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 1.8.2.1.2 regulated by the Department of Housing and Community Development, or Section 1.9.1 regulated by the Division of the State Architect-Access Compliance, shall also comply with Chapter 11A or Chapter 11B, as applicable.

Exception: Exiting requirements for Fixed Guideway Transit Systems shall be as per Section 443.

1003.1.1 Means of egress for hospitals. [OSHDP 1] In addition to the requirements of this chapter, means of egress for hospitals shall comply with Part 10 California Existing Building Code Section 308A.

1003.1.2 Means of egress for hospital buildings removed from acute care service, skilled nursing facilities, intermediate care facilities and acute psychiatric hospitals. [OSHDP 1R, 2 & 5] In addition to the requirements of this chapter, means of egress for hospital buildings removed from acute care service, skilled nursing facilities, intermediate care facilities and acute psychiatric hospitals shall comply with OSHPD amendments to Part 10 California Existing Building Code Section 308.

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

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 1011.3.
5. Door height in accordance with Section 1010.1.1.
6. Ramp headroom in accordance with Section 1012.5.2.
7. The clear height of floor levels in vehicular and pedestrian traffic areas of public and private parking garages in accordance with Section 406.2.2.
8. Areas above and below mezzanine floors in accordance with Section 505.2.

9. In Group I-2 and I-3 occupancies, the means of egress shall have a ceiling height of not less than 8 feet (2439 mm).

1003.3 Protruding objects. Protruding objects on circulation paths shall comply with the requirements of Sections 1003.3.1 through 1003.3.4.

Exception: In Group I-2 occupancies, protruding objects shall not extend more than 12 inches (305 mm) below the minimum ceiling height required by Section 1003.2.

1003.3.1 Headroom. Protruding objects are permitted to extend below the minimum ceiling height required by Section 1003.2 where a minimum headroom of 80 inches (2032 mm) is provided over any circulation paths, including walks, corridors, aisles and passageways. In other than Group I-2 occupancies, Not more than 50 percent of the ceiling area of a means of egress shall be permitted to be reduced in height by protruding objects.

Exception: Door closers and stops shall not reduce headroom to less than 78 inches (1981 mm).

A barrier shall be provided where the vertical clearance above a circulation path is less than 80 inches (2032 mm) high above the finished floor. The leading edge of such a barrier shall be located 27 inches (686 mm) maximum above the finished floor.

1003.3.2 Post-mounted objects. A free-standing object mounted on a post or pylon shall not overhang that post or pylon more than 4 inches (102 mm) where the lowest point of the leading edge is more than 27 inches (686 mm) and less than 80 inches (2032 mm) above the finished floor. Where a sign or other obstruction is mounted between posts or pylons and the clear distance between the posts or pylons is greater than 12 inches (305 mm), the lowest edge of such sign or obstruction shall be 27 inches (686 mm) maximum or 80 inches (2032 mm) minimum above the finished floor or ground.

Exception: These requirements shall not apply to sloping portions of handrails between the top and bottom riser of stairs and above the ramp run.

1003.3.3 Horizontal projections. Objects with leading edges more than 27 inches (685 mm) and not more than 80 inches (2030 mm) above the finished floor shall not project

horizontally more than 4 inches (102 mm) into the circulation path.

Exception: Handrails are permitted to protrude 4½ inches (114 mm) from the wall or guard.

1003.3.3.1 Horizontal projections for Group I-2 occupancies. Structural elements, fixtures or furnishings shall not project horizontally from either side more than 1½ inches (38 mm) into the required width of an exit access corridor serving any area caring for one or more nonambulatory or bedridden persons.

Exceptions:

1. Handrails are permitted to protrude 3½ inches (89 mm) from the wall.
2. Alcohol-based hand-rub dispensers are permitted to protrude 4 inches.
3. Manual fire alarm boxes with a protective cover installed are permitted to protrude 4 inches.

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.

1003.4 Slip-resistant surface. Circulation paths of the means of egress shall have a slip-resistant surface and be securely attached.

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 1012 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. Steps at exterior doors complying with Section 1010.1.4.
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 11A or 11B where the risers and treads comply with Section 1011.5, the minimum depth of the tread is 13 inches (330 mm) and not less than one handrail complying with Section 1014 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) at locations not required to be accessible by Chapter 11A or 11B, provided that the risers and treads comply with Section 1030.14 and the aisle is provided with a handrail complying with Section 1030.16.

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

2. Facilities with smoke-protected assembly seating shall be permitted to use the capacity factors in Table 1030.6.2 indicated for stepped aisles for exit access or exit stairways where the entire path for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.
3. Facilities with open-air assembly seating shall be permitted to the capacity factors in Section 1030.6.3 indicated for stepped aisles for exit access or exit stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.
4. *For Group H-1, H-2, H-3 and H-4 occupancies the total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by 0.7 inches (7.62 mm) per occupant.*

1005.3.2 Other egress components. The capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.2 inch (5.1 mm) per occupant.

Exceptions:

1. For other than Group H and I-2 occupancies, the capacity, in inches, of means of egress components other than stairways shall be calculated by multiplying the occupant load served by such component by a means of egress capacity factor of 0.15 inch (3.8 mm) per occupant in buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2 and an emergency voice/alarm communication system in accordance with Section 907.5.2.2.
2. Facilities with smoke-protected assembly seating shall be permitted to use the capacity factors in Table 1030.6.2 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is provided with a smoke control system complying with Section 909.
3. Facilities with open-air assembly seating shall be permitted to the capacity factors in Section 1030.6.3 indicated for level or ramped aisles for means of egress components other than stairways where the entire path for means of egress from the seating to the exit discharge is open to the outdoors.
4. *For Group H-1, H-2, H-3 and H-4 occupancies the total width of means of egress in inches (mm) shall not be less than the total occupant load served by the means of egress multiplied by 0.4 inches (5.08 mm) per occupant.*

1005.4 Continuity. The minimum width or required capacity of the means of egress required from any story of a building

shall not be reduced along the path of egress travel until arrival at the public way.

1005.5 Distribution of minimum width and required capacity. Where more than one exit, or access to more than one exit, is required, the means of egress shall be configured such that the loss of any one exit, or access to one exit, shall not reduce the available capacity or width to less than 50 percent of the required capacity or width.

1005.6 Egress convergence. Where the means of egress from stories above and below converge at an intermediate level, the capacity of the means of egress from the point of convergence shall be not less than the largest minimum width or the sum of the required capacities for the stairways or ramps serving the two adjacent stories, whichever is larger.

1005.7 Encroachment. Encroachments into the required means of egress width shall be in accordance with the provisions of this section.

1005.7.1 Doors. Doors, when fully opened, shall not reduce the required width by more than 7 inches (178 mm). Doors in any position shall not reduce the required width by more than one-half.

Exceptions:

1. *In other than Group I-2 occupancies*, surface-mounted latch release hardware shall be exempt from inclusion in the 7-inch maximum (178 mm) encroachment where both of the following conditions exist:
 - 1.1. The hardware is mounted to the side of the door facing away from the adjacent wall where the door is in the open position.
 - 1.2. The hardware is mounted not less than 34 inches (865 mm) nor more than 48 inches (1219 mm) above the finished floor.
2. The restrictions on door swing shall not apply to doors within individual dwelling units and sleeping units of Group R-2 occupancies and dwelling units of Group R-3 occupancies.

1005.7.2 Other projections. Handrail projections shall be in accordance with the provisions of Section 1014.8. Other nonstructural projections such as trim and similar decorative features shall be permitted to project into the required width not more than 1½ inches (38 mm) on each side.

1005.7.3 Protruding objects. Protruding objects shall comply with the applicable requirements of Section 1003.3.

SECTION 1006 NUMBER OF EXITS AND EXIT ACCESS DOORWAYS

1006.1 General. The number of exits or exit access doorways required within the means of egress system shall comply with the provisions of Section 1006.2 for spaces, including mezzanines, and Section 1006.3 for stories or occupied roofs.

MEANS OF EGRESS

1006.2 Egress from spaces. Rooms, areas or spaces, including mezzanines, within a story or basement shall be provided with the number of exits or access to exits in accordance with this section.

1006.2.1 Egress based on occupant load and common path of egress travel distance. Two exits or exit access doorways from any space shall be provided where the design occupant load or the common path of egress travel distance exceeds the values listed in Table 1006.2.1. The cumulative occupant load from adjacent rooms, areas or spaces shall be determined in accordance with Section 1004.2.

Exceptions:

1. The number of exits from foyers, lobbies, vestibules or similar spaces need not be based on cumulative occupant loads for areas discharging

through such spaces, but the capacity of the exits from such spaces shall be based on applicable cumulative occupant loads.

2. Rooms and care suites in Group I-2 occupancies complying with Section 407.4.
3. Unoccupied mechanical rooms and penthouses are not required to comply with the common path of egress travel distance measurement.
4. In detention and correctional facilities and holding cells, such as are found in courthouse buildings, when the occupant load is more than 20 see Section 408.3.11.

1006.2.1.1 Three or more exits or exit access doorways. Three exits or exit access doorways shall be provided from any space with an occupant load of 501

**TABLE 1006.2.1
SPACES WITH ONE EXIT OR EXIT ACCESS DOORWAY**

OCCUPANCY	MAXIMUM OCCUPANT LOAD OF SPACE	MAXIMUM COMMON PATH OF EGRESS TRAVEL DISTANCE (feet)		
		Without Sprinkler System (feet)		With Sprinkler System (feet)
		Occupant Load		
		OL ≤ 30	OL > 30	
A ^c , E, M	49	75	75	75 ^a
B	49	100	75	100 ^a
F	49	75	75	100 ^a
H-1, H-2, H-3	3	NP	NP	25 ^b
H-4, H-5	10	NP	NP	75 ^b
I-2 ^d , I-4	10	NP ⁱ	NP ⁱ	75 ^a
I-3	10	NP	NP	100 ^a
R-1	10	NP	NP	75 ^a
R-2	20	NP	NP	125 ^a
<i>R-2.1</i>	<i>10</i>	<i>NP</i>	<i>NP</i>	<i>75^a</i>
<i>R-2.2</i>	<i>20</i>	<i>NP</i>	<i>NP</i>	<i>125^a</i>
R-3 ^e , <i>R-3.1^e</i>	20	NP	NP	125 ^{a, g}
R-4 ^e	20	NP	NP	125 ^{a, g}
S ^f	29	100	75	100 ^a
U	49	100	75	75 ^a
<i>L</i>	<i>See Section 453.6.1</i>		<i>NP</i>	<i>NP</i>

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

- a. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.
- b. Group H occupancies equipped throughout with an automatic sprinkler system in accordance with Section 903.2.5.
- c. For a room or space used for assembly purposes having fixed seating, see Section 1030.8.
- d. For the travel distance limitations and number of exit and exit access requirements for rooms and spaces in Group I-2, see Section 407.4.
- e. The common path of egress travel distance shall only apply in a Group R-3 occupancy located in a mixed occupancy building.
- f. The length of common path of egress travel distance in a Group S-2 open parking garage shall be not more than 100 feet.
- g. For the travel distance limitations in Groups R-3 and R-4 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.3, see Section 1006.2.2.6.
- h. For holding cells, see Section 408.3.11.
- i. In accordance with Health and Safety Code Section 13113(d), there is no requirement for automatic sprinkler protection in an existing Group I-2 located in Type IA construction.

pants indicated in Table 1006.3.4(2) for each occupancy does not exceed one. Where dwelling units are located on a story with other occupancies, the actual number of dwelling units divided by four plus the ratio from the other occupancy does not exceed one.

SECTION 1007 EXIT AND EXIT ACCESS DOORWAY CONFIGURATION

1007.1 General. Exits, exit access doorways, and exit access stairways and ramps serving spaces, including individual building stories, shall be separated in accordance with the provisions of this section.

1007.1.1 Two exits or exit access doorways. Where two exits, exit access doorways, exit access stairways or ramps, or any combination thereof, are required from any portion of the exit access, they shall be placed a distance apart equal to not less than one-half of the length of the maximum overall diagonal dimension of the building or area to be served measured in a straight line between them. Interlocking or scissor stairways shall be counted as one exit stairway.

Exceptions:

1. Where interior exit stairways or ramps are interconnected by a 1-hour fire-resistance-rated corridor conforming to the requirements of Section 1020, the required exit separation shall be measured along the shortest direct line of travel within the corridor.
2. Where a building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2, the separation distance shall be not less than one-third of the length of the maximum overall diagonal dimension of the area served.

1007.1.1.1 Measurement point. The separation distance required in Section 1007.1.1 shall be measured in accordance with the following:

1. The separation distance to exit or exit access doorways shall be measured to any point along the width of the doorway.
2. The separation distance to exit access stairways shall be measured to the closest riser.
3. The separation distance to exit access ramps shall be measured to the start of the ramp run.

1007.1.2 Three or more exits or exit access doorways. Where access to three or more exits is required, not less than two exit or exit access doorways shall be arranged in accordance with the provisions of Section 1007.1.1. Additional required exit or exit access doorways shall be arranged a reasonable distance apart so that if one becomes blocked, the others will be available.

1007.1.3 Remoteness of exit access stairways or ramps. Where two exit access stairways or ramps provide the required means of egress to exits at another story, the required separation distance shall be maintained for all portions of such exit access stairways or ramps.

1007.1.3.1 Three or more exit access stairways or ramps. Where more than two exit access stairways or ramps provide the required means of egress, not less than two shall be arranged in accordance with Section 1007.1.3.

SECTION 1008 MEANS OF EGRESS ILLUMINATION

1008.1 Means of egress illumination. Illumination shall be provided in the means of egress in accordance with Section 1008.2. Under emergency power, means of egress illumination shall comply with Section 1008.3.

**TABLE 1006.3.4(2)
STORIES WITH ONE EXIT OR ACCESS TO ONE EXIT FOR OTHER OCCUPANCIES**

STORY	OCCUPANCY ^e	MAXIMUM OCCUPANT LOAD PER STORY	MAXIMUM EXIT ACCESS TRAVEL DISTANCE (feet)
First story above or below grade plane	A, B ^b , E, F ^b , M, U	49	75
	H-2, H-3	3	25
	H-4, H-5, I, R-1, R-2 ^{a, c} , R-2.2	10	75
	I-2	7	50
	S ^{b, d}	29	75
Second story above grade plane	B, F, M, S ^d	29	75
Third story above grade plane and higher	NP	NA	NA

For SI: 1 foot = 304.8 mm.

NP = Not Permitted.

NA = Not Applicable.

- a. Buildings classified as Group R-2 equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 and provided with emergency escape and rescue openings in accordance with Section 1031.
- b. Group B, F and S occupancies in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 shall have a maximum exit access travel distance of 100 feet.
- c. This table is used for R-2 occupancies consisting of sleeping units. For R-2 occupancies consisting of dwelling units, use Table 1006.3.4(1).
- d. The length of exit access travel distance in a Group S-2 open parking garage shall be not more than 100 feet.
- e. For Group L occupancies see Section 453.6.1.

1008.2 Illumination required. The means of egress serving a room or space shall be illuminated at all times that the room or space is occupied.

Exceptions:

1. Occupancies in Group U.
2. Aisle accessways in Group A.
3. Dwelling units and sleeping units in Groups R-1, R-2 and R-3.
4. Sleeping units of Group I, *R-2.1 and R-4* occupancies.

1008.2.1 Illumination level under normal power. The means of egress illumination level shall be not less than 1 footcandle (11 lux) at the walking surface. Along exit access stairways, exit stairways and at their required landings, the illumination level shall not be less than 10 footcandles (108 lux) at the walking surface when the stairway is in use.

Exception: For auditoriums, theaters, concert or opera halls and similar assembly occupancies, the illumination at the walking surface is permitted to be reduced during performances by one of the following methods provided that the required illumination is automatically restored upon activation of a premises' fire alarm system:

1. Externally illuminated walking surfaces shall be permitted to be illuminated to not less than 0.2 footcandle (2.15 lux).
2. Steps, landings and the sides of ramps shall be permitted to be marked with self-luminous materials in accordance with Sections 1025.2.1, 1025.2.2 and 1025.2.4 by systems listed in accordance with UL 1994.

1008.2.2 Group I-2. In Group I-2 occupancies where two or more exits are required, on the exterior landings required by Section 1010.1.5, means of egress illumination levels for the exit discharge shall be provided such that failure of a single lamp in a luminaire shall not reduce the illumination level on that landing to less than 1 footcandle (11 lux).

1008.2.3 Exit discharge. Illumination shall be provided along the path of travel for the exit discharge from each exit to the public way.

Exception: Illumination shall not be required where the path of the exit discharge meets both of the following requirements:

1. The path of exit discharge is illuminated from the exit to a safe dispersal area complying with Section 1028.5.
2. A dispersal area shall be illuminated to a level not less than 1 footcandle (11 lux) at the walking surface.

1008.3 Emergency power for illumination. The power supply for means of egress illumination shall normally be provided by the premises' electrical supply.

1008.3.1 General. In the event of power supply failure in rooms and spaces that require two or more exits or access to exits, an emergency electrical system shall automatically illuminate all of the following areas:

1. Aisles.
2. Corridors.
3. Exit access stairways and ramps.

1008.3.2 Buildings. In the event of power supply failure in buildings that require two or more exits or access to exits, an emergency electrical system shall automatically illuminate all of the following areas:

1. Interior exit access stairways and ramps.
2. Interior and exterior exit stairways and ramps.
3. Exit passageways.
4. Vestibules and areas on the level of discharge used for exit discharge in accordance with Section 1028.2.
5. Exterior landings as required by Section 1010.1.5 for exit doorways that lead directly to the exit discharge.
6. *Group I-2 exit discharge stairways, ramps, aisles, walkways and escalators leading to a public way or to a safe dispersal area in accordance with Section 1028.5.*

1008.3.3 Rooms and spaces. In the event of power supply failure, an emergency electrical system shall automatically illuminate all of the following areas:

1. Electrical equipment rooms.
2. Fire command centers.
3. Fire pump rooms.
4. Generator rooms.
5. Public restrooms with an area greater than 300 square feet (27.87 m²).

1008.3.4 Duration. The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries, unit equipment or an on-site generator. The installation of the emergency power system shall be in accordance with Section 2702.

1008.3.5 Illumination level under emergency power. Emergency lighting facilities shall be arranged to provide initial illumination that is not less than an average of 1 footcandle (11 lux) and a minimum at any point of 0.1 footcandle (1 lux) measured along the path of egress at floor level. Illumination levels shall be permitted to decline to 0.6 footcandle (6 lux) average and a minimum at any point of 0.06 footcandle (0.6 lux) at the end of the emergency lighting time duration. A maximum-to-minimum illumination uniformity ratio of 40 to 1 shall not be exceeded. In Group I-2 occupancies, failure of a single lamp in a luminaire shall not reduce the illumination level to less than 0.2 footcandle (2.2 lux).

SECTION 1009 ACCESSIBLE MEANS OF EGRESS

1009.1 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 1006.2 or 1006.3 from any accessible space, each accessible portion of the space shall be served by accessible means of egress *in at least the same number as required by Sections 1006.2 or 1006.3. 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. One accessible means of egress is required from an accessible mezzanine level in accordance with Section 1009.3, 1009.4 or 1009.5, *and Chapter 11A or 11B, as applicable.*
2. In assembly areas with ramped aisles or stepped aisles, one accessible means of egress is permitted where the common path of egress travel is accessible and meets the requirements in Section 1030.8 *and Chapter 11A or 11B, as applicable.*

1009.2 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 *Chapter 11A, Sections 1110A.1 and 1119A, or Chapter 11B, Sections 11B-206 and 11B-402, as applicable.*
2. Interior exit stairways complying with Sections 1009.3 and 1023, *and Chapter 11A, Section 1123A, or Chapter 11B, Sections 11B-210 and 11B-504, as applicable.*
3. Exit access stairways complying with Sections 1009.3 and 1019.3 or 1019.4, *Chapter 11A, Section 1123A, or Chapter 11B, Sections 11B-210 and 11B-504, as applicable.*
4. Exterior exit stairways complying with Sections 1009.3 and 1027, *and Chapter 11A, Section 1115A, or Chapter 11B, Sections 11B-210 and 11B-504, as applicable,* and serving levels other than the level of exit discharge.
5. Elevators complying with Section 1009.4, *and Chapter 11A, Section 1124A, or Chapter 11B, Sections 11B-206.6 and 11B-407, as applicable.*
6. Platform lifts complying with Section 1009.5, *and Chapter 11A, Section 1124A, or Chapter 11B, Sections 11B-206.7, 11B-207.2 and 11B-410 as applicable.*
7. Horizontal exits complying with Section 1026.
8. Ramps complying with Section 1012, *and Chapter 11A, Sections 1114A and 1122A, or Chapter 11B, 11B-405, as applicable.*
9. Areas of refuge complying with Section 1009.6.

10. Exterior areas for assisted rescue complying with Section 1009.7 serving exits at the level of exit discharge.

11. *Safe dispersal areas where they are allowed under Section 1028.5.*

1009.2.1 Elevators required. In buildings where a required accessible floor or occupied roof is four or more stories above or below a level of exit discharge, not less than one required accessible means of egress shall be an elevator complying with Section 1009.4.

Exceptions:

1. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a horizontal exit and located at or above the levels of exit discharge.
2. In buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, the elevator shall not be required on floors provided with a ramp conforming to the provisions of Section 1012.

1009.3 Stairways. In order to be considered part of an accessible means of egress, a stairway between stories shall comply with Sections 1009.3.1 through 1009.3.3. ***[DSA-AC & HCD 1-AC]*** *In addition, exit stairways shall comply with Chapter 11A, Sections 1115A and 1123A, or Chapter 11B, Sections 11B-210 and 11B-504, as applicable.*

1009.3.1 Exit access stairways. Exit access stairways that connect levels in the same story are not permitted as part of an accessible means of egress.

Exception: Exit access stairways providing means of egress from mezzanines are permitted as part of an accessible means of egress.

1009.3.2 Stairway width. Stairways shall have a clear width of 48 inches (1219 mm) minimum between handrails.

Exceptions:

1. The clear width of 48 inches (1219 mm) between handrails is not required in buildings 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 for stairways accessed from a refuge area in conjunction with a horizontal exit.

1009.3.3 Area of refuge. Stairways shall either incorporate an area of refuge within an enlarged floor-level landing or shall be accessed from an area of refuge complying with Section 1009.6.

Exceptions:

1. Areas of refuge are not required at exit access stairways where two-way communication is pro-

vided at the elevator landing in accordance with Section 1009.8.

2. Areas of refuge are not required at 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 stairways serving open parking garages.
4. Areas of refuge are not required for smoke-protected or open-air assembly seating areas complying with Sections 1030.6.2 and 1030.6.3.
5. Areas of refuge are not required at stairways in Group R-2 occupancies.
6. Areas of refuge are not required for stairways accessed from a refuge area in conjunction with a horizontal exit.

1009.4 Elevators. In order to be considered part of an accessible means of egress, an elevator shall comply with Sections 1009.4.1 and 1009.4.2.

1009.4.1 Standby power. The elevator shall meet the emergency operation and signaling device requirements of *California Code of Regulations, Title 8, Division 1, Chapter 4, Subchapter 6, Elevator Safety Orders*. Standby power shall be provided in accordance with Chapter 27 and Section 3003.

1009.4.2 Area of refuge. The elevator shall be accessed from an area of refuge complying with Section 1009.6.

Exceptions:

1. Areas of refuge are not required at the elevator in open parking garages.
2. Areas of refuge are not required in buildings and facilities 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 elevators not required to be located in a shaft in accordance with Section 712.
4. Areas of refuge are not required at elevators serving smoke-protected or open-air assembly seating areas complying with Sections 1030.6.2 and 1030.6.3.
5. Areas of refuge are not required for elevators accessed from a refuge area in conjunction with a horizontal exit.

1009.5 Platform lifts. Platform lifts shall be permitted to serve as part of an accessible means of egress where allowed as part of a required accessible route in *Chapter 11A, Sections 1121A and 1124A.11, or Chapter 11B, Sections 11B-206.7.1 through 11B-206.7.10, as applicable*. Standby power for the platform lift shall be provided in accordance with Chapter 27.

[DSA-AC] See Chapter 11B, Section 11B-207.2 for additional accessible means of egress requirements at platform lifts.

1009.6 Areas of refuge. Every required area of refuge shall be accessible from the space it serves by an accessible means of egress.

[DSA-AC] Areas of refuge shall comply with the requirements of this code and shall adjoin an accessible route complying with Sections 11B-206 and 11B-402,

1009.6.1 Travel distance. The maximum travel distance from any accessible space to an area of refuge shall not exceed the exit access travel distance permitted for the occupancy in accordance with Section 1017.1.

1009.6.2 Stairway or elevator access. Every required area of refuge shall have direct access to a stairway complying with Sections 1009.3 and 1023 or an elevator complying with Section 1009.4.

Exception: An interior area of refuge at the level of exit discharge that provides direct access to an exterior exit door.

1009.6.3 Size. Each area of refuge shall be sized to accommodate *two* wheelchair spaces that are not less than 30 inches by 52 inches (762 mm by 1320 mm). *The total number of such 30-inch by 52-inch (762 mm by 1320 mm) spaces per story shall be not less than one for every 200 persons of calculated occupant load served by the area of refuge.* Such wheelchair spaces shall not reduce the means of egress minimum width or required capacity. 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 each required area of refuge to accommodate one wheelchair space that is not less than 30 inches by 52 inches (762 mm by 1320 mm) on floors where the occupant load is less than 200.*

1009.6.4 Separation. Each area of refuge shall be separated from the remainder of the story by a smoke barrier complying with Section 709 or a horizontal exit complying with Section 1026. Each area of refuge shall be designed to minimize the intrusion of smoke.

Exceptions:

1. Areas of refuge located within an enclosure for interior exit stairways complying with Section 1023.
2. Areas of refuge in outdoor facilities where exit access is essentially open to the outside.

1009.6.5 Two-way communication. Areas of refuge shall be provided with a two-way communication system complying with Sections 1009.8.1 and 1009.8.2.

1009.7 Exterior areas for assisted rescue. Exterior areas for assisted rescue shall be accessed by an accessible route from the area served.

Where the exit discharge does not include an accessible route from an exit located on the level of exit discharge to a public way, an exterior area of assisted rescue shall be provided on the exterior landing in accordance with Sections 1009.7.1 through 1009.7.4.

1009.7.1 Size. Each exterior area for assisted rescue shall be sized to accommodate wheelchair spaces in accordance with Section 1009.6.3.

1009.7.2 Separation. Exterior walls separating the exterior area of assisted rescue from the interior of the building shall have a minimum fire-resistance rating of 1 hour, rated for exposure to fire from the inside. The fire-resistance-rated exterior wall construction shall extend horizontally not less than 10 feet (3048 mm) beyond the landing on either side of the landing or equivalent fire-resistance-rated construction is permitted to extend out perpendicular to the exterior wall not less than 4 feet (1219 mm) on the side of the landing. The fire-resistance-rated construction shall extend vertically from the ground to a point not less than 10 feet (3048 mm) above the floor level of the area for assisted rescue or to the roof line, whichever is lower. Openings within such fire-resistance-rated exterior walls shall be protected in accordance with Section 716.

Exception: The fire-resistance rating and opening protectives are not required in the exterior wall where the building is equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

1009.7.3 Openness. The exterior area for assisted rescue shall be open to the outside air. The sides other than the separation walls shall be not less than 50 percent open, and the open area shall be distributed so as to minimize the accumulation of smoke or toxic gases.

1009.7.4 Stairways. Stairways that are part of the means of egress for the exterior area for assisted rescue shall provide a minimum clear width of 48 inches (1219 mm) between handrails.

Exception: The minimum clear width of 48 inches (1219 mm) between handrails is not required at stairways serving buildings equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2.

1009.8 Two-way communication. A two-way communication system complying with Sections 1009.8.1 and 1009.8.2 shall be provided at the landing serving each elevator or bank of elevators on each accessible floor that is one or more stories above or below the level of exit discharge.

Exceptions:

1. Two-way communication systems are not required at the landing serving each elevator or bank of elevators where the two-way communication system is provided within areas of refuge in accordance with Section 1009.6.5.
2. Two-way communication systems are not required on floors provided with ramps conforming to the provisions of Section 1012.
3. Two-way communication systems are not required at the landings serving only service elevators that are not designated as part of the accessible means of egress or serve as part of the required accessible route into a facility.

4. Two-way communication systems are not required at the landings serving only freight elevators.
5. Two-way communication systems are not required at the landing serving a private residence elevator.
6. Two-way communication systems are not required in Group I-2 or I-3 facilities.

1009.8.1 System requirements. Two-way communication systems shall provide communication between each required location and the fire command center or a central control point location approved by the fire department. Where the central control point is not a constantly attended location, the two-way communication system shall have timed, automatic telephone dial-out capability that provides two-way communication with an approved supervising station or 9-1-1. The two-way communication system shall include both audible and visible signals.

1009.8.1.1 Visible communication method. [DSA-AC and HCD 1-AC] A button complying with Section 1138A.4 or Sections 11B-205 and 11B-309 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.

1009.8.2 Directions. Directions for the use of the two-way communication system, instructions for summoning assistance via the two-way communication system and written identification of the location shall be posted adjacent to the two-way communication system. Signage shall comply with Chapter 11A, Section 1143A or Chapter 11B, Section 11B-703.5 requirements for visual characters.

1009.9 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 Chapter 11A, Section 1143A and Chapter 11B, Section 11B-703.5 as applicable, requirements for visual characters and include the International Symbol of Accessibility. Where exit sign illumination is required by Section 1013.3, the signs shall be illuminated. Additionally, visual characters, raised character and braille signage complying with Chapter 11A, Section 1143A or Chapter 11B, Sections 11B-703.1, 11B-703.2, 11B-703.3 and 11B-703.5 shall be located at each door to an area of refuge and exterior area for assisted rescue in accordance with Section 1013.4. *The International Symbol of Accessibility shall comply with Chapter 11A, Section 1143A or Chapter 11B, Section 11B-703.7.2.1.*

1009.10 Directional signage. Directional signage complying with Chapter 11B, Section 11B-703.5 indicating the location

of all other means of egress and which of those are accessible means of egress shall be provided at the following:

1. At exits serving a required accessible space but not providing an approved accessible means of egress.
2. At elevator landings.
3. Within areas of refuge.

1009.11 Instructions. In areas of refuge and exterior areas for assisted rescue, instructions on the use of the area under emergency conditions shall be posted. Signage shall comply with *Chapter 11A, Section 1143A or Chapter 11B, Section 11B-703.5* requirements for visual characters. The instructions shall include all of the following:

1. Persons able to use the exit stairway do so as soon as possible, unless they are assisting others.
2. Information on planned availability of assistance in the use of stairs or supervised operation of elevators and how to summon such assistance.
3. Directions for use of the two-way communication system where provided.

1009.12 Alarms/emergency warning systems/two-way communication systems. Required emergency warning systems shall activate a means of warning the hearing impaired. Emergency warning systems provided as part of the fire-alarm system and two-way communication systems required by Chapter 10 shall be designed and installed in accordance with NFPA 72 as amended in Chapter 35.

SECTION 1010 DOORS, GATES AND TURNSTILES

[DSA-AC] In addition to the requirements of this section, means of egress, which provide access to, or egress from, buildings or facilities where accessibility is required for applications listed in Section 1.9.1 regulated by the Division of the State Architect—Access Compliance, shall also comply with Chapter 11A or Chapter 11B, Sections 11B-206.5 and 11B-404, as applicable.

1010.1 General. Doors in the means of egress shall comply with the requirements of Sections 1010.1.1 through 1010.3.4. Exterior exit doors shall also comply with the requirements of Section 1022.2. Gates in the means of egress shall comply with the requirements of Sections 1010.4 and 1010.4.1. Turnstiles in the means of egress shall comply with the requirements of Sections 1010.5 through 1010.5.4.

Doors, gates and turnstiles provided for egress purposes in numbers greater than required by this code shall comply with the requirements of this section.

Doors in the means of egress shall be readily distinguishable from the adjacent construction and finishes such that the doors are easily recognizable as doors. Mirrors or similar reflecting materials shall not be used on means of egress doors. Means of egress doors shall not be concealed by curtains, drapes, decorations or similar materials.

1010.1.1 Size of doors. The required capacity of each door opening shall be sufficient for the occupant load thereof and shall provide a minimum clear opening width

of 32 inches (813 mm). The clear opening width 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 opening width of 32 inches (813 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a minimum clear opening width of 32 inches (813 mm). In Group I-2 or an ambulatory care facility, doors serving as means of egress doors where used for the movement of beds and stretcher patients shall provide a minimum clear opening width of 44 inches (1118 mm). Where this section requires a minimum clear opening width of 44 inches (1118 mm) and a door opening includes two door leaves without a mullion, one leaf shall provide a minimum clear opening width of 44 inches (1118 mm). The minimum clear opening height of doors shall be not less than 80 inches (2032 mm).

Exceptions:

1. In Group R-2 and R-3 dwelling and sleeping units that are not required to be *adaptable or accessible as specified in Chapter 11A* the minimum width shall not apply to door openings that are not part of the required means of egress.
2. In Group I-3, door openings to resident sleeping units that are not required to be *adaptable or accessible as specified in Chapter 11A* shall have a minimum clear opening width of 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 clear opening width.
4. The maximum width of door leaves in revolving doors that comply with Section 1010.3.1 shall not be limited.
5. The maximum width of door leaves in power-operated doors that comply with Section 1010.3.2 shall not be limited.
6. Door openings within a dwelling unit or sleeping unit shall have a minimum clear opening height of 78 inches (1981 mm).
7. In dwelling and sleeping units that are not required to be *adaptable or accessible as specified in Chapter 11A*, exterior door openings other than the required exit door shall have a minimum clear opening height of 76 inches (1930 mm).
8. In Groups R-2, R-3 and R-4, in dwelling and sleeping units that are not required to be *adaptable or accessible as specified in Chapter 11A*, the minimum clear opening widths shall not apply to interior egress doors.
9. Doors to walk-in freezers and coolers less than 1,000 square feet (93 m²) in area shall have a maximum width of 60 inches (1524 mm) nominal.
10. Doors serving *nonadaptable or nonaccessible* single-user shower or sauna compartments, toilet

stalls or dressing, fitting or changing rooms shall have a minimum clear opening width of 20 inches (508 mm).

1010.1.1.1 Projections into clear opening. There shall not be projections into the required clear opening width lower than 34 inches (864 mm) above the floor or ground. Projections into the clear opening width between 34 inches (864 mm) and 80 inches (2032 mm) above the floor or ground shall not exceed 4 inches (102 mm).

Exceptions:

1. Door closers, overhead door stops, power door operators, and electromagnetic door locks shall be permitted to be 78 inches (1980 mm) minimum above the floor.
2. *In a Group I-2 occupancy, there shall be no projections into the clear width of doors used for the movement of beds and stretcher patients in the means of egress.*

1010.1.2 Egress door types. Egress doors shall be of the side-hinged swinging door, pivoted door, or balanced door types.

Exceptions:

1. Private garages, office areas, factory and storage areas with an occupant load of 10 or less.
2. Group I-3 occupancies used as a place of detention.
3. Critical or intensive care patient rooms within suites of health care facilities.
4. Doors within or serving a single dwelling unit in Groups R-2 and R-3.
5. In other than Group H occupancies, revolving doors complying with Section 1010.3.1.
6. In other than Group H occupancies, special purpose horizontal sliding, accordion or folding door assemblies complying with Section 1010.3.3.
7. Power-operated doors in accordance with Section 1010.3.2.
8. Doors serving a bathroom within an individual sleeping unit in Group R-1.
9. In other than Group H occupancies, manually operated horizontal sliding doors are permitted in a means of egress from spaces with an occupant load of 10 or less.
10. *In Group I-2 occupancies, exit doors serving an occupant load of 50 or more, shall not be of the pivoted or balanced type.*

1010.1.2.1 Direction of swing. Side-hinged swinging doors, pivoted doors and balanced doors shall swing in the direction of egress travel where serving a room or area containing an occupant load of 50 or more persons or a Group H occupancy. *For Group L occupancies, see Section 453.6.2.*

In a Group I-2 occupancy, all required exterior egress doors shall open in the direction of egress regardless of the occupant load served.

1010.1.3 Forces to unlatch and open doors. The forces to unlatch doors shall comply with the following:

1. Where door hardware operates by push or pull, the operational force to unlatch the door shall not exceed 15 pounds (67 N).
2. Where door hardware operates by rotation, the operational force to unlatch the door shall not exceed 28 inch-pounds (315 N-cm).

The force to open doors shall comply with the following:

1. For interior swinging egress doors that are manually operated, other than doors required to be fire rated, the force for pushing or pulling open the door shall not exceed 5 pounds (22 N).
2. For other swinging doors, sliding doors or folding doors, and doors required to be fire rated, the door shall require not more than a 30-pound (133 N) force to be set in motion and shall move to a full-open position when subjected to not more than a 15-pound (67 N) force.

1010.1.3.1 Location of applied forces. Forces shall be applied to the latch side of the door.

1010.1.3.2 Manual horizontal sliding doors. Where a manual horizontal sliding door is required to latch, the latch or other mechanism shall prevent the door from rebounding into a partially open position when the door is closed.

1010.1.4 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. At doors serving individual dwelling units or sleeping units in Groups R-2 and R-3: a door is permitted to open at the top step of an interior flight of stairs, provided that the door does not swing over the top step.
2. At exterior doors serving Groups F, H, R-2 and S and where such doors are not part of an *adaptable* or accessible route or, *not required to be accessible by Chapter 11A or 11B of the California Building Code*, the landing at an exterior door shall not be more than 7 inches (178 mm) below the landing on the egress side of the door, provided that the door, other than an exterior storm or screen door, does not swing over the landing.
3. At exterior doors serving Group U and individual dwelling units and sleeping units in Groups R-2 and R-3, and where such units are not required to

be *adaptable or accessible*, the landing at an exterior doorway shall be not more than $7\frac{3}{4}$ inches (197 mm) below the landing on the egress side of the door. Such doors, including storm or screen doors, shall be permitted to swing over either landing.

4. Variations in elevation due to differences in finish materials, but not more than $\frac{1}{2}$ inch (12.7 mm).
5. Exterior decks, patios or balconies that are part of *adaptable or accessible* 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. *See also Chapter 11A, Section 1132A.4 or Chapter 11B, as applicable.*
6. Doors serving equipment spaces not required to be *adaptable or accessible* and serving an occupant load of five or less shall be permitted to have a landing on one side to be not more than 7 inches (178 mm) above or below the landing on the egress side of the door.

1010.1.5 Landings at doors. Landings shall have a width not less than the width of the stairway or the door, whichever is greater. Doors in the fully open position shall not reduce a required dimension by more than 7 inches (178 mm). Where a landing serves an occupant load of 50 or more, doors in any position shall not reduce the landing to less than one-half its required width. Landings shall have a length measured in the direction of travel of not less than 44 inches (1118 mm).

Exception: Landing length in the direction of travel in Groups R-3 and U and within individual units of Group R-2 need not exceed 36 inches (914 mm).

1010.1.6 Thresholds. Thresholds at doorways shall not exceed $\frac{3}{4}$ inch (19.1 mm) in height above the finished floor or landing for sliding doors serving dwelling units or $\frac{1}{2}$ inch (12.7 mm) above the finished floor or landing for other doors. Raised thresholds and floor level changes greater than $\frac{1}{4}$ 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).

Exceptions:

1. In occupancy Group R-2 or R-3, threshold heights for sliding and side-hinged exterior doors shall be permitted to be up to $7\frac{3}{4}$ inches (197 mm) in height if all of the following apply:
 - 1.1. The door is not part of the required means of egress.
 - 1.2. The door is not part of an accessible route as required by Chapter 11A or 11B.
 - 1.3. The door is not part of an *adaptable or accessible dwelling unit*.
2. In *adaptable or accessible dwelling units*, where Exception 5 to Section 1010.1.4 permits

a 4-inch (102 mm) elevation change at the door, the threshold height on the exterior side of the door shall not exceed $4\frac{3}{4}$ inches (120 mm) in height above the exterior deck, patio or balcony for sliding doors or $4\frac{1}{2}$ inches (114 mm) above the exterior deck, patio or balcony for other doors.

1010.1.7 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 the 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 other than *adaptable or accessible* dwelling units.

1010.2 Door operations. Except as specifically permitted by this section, egress doors shall be readily openable from the egress side without the use of a key or special knowledge or effort.

1010.2.1 Unlatching. The unlatching of any door or leaf for egress shall require not more than one motion in a single linear or rotational direction to release all latching and all locking devices.

Exceptions:

1. Places of detention or restraint.
2. Where manually operated bolt locks are permitted by Section 1010.2.5.
3. Doors with automatic flush bolts as permitted by Section 1010.2.4, Item 4.
4. Doors from individual dwelling units and sleeping units of Group R occupancies as permitted by Section 1010.2.4, Item 5.

1010.2.2 Hardware. Door handles, pulls, latches, locks and other operating devices on doors required to be accessible by Chapter 11A or 11B shall not require tight grasping, tight pinching or twisting of the wrist to operate.

These design requirements for door handles, pulls, latches, locks and other operating devices, intended for use on required means of egress doors in other than Group R and M occupancies with an occupant load of 10 or less, shall comply with SFM Standard 12-10-2, Section 12-10-202 contained in the CCR, Title 24, Part 12, California Referenced Standards Code.

1010.2.3 Hardware height. Door handles, pulls, latches, locks and other operating devices shall be installed 34 inches (864 mm) minimum and 48 inches (1219 mm) maximum above the finished floor. Locks used only for

security purposes and not used for normal operation are permitted at any height.

Exception: Access doors or gates in barrier walls and fences protecting pools, spas and hot tubs shall be permitted to have operable parts of the latch release on self-latching devices at 54 inches (1370 mm) maximum above the finished floor or ground, provided that the self-latching devices are not also self-locking devices operated by means of a key, electronic opener or integral combination lock.

1010.2.4 Locks and latches. Locks and latches shall be permitted to prevent operation of doors where any of the following exist:

1. Places of detention or restraint.
2. In Group I-2 *and* R-2.1 occupancies where the clinical needs of persons receiving care require containment or where persons receiving care pose a security threat, provided that all clinical staff can readily unlock doors at all times, and all such locks are keyed to keys carried by all clinical staff at all times or all clinical staff have the codes or other means necessary to operate the locks at all times.
3. In buildings in occupancy Group A having an occupant load of 300 or less, Groups B, F, M and S, and in places of religious worship, the main door or doors are permitted to be equipped with key-operated locking devices from the egress side provided:
 - 3.1. The locking device is readily distinguishable as locked.
 - 3.2. A readily visible durable sign is posted on the egress side on or adjacent to the door stating: THIS DOOR TO REMAIN UNLOCKED WHEN THIS SPACE IS OCCUPIED. The sign shall be in letters 1 inch (25 mm) high on a contrasting background.
 - 3.3. The use of the key-operated locking device is revocable by the building official for due cause.
4. Where egress doors are used in pairs, approved automatic flush bolts shall be permitted to be used, provided that the door leaf having the automatic flush bolts does not have a doorknob or surface-mounted hardware.
5. Doors from individual dwelling or sleeping units of Group R occupancies having an occupant load of 10 or less are permitted to be equipped with a night latch, dead bolt or security chain, provided such devices are openable from the inside without the use of a key or tool.
6. Fire doors after the minimum elevated temperature has disabled the unlatching mechanism in accordance with listed fire door test procedures.
7. Doors serving roofs not intended to be occupied shall be permitted to be locked preventing entry to the building from the roof.

8. Other than egress courts, where occupants must egress from an exterior space through the building for means of egress, exit access doors shall be permitted to be equipped with an approved locking device where installed and operated in accordance with all of the following:

- 8.1. The maximum occupant load shall be posted where required by Section 1004.9. Such signage shall be permanently affixed inside the building and shall be posted in a conspicuous space near all the exit access doorways.
- 8.2. A weatherproof telephone or two-way communication system installed in accordance with Sections 1009.8.1 and 1009.8.2 shall be located adjacent to not less than one required exit access door on the exterior side.
- 8.3. The egress door locking device is readily distinguishable as locked and shall be a key-operated locking device.
- 8.4. A clear window or glazed door opening, not less than 5 square feet (0.46 m²) in area, shall be provided at each exit access door to determine if there are occupants using the outdoor area.
- 8.5. A readily visible, durable sign shall be posted on the interior side on or adjacent to each locked required exit access door serving the exterior area stating, "THIS DOOR TO REMAIN UNLOCKED WHEN THE OUTDOOR AREA IS OCCUPIED." The letters on the sign shall be not less than 1 inch (25.4 mm) high on a contrasting background.
- 8.6. The occupant load of the occupied exterior area shall not exceed 300 occupants in accordance with Section 1004.

9. Locking devices are permitted on doors to balconies, decks or other exterior spaces serving individual dwelling or sleeping units.

10. Locking devices are permitted on doors to balconies, decks or other exterior spaces of 250 square feet (23.23 m²) or less serving a private office space.

1010.2.5 Bolt locks. Manually operated flush bolts or surface bolts are not permitted.

Exceptions:

1. On doors not required for egress in individual dwelling units or sleeping units.
2. Where a pair of doors serves a storage or equipment room, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf.
3. Where a pair of doors serves an occupant load of less than 50 persons in a Group B, F or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.

4. Where a pair of doors serves a Group B, F or S occupancy, manually operated edge- or surface-mounted bolts are permitted on the inactive leaf provided that such inactive leaf is not needed to meet egress capacity requirements and the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1. The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.
5. *Manually operated edge- and surface-mounted bolts shall be permitted on the inactive leaf of pairs of doors that serve patient care rooms in Group I-2 occupancies, provided that the bolts are self-latching and the inactive leaf is not needed to meet the minimum clear opening width required by Section 1010.1.1 of the California Building Code.* The inactive leaf shall not contain doorknobs, panic bars or similar operating hardware.

1010.2.6 Closet doors. Closet doors that latch in the closed position shall be openable from inside the closet.

1010.2.7 Stairway doors. Interior stairway means of egress doors shall be openable from both sides without the use of a key or special knowledge or effort.

Exceptions:

1. Stairway discharge doors shall be openable from the egress side and shall only be locked from the opposite side.
2. This section shall not apply to doors arranged in accordance with Section 403.5.3.
3. Stairway exit doors are permitted to be locked from the side opposite the egress side, provided that they are openable from the egress side and capable of being unlocked simultaneously without unlatching upon a signal from the fire command center, if present, or a signal by emergency personnel from a single location inside the main entrance to the building.
4. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group B, F, M and S occupancies where the only interior access to the tenant space is from a single exit stairway where permitted in Section 1006.3.4.
5. Stairway exit doors shall be openable from the egress side and shall only be locked from the opposite side in Group R-2 occupancies where the only interior access to the dwelling unit is from a single exit stairway where permitted in Section 1006.3.4.

1010.2.8 Locking arrangements in educational occupancies. In Group E occupancies, Group B educational

occupancies and Group I-4 occupancies, egress doors from classrooms, offices and other occupied rooms with locking arrangements designed to keep intruders from entering the room shall comply with all of the following conditions:

1. The door shall be capable of being unlocked from outside the room with a key or other approved means.
2. The door shall be openable from within the room in accordance with Section 1010.2.
3. Modifications shall not be made to listed panic hardware, fire door hardware or door closers.
4. Modifications to fire door assemblies shall be in accordance with NFPA 80.

Remote locking or unlocking of doors from an approved location shall be permitted in addition to the unlocking operation in Item 1.

1010.2.8.1 Special provisions—school classrooms. *School classrooms constructed after January 1, 1990, not equipped with automatic sprinkler systems, which have metal grilles or bars on all their windows and do not have at least two exit doors within 3 feet (914 mm) of each end of the classroom opening to the exterior of the building or to a common hallway used for evacuation purposes, shall have an inside release for the grilles or bars on at least one window farthest from the exit doors. The window or windows with the inside release shall be clearly marked as emergency exits.*

1010.2.8.2 Group E lockable doors from the inside. *New buildings that are included in public schools (kindergarten through 12th grade) state funded projects and receiving state funding pursuant to Leroy F. Green, School Facilities Act of 1998, California Education Code Sections 17070.10 through 17079, and that are submitted to the Division of the State Architect for plan review after July 1, 2011 in accordance with Education Code 17075.50, shall include locks that allow doors to classrooms and any room with an occupancy of five or more persons to be locked from the inside. The locks shall conform to the specification and requirements found in Section 1010.2.*

Exceptions:

1. *Doors that are locked from the outside at all times such as, but not limited to, janitor's closet, electrical room, storage room, boiler room, elevator equipment room and pupil restroom.*
2. *Reconstruction projects that utilize original plans in accordance with California Administrative Code, Section 4-314.*
3. *Existing relocatable buildings that are relocated within same site in accordance with California Administrative Code, Section 4-314.*

1010.2.9 Panic and fire exit hardware. Swinging doors serving a Group H occupancy and swinging doors serving rooms or spaces with an occupant load of 50 or more in a Group A or E occupancy, *assembly area not classified as an assembly occupancy*, E or I-2 occupancies shall not be provided with a latch or lock other than panic hardware or fire exit hardware. *For Group L occupancies see Section 453.6.3.*

Exceptions:

1. A main exit of a Group A occupancy shall be permitted to have locking devices in accordance with Section 1010.2.4, Item 3.
2. Doors provided with panic hardware or fire exit hardware and serving a Group A or E occupancy shall be permitted to be electrically locked in accordance with Section 1010.2.11 or 1010.2.12.
3. Exit access doors serving occupied exterior areas shall be permitted to be locked in accordance with Section 1010.2.4, Item 8.
4. Courtrooms shall be permitted to be locked in accordance with Section 1010.2.13, Item 3.

1010.2.9.1 Refrigeration machinery room. Refrigeration machinery rooms larger than 1,000 square feet (93 m²) shall have not less than two exit or exit access doorways that swing in the direction of egress travel and shall be equipped with panic hardware or fire exit hardware.

1010.2.9.2 Rooms with electrical equipment. Exit or exit access doors serving transformer vaults, rooms designated for batteries or energy storage systems, or modular data centers shall be equipped with panic hardware or fire exit hardware. Rooms containing electrical equipment rated 800 amperes or more that contain overcurrent devices, switching devices or control devices and where the exit or exit access door is less than 25 feet (7620 mm) from the equipment working space as required by NFPA 70, such doors shall not be provided with a latch or lock other than panic hardware or fire exit hardware. The doors shall swing in the direction of egress travel.

1010.2.9.3 Installation. Where panic or fire exit hardware is installed, it shall comply with the following:

1. Panic hardware shall be listed in accordance with UL 305.
2. Fire exit hardware shall be listed in accordance with UL 10C and UL 305.
3. The actuating portion of the releasing device shall extend not less than one-half of the door leaf width.
4. The maximum unlatching force shall not exceed 15 pounds (67 N).

1010.2.9.4 Balanced doors. If balanced doors are used and panic hardware is required, the panic hardware shall be the push-pad type and the pad shall not extend more than one-half the width of the door measured from the latch side.

1010.2.10 Monitored or recorded egress. Where electrical systems that monitor or record egress activity are incorporated, the locking system shall comply with Section 1010.2.11, 1010.2.12, 1010.2.13, 1010.2.14 or 1010.2.15 or shall be readily openable from the egress side without the use of a key or special knowledge or effort.

1010.2.11 Door hardware release of electrically locked egress doors. Door hardware release of electric locking systems shall be permitted on doors in the means of egress in any occupancy except Group H where installed and operated in accordance with all of the following:

1. The door hardware that is affixed to the door leaf has an obvious method of operation that is readily operated under all lighting conditions.
2. The door hardware is capable of being operated with one hand and shall comply with Section 1010.2.1.
3. Operation of the door hardware directly interrupts the power to the electric lock and unlocks the door immediately.
4. Loss of power to the electric locking system automatically unlocks the door.
5. Where panic or fire exit hardware is required by Section 1010.2.9, operation of the panic or fire exit hardware also releases the electric lock.
6. The locking system units shall be listed in accordance with UL 294.

1010.2.12 Sensor release of electrically locked egress doors. Sensor release of electric locking systems shall be permitted on doors located in the means of egress in any occupancy except Group H where installed and operated in accordance with all of the following criteria:

1. The sensor shall be installed on the egress side, arranged to detect an occupant approaching the doors, and shall cause the electric locking system to unlock.
2. The electric locks shall be arranged to unlock by a signal from or loss of power to the sensor.
3. Loss of power to the lock or locking system shall automatically unlock the electric locks.
4. The doors shall be arranged to unlock from a manual unlocking device located 40 inches to 48 inches (1016 mm to 1219 mm) vertically above the floor and within 5 feet (1524 mm) of the secured doors. Ready access shall be provided to the manual unlocking device and the device shall be clearly identified by a sign that reads "PUSH TO EXIT." When operated, the manual unlocking device shall result in direct interruption of power to the electric lock—*independent of other electronics*—and the electric lock shall remain unlocked for not less than 30 seconds.
5. Activation of the building fire alarm system, where provided, shall automatically unlock the electric

lock, and the electric lock shall remain unlocked until the fire alarm system has been reset.

6. Activation of the building automatic sprinkler system or fire detection system, where provided, shall automatically unlock the electric lock. The electric lock shall remain unlocked until the fire alarm system has been reset.
7. Emergency lighting shall be provided on the egress side of the door.
8. The door locking system units shall be listed in accordance with UL 294.

1010.2.12.1 Access-controlled elevator lobby doors in high-rise office buildings. For elevator lobbies in high-rise office buildings where the occupants of the floor are not required to travel through the elevator lobby to reach an exit, when approved by the fire chief, the doors separating the elevator lobby from the adjacent occupied tenant space that also serve as the entrance doors to the tenant space shall be permitted to be equipped with an approved entrance and egress access control system provided all of the following requirements are met:

1. The building is provided throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.
2. A smoke detector is installed on the ceiling on the tenant side of the elevator lobby doors along the center line of the door opening, not less than 1 foot and not more than 5 feet from the door opening, and is connected to the fire alarm system.
3. A remote master switch capable of unlocking the elevator lobby doors shall be provided in the fire command center for use by the fire department.
4. Locks for the elevator lobby shall be U.L. and California State Fire Marshal listed fail-safe type locking mechanisms. The locking device shall automatically release on activation of any fire alarm device on the floor of alarm (waterflow, smoke detector, manual pull stations, etc.). All locking devices shall unlock, but not unlatch, upon activation.
5. A two-way voice communication system, utilizing dedicated lines, shall be provided from each locked elevator lobby to the 24-hour staffed location on site, annunciated as to location. Operating instructions shall be posted above each two-way communication device.

Exception: When approved by the fire chief, two-way voice communication system to an off-site facility may be permitted where means to remotely unlock the access controlled doors from the off-site facility are provided.

6. An approved momentary mushroom-shaped palm button connected to the doors and installed adjacent to each locked elevator lobby door shall be provided to release the door locks when operated

by an individual in the elevator lobby. The locks shall be reset manually at the door. Mount palm button so that the center line is 48 inches above the finished floor.

Provide a sign stating:

*“IN CASE OF EMERGENCY,
PUSH PALM BUTTON,
DOOR WILL UNLOCK
AND SECURITY ALARM
WILL SOUND.”*

The sign lettering shall be $\frac{3}{4}$ -inch high letters by $\frac{1}{8}$ -inch width stroke on a contrasting background.

7. Loss of power to that part of the access control system which locks the doors shall automatically unlock the doors.

1010.2.13 Delayed egress. Delayed egress locking systems shall be permitted to be installed on doors serving the following occupancies in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and an approved automatic smoke or heat detection system installed in accordance with Section 907.

1. Group B, F, I, M, R, S and U occupancies.
2. Group E classrooms with an occupant load of less than 50.
3. In courtrooms in Group A-3 and B occupancies, delayed egress locking systems shall be permitted to be installed on exit or exit access doors, other than the main exit or exit access door, in buildings that are equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and an approved automatic smoke detection system installed in accordance with Section 907.

1010.2.13.1 Delayed egress locking system. The delayed egress locking system shall be installed and operated in accordance with all of the following:

1. The delay electronics of the delayed egress locking system shall deactivate upon actuation of the automatic sprinkler system required by Section 1010.2.13 and the delay electronics of the delayed egress locking system shall deactivate upon actuation of the smoke or heat detection system required by Section 1010.2.13, allowing immediate free egress.
2. The delay electronics of the delayed egress locking system shall deactivate upon loss of electrical power controlling the lock or lock mechanism, allowing immediate free egress, to any one of the following:
 - 2.1. The egress-control device itself.
 - 2.2. The smoke detection system.
 - 2.3. Means of egress illumination as required by Section 1008.

inches (508 mm) shall be provided. Where the seat and platform can be folded when not in use, the distance shall be measured from the folded position.

Means of egress stairs in a Group I-2 or ambulatory care facility occupancy used for the movement of beds and stretcher patients shall provide a clear width not less than 44 inches (1118 mm).

1011.3 Headroom. Stairways shall have a headroom clearance of not less than 80 inches (2032 mm) measured vertically from a line connecting the edge of the nosings. Such headroom shall be continuous above the stairway to the point where the line intersects the landing below, one tread depth beyond the bottom riser. The minimum clearance shall be maintained the full width of the stairway and landing.

Exceptions:

1. Spiral stairways complying with Section 1011.10 are permitted a 78-inch (1981 mm) headroom clearance.
2. 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; where the nosings of treads at the side of a flight extend under the edge of a floor opening through which the stair passes, the floor opening shall be allowed to project horizontally into the required headroom not more than $4\frac{3}{4}$ inches (121 mm).

1011.4 Walkline. The walkline across winder treads shall be concentric to the direction of travel through the turn and located 12 inches (305 mm) from the side where the winders are narrower. The 12-inch (305 mm) dimension shall be measured from the widest point of the clear stair width at the walking surface of the winder. Where winders are adjacent within the flight, the point of the widest clear stair width of the adjacent winders shall be used.

1011.5 Stair treads and risers. Stair treads and risers shall comply with Sections 1011.5.1 through 1011.5.5.3.

1011.5.1 Dimension reference surfaces. For the purpose of this section, all dimensions are exclusive of carpets, rugs or runners.

1011.5.2 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 nosings of adjacent treads or between the stairway landing and the adjacent tread. Rectangular 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 nosing. Winder treads shall have a minimum tread depth of 11 inches (279 mm) 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. Spiral stairways in accordance with Section 1011.10.

2. Stairways connecting stepped aisles to cross aisles or concourses shall be permitted to use the riser/tread dimension in Section 1030.14.2.
3. 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 $7\frac{3}{4}$ 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 projection not less than $\frac{3}{4}$ inch (19.1 mm) but not more than $1\frac{1}{4}$ inches (32 mm) shall be provided on stairways with solid risers where the tread depth is less than 11 inches (279 mm).
4. See *California Fire Code Chapter 11 and California Existing Building Code* for the replacement of existing stairways. **[DSA-AC]** For applications listed in Section 1.9.1 regulated by the Division of the State Architect-Access Compliance, see Chapter 11B, Section 11B-202.
5. 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).
6. **[SFM]** Stairways providing access to lifeguard towers not open to the public, 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).

1011.5.3 Winder treads. Winder treads are not permitted in means of egress stairways except within a dwelling unit.

Exceptions:

1. Curved stairways in accordance with Section 1011.9.
2. Spiral stairways in accordance with Section 1011.10.

1011.5.4 Dimensional uniformity. Stair treads and risers shall be of uniform size and shape. The tolerance between the largest and smallest riser height or between the largest and smallest tread depth shall not exceed $\frac{3}{8}$ inch (9.5 mm) in any flight of stairs. The greatest winder tread depth at the walkline within any flight of stairs shall not exceed the smallest by more than $\frac{3}{8}$ inch (9.5 mm).

Exceptions:

1. Stairways connecting stepped aisles to cross aisles or concourses shall be permitted to comply with the dimensional nonuniformity in Section 1030.14.2.
2. Consistently shaped winders, complying with Section 1011.5, differing from rectangular treads in the same flight of stairs.

3. Nonuniform riser dimension complying with Section 1011.5.4.1.

1011.5.4.1 Nonuniform height risers. Where the bottom or top riser adjoins a sloping public way, walkway or driveway having an established grade and serving as a landing, the bottom or top riser is permitted to be reduced along the slope to less than 4 inches (102 mm) in height, with the variation in height of the bottom or top riser not to exceed one unit vertical in 12 units horizontal (8-percent slope) of stair width. The nosings or leading edges of treads at such nonuniform height risers shall have a distinctive marking stripe, different from any other nosing marking provided on the stair flight. The distinctive marking stripe shall be visible in descent of the stair and shall have a slip-resistant surface. Marking stripes shall have a width of not less than 1 inch (25 mm) but not more than 2 inches (51 mm).

1011.5.5 Nosing and riser profile. *Nosings* shall have a curvature or bevel of not less than $\frac{1}{16}$ inch (1.6 mm) but not more than $\frac{9}{16}$ inch (14.3 mm) from the foremost projection of the tread. Risers shall be solid and vertical or sloped under the tread above from the underside of the nosing above at an angle not more than 30 degrees (0.52 rad) from the vertical.

1011.5.5.1 Nosing projection size. The leading edge (nosings) of treads shall project not more than $1\frac{1}{4}$ inches (32 mm) beyond the tread below.

1011.5.5.2 Nosing projection uniformity. Nosing projections of the leading edges shall be of uniform size, including the projections of the nosing's leading edge of the floor at the top of a flight.

1011.5.5.3 Solid risers. Risers shall be solid.

Exceptions:

1. Solid risers are not required for stairways that are not required to comply with Section 1009.3, provided that the opening between treads does not permit the passage of a sphere with a diameter of 4 inches (102 mm).
2. Solid risers are not required for occupancies in Group I-3 or in Group F, H and S occupancies other than areas accessible to the public. The size of the opening in the riser is not restricted.
3. Solid risers are not required for spiral stairways constructed in accordance with Section 1011.10.

1011.6 Stairway landings. There shall be a floor or landing at the top and bottom of each stairway. The width of landings, measured perpendicularly to the direction of travel, shall be not less than the width of stairways served. Every landing shall have a minimum depth, measured parallel to the direction of travel, equal to the width of the stairway or 48 inches (1219 mm), whichever is less. 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 the required width

of a landing. Where wheelchair spaces are required on the stairway landing in accordance with Section 1009.6.3, the wheelchair space shall not be located in the required width of the landing and doors shall not swing over the wheelchair spaces.

Exceptions:

1. Where stairways connect stepped aisles to cross aisles or concourses, stairway landings are not required at the transition between stairways and stepped aisles constructed in accordance with Section 1030.
2. Where curved stairways of constant radius have intermediate landings, the landing depth shall be measured horizontally between the intersection of the walkline of the lower flight at the landing nosing and the intersection of the walkline of the upper flight at the nosing of the lowest tread of the upper flight.
3. Where a landing turns 90 degrees (1.57 rad) or more, the minimum landing depth in accordance with this section shall not be required where the landing provided is not less than that described by an arc with a radius equal to the width of the flight served.
4. *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.*

1011.7 Stairway construction. Stairways shall be built of materials consistent with the types permitted for the type of construction of the building.

Exceptions:

1. Wood handrails shall be permitted in all types of construction.
2. Interior exit stairways in accordance with Section 510.2.

1011.7.1 Stairway walking surface. The walking surface of treads and landings of a stairway shall not be sloped steeper than one unit vertical in 48 units horizontal (2-percent slope) in any direction. Stairway treads and landings shall have a solid surface. Finish floor surfaces shall be securely attached.

Exceptions:

1. Openings in stair walking surfaces shall be a size that does not permit the passage of $\frac{1}{2}$ -inch-diameter (12.7 mm) sphere. Elongated openings shall be placed so that the long dimension is perpendicular to the direction of travel.
2. In Group F, H and S occupancies, other than areas of parking structures accessible to the public, openings in treads and landings shall not be prohibited provided that a sphere with a diameter of $1\frac{1}{8}$ inches (29 mm) cannot pass through the opening.

3. On raised stage and platform floor areas, such as runways, ramps and side stages used for entertainment or presentations.
4. At vertical openings in the performance area of stages and platforms.
5. At elevated walking surfaces appurtenant to stages and platforms for access to and utilization of special lighting or equipment.
6. Along vehicle service pits not accessible to the public.
7. In assembly seating areas at cross aisles in accordance with Section 1030.17.2.
8. On the loading side of station platforms on fixed guideway transit or passenger rail systems.
9. *Elevated facility observation station access hatches at detention facilities.*

1015.2.1 Glazing. Where glass is used to provide a guard or as a portion of the guard system, the guard shall comply with Section 2407. Where the glazing provided does not meet the strength and attachment requirements of Section 1607.9, complying guards shall be located along glazed sides of open-sided walking surfaces.

1015.3 Height. Required guards shall be not less than 42 inches (1067 mm) high, measured vertically as follows:

1. From the adjacent walking surfaces.
2. On stairways and stepped aisles, from the line connecting the leading edges of the tread nosings.
3. On ramps and ramped aisles, from the ramp surface at the guard.

Exceptions:

1. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, guards on the open sides of stairs shall have a height not less than 34 inches (864 mm) measured vertically from a line connecting the leading edges of the treads.
2. For occupancies in Group R-3, and within individual dwelling units in occupancies in Group R-2, where the top of the guard serves as a handrail on the open sides of stairs, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.
3. The guard height in assembly seating areas shall comply with Section 1030.17 as applicable.
4. Along alternating tread devices and ships ladders, guards where the top rail serves as a handrail shall have height not less than 30 inches (762 mm) and not more than 34 inches (864 mm), measured vertically from the leading edge of the device tread nosing.

5. In Group F occupancies where exit access stairways serve fewer than three stories and such stairways are not open to the public, and where the top of the guard also serves as a handrail, the top of the guard shall be not less than 34 inches (864 mm) and not more than 38 inches (965 mm) measured vertically from a line connecting the leading edges of the treads.

1015.4 Opening limitations. Required guards shall not have openings that allow passage of a sphere 4 inches (102 mm) in diameter from the walking surface to the required guard height.

Exceptions:

1. From a height of 36 inches (914 mm) to 42 inches (1067 mm), guards shall not have openings that allow passage of a sphere $4\frac{3}{8}$ inches (111 mm) in diameter.
2. The triangular openings at the open sides of a stair, formed by the riser, tread and bottom rail shall not allow passage of a sphere 6 inches (152 mm) in diameter.
3. At elevated walking surfaces for access to and use of electrical, mechanical or plumbing systems or equipment, guards shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.
4. In areas that are not open to the public within occupancies in Group I-3, F, H or S, and for alternating tread devices and ships ladders, guards shall not have openings that allow passage of a sphere 21 inches (533 mm) in diameter.
5. In assembly seating areas, guards required at the end of aisles in accordance with Section 1030.17.4 shall not have openings that allow passage of a sphere 4 inches (102 mm) in diameter up to a height of 26 inches (660 mm). From a height of 26 inches (660 mm) to 42 inches (1067 mm) above the adjacent walking surfaces, guards shall not have openings that allow passage of a sphere 8 inches (203 mm) in diameter.
6. Within individual dwelling units and sleeping units in Group R-2 and R-3 occupancies, guards on the open sides of stairs shall not have openings that allow passage of a sphere $4\frac{3}{8}$ (111 mm) inches in diameter.
7. *In lifeguard towers not open to the public, guards shall not have openings which allow passage of a sphere 21 inches (533 mm) in diameter.*

1015.5 Screen porches. Porches and decks that are enclosed with insect screening shall be provided with guards where the walking surface is located more than 30 inches (762 mm) above the floor or grade below.

1015.6 Mechanical equipment, systems and devices. Guards shall be provided where various components that

require service are located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of such components. The guard shall be constructed so as to prevent the passage of a sphere 21 inches (533 mm) in diameter.

Exception: Guards are not required where personal fall arrest anchorage connector devices that comply with ANSI/ASSE Z 359.1 are installed.

1015.7 Roof access. Guards shall be provided where the roof hatch opening is located within 10 feet (3048 mm) of a roof edge or open side of a walking surface and such edge or open side is located more than 30 inches (762 mm) above the floor, roof or grade below. The guard shall extend not less than 30 inches (762 mm) beyond each end of the hatch parallel to the roof edge. The guard shall be constructed so as to prevent the passage of a sphere 21 inches (533 mm) in diameter.

Exception: Guards are not required where personal fall arrest anchorage connector devices that comply with ANSI/ASSE Z 359.1 are installed.

1015.8 Window openings. Windows in Group R-1, R-2 and R-3 buildings including dwelling units, where the bottom of the clear opening of an operable window is located less than 36 inches (914 mm) above the finished floor and more than 72 inches (1829 mm) above the finished grade or other surface below on the exterior of the building, shall comply with one of the following:

1. Operable windows where the top of the sill of the opening is located more than 75 feet (22 860 mm) above the finished grade or other surface below and that are provided with window fall prevention devices that comply with ASTM F2006.
2. Operable windows where the openings will not allow a 4-inch-diameter (102 mm) sphere to pass through the opening when the window is in its largest opened position.
3. Operable windows where the openings are provided with window fall prevention devices that comply with ASTM F2090.
4. Operable windows that are provided with window opening control devices that comply with Section 1015.8.1.

1015.8.1 Window opening control devices. Window opening control devices shall comply with ASTM F2090. The window opening control device, after operation to release the control device allowing the window to fully open, shall not reduce the minimum net clear opening area of the window unit to less than the area required by Section 1031.3.1.

SECTION 1016 EXIT ACCESS

1016.1 General. The exit access shall comply with the applicable provisions of Sections 1003 through 1015. Exit access arrangement shall comply with Sections 1016 through 1021.

1016.2 Egress through intervening spaces. Egress through intervening spaces shall comply with this section.

1. Exit access through an enclosed elevator lobby is permitted *in other than a Group I-2*. Where access to two or more exits or exit access doorways is required in Section 1006.2.1, access to not less than one of the required exits shall be provided without travel through the enclosed elevator lobbies required by Section 3006. Where the path of exit access travel passes through an enclosed elevator lobby, the level of protection required for the enclosed elevator lobby is not required to be extended to the exit unless direct access to an exit is required by other sections of this code.
2. 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 where the adjoining or intervening rooms or spaces are the same or a lesser hazard occupancy group.

3. An exit access shall not pass through a room that can be locked to prevent egress.
4. Means of egress from dwelling units or sleeping areas shall not lead through other sleeping areas, toilet rooms or bathrooms.
5. 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 where 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.
 - 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.

6. *The means of egress shall not pass through any room subject to locking except in Group I-3 occupancies*

classified as detention facilities and psychiatric treatment areas in Group I-2 occupancies.

1016.2.1 Multiple tenants. Where more than one tenant occupies any one floor of a building or structure, each tenant space, dwelling unit and sleeping unit shall be provided with access to the required exits without passing through adjacent tenant spaces, dwelling units and sleeping units.

Exception: The means of egress from a smaller tenant space shall not be prohibited from passing through a larger adjoining tenant space where such rooms or spaces of the smaller tenant occupy less than 10 percent of the area of the larger tenant space through which they pass; are the same or similar occupancy group; a discernible path of egress travel to an exit is provided; and the means of egress into the adjoining space is not subject to locking from the egress side. A required means of egress serving the larger tenant space shall not pass through the smaller tenant space or spaces.

1016.2.2 Basement exits in Group I-2 occupancies. For additional requirements for occupancies in Group I-2, see Section 407.

SECTION 1017 EXIT ACCESS TRAVEL DISTANCE

1017.1 General. Travel distance within the exit access portion of the means of egress system shall be in accordance with this section.

1017.2 Limitations. Exit access travel distance shall not exceed the values given in Table 1017.2.

**TABLE 1017.2
EXIT ACCESS TRAVEL DISTANCE^a**

OCCUPANCY	WITHOUT SPRINKLER SYSTEM (feet)	WITH SPRINKLER SYSTEM (feet)
A, E, F-1, M, R, S-1	200 ^c	250 ^b
R-2.1	Not Permitted	250 ^b
B	200	300 ^c
F-2, S-2, U	300	400 ^c
H-1	Not Permitted	75 ^d
H-2	Not Permitted	100 ^d
H-3	Not Permitted	150 ^d
H-4	Not Permitted	175 ^d
H-5	Not Permitted	200 ^c
I-2, I-3 ^f	Not Permitted	200 ^c
I-4	150	200 ^c
L	Not Permitted	200 ^c

For SI: 1 foot = 304.8 mm.

a. See the following sections for modifications to exit access travel distance requirements:

Section 402.8: For the distance limitation in malls.

Section 407.4: For the distance limitation in Group I-2.

Section 408.3.10: For increased limitation in Group I-3

Sections 408.6.1 and 408.8.1: For the distance limitations in Group I-3.

Section 411.2: For the distance limitation in special amusement areas.
Section 412.6: For the distance limitations in aircraft manufacturing facilities.

Section 422.3.4: For the distance limitation in ambulatory care facilities.

Section 1006.2.2.2: For the distance limitation in refrigeration machinery rooms.

Section 1006.2.2.3: For the distance limitation in refrigerated rooms and spaces.

Section 1006.3.4: For buildings with one exit.

Section 1017.2.2: For increased distance limitation in Groups F-1 and S-1.

Section 1030.7: For increased limitation in assembly seating.

Section 3103.4: For temporary structures.

Section 3104.9: For pedestrian walkways.

b. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2. See Section 903 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.2.

c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

d. Group H occupancies equipped throughout with an automatic sprinkler system in accordance with Section 903.2.5.1.

e. Group R-3 and R-4 buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.3. See Section 903.2.8 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.3.

f. Not permitted in nonsprinklered Group I-3 occupancies.

1017.2.1 Exterior egress balcony increase. Exit access travel distances specified in Table 1017.2 shall be increased up to an additional 100 feet (30 480 mm) provided that the last portion of the exit access leading to the exit occurs on an exterior egress balcony constructed in accordance with Section 1021. The length of such balcony shall be not less than the amount of the increase taken.

1017.2.2 Groups F-1 and S-1 increase. The maximum exit access travel distance shall be 400 feet (122 m) in Group F-1 or S-1 occupancies where all of the following conditions are met:

1. The portion of the building classified as Group F-1 or S-1 is limited to one story in height.
2. The minimum height from the finished floor to the bottom of the ceiling or roof slab or deck is 24 feet (7315 mm).
3. The building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1.

1017.3 Measurement. Exit access travel distance shall be measured from the most remote point of each room, area or space along the natural and unobstructed path of horizontal and vertical egress travel to the entrance to an exit. Where more than one exit is required, exit access travel distance shall be measured to the nearest exit.

Exceptions:

1. In open parking garages, exit access travel distance is permitted to be measured to the closest riser of an exit access stairway or the closest slope of an exit access ramp.
2. In smoke protected seating and open air assembly seating, exit access travel distance shall be measured in accordance with Section 1030.7.

1017.3.1 Exit access stairways and ramps. Travel distance on exit access stairways or ramps shall be included in the exit access travel distance measurement. The measurement along stairways shall be made on a plane parallel and tangent to the stair tread nosings in the center of the stair and landings. The measurement along ramps shall be made on the walking surface in the center of the ramp and landings.

1017.3.2 Atriums. Exit access travel distance for areas open to an atrium shall comply with the requirements of Sections 1017.3.2.1 through 1017.3.2.3.

1017.3.2.1 Egress not through the atrium. Where required access to the exits is not through the atrium, exit access travel distance shall comply with Section 1017.2.

1017.3.2.2 Exit access travel distance at the level of exit discharge. Where the path of egress travel is through an atrium space, exit access travel distance at the level of exit discharge shall be determined in accordance with Section 1017.2.

1017.3.2.3 Exit access travel distance at other than the level of exit discharge. Where the path of egress travel is not at the level of exit discharge from the atrium, that portion of the total permitted exit access travel distance that occurs within the atrium shall be not greater than 200 feet (60 960 mm).

SECTION 1018 AISLES

[DSA-AC] In addition to the requirements of this section, means of egress, which provide access to, or egress from, buildings or facilities where accessibility is required for applications listed in Section 1.9.1 regulated by the Division of the State Architect-Access Compliance, shall also comply with Chapter 11A or Chapter 11B, Section 11B-403, as applicable.

1018.1 General. Aisles and aisle accessways serving as a portion of the exit access in the means of egress system shall comply with the requirements of this section. Aisles or aisle accessways shall be provided from all occupied portions of the exit access that contain seats, tables, furnishings, displays and similar fixtures or equipment. The minimum width or required capacity of aisles shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

1018.2 Aisles in assembly spaces. Aisles and aisle accessways serving a room or space used for assembly purposes shall comply with Section 1030.

1018.3 Aisles in Groups B and M. In Group B and M occupancies, the minimum clear aisle width shall be determined by Section 1005.1 for the occupant load served, but shall be not less than that required for corridors by Section 1020.3.

Exception: Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11B, (see Section 11B-403) need not exceed 28 inches (711 mm) in width.

1018.4 Aisle accessways in Group M. An aisle accessway shall be provided on not less than one side of each element within the merchandise pad. The minimum clear width for an aisle accessway not required to be accessible shall be 30 inches (762 mm). The required clear width of the aisle accessway shall be measured perpendicular to the elements and merchandise within the merchandise pad. The 30-inch (762 mm) minimum clear width shall be maintained to provide a path to an adjacent aisle or aisle accessway. The common path of egress travel shall not exceed 30 feet (9144 mm) from any point in the merchandise pad.

Exception: For areas serving not more than 50 occupants, the common path of egress travel shall not exceed 75 feet (22 860 mm).

1018.5 Aisles in other than assembly spaces and Groups B and M. In other than rooms or spaces used for assembly purposes and Group B and M occupancies, the minimum clear aisle capacity shall be determined by Section 1005.1 for the occupant load served, but the width shall be not less than that required for corridors by Section 1020.3.

Exception: Nonpublic aisles serving less than 50 people and not required to be accessible by Chapter 11B, (see Section 11B-403) need not exceed 28 inches (711 mm) in width.

SECTION 1019 EXIT ACCESS STAIRWAYS AND RAMPS

1019.1 General. Exit access stairways and ramps serving as an exit access component in a means of egress system shall comply with the requirements of this section. The number of stories connected by exit access stairways and ramps shall include basements, but not mezzanines.

1019.2 All occupancies. Exit access stairways and ramps that serve floor levels within a single story are not required to be enclosed.

1019.3 Occupancies other than Groups I-2, I-3 and R-2.1. In other than Group I-2, I-3 and R-2.1 occupancies, floor openings containing exit access stairways or ramps shall be enclosed with a shaft enclosure constructed in accordance with Section 713.

Exceptions:

1. Exit access stairways and ramps that serve or atmospherically communicate between only two adjacent stories. Such interconnected stories shall not be open to other stories.
2. In Group R-1, R-2, R-2.1, R-3 or R-3.1 occupancies, exit access stairways and ramps connecting four stories or less serving and contained within an individual dwelling unit or sleeping unit or live/work unit.
3. Exit access stairways serving and contained within a Group R-3 congregate residence or a Group R-4 facility are not required to be enclosed.
4. Exit access stairways and ramps in buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, where

the area of the vertical opening between stories does not exceed twice the horizontal projected area of the stairway or ramp and the opening is protected by a draft curtain and closely spaced sprinklers in accordance with NFPA 13. In other than Group B and M occupancies, this provision is limited to openings that do not connect more than four stories.

5. Exit access stairways and ramps within an atrium complying with the provisions of Section 404.
6. Exit access stairways and ramps in open parking garages that serve only the parking garage.
7. Exit access stairways and ramps serving smoke-protected or open-air assembly seating complying with the exit access travel distance requirements of Section 1030.7.
8. Exit access stairways and ramps between the balcony, gallery or press box and the main assembly floor in occupancies such as theaters, places of religious worship, auditoriums and sports facilities.
9. Exterior exit access stairways or ramps between occupied roofs.
10. *Fixed-guideway transit stations, constructed in accordance with Section 443.*

3. A fire-resistance rating is not required for corridors in open parking garages.
4. A fire-resistance rating is not required for corridors in an occupancy in Group B that is a space requiring only a single means of egress complying with Section 1006.2.
5. Corridors adjacent to the exterior walls of buildings shall be permitted to have unprotected openings on unrated exterior walls where unrated walls are permitted by Table 705.5 and unprotected openings are permitted by Table 705.8.
6. *A fire-resistance rating is not required for corridors within suites in a Group I-2 constructed in accordance with Section 407.4.4 or 407.4.5.*
7. *A fire-resistance rating is not required for corridors within Group I-3 occupancies that comply with intervening spaces, see Section 408.1.2.2.*

**TABLE 1020.2
CORRIDOR FIRE-RESISTANCE RATING**

OCCUPANCY	OCCUPANT LOAD SERVED BY CORRIDOR	REQUIRED FIRE-RESISTANCE RATING (hours)	
		Without sprinkler system	With sprinkler system
H-1, H-2, H-3	All	Not Permitted	1 ^c
H-4, H-5, L	Greater than 30	Not Permitted	1 ^c
A ^c , B, E, F, M, S, U	Greater than 30	1	0
R-1, R-2, R-2.2, R-3 ^d , R-3.1, R-4 ^d	Greater than 10	Not Permitted	1
I-2 ^a	Greater than 6	1	1
I-3, R-2.1	Greater than 6	Not Permitted	1 ^{b, c}
I-4	All	1	0
E	Greater than 10	1	0

- a. For requirements for occupancies in Group I-2, see Sections 407.2 and 407.3.
- b. For a reduction in the fire-resistance rating for occupancies in Group I-3, see Section 408.8.
- c. Buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2 where allowed.
- d. Group R-3 and R-4 buildings equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.3. See Section 903.2.8 for occupancies where automatic sprinkler systems are permitted in accordance with Section 903.3.1.3.
- e. *[SFM] See Section 1029.*

1020.2.1 Hoistway opening protection. Elevator hoistway openings shall be protected in accordance with Section 3006.2.1.

1020.3 Width and capacity. The required capacity of corridors shall be determined as specified in Section 1005.1, but the minimum width shall be not less than that specified in Table 1020.3.

Exception: In Group I-2 occupancies, corridors are not required to have a clear width of 96 inches (2438 mm) in areas where there will not be stretcher or bed movement for access to care or as part of the defend-in-place strategy.

Exception: In Group I-3 occupancies, exit access stairways or ramps constructed in accordance with Section 408 are not required to be enclosed.

SECTION 1020 CORRIDORS

1020.1 General. Corridors serving as an exit access component in a means of egress system shall comply with the requirements of Sections 1020.2 through 1020.7.

1020.2 Construction. Corridors shall be fire-resistance rated in accordance with Table 1020.2. The corridor walls required to be fire-resistance rated shall comply with Section 708 for fire partitions.

Exceptions:

1. A fire-resistance rating is not required for corridors in an occupancy in Group E where each room that is used for instruction has not less than one door opening directly to the exterior and rooms for assembly purposes have not less than one-half of the required means of egress doors opening directly to the exterior. Exterior doors specified in this exception are required to be at ground level.
2. A fire-resistance rating is not required for corridors contained within a dwelling unit or sleeping unit in an occupancy in Group R.

TABLE 1020.3
MINIMUM CORRIDOR WIDTH

OCCUPANCY	MINIMUM WIDTH (inches)
Any facility not listed in this table	44
Access to and utilization of mechanical, plumbing or electrical systems or equipment	24
With an occupant load of less than 50	36
Within a dwelling unit	36
In Group E with a corridor having an occupant load of 100 or more	72
In corridors and areas serving stretcher traffic in ambulatory care facilities	72
Group I-2 and I-3 in areas where required for bed movement	96
Corridors in Group I-2 and I-3 occupancies serving any area caring for one or more nonambulatory persons. ^a	72

For SI: 1 inch = 25.4 mm.

a. See Section 1224.4.7.1 for Group I-2.

1020.4 Obstruction. The minimum width or required capacity of corridors shall be unobstructed.

Exception: Encroachments complying with Section 1005.7.

1020.5 Dead ends. Where more than one exit or exit access doorway is required, the exit access shall be arranged such that dead-end corridors do not exceed 20 feet (6096 mm) in length.

Exceptions:

1. In Group I-3, Condition 2, 3 or 4, occupancies, the dead end in a corridor shall not exceed 50 feet (15 240 mm).
2. In occupancies in Groups B, E, F, M, R-1, R-2, R-2.1, R-2.2, S and U, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the length of the dead-end corridors shall not exceed 50 feet (15 240 mm).
3. A dead-end corridor shall not be limited in length where the length of the dead-end corridor is less than 2.5 times the least width of the dead-end corridor.
4. In Group I-2 occupancies, where the building is equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, the length of dead-end corridors that do not serve patient rooms or patient treatment spaces shall not exceed 30 feet (9144 mm).

1020.6 Air movement in corridors. Corridors shall not serve as supply, return, exhaust, relief or ventilation air ducts.

Exceptions:

1. Use of a corridor as a source of makeup air for exhaust systems in rooms that open directly onto such corridors, including toilet rooms, bathrooms, dressing rooms, smoking lounges and janitor closets, shall be permitted, provided that each such corridor is directly

supplied with outdoor air at a rate greater than the rate of makeup air taken from the corridor.

2. Where located within a dwelling unit, the use of corridors for conveying return air shall not be prohibited.
3. Where located within tenant spaces of 1,000 square feet (93 m²) or less in area, utilization of corridors for conveying return air is permitted.
4. Transfer air movement required to maintain the pressurization difference within health care facilities and Group L occupancies in accordance with ASHRAE 170.
5. For health care facilities under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD), see the California Mechanical Code.

1020.6.1 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 California Mechanical Code.
4. The air-handling system serving the corridor is shut down upon detection of sprinkler water flow where the building is equipped throughout with an automatic sprinkler system.
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.

1020.7 Corridor continuity. Fire-resistance-rated corridors shall be continuous from the point of entry to an exit, and shall not be interrupted by intervening rooms. Where the path of egress travel within a fire-resistance-rated corridor to the exit includes travel along unenclosed exit access stairways or ramps, the fire-resistance rating shall be continuous for the length of the stairway or ramp and for the length of the connecting corridor on the adjacent floor leading to the exit.

Exceptions:

1. Foyers, lobbies or reception rooms constructed as required for corridors shall not be construed as intervening rooms.
2. Enclosed elevator lobbies as permitted by Item 1 of Section 1016.2 shall not be construed as intervening rooms.
3. **[SFM]** In fully sprinklered office buildings, corridors may lead through enclosed elevator lobbies if all areas of the building have access to at least one required exit without passing through the elevator lobby.

SECTION 1021 EGRESS BALCONIES

1021.1 General. Balconies used for egress purposes shall conform to the same requirements as corridors for minimum width, required capacity, headroom, dead ends and projections.

1021.2 Wall separation. Exterior egress balconies shall be separated from the interior of the building by walls and opening protectives as required for corridors.

Exception: Separation is not required where the exterior egress balcony is served by not less than two stairways and a dead-end travel condition does not require travel past an unprotected opening to reach a stairway.

1021.3 Openness. The long side of an egress balcony shall be not less than 50 percent open, and the open area above the guards shall be so distributed as to minimize the accumulation of smoke or toxic gases.

1021.4 Location. Exterior egress balconies shall have a minimum fire separation distance of 10 feet (3048 mm) measured at right angles from the exterior edge of the egress balcony to the following:

1. Adjacent lot lines.
2. Other portions of the building.
3. Other buildings on the same lot unless the adjacent building exterior walls and openings are protected in accordance with Section 705 based on fire separation distance.

For the purposes of this section, other portions of the building shall be treated as separate buildings.

SECTION 1022 EXITS

1022.1 General. Exits shall comply with Sections 1022 through 1027 and the applicable requirements of Sections 1003 through 1015. An exit shall not be used for any purpose that interferes with its function as a means of egress. Once a given level of exit protection is achieved, such level of protection shall not be reduced until arrival at the exit discharge. Exits shall be continuous from the point of entry into the exit to the exit discharge.

1022.2 Exterior exit doors. Buildings or structures used for human occupancy shall have not less than one exterior door that meets the requirements of Section 1010.1.1.

1022.2.1 Detailed requirements. Exterior exit doors shall comply with the applicable requirements of Section 1010.1.

1022.2.2 Arrangement. Exterior exit doors shall lead directly to the exit discharge or the public way.

1022.3 Basement exits in Group I-2 occupancies. For additional requirements for occupancies in Group I-2, see Section 407.4.1.2.

SECTION 1023 INTERIOR EXIT STAIRWAYS AND RAMPS

1023.1 General. Interior exit stairways and ramps serving as an exit component in a means of egress system shall comply with the requirements of this section. Interior exit stairways and ramps shall be enclosed and lead directly to the exterior of the building or shall be extended to the exterior of the building with an exit passageway conforming to the requirements of Section 1024, except as permitted in Section 1028.2. An interior exit stairway or ramp shall not be used for any purpose other than as a means of egress and a circulation path.

1023.2 Construction. Enclosures for interior exit stairways and ramps shall be constructed as fire barriers in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711, or both. Interior exit stairway and ramp enclosures shall have a fire-resistance rating of not less than 2 hours where connecting four stories or more and not less than 1 hour where connecting less than four stories. The number of stories connected by the interior exit stairways or ramps shall include any basements, but not any mezzanines. Enclosures for interior exit stairways and ramp enclosures shall have a fire-resistance rating not less than the floor assembly penetrated, but need not exceed 2 hours.

Exceptions:

1. Interior exit stairways and ramps in Group I-3 occupancies in accordance with the provisions of Section 408.3.8 of the *California Building Code*.
2. Interior exit stairways within an atrium enclosed in accordance with Section 404.6 of the *California Building Code*.
3. Interior exit stairways in accordance with Section 510.2.
4. Fixed guideway transit stations, constructed in accordance with Section 443.

1023.3 Termination. Interior exit stairways and ramps shall terminate at an exit discharge or a public way.

Exception: A combination of interior exit stairways, interior exit ramps and exit passageways, constructed in accordance with Sections 1023.2, 1023.3.1 and 1024, respectively, and forming a continuous protected enclosure, shall be permitted to extend an interior exit stairway or ramp to the exit discharge or a public way.

1023.3.1 Extension. Where interior exit stairways and ramps are extended to an exit discharge or a public way by an exit passageway, the interior exit stairway and ramp shall be separated from the exit passageway by a fire barrier constructed in accordance with Section 707 or a horizontal assembly constructed in accordance with Section 711, or both. The fire-resistance rating shall be not less than that required for the interior exit stairway and ramp. A fire door assembly complying with Section 716 shall be installed in the fire barrier to provide a means of egress from the interior exit stairway and ramp to the exit passageway. Openings in the fire barrier other

than the fire door assembly are prohibited. Penetrations of the fire barrier are prohibited.

Exceptions:

1. Penetrations of the fire barrier in accordance with Section 1023.5 shall be permitted.
2. Separation between an interior exit stairway or ramp and the exit passageway extension shall not be required where there are no openings into the exit passageway extension.
3. Separation between an interior exit stairway or ramp and the exit passageway extension shall not be required where the interior exit stairway and the exit passageway extension are pressurized in accordance with Section 909.20.5.

1023.4 Openings. Interior exit stairway and ramp opening protectives shall be in accordance with the requirements of Section 716.

Openings in interior exit stairways and ramps other than unprotected exterior openings shall be limited to those required for exit access to the enclosure from normally occupied spaces and for egress from the enclosure.

Elevators shall not open into interior exit stairways and ramps.

1023.5 Penetrations. Penetrations into or through interior exit stairways and ramps are prohibited except for the following:

1. Equipment and ductwork necessary for independent ventilation or pressurization.
2. Fire protection systems.
3. Security systems.
4. Two-way communication systems.
5. Electrical raceway for fire department communication systems.
6. Electrical raceway serving the interior exit stairway and ramp and terminating at a steel box not exceeding 16 square inches (0.010 m²).
7. Structural elements supporting the interior exit stairway or ramp or enclosure, such as beams or joists.

Such penetrations shall be protected in accordance with Section 714. There shall not be penetrations or communication openings, whether protected or not, between adjacent interior exit stairways and ramps.

Exception: Membrane penetrations shall be permitted on the outside of the interior exit stairway and ramp. Such penetrations shall be protected in accordance with Section 714.4.2.

1023.6 Ventilation. Equipment and ductwork for interior exit stairway and ramp ventilation as permitted by Section 1023.5 shall comply with one of the following items:

1. Such equipment and ductwork shall be located exterior to the building and shall be directly connected to the interior exit stairway and ramp by ductwork enclosed in construction as required for shafts.

2. Where such equipment and ductwork is located within the interior exit stairway and ramp, the intake air shall be taken directly from the outdoors and the exhaust air shall be discharged directly to the outdoors, or such air shall be conveyed through ducts enclosed in construction as required for shafts.
3. Where located within the building, such equipment and ductwork shall be separated from the remainder of the building, including other mechanical equipment, with construction as required for shafts.

In each case, openings into the fire-resistance-rated construction shall be limited to those needed for maintenance and operation and shall be protected by opening protectives in accordance with Section 716 for shaft enclosures.

The interior exit stairway and ramp ventilation systems shall be independent of other building ventilation systems.

1023.7 Interior exit stairway and ramp exterior walls. Exterior walls of the interior exit stairway or ramp shall comply with the requirements of Section 705 for exterior walls. Where nonrated walls or unprotected openings enclose the exterior of the stairway or ramps and the walls or openings are exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the building exterior walls within 10 feet (3048 mm) horizontally of a nonrated wall or unprotected opening shall have a fire-resistance rating of not less than 1 hour. Openings within such exterior walls shall be protected by opening protectives having a fire protection rating of not less than ³/₄ hour. This construction shall extend vertically from the ground to a point 10 feet (3048 mm) above the topmost landing of the stairway or ramp, or to the roof line, whichever is lower.

1023.8 Barrier at level of exit discharge. An interior exit stairway and ramp shall not continue below its level of exit discharge unless an approved barrier is provided at the level of exit discharge to prevent persons from unintentionally continuing into levels below. Directional exit signs shall be provided as specified in Section 1013.

1023.9 Stairway identification signs. A sign shall be provided at each floor landing in an interior exit stairway and ramp connecting more than three stories designating the floor level, the terminus of the top and bottom of the interior exit stairway and ramp and the identification of the stairway or ramp. The signage shall state the story of and direction to the exit discharge, and the availability of roof access from the interior exit stairway and ramp for the fire department. The bottom of the sign shall be located not less than 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.

In addition to the stairway identification sign, raised characters and braille floor identification signs that comply with Chapter 11A, Section 1143A or Chapter 11B shall be located at the landing of each floor level, placed adjacent to the door on the latch side, in all enclosed stairways in buildings two or more stories in height to identify the floor level. At the exit discharge level, the sign shall include a raised five pointed star located to the left of the identifying floor level. The outside diameter of the star shall be the same as the height of the raised characters.

corners, the stripe shall not have a gap of more than 4 inches (102 mm).

Exception: The minimum width of 1 inch (25 mm) shall not apply to outlining stripes listed in accordance with UL 1994.

1025.2.4 Perimeter demarcation lines. Stair landings and other floor areas within interior exit stairways, interior exit ramps and exit passageways, with the exception of the sides of steps, shall be provided with solid and continuous demarcation lines on the floor or on the walls or a combination of both. The stripes shall be 1 to 2 inches (25 mm to 51 mm) wide with interruptions not exceeding 4 inches (102 mm).

Exception: The minimum width of 1 inch (25 mm) shall not apply to outlining stripes listed in accordance with UL 1994.

1025.2.4.1 Floor-mounted demarcation lines. Perimeter demarcation lines shall be placed within 4 inches (102 mm) of the wall and shall extend to within 2 inches (51 mm) of the markings on the leading edge of landings. The demarcation lines shall continue across the floor in front of all doors.

Exception: Demarcation lines shall not extend in front of exit discharge doors that lead out of an exit and through which occupants must travel to complete the exit path.

1025.2.4.2 Wall-mounted demarcation lines. Perimeter demarcation lines shall be placed on the wall with the bottom edge of the stripe not more than 4 inches (102 mm) above the finished floor. At the top or bottom of the stairs, demarcation lines shall drop vertically to the floor within 2 inches (51 mm) of the step or landing edge. Demarcation lines on walls shall transition vertically to the floor and then extend across the floor where a line on the floor is the only practical method of outlining the path. Where the wall line is broken by a door, demarcation lines on walls shall continue across the face of the door or transition to the floor and extend across the floor in front of such door.

Exception: Demarcation lines shall not extend in front of exit discharge doors that lead out of an exit and through which occupants must travel to complete the exit path.

1025.2.4.3 Transition. Where a wall-mounted demarcation line transitions to a floor-mounted demarcation line, or vice versa, the wall-mounted demarcation line shall drop vertically to the floor to meet a complementary extension of the floor-mounted demarcation line, thus forming a continuous marking.

1025.2.5 Obstacles. Obstacles at or below 6 feet 6 inches (1981 mm) in height and projecting more than 4 inches (102 mm) into the egress path shall be outlined with markings not less than 1 inch (25 mm) in width comprised of a pattern of alternating equal bands, of luminous material and black, with the alternating bands not more than 2 inches (51 mm) thick and angled at 45 degrees (0.79 rad).

Obstacles shall include, but are not limited to, standpipes, hose cabinets, wall projections and restricted height areas. However, such markings shall not conceal any required information or indicators including but not limited to instructions to occupants for the use of standpipes.

Exception: The minimum width of 1 inch (25 mm) shall not apply to markings listed in accordance with UL 1994.

1025.2.6 Doors within the exit path. Doors through which occupants must pass in order to complete the exit path shall be provided with markings complying with Sections 1025.2.6.1 through 1025.2.6.3.

1025.2.6.1 Emergency exit symbol. The doors shall be identified by a low-location luminous emergency exit symbol complying with NFPA 170. The exit symbol shall be not less than 4 inches (102 mm) in height and shall be mounted on the door, centered horizontally, with the top of the symbol not higher than 18 inches (457 mm) above the finished floor.

1025.2.6.2 Door hardware markings. Door hardware shall be marked with not less than 16 square inches (10323 mm²) of luminous material. This marking shall be located behind, immediately adjacent to, or on the door handle or escutcheon. Where a panic bar is installed, such material shall be not less than 1 inch (25 mm) wide for the entire length of the actuating bar or touchpad.

1025.2.6.3 Door frame markings. The top and sides of the door frame shall be marked with a solid and continuous 1-inch- to 2-inch-wide (25 mm to 51 mm) stripe. Where the door molding does not provide sufficient flat surface on which to locate the stripe, the stripe shall be permitted to be located on the wall surrounding the frame.

1025.3 Uniformity. Placement and dimensions of markings shall be consistent and uniform throughout the same enclosure.

1025.4 Self-luminous and photoluminescent. Luminous egress path markings shall be permitted to be made of any material, including paint, provided that an electrical charge is not required to maintain the required luminance. Such materials shall include, but not be limited to, self-luminous materials and photoluminescent materials. Materials shall comply with either of the following standards:

1. UL 1994.
2. ASTM E2072, except that the charging source shall be 1 footcandle (11 lux) of fluorescent illumination for 60 minutes, and the minimum luminance shall be 30 milicandelas per square meter at 10 minutes and 5 milicandelas per square meter after 90 minutes.

1025.5 Illumination. Where photoluminescent exit path markings are installed, they shall be provided with not less than 1 footcandle (11 lux) of illumination for not less than 60 minutes prior to periods when the building is occupied and continuously during occupancy.

SECTION 1026 HORIZONTAL EXITS

1026.1 General. Horizontal exits serving as an exit in a means of egress system shall comply with the requirements of this section. A horizontal exit shall not serve as the only exit from a portion of a building, and where two or more exits are required, not more than one-half of the total number of exits or total exit minimum width or required capacity shall be horizontal exits.

Exceptions:

1. Horizontal exits are permitted to comprise two-thirds of the required exits from any building or floor area for occupancies in Group I-2.
2. Horizontal exits are permitted to comprise 100 percent of the exits required for occupancies in Group I-3. Not less than 6 square feet (0.6 m²) of accessible space per occupant shall be provided on each side of the horizontal exit for the total number of people in adjoining compartments.

1026.2 Separation. The separation between buildings or refuge areas connected by a horizontal exit shall be provided by a fire wall complying with Section 706; or by a fire barrier complying with Section 707 or a horizontal assembly complying with Section 711, or both. The minimum fire-resistance rating of the separation shall be 2 hours. Opening protectives in horizontal exits shall also comply with Section 716. Duct and air transfer openings in a fire wall or fire barrier that serves as a horizontal exit shall also comply with Section 717. The horizontal exit separation shall extend vertically through all levels of the building unless floor assemblies have a fire-resistance rating of not less than 2 hours and do not have unprotected openings.

Exception: A fire-resistance rating is not required at horizontal exits between a building area and an above-grade pedestrian walkway constructed in accordance with Section 3104, provided that the distance between connected buildings is more than 20 feet (6096 mm).

Horizontal exits constructed as fire barriers shall be continuous from exterior wall to exterior wall so as to divide completely the floor served by the horizontal exit.

1026.3 Opening protectives. Fire doors in horizontal exits shall be self-closing or automatic-closing when activated by a smoke detector in accordance with Section 716.2.6.6. Doors, where located in a cross-corridor condition, shall be automatic-closing by activation of a smoke detector installed in accordance with Section 716.2.6.6.

1026.4 Refuge area. The refuge area of a horizontal exit shall be a space occupied by the same tenant or a public area and each such refuge area shall be adequate to accommodate the original occupant load of the refuge area plus the occupant load anticipated from the adjoining compartment. The anticipated occupant load from the adjoining compartment shall be based on the capacity of the horizontal exit

doors entering the refuge area or the total occupant load of the adjoining compartment, whichever is less.

1026.4.1 Capacity. The capacity of the refuge area shall be computed based on a net floor area allowance of 3 square feet (0.2787 m²) for each occupant to be accommodated therein. Where the horizontal exit also forms a smoke compartment, the capacity of the refuge area for Group I-2, I-3 and R-2.1 occupancies and Group B ambulatory care facilities shall comply with Sections 407.5.3, 408.6.2, 420.6.2 and 422.3.2 as applicable.

1026.4.2 Number of exits. The refuge area into which a horizontal exit leads shall be provided with exits adequate to meet the occupant requirements of this chapter, but not including the added occupant load imposed by persons entering the refuge area through horizontal exits from other areas. *In other than I-3 occupancies*, not less than one refuge area exit shall lead directly to the exterior or to an interior exit stairway or ramp.

Exception: The adjoining compartment shall not be required to have a stairway or door leading directly outside, provided that the refuge area into which a horizontal exit leads has stairways or doors leading directly outside and are so arranged that egress shall not require the occupants to return through the compartment from which egress originates.

1026.5 Standpipes. Standpipes and standpipe hose connections shall be provided where required by Sections 905.3 and 905.4.

SECTION 1027 EXTERIOR EXIT STAIRWAYS AND RAMPS

1027.1 General. Exterior exit stairways and ramps serving as an exit component in a means of egress system shall comply with the requirements of this section.

1027.2 Use in a means of egress. Exterior exit stairways shall not be used as an element of a required means of egress for Group I-2 occupancies. For occupancies in other than Group I-2, exterior exit stairways and ramps shall be permitted as an element of a required means of egress for buildings not exceeding six stories above grade plane or that are not high-rise buildings.

1027.3 Open side. Exterior exit stairways and ramps serving as an element of a required means of egress shall be open on not less than one side, except for required structural columns, beams, handrails and guards. An open side shall have not less than 35 square feet (3.3 m²) of aggregate open area adjacent to each floor level and the level of each intermediate landing. The required open area shall be located not less than 42 inches (1067 mm) above the adjacent floor or landing level.

1027.4 Side yards. The open areas adjoining exterior exit stairways or ramps shall be either yards, courts or public ways; the remaining sides are permitted to be enclosed by the exterior walls of the building.

1027.5 Location. Exterior exit stairways and ramps shall have a minimum fire separation distance of 10 feet (3048 mm) measured at right angles from the exterior edge of the stairway or ramps, including landings, to:

1. Adjacent lot lines.
2. Other portions of the building.
3. Other buildings on the same lot unless the adjacent building exterior walls and openings are protected in accordance with Section 705 based on fire separation distance.

For the purposes of this section, other portions of the building shall be treated as separate buildings.

Exception: Exterior exit stairways and ramps serving individual dwelling units of Group R-3 shall have a minimum fire separation distance of 5 feet (1525 mm).

1027.6 Exterior exit stairway and ramp protection. Exterior exit stairways and ramps shall be separated from the interior of the building as required in Section 1023.2. Openings shall be limited to those necessary for egress from normally occupied spaces. Where a vertical plane projecting from the edge of an exterior exit stairway or ramp and landings is exposed by other parts of the building at an angle of less than 180 degrees (3.14 rad), the exterior wall shall be rated in accordance with Section 1023.7.

Exceptions:

1. Separation from the interior of the building is not required for occupancies, other than those in Group R-1 or R-2, in buildings that are not more than two stories above grade plane where a level of exit discharge serving such occupancies is the first story above grade plane.
2. Separation from the interior of the building is not required where the exterior exit stairway or ramp is served by an exterior exit ramp or balcony that connects two remote exterior exit stairways or other approved exits with a perimeter that is not less than 50 percent open. To be considered open, the opening shall be not less than 50 percent of the height of the enclosing wall, with the top of the openings not less than 7 feet (2134 mm) above the top of the balcony.
3. Separation from the open-ended corridor of the building is not required for exterior exit stairways or ramps, provided that Items 3.1 through 3.5 are met:
 - 3.1. The building, including open-ended corridors, and stairways and ramps, shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 or 903.3.1.2.
 - 3.2. The open-ended corridors comply with Section 1020.
 - 3.3. The open-ended corridors are connected on each end to an exterior exit stairway or ramp complying with Section 1027.
 - 3.4. The exterior walls and openings adjacent to the exterior exit stairway or ramp comply with Section 1023.7.

- 3.5. At any location in an open-ended corridor where a change of direction exceeding 45 degrees (0.79 rad) occurs, a clear opening of not less than 35 square feet (3.3 m²) or an exterior stairway or ramp shall be provided. Where clear openings are provided, they shall be located so as to minimize the accumulation of smoke or toxic gases.
4. In Group R-3 occupancies not more than four stories in height, exterior exit stairways and ramps serving individual dwelling units are not required to be separated from the interior of the building where the exterior exit stairway or ramp discharges directly to grade.

SECTION 1028 EXIT DISCHARGE

1028.1 General. The exit discharge shall comply with Sections 1028 and 1029 and the applicable requirements of Sections 1003 through 1015.

1028.2 Exit discharge. Exits shall discharge directly to the exterior of the building. The exit discharge shall be at grade or shall provide a direct path of egress travel to grade. The exit discharge shall not reenter a building. The combined use of Exceptions 1 and 2 shall not exceed 50 percent of the number and minimum width or required capacity of the required exits.

Exceptions:

1. Not more than 50 percent of the number and minimum width or required capacity of interior exit stairways and ramps is permitted to egress through areas, including atriums, on the level of discharge provided that all of the following conditions are met:
 - 1.1. Discharge of interior exit stairways and ramps shall be provided with a free and unobstructed path of travel to an exterior exit door and such exit is readily visible and identifiable from the point of termination of the enclosure.
 - 1.2. The entire area of the level of exit discharge is separated from areas below by construction conforming to the fire-resistance rating for the enclosure.
 - 1.3. The egress path from the interior exit stairway and ramp on the level of exit discharge is protected throughout by an approved automatic sprinkler system. Portions of the level of exit discharge with access to the egress path shall be either equipped throughout with an automatic sprinkler system installed in accordance with Section 903.3.1.1 or 903.3.1.2, or separated from the egress path in accordance with the requirements for the enclosure of interior exit stairways or ramps.
 - 1.4. Where a required interior exit stairway or ramp and an exit access stairway or ramp serve the same floor level and terminate at

the same level of exit discharge, the termination of the exit access stairway or ramp and the exit discharge door of the interior exit stairway or ramp shall be separated by a distance of not less than 30 feet (9144 mm) or not less than one-fourth the length of the maximum overall diagonal dimension of the building, whichever is less. The distance shall be measured in a straight line between the exit discharge door from the interior exit stairway or ramp and the last tread of the exit access stairway or termination of slope of the exit access ramp.

2. Not more than 50 percent of the number and minimum width or required capacity of the interior exit stairways and ramps is permitted to egress through a vestibule provided that all of the following conditions are met:

- 2.1. The entire area of the vestibule is separated from areas below by construction conforming to the fire-resistance rating of the interior exit stairway or ramp enclosure.

- 2.2. The depth from the exterior of the building is not greater than 10 feet (3048 mm) and the length is not greater than 30 feet (9144 mm).

- 2.3. The area is separated from the remainder of the level of exit discharge by a fire partition constructed in accordance with Section 708.

Exception: The maximum transmitted temperature rise is not required.

- 2.4. The area is used only for means of egress and exits directly to the outside.

3. Horizontal exits complying with Section 1026 shall not be required to discharge directly to the exterior of the building.

1028.3 Exit discharge width or capacity. The minimum width or required capacity of the exit discharge shall be not less than the minimum width or required capacity of the exits being served.

1028.4 Exit discharge components. Exit discharge components shall be sufficiently open to the exterior so as to minimize the accumulation of smoke and toxic gases.

1028.5 Access to a public way. The exit discharge shall provide a direct and unobstructed access to a public way.

Exception: Where access to a public way cannot be provided, a safe dispersal area shall be provided where all of the following are met:

1. The area shall be of a size to accommodate not less than 5 square feet (0.46 m²) for each person.
2. *For other than Group E buildings*, the area shall be located on the same lot not less than 50 feet (15 240 mm) away from the building requiring egress. *For Group E buildings*, the area shall be located on the same lot at least 50 feet (15 240 mm) away from any building.

3. The area shall be permanently maintained and identified as a safe dispersal area.
4. The area shall be provided with a safe and unobstructed path of travel from the building.
5. *In correctional facilities*, the area shall be of a size to accommodate not less than 7 square feet (0.6503 m²) for each person. Accessible path of egress travel to the safe dispersal area and clear ground space for 5 percent of the occupants meeting Section 11B-305.3 shall be provided.
6. *At facilities regulated by Chapter 11B*, an accessible area within the space required by Exception Item 1 shall be provided for a minimum of 2 percent of the facility occupants served by the safe dispersal area. For each occupant, the accessible area shall provide clear ground space complying with Section 11B-305. Accessible routes complying with Chapter 11B, Division 4 shall connect the accessible area with all accessible exits served by the safe dispersal area.

SECTION 1029 EGRESS COURTS

1029.1 General. Egress courts serving as an exit discharge component in the means of egress system shall comply with the requirements in this section.

1029.2 Width or capacity. The required capacity of egress courts shall be determined as specified in Section 1005.1, but the minimum width shall be not less than 44 inches (1118 mm), except as specified herein. Egress courts serving Group R-3 and U occupancies shall be not less than 36 inches (914 mm) in width. The required capacity and width of egress courts shall be unobstructed to a height of 7 feet (2134 mm). The width of the egress court shall be not less than the required capacity.

Exception: Encroachments complying with Section 1005.7.

1029.3 Construction and openings. Where an egress court serving a building or portion thereof is less than 10 feet (3048 mm) in width, the egress court walls shall have not less than 1-hour fire-resistance-rated construction for a distance of 10 feet (3048 mm) above the floor of the egress court. Openings within such walls shall be protected by opening protectives having a fire protection rating of not less than ³/₄ hour.

Exceptions:

1. Egress courts serving an occupant load of less than 10.
2. Egress courts serving Group R-3.

SECTION 1030 ASSEMBLY

1030.1 General. A room or space used for assembly purposes that contains seats, tables, displays, equipment or other material shall comply with this section.

Exception: Group A occupancies within Group I-3 facilities are exempt from egress requirements of Section 1029.

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 11A – HOUSING ACCESSIBILITY

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5								
Adopt entire chapter						X																	
Adopt entire chapter as amended (amended sections listed below)																							
Adopt only those sections that are listed below																							
Chapter / Section																							

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.)

Exception: Door closers and door stops shall be permitted to be 78 inches (1981 mm) minimum above the finish floor or ground.

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 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).

1116A.5 Detectable warnings at vehicular areas. When a walk crosses or adjoins a vehicular way, the walking surface shall be separated from the vehicular area by curbs, railings or other elements, or the boundary between the pedestrian areas and the vehicular areas shall be defined by a continuous detectable warning 36 inches (914 mm) wide minimum, complying with Chapter 11B, Section 11B-705.

Division III – BUILDING FEATURES**Division III Table of Contents**

Section 1117A	General Requirements for Accessible Entrances, Exits, Interior Routes of Travel and Facility Accessibility
Section 1118A	Egress and Areas of Refuge
Section 1119A	Interior Accessible Routes
Section 1120A	Reserved
Section 1121A	Changes in Level on Accessible Routes
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Section 1123A	Interior Stairways
Section 1124A	Elevators and Platform (Wheelchair) Lifts
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Section 1127A	Common Use Facilities

**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.

1117A.5 Entrances from parking structures, tunnels or elevated walkways. Where direct access for pedestrians is provided from a parking structure to a building or facility, each direct access to the building or facility entrance shall be accessible.

Where direct access for pedestrians is provided from a pedestrian tunnel or elevated walkway to a building or facility,

all entrances to the building or facility from each tunnel or walkway shall be accessible.

**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.

**SECTION 1119A
INTERIOR ACCESSIBLE ROUTES**

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.

Interior 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 Floor and ground surfaces. Floor and ground surfaces shall be stable, firm and slip resistant. 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. Carpet or carpet tile shall have a level loop, textured loop, level cut pile or level cut/uncut pile texture. The maximum pile height shall be $\frac{1}{2}$ 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 1121A requirements for changes in level.

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

1119A.3 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 specified in Section 1138A.1.5.

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 nor less than 15 inches (381 mm) measured from the bottom of the receptacle 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), receptacles shall be located within the reach ranges specified in Section 1138A.3. Physical barriers and obstructions shall not extend more than 25 inches (635 mm) from the wall beneath the receptacle.

Cabinets shall be allowed to extend 24 inches from the wall beneath a control or switch with an additional counter-top extension of 1½ inches for a maximum dimension of 25½ inches (647.7 mm) in depth.

Receptacle outlets that do not satisfy these specifications are acceptable provided that comparable receptacle 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.

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) switches and controls shall be located within the reach ranges specified in Section 1138A.3. Physical barriers or obstructions shall not extend more than 25 inches (635 mm) from the wall beneath a control or switch.

Cabinets shall be allowed to extend 24 inches from the wall beneath a control or switch with an additional counter-top extension of 1½ inches for a maximum dimension of 25½ inches (647.7 mm) in depth.

Switches and 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.

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

Division V Table of Contents

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Section 1143A	Signage
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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, unless otherwise specified.

SECTION 1138A SPACE ALLOWANCES AND REACH RANGES

1138A.1 Space allowances.

1138A.1.1 Single wheelchair passage width. The minimum clear width for single wheelchair passage shall be 36 inches (914 mm) continuously. (See Figure 11A-1E.)

See Section 1113A for minimum clear width of side-walks, and Section 1120A for minimum clear width of interior accessible routes.

Exception: 32 inches (813 mm) in width is acceptable at a point not to exceed 24 inches (610 mm) in length. The segments with reduced width shall be separated by segments that are 48 inches (1219 mm) long minimum and 36 inches (914 mm) wide minimum.

1138A.1.2 Width for two wheelchairs passing. The minimum width for two wheelchairs to pass is 60 inches (1524 mm) (See Figure 11A-1E).

An accessible route (exterior and interior) with a clear width less than 60 inches (1524 mm) shall provide passing spaces at intervals of 200 feet (60 960 mm) maximum. Passing spaces shall be either: a space 60 inches (1524 mm) minimum by 60 inches (1524 mm) minimum; or, an intersection of two walking surfaces providing a T-shaped space complying with Section 1138A.1.3.1, where the base and arms of the T-shaped space extend 48 inches (1219 mm) minimum beyond the intersection. (See Figure 11A-1L.)

1138A.1.3 Wheelchair turning space. The space required for a wheelchair to make a 180-degree turn shall be a circular clear space of 60 inches (1524 mm) diameter minimum (See Figure 11A-1D(a)); or a T-shaped space complying with Section 1138A.1.3.1. The circular turning

space shall be permitted to include knee and toe clearance complying with Section 1138A.2.

If a person in a wheelchair must make a turn around an obstruction, the minimum clear width of the accessible route shall be as required in Section 1138A.1.5.

1138A.1.3.1 T-shaped turning space. A T-shaped turning space shall be within a 60 inch (1524 mm) square minimum with arms and base 36 inches (914 mm) wide minimum. Each arm of the T shall be clear of obstructions 12 inches (305 mm) minimum in each direction, and the base shall be clear of obstructions 24 inches (610 mm) minimum. The space shall be permitted to include knee and toe clearance complying with Section 1138A.2 only at the end of either the base or one arm. (See Figure 11A-1D (b).)

1138A.1.3.2 Surfaces of turning spaces. Turning spaces for wheelchairs shall be stable, firm, slip resistant, and shall comply with Section 1110A.3 or Section 1119A.2. Changes in level are not permitted. Slopes not steeper than 1:48 shall be permitted.

1138A.1.4 Clear floor or ground space for wheelchairs.

1138A.1.4.1 Size and approach. The minimum clear floor or ground space shall be 30 inches by 48 inches (762 mm by 1219 mm). The minimum clear floor or ground space may be positioned for forward or parallel approach to an object (See Figure 11A-1G). Clear floor or ground space may be part of the knee and toe space required under some objects unless otherwise specified.

1138A.1.4.2 Relationship of maneuvering clearances to wheelchair spaces. One full unobstructed side of the clear floor or ground space for a wheelchair shall adjoin 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 in accordance with the following: (See Figure 11A-1H).

- 1. Forward approach.** Alcoves shall be 36 inches (914 mm) wide minimum when the depth exceeds 24 inches (610 mm).
- 2. Parallel approach.** Alcoves shall be 60 inches (1524 mm) wide minimum when the depth exceeds 15 inches (381 mm).

1138A.1.4.3 Surfaces of wheelchair spaces. Clear floor or ground spaces for wheelchairs shall be stable, firm, slip resistant, and shall comply with Section 1110A.3 or Section 1119A.2. Changes in level are not permitted. Slopes not steeper than 1:48 shall be permitted.

1138A.1.4.3.1 Gratings. Gratings located in ground and floor surfaces along accessible routes shall be limited to spaces no greater than 1/2-inch (12.7 mm) wide in one direction. If gratings have elongated openings, they shall be placed so that the long

tures complying with *Sections 11B-809.2 through 11B-809.4. Where fewer than one parking space is provided for each residential dwelling unit, parking spaces complying with Section 11B-502 shall be provided in accordance with Table 11B-208.2.*

11B-208.2.3.2 Additional parking spaces for residents. Where the total number of parking spaces provided for each residential dwelling unit exceeds one parking space per residential dwelling unit, 2 percent, but no fewer than one space, of all the parking spaces not covered by *Section 11B-208.2.3.1* shall comply with *Section 11B-502.*

11B-208.2.3.3 Parking for guests, employees and other non-residents. Where parking spaces are provided for persons other than residents, parking shall be provided in accordance with *Table 11B-208.2.*

11B-208.2.4 Van parking spaces. For every six or fraction of six parking spaces required by *Section 11B-208.2* to comply with *Section 11B-502*, at least one shall be a van parking space complying with *Section 11B-502.*

11B-208.3 Location. Parking facilities shall comply with *Section 11B-208.3.*

11B-208.3.1 General. Parking spaces complying with *Section 11B-502* that serve a particular building or facility shall be located on the shortest accessible route from parking to an entrance complying with *Section 11B-206.4.* Where parking serves more than one accessible entrance, parking spaces complying with *Section 11B-502* shall be dispersed and located on the shortest accessible route to the accessible entrances. In parking facilities that do not serve a particular building or facility, parking spaces complying with *Section 11B-502* shall be located on the shortest accessible route to an accessible pedestrian entrance of the parking facility.

Exceptions:

1. All van parking spaces shall be permitted to be grouped on one level within a multistory parking facility.
2. Parking spaces shall be permitted to be located in different parking facilities if substantially equivalent or greater accessibility is provided in terms of distance from an accessible entrance or entrances, parking fee and user convenience.

11B-208.3.2 Residential facilities. In residential facilities containing residential dwelling units required to provide mobility features complying with *Sections 11B-809.2 through 11B-809.4, and adaptable features complying with Sections 11B-809.6 through 11B-809.12,* parking spaces provided in accordance with *Section 11B-208.2.3.1* shall be located on the shortest accessible route to the residential dwelling unit entrance they serve. Spaces provided in accordance with *Section 11B-208.2.3.2* shall be dispersed throughout all types of parking provided for the residential dwelling units.

Exception: Parking spaces provided in accordance with *Section 11B-208.2.3.2* shall not be required to be dispersed throughout all types of parking if substantially equivalent or greater accessibility is provided in

terms of distance from an accessible entrance, parking fee and user convenience.

11B-208.3.3 Private garages accessory to residential dwelling units. Private garages accessory to residential dwelling units shall comply with *Section 11B-208.3.* Private garages include individual garages and multiple individual garages grouped together.

11B-208.3.3.1 Detached private garages accessory to residential dwelling units shall be accessible as required by *Section 11B-208.3.*

11B-208.3.3.2 Attached private garages directly serving a single residential dwelling unit shall provide at least one of the following options:

1. A door leading directly from the residential dwelling unit which immediately enters the garage.
2. An accessible route from the residential dwelling unit to an exterior door entering the garage.
3. An accessible route from the residential dwelling unit's primary entry door to the vehicular entrance at the garage.

11B-209 Passenger drop-off and loading zones and bus stops

11B-209.1 General. Passenger drop-off and loading zones shall be provided in accordance with *Section 11B-209.*

11B-209.2 Type. Where provided, passenger drop-off and loading zones shall comply with *Section 11B-209.2.*

11B-209.2.1 Passenger drop-off and loading zones. Passenger drop-off and loading zones, except those required to comply with *Sections 11B-209.2.2 and 11B-209.2.3,* shall provide at least one passenger drop-off and loading zone complying with *Section 11B-503* in every continuous 100 linear feet (30480 mm) of drop-off and loading zone space, or fraction thereof.

11B-209.2.2 Bus loading zones. In bus loading zones restricted to use by designated or specified public transportation vehicles, each bus bay, bus stop or other area designated for lift or ramp deployment shall comply with *Section 11B-810.2.*

11B-209.2.3 On-street bus stops. On-street bus stops shall comply with *Section 11B-810.2* to the maximum extent practicable.

11B-209.3 Medical care and long-term care facilities. At least one passenger drop-off and loading zone complying with *Section 11B-503* shall be provided at an accessible entrance to licensed medical care and licensed long-term care facilities where the period of stay may exceed twenty-four hours.

11B-209.4 Valet parking. Parking facilities that provide valet parking services shall provide at least one passenger drop-off and loading zone complying with *Section 11B-503.* The parking requirements of *Section 11B-208.1* apply to facilities with valet parking.

11B-209.5 Mechanical access parking garages. Mechanical access parking garages shall provide at least one passenger drop-off and loading zone complying with *Section 11B-503* at vehicle drop-off and vehicle pick-up areas.

11B-210 Stairways

11B-210.1 General. Interior and exterior stairs shall comply with *Section 11B-504*.

Exceptions:

1. In detention and correctional facilities, stairs that are not located in public use areas shall not be required to comply with *Section 11B-504*.
2. In alterations, stairs between levels that are connected by an accessible route shall not be required to comply with *Section 11B-504*, except that *striping complying with Section 11B-504.4.1* and handrails complying with *Section 11B-505* shall be provided when the stairs are altered.
3. In assembly areas, aisle stairs shall not be required to comply with *Section 11B-504* except that *striping complying with Section 11B-504.4.1* shall be provided.
4. Stairs that connect play components shall not be required to comply with *Section 11B-504* except that *striping complying with Section 11B-504.4.1* shall be provided.

11B-211 Drinking fountains and bottle-filling stations

11B-211.1 General. Where drinking fountains are provided on an exterior site, on a floor, or within a secured area they shall be provided in accordance with *Section 11B-211*.

Exception: In detention or correctional facilities, drinking fountains only serving holding or housing cells not required to comply with *Section 11B-232* shall not be required to comply with *Section 11B-211*.

11B-211.2 Minimum number. No fewer than two drinking fountains shall be provided. *When provided, one drinking fountain shall comply with Sections 11B-602.1 through 11B-602.6, 11B-602.8 and 11B-602.9 and one drinking fountain shall comply with Sections 11B-602.7 and 11B-602.9.*

Exception: Where a single drinking fountain complies with *Sections 11B-602.1 through 11B-602.9*, it shall be permitted to be substituted for two separate drinking fountains.

11B-211.3 More than minimum number. Where more than the minimum number of drinking fountains specified in *Section 11B-211.2* are provided, 50 percent of the total number of drinking fountains provided shall comply with *Sections 11B-602.1 through 11B-602.6, 11B-602.8 and 11B-602.9*, and 50 percent of the total number of drinking fountains provided shall comply with *Sections 11B-602.7 and 11B-602.9*.

Exception: Where 50 percent of the drinking fountains yields a fraction, 50 percent shall be permitted to be rounded up or down provided that the total number of drinking fountains complying with *Section 11B-211* equals 100 percent of drinking fountains.

11B-211.4 Bottle-filling stations. *Where bottle-filling stations are provided they shall comply with Section 11B-602.10.*

Exception: *In detention or correctional facilities, bottle-filling stations only serving holding or housing cells not required to comply with Section 11B-232 shall not be required to comply with Section 11B-211.4.*

11B-212 Kitchens, kitchenettes, wet bars and sinks

11B-212.1 General. Where provided, kitchens, kitchenettes, wet bars and sinks shall comply with *Section 11B-212*.

11B-212.2 Kitchens, kitchenettes and wet bars. Kitchens, kitchenettes and wet bars shall comply with *Section 11B-804*.

11B-212.3 Sinks. Where sinks are provided, at least 5 percent, but no fewer than one, of each type provided in each accessible room or space shall comply with *Section 11B-606*.

Exceptions:

1. Mop, service or scullery sinks shall not be required to comply with *Section 11B-212.3*.
2. *Scrub sinks, as defined in California Plumbing Code Section 221.0, shall not be required to comply with Section 11B-606.*

11B-213 Toilet facilities and bathing facilities

11B-213.1 General. Where toilet facilities and bathing facilities are provided, they shall comply with *Section 11B-213*. Where toilet facilities and bathing facilities are provided in facilities permitted by *Section 11B-206.2.3 Exception 1* not to connect stories by an accessible route, toilet facilities and bathing facilities shall be provided on a story connected by an accessible route to an accessible entrance.

11B-213.1.1 Toilet facilities for designated user groups. *Where separate toilet facilities are provided for the exclusive use of separate user groups, the toilet facilities serving each user group shall comply with Section 11B-213.*

11B-213.2 Toilet rooms and bathing rooms. Where toilet rooms are provided, each toilet room shall comply with *Section 11B-603*. Where bathing rooms are provided, each bathing room shall comply with *Section 11B-603*.

Exceptions:

1. In alterations where it is technically infeasible to comply with *Section 11B-603*, altering existing toilet or bathing rooms shall not be required where a single unisex (*single-user or family*) toilet room or bathing room complying with *Section 11B-213.2.1* is provided and located in the same area and on the same floor as existing inaccessible toilet or bathing rooms.
2. **Reserved.**
3. Where multiple single user portable toilet or bathing units are clustered at a single location 5 percent, *but no fewer than one*, of the toilet units and bathing units at each cluster shall comply with *Section 11B-603*. Portable toilet units and bathing units complying with *Section 11B-603* shall be identified by the International Symbol of Accessibility complying with *Section 11B-703.7.2.1*.
4. Where multiple single user toilet rooms are clustered at a single location, 50 percent, *but no fewer than one*, of the single user toilet rooms for each use at each cluster shall comply with *Section 11B-603*.
5. *Where toilet and bathing rooms are provided in guest rooms that are not required to provide mobility features complying with Section 11B-806.2, toilet and bathing fixtures shall only be required to comply with Section 11B-603.6.*

11B-213.2.1 Unisex (single-user or family) toilet and unisex (single-user or family) bathing rooms. Unisex (*single-user or family*) toilet rooms shall contain not more

than one lavatory, and *not more than* two water closets without urinals or one water closet and one urinal. Unisex (*single-user or family*) bathing rooms shall contain one shower or one shower and one bathtub, one lavatory, and one water closet. Doors to unisex (*single-user or family*) toilet rooms and unisex (*single-user or family*) bathing rooms shall have privacy latches.

11B-213.2.2 Unisex (Patient) toilet rooms in medical care and long-term care facilities. *Common-use unisex toilet rooms for exclusive patient use not located within patient bedrooms shall contain a lavatory and one water closet.*

11B-213.2.3 Unisex (Patient) bathing rooms in medical care and long-term care facilities. *Common-use unisex bathing rooms for exclusive patient use not located within patient bedrooms shall contain one shower or one bathtub, one lavatory, and one water closet.*

11B-213.2.4 Multi-user all-gender toilet facilities. *Where multi-user all-gender toilet facilities are provided, they shall comply with Section 11B-213.3.1.*

11B-213.3 Plumbing fixtures and accessories. Plumbing fixtures and accessories provided in a toilet room or bathing room required to comply with Section 11B-213.2 shall comply with Section 11B-213.3.

11B-213.3.1 Toilet compartments and urinal compartments. *Where only toilet compartments are provided, they shall comply with Section 11B-213.3.1.1. Where both toilet and urinal compartments are provided, they shall comply with Section 11B-213.3.1.2.*

11B-213.3.1.1 Toilet compartments. *Where toilet compartments are provided, at least five percent of the toilet compartments, or five percent of the combination of toilet compartments and urinals, but no fewer than one toilet compartment shall comply with Section 11B-604.8.1. In addition to the compartments required to comply with Section 11B-604.8.1, where six or more toilet compartments are provided, or where the combination of urinals and water closets totals six or more fixtures, toilet compartments complying with Section 11B-604.8.2 shall be provided in the same quantity as the toilet compartments required to comply with Section 11B-604.8.1.*

11B-213.3.1.2 Toilet rooms with toilet compartments and urinal compartments. *Where both toilet compartments and urinal compartments are provided, at least five percent of toilet compartments, but no fewer than one, shall comply with Section 11B-604.8.1 and at least ten percent of urinal compartments, but no fewer than one, shall comply with Section 11B-605.5. In addition to the toilet compartments required to comply with Section 11B-604.8.1 and urinal compartments required to comply with Section 11B-605.5, where the combination of urinals and water closets totals six or more fixtures, toilet compartments complying with Section 11B-604.8.2 shall be provided in the same quantity as the toilet compartments required to comply with Section 11B-604.8.1. At all compartments not required to comply with Section 11B-604.8 or Section 11B-605.5, compartment doors shall be in-swinging and self-closing. All individual compartments shall be identified with a sign complying with Section 11B-216.8.3.*

11B-213.3.2 Water closets. *Where water closets are provided, at least 5 percent but no fewer than one shall comply with Section 11B-604.*

11B-213.3.3 Urinals. *Where one or more urinals are provided, at least 10 percent but no fewer than one shall comply with Section 11B-605.*

11B-213.3.4 Lavatories. *Where lavatories are provided, at least 10 percent but no fewer than one shall comply with Section 11B-606 and shall not be located in a toilet or urinal compartment.*

11B-213.3.5 Mirrors. *Where mirrors are provided, at least one shall comply with Section 11B-603.3.*

11B-213.3.6 Bathing facilities. *Where bathtubs or showers are provided, at least one bathtub complying with Section 11B-607 or at least one shower complying with Section 11B-608 shall be provided. Where two or more accessible showers are provided within the same functional area, at least one shower shall be opposite hand from the other or others (that is, one left-hand controls versus right-hand controls). Transfer-type shower compartments shall be permitted in transient lodging guest rooms, multibedroom housing units in undergraduate student housing and residential dwelling units; and shall not be permitted at other locations to meet the requirements of Section 11B-213.3.6.*

11B-213.3.7 Coat hooks and shelves. *Where coat hooks or shelves are provided in toilet rooms without toilet compartments, at least one of each type shall comply with Section 11B-603.4. Where coat hooks or shelves are provided in toilet compartments, at least one of each type complying with Section 11B-604.8.3 shall be provided in toilet compartments required to comply with Section 11B-213.3.1. Where coat hooks or shelves are provided in bathing facilities, at least one of each type complying with Section 11B-603.4 shall serve fixtures required to comply with Section 11B-213.3.6.*

11B-214 Washing machines and clothes dryers

11B-214.1 General. *Where provided, washing machines and clothes dryers shall comply with Section 11B-214.*

11B-214.2 Washing machines. *Where three or fewer washing machines are provided, at least one shall comply with Section 11B-611. Where more than three washing machines are provided, at least two shall comply with Section 11B-611.*

11B-214.3 Clothes dryers. *Where three or fewer clothes dryers are provided, at least one shall comply with Section 11B-611. Where more than three clothes dryers are provided, at least two shall comply with Section 11B-611.*

11B-215 Fire alarm systems and carbon monoxide alarm systems

11B-215.1 General. *Where fire alarm systems and carbon monoxide alarm systems provide audible alarm coverage, alarms shall comply with Section 11B-215.*

Exception: *In existing facilities, visible alarms for fire alarm systems shall not be required except where an existing fire alarm system is upgraded or replaced, or a new fire alarm system is installed.*

11B-215.2 Public and common use areas. *Alarms in public use areas and common use areas shall comply with Chapter 9, Section 907.5.2.3.1.*

11B-215.3 Employee work areas. Where employee work areas have audible alarm coverage, the wiring system shall be designed so that visible alarms complying with *Chapter 9, Section 907.5.2.3.1 Exception* can be integrated into the alarm system.

11B-215.4 Transient lodging. Guest rooms required to comply with *Section 11B-224.4* shall provide fire alarms complying with *Chapter 9, Section 907.5.2.3.2*, and carbon monoxide alarms, where provided, complying with *Chapter 9, Section 915*.

11B-215.5 Residential facilities. Where provided in residential dwelling units required to comply with *Section 11B-809.5*, fire alarms shall comply with *Chapter 9, Section 907.5.2.3.3* and carbon monoxide alarms shall comply with *Chapter 9, Section 915*.

11B-216 Signs

11B-216.1 General. New or altered signs shall be provided in accordance with *Section 11B-216* and shall comply with *Section 11B-703*. The addition of or replacement of signs shall not trigger any additional path of travel requirements.

Exceptions:

1. Building directories, menus, seat and row designations in assembly areas, occupant names, building addresses, and company names and logos shall not be required to comply with *Section 11B-216*.
2. Reserved.
3. Temporary, 7 days or less, signs shall not be required to comply with *Section 11B-216*.
4. In detention and correctional facilities, signs not located in public use areas shall not be required to comply with *Section 11B-216*.

11B-216.2 Designations. Interior and exterior signs identifying permanent rooms and spaces shall comply with *Sections 11B-703.1, 11B-703.2, 11B-703.3* and *11B-703.5*. Where pictograms are provided as designations of permanent rooms and spaces, the pictograms shall comply with *Section 11B-703.6* and shall have text descriptors complying with *Sections 11B-703.2* and *11B-703.5*.

Exception: Exterior signs that are not located at the door to the space they serve shall not be required to comply with *Section 11B-703.2*.

11B-216.3 Directional and informational signs. Signs that provide direction to or information about interior and exterior spaces and facilities of the site shall comply with *Section 11B-703.5*.

11B-216.4 Means of egress. Signs for means of egress shall comply with *Section 11B-216.4*.

11B-216.4.1 Exit doors. Signs required by *Chapter 10, Section 1013.4* at doors to exit passageways, exit discharge and exit stairways shall comply with *Sections 11B-703.1, 11B-703.2, 11B-703.3* and *11B-703.5*.

11B-216.4.2 Areas of refuge and exterior areas for assisted rescue. Signs required by *Chapter 10, Section 1009.11* to provide instructions in areas of refuge shall comply with *Section 11B-703.5*. Signs required by *Chapter 10, Section 1009.9* at doors to areas of refuge and exterior areas for assisted rescue shall comply with *Sections 11B-703.1, 11B-703.2, 11B-*

703.3 and *11B-703.5* and include an International Symbol of Accessibility complying with *Section 11B-703.7.2.1*.

11B-216.4.3 Directional signs. Signs required by *Chapter 10, Section 1009.10* to provide directions to accessible means of egress shall comply with *Section 11B-703.5*.

11B-216.4.4 Delayed egress locks. Signs required by *Chapter 10, Section 1010.2.13.1, Item 6.4* at doors with delayed egress locks shall comply with *Sections 11B-703.1, 11B-703.2, 11B-703.3* and *11B-703.5*.

11B-216.5 Parking and electric vehicle charging facilities. Signs identifying parking spaces and signs within parking facilities shall comply with *Section 11B-216.5*. Signs identifying electric vehicle charging spaces and signs within electric vehicle charging facilities shall comply with *Section 11B-216.5*.

11B-216.5.1 Parking spaces. Parking spaces complying with *Section 11B-502* shall be identified by signs complying with *Sections 11B-502.6* and *11B-502.8*.

Exceptions:

1. Reserved.
2. In residential facilities, where parking spaces are assigned to specific residential dwelling units, identification of accessible parking spaces shall not be required.

11B-216.5.2 Electric vehicle charging spaces. Signs identifying electric vehicle charging spaces shall comply with *Section 11B-812.8*.

11B-216.5.3 Parking and electric vehicle charging facilities. Signs within parking and charging facilities shall comply with *Section 11B-216.5.3*.

11B-216.5.3.1 Signs intended for use by pedestrians. Signs intended for use by pedestrians within parking and charging facilities, including directional or informational signs indicating parking sections or levels, shall comply with the requirements of *Section 11B-216*.

11B-216.5.3.2 Additional signs. Signs within parking facilities containing parking spaces complying with *Section 11B-502* shall comply with *Section 11B-502.8*.

11B-216.6 Entrances. In existing buildings and facilities where not all entrances comply with *Section 11B-404*, entrances complying with *Section 11B-404* shall be identified by the International Symbol of Accessibility complying with *Section 11B-703.7.2.1*. Directional signs complying with *Section 11B-703.5* that indicate the location of the nearest entrance complying with *Section 11B-404* shall be provided at entrances that do not comply with *Section 11B-404*. Directional signs complying with *Section 11B-703.5*, including the International Symbol of Accessibility complying with *Section 11B-703.7.2.1*, indicating the accessible route to the nearest accessible entrance shall be provided at junctions when the accessible route diverges from the regular circulation path.

11B-216.7 Elevators. Where existing elevators do not comply with *Section 11B-407*, elevators complying with *Section 11B-407* shall be clearly identified with the International Symbol of Accessibility complying with *Section 11B-703.7.2.1*. Existing buildings that have been remodeled to provide specific elevators for public use that comply with these building standards shall have the location of and the directions to these elevators posted

in the building lobby on a sign complying with Section 11B-703.5, including the International Symbol of Accessibility complying with Section 11B-703.7.2.1.

11B-216.8 Toilet rooms and bathing rooms. Where existing toilet rooms or bathing rooms do not comply with Section 11B-603, directional signs indicating the location of the nearest toilet room or bathing room complying with Section 11B-603 within the facility shall be provided. Signs shall comply with Section 11B-703.5 and shall include the International Symbol of Accessibility complying with Section 11B-703.7.2.1. Where existing toilet rooms or bathing rooms do not comply with Section 11B-603, the toilet rooms or bathing rooms complying with Section 11B-603 shall be identified by the International Symbol of Accessibility complying with Section 11B-703.7.2.1. Where clustered single user toilet rooms or bathing facilities are permitted to use exceptions to Section 11B-213.2, toilet rooms or bathing facilities complying with Section 11B-603 shall be identified by the International Symbol of Accessibility complying with Section 11B-703.7.2.1 unless all toilet rooms and bathing facilities comply with Section 11B-603. Existing buildings that have been remodeled to provide specific toilet rooms or bathing rooms for public use that comply with these building standards shall have the location of and the directions to these rooms posted in or near the building lobby or entrance on a sign complying with Section 11B-703.5, including the International Symbol of Accessibility complying with Section 11B-703.7.2.1.

11B-216.8.1 Geometric symbols. Geometric symbols complying with Section 11B-703.7.2.6 shall be provided at entrances to toilet and bathing rooms.

Exceptions:

1. Geometric symbols shall not be required at entrances to toilet and bathing rooms located within private or semi-private rooms or spaces. Such spaces include but are not limited to: patient sleeping rooms, transient lodging guest rooms and residential dwelling units.
2. Geometric symbols shall not be required at entrances to inmate toilet rooms and bathing rooms in detention and correctional facilities where only one gender is housed.

11B-216.8.2 Identification for all-gender multi-user toilet facilities. Geometric symbols complying with Section 11B-703.7.2.6.3 shall be provided at the entrance to all-gender multi-user toilet facilities. In addition, a sign complying with Sections 11B-703.1 through 11B-703.5 shall be provided stating "ALL-GENDER MULTI-USER".

11B-216.8.3 Signs at toilet and urinal compartments. Where both toilet compartments and urinal compartments are provided, each individual compartment shall be identified with a sign complying with Sections 11B-703.1 through 11B-703.5. Signs shall identify the type of fixture within the compartment, either "URINAL" or "TOILET". A pictogram identifying the fixture type within the compartment is not permitted.

Exception: A sign with tactile characters shall be permitted on an in-swinging and self-closing door at compartments not required to comply with Section 11B-604 or Section 11B-605.5.

11B-216.9 TTYs. Identification and directional signs for public TTYs shall be provided in accordance with Section 11B-216.9.

11B-216.9.1 Identification signs. Public TTYs shall be identified by the International Symbol of TTY complying with Section 11B-703.7.2.2.

11B-216.9.2 Directional signs. Directional signs indicating the location of the nearest public TTY shall be provided at all banks of public pay telephones not containing a public TTY. In addition, where signs provide direction to public pay telephones, they shall also provide direction to public TTYs. *If a facility has no banks of telephones, the directional signs shall be provided at the entrance or in a building directory.* Directional signs shall comply with Section 11B-703.5 and shall include the International Symbol of TTY complying with Section 11B-703.7.2.2.

11B-216.10 Assistive listening systems. Each assembly area required by Section 11B-219 to provide assistive listening systems shall provide signs informing patrons of the availability of the assistive listening system. *The sign shall include wording that states "Assistive-Listening System Available" and shall be posted in a prominent place at or near the assembly area entrance.* Assistive listening signs shall comply with Section 11B-703.5 and shall include the International Symbol of Access for Hearing Loss complying with Section 11B-703.7.2.4.

Exception: Where ticket offices or windows are provided, signs shall not be required at each assembly area provided that signs are displayed at each ticket office or window informing patrons of the availability of assistive listening systems.

11B-216.11 Check-out aisles. Where more than one check-out aisle is provided, check-out aisles complying with Section 11B-904.3 shall be identified by a sign complying with Section 11B-904.3.4. Where check-out aisles are identified by numbers, letters or functions, signs identifying check-out aisles complying with Section 11B-904.3 shall be located in the same location as the check-out aisle identification.

Exception: Where all check-out aisles comply with Section 11B-904.3, signs complying with Section 11B-703.7.2.1 shall not be required.

11B-216.12 Amusement rides. Signs identifying the type of access provided on amusement rides shall be provided at entries to queues and waiting lines. In addition, where accessible unload areas also serve as accessible load areas, signs indicating the location of the accessible load and unload areas shall be provided at entries to queues and waiting lines. *Signs shall comply with Section 11B-703.5 and shall include the International Symbol of Accessibility complying with Section 11B-703.7.2.1.*

11B-216.13 Variable message signs. Where provided in transportation facilities, variable message signs conveying transportation-related information shall comply with Section 11B-703.8. Where provided in buildings that are designed as emergency shelters, variable message signs conveying emergency-related information shall comply with Section 11B-703.8.

11B-217 Telephones

11B-217.1 General. Where coin-operated public pay telephones, coinless public pay telephones, public closed-circuit telephones, public courtesy phones, or other types of public telephones are provided, public telephones shall be provided in

accordance with *Section 11B-217* for each type of public telephone provided. For purposes of this section, a bank of telephones shall be considered to be two or more adjacent telephones.

11B-217.2 Wheelchair accessible telephones. Where public telephones are provided, wheelchair accessible telephones complying with *Section 11B-704.2* shall be provided in accordance with *Table 11B-217.2*.

Exception: Drive-up only public telephones shall not be required to comply with *Section 11B-217.2*.

11B-217.3 Volume controls. All public telephones shall have volume controls complying with *Section 11B-704.3*.

11B-217.4 TTYs. TTYs complying with *Section 11B-704.4* shall be provided in accordance with *Section 11B-217.4*.

11B-217.4.1 Bank requirement. Where four or more public pay telephones are provided at a bank of telephones, at least one public TTY complying with *Section 11B-704.4* shall be provided at that bank.

Exception: Reserved.

11B-217.4.2 Floor requirement. TTYs in public buildings shall be provided in accordance with *Section 11B-217.4.2.1*. TTYs in private buildings shall be provided in accordance with *Section 11B-217.4.2.2*.

11B-217.4.2.1 Public buildings. Where at least one public pay telephone is provided on a floor of a public building, at least one public TTY shall be provided on that floor.

11B-217.4.2.2 Private buildings. Where four or more public pay telephones are provided on a floor of a private building, at least one public TTY shall be provided on that floor.

11B-217.4.3 Building requirement. TTYs in public buildings shall be provided in accordance with *Section 11B-217.4.3.1*. TTYs in private buildings shall be provided in accordance with *Section 11B-217.4.3.2*.

11B-217.4.3.1 Public buildings. Where at least one public pay telephone is provided in a public building, at least one public TTY shall be provided in the building. Where at least one public pay telephone is provided in a public use area of a public building, at least one public TTY shall be provided in the public building in a public use area.

11B-217.4.3.2 Private buildings. Where four or more public pay telephones are provided in a private building, at least one public TTY shall be provided in the building.

Exception: *In a stadium or arena, in a convention center, in a hotel with a convention center or in a covered mall, if an interior public pay telephone is provided at least one interior public TTY shall be provided in the facility.*

11B-217.4.4 Exterior site requirement. Where four or more public pay telephones are provided on an exterior site, at least one public TTY shall be provided on the site.

11B-217.4.5 Rest stops, emergency roadside stops and service plazas. Where at least one public pay telephone is provided at a public rest stop, emergency roadside stop or service plaza, at least one public TTY shall be provided.

11B-217.4.6 Hospitals. Where at least one public pay telephone is provided serving a hospital emergency room, hospital recovery room or hospital waiting room, at least one public TTY shall be provided at each location.

11B-217.4.7 Transportation facilities. In transportation facilities, in addition to the requirements of *Sections 11B-217.4.1* through *11B-217.4.4*, where at least one public pay telephone serves a particular entrance to a bus or rail facility, at least one public TTY shall be provided to serve that entrance. In airports, in addition to the requirements of *Sections 11B-217.4.1* through *11B-217.4.4*, where four or more public pay telephones are located in a terminal outside the security areas, a concourse within the security areas or a baggage claim area in a terminal, at least one public TTY shall be provided in each location.

11B-217.4.8 Detention and correctional facilities. In detention and correctional facilities, where at least one pay telephone is provided in a secured area used only by detainees or inmates and security personnel, at least one TTY shall be provided in at least one secured area.

11B-217.5 Shelves for portable TTYs. Where a bank of telephones in the interior of a building consists of three or more public pay telephones, at least one public pay telephone at the bank shall be provided with a shelf and an electrical outlet in accordance with *Section 11B-704.5*.

Exceptions:

1. Secured areas of detention and correctional facilities where shelves and outlets are prohibited for purposes of security or safety shall not be required to comply with *Section 11B-217.5*.
2. The shelf and electrical outlet shall not be required at a bank of telephones with a TTY.

11B-218 Transportation facilities.

11B-218.1 General. Transportation facilities shall comply with *Section 11B-218*.

11B-218.2 New and altered fixed guideway stations. New and altered stations in rapid rail, light rail, commuter rail, intercity rail, high speed rail and other fixed guideway systems shall comply with *Sections 11B-810.5* through *11B-810.10*.

11B-218.3 Key stations and existing intercity rail stations. Key stations and existing intercity rail stations shall comply with *Sections 11B-810.5* through *11B-810.10*.

**TABLE 11B-217.2
WHEELCHAIR ACCESSIBLE TELEPHONES**

NUMBER OF TELEPHONES PROVIDED ON A FLOOR, LEVEL OR EXTERIOR SITE	MINIMUM NUMBER OF REQUIRED WHEELCHAIR ACCESSIBLE TELEPHONES
1 or more single units	<i>At least 50 percent of telephone units, but not less than 1 per floor, level and exterior site</i>
1 bank	<i>At least 50 percent of telephone units per bank, but not less than 1 per floor, level and exterior site</i>
2 or more banks	<i>At least 50 percent of telephone units per bank, but not less than 1 per bank At least 1 telephone per floor shall meet the requirements for a forward reach telephone.</i>

**TABLE 11B-224.2
GUEST ROOMS WITH MOBILITY FEATURES**

TOTAL NUMBER OF GUEST ROOMS PROVIDED	MINIMUM NUMBER OF REQUIRED ROOMS WITHOUT ROLL-IN SHOWERS ¹	MINIMUM NUMBER OF REQUIRED ROOMS WITH ROLL-IN SHOWERS ²	TOTAL NUMBER OF REQUIRED ROOMS
1	1	0	1
2 to 25	1	1	2
26 to 50	2	1	3
51 to 75	3	1	4
76 to 100	4	1	5
101 to 150	5	2	7
151 to 200	6	2	8
201 to 300	7	3	10
301 to 400	8	4	12
401 to 500	9	4	13
501 to 1000	2 percent of total	1 percent of total	3 percent of total
1001 and over	20, plus 1 for each 100, or fraction thereof, over 1000	10, plus 1 for each 100, or fraction thereof, over 1000	30, plus 2 for each 100, or fraction thereof, over 1000

1. Provide either a bathtub complying with Section 11B-607 or a transfer type shower complying with Section 11B-608.2.1.

2. Provide either a standard roll-in type shower complying with Section 11B-608.2.2 or an alternate type roll-in shower complying with Section 11B-608.2.3.

**TABLE 11B-224.4
GUEST ROOMS WITH COMMUNICATION FEATURES**

TOTAL NUMBER OF GUEST ROOMS PROVIDED	MINIMUM NUMBER OF REQUIRED GUEST ROOMS WITH COMMUNICATION FEATURES
1	1
2 to 25	2
26 to 50	4
51 to 75	7
76 to 100	9
101 to 150	12
151 to 200	14
201 to 300	17
301 to 400	20
401 to 500	22
501 to 1000	5 percent of total
1001 and over	50, plus 3 for each 100 over 1000

11B-224.6 Storage. Fixed or built-in storage facilities within guest rooms required to provide mobility features shall comply with Section 11B-225.

11B-224.7 Housing at a place of education. Housing at a place of education subject to this section shall comply with Sections 11B-224.1 through 11B-224.6 and 11B-806 for transient lodging guest rooms. For the purposes of the application of this section, the term “sleeping room” is interchangeable with “guest room” as used in the transient lodging standards.

Exception: Housing facilities that are provided by or on behalf of a place of education, with residential dwelling units leased on a year-round basis exclusively to graduate students or faculty, and that do not contain any public use or common use areas available for educational programming, are not subject to Section 11B-224 and shall comply with Section 11B-233.

11B-224.7.1 Multibedroom housing units with mobility features. Multibedroom housing units containing accessible sleeping rooms with mobility features shall have an accessible route throughout the unit in compliance with Section 11B-809.2. Kitchens, when provided, within housing units containing accessible sleeping rooms with mobility features shall comply with Section 11B-804.

11B-224.7.2 Accessible dwelling units with adaptable features. Accessible dwelling units with adaptable features shall be provided as required by Section 11B-233.3.1.2. The number of required accessible dwelling units with adaptable features shall be reduced by the number of units with mobility features required by Section 11B-224.2.

11B-224.8 Social service center establishments. Group homes, halfway houses, shelters or similar social service center establishments that provide either temporary sleeping accommodations or residential dwelling units subject to this section shall comply with Section 11B-233.3.

11B-224.8.1 More than 25-bed sleeping rooms. In sleeping rooms with more than 25 beds, a minimum of 5 percent of the beds shall have clear floor space complying with Section 11B-806.2.3.

11B-224.8.2 More than 50-bed facilities. Facilities with more than 50 beds that provide common use bathing facilities shall provide at least one roll-in shower with a seat that complies with Section 11B-608. When separate shower facilities are provided for men and women, at least one roll-in shower shall be provided for each group.

11B-225 Storage

11B-225.1 General. Storage facilities shall comply with Section 11B-225.

11B-225.2 Storage. Where storage is provided in accessible spaces, at least one of each type shall comply with Section 11B-811.

11B-225.2.1 Lockers. Where lockers are provided, at least 5 percent, but no fewer than one of each type, shall comply with *Section 11B-811*.

11B-225.2.2 Self-service shelving. Self-service shelves shall be located on an accessible route complying with *Section 11B-402*. Self-service shelving shall not be required to comply with *Section 11B-308*.

11B-225.2.3 Library book stacks. Book stacks available for public use shall be 54 inches (1372 mm) maximum above the finish floor.

Exceptions:

1. Book stacks available for public use may be higher than 54 inches (1372 mm) maximum above the finish floor when an attendant is available to assist persons with disabilities.
2. Book stacks restricted to employee use are not required to comply with these requirements.

11B-225.3 Self-service storage facilities. Self-service storage facilities shall provide individual self-service storage spaces complying with these requirements in accordance with *Table 11B-225.3*.

**TABLE 11B-225.3
SELF-SERVICE STORAGE FACILITIES**

TOTAL SPACES IN FACILITY	MINIMUM NUMBER OF SPACES REQUIRED TO BE ACCESSIBLE
1 to 200	5 percent, but no fewer than 1
201 and over	10, plus 2 percent of total number of units over 200

11B-225.3.1 Dispersion. Individual self-service storage spaces shall be dispersed throughout the various classes of spaces provided. Where more classes of spaces are provided than the number required to be accessible, the number of spaces shall not be required to exceed that required by *Table 11B-225.3*. Self-service storage spaces complying with *Table 11B-225.3* shall not be required to be dispersed among buildings in a multibuilding facility.

11B-226 Dining surfaces and work surfaces

11B-226.1 General. Where dining surfaces are provided for the consumption of food or drink, at least 5 percent of the seating spaces and standing spaces at the dining surfaces shall comply with *Section 11B-902*. In addition, where work surfaces are provided for use by other than employees, at least 5 percent shall comply with *Section 11B-902*.

Exceptions:

1. Sales counters and service counters shall not be required to comply with *Section 11B-902*. See *Section 11B-227*.
2. Check writing surfaces provided at check-out aisles not required to comply with *Section 11B-904.3* shall not be required to comply with *Section 11B-902*.

11B-226.2 Dispersion. Dining surfaces required to comply with *Section 11B-902* shall be dispersed throughout the space or facility containing dining surfaces for each type of seating in a functional area. Work surfaces required to comply with

Section 11B-902 shall be dispersed throughout the space or facility containing work surfaces.

11B-226.3 Dining surfaces exceeding 34 inches in height. Where food or drink is served for consumption at a counter exceeding 34 inches (864 mm) in height, a portion of the main counter 60 inches (1525 mm) minimum in length shall be provided in compliance with *Section 11B-902.3*.

11B-226.4 Baby diaper changing station. Baby diaper changing stations shall comply with *Sections 11B-309* and *11B-902*. Baby diaper changing stations when deployed shall not obstruct the required width of an accessible route except as allowed by *Section 11B-307.2*. Baby diaper changing stations shall not be located in toilet compartments complying with *Section 11B-604.8* or urinal compartments complying with *11B-605.5* within a multiple accommodation toilet facility.

11B-227 Sales and service

11B-227.1 General. Where provided, check-out aisles, sales counters, service counters, food service lines, queues and waiting lines shall comply with *Sections 11B-227* and *11B-904*.

11B-227.2 Check-out aisles. Where check-out aisles are provided, check-out aisles complying with *Section 11B-904.3* shall be provided in accordance with *Table 11B-227.2*. Where check-out aisles serve different functions, check-out aisles complying with *Section 11B-904.3* shall be provided in accordance with *Table 11B-227.2* for each function. Where check-out aisles are dispersed throughout the building or facility, check-out aisles complying with *Section 11B-904.3* shall be dispersed. When not all check-out aisles are accessible, accessible check-out aisles shall be identified by a sign complying with *Section 11B-904.3.4*.

Note: Operational procedures are often necessary to ensure the Americans with Disabilities Act accessibility requirements are met. When check-out aisles are open for customer use, the business should ensure that a minimum of one accessible check-out aisle is always available for use by persons with disabilities. As check-out aisles are opened and closed based on fluctuating customer levels, the business should ensure that the number of accessible check-out aisles available complies with *Table 11B-227.2*.

Exception: In existing buildings, where the selling space is under 5000 square feet (465 m²) no more than one check-out aisle complying with *Section 11B-904.3* shall be required.

**TABLE 11B-227.2
CHECK-OUT AISLES**

NUMBER OF CHECK-OUT AISLES OF EACH FUNCTION	MINIMUM NUMBER OF CHECK-OUT AISLES OF EACH FUNCTION REQUIRED TO COMPLY WITH 11B-904.3
1 to 4	1
5 to 8	2
9 to 15	3
16 and over	3, plus 20 percent of additional aisles

11B-227.2.1 Altered check-out aisles. Where check-out aisles are altered, at least one of each check-out aisle serving each function shall comply with *Section 11B-904.3* until the number of check-out aisles complies with *Section 11B-227.2*.

subject to this requirement include, but are not limited to, those used for purposes of orientation, protective custody, administrative or disciplinary detention or segregation, detoxification and medical isolation.

Exception: Reserved.

11B-232.4 Medical care facilities. Patient bedrooms or cells required to comply with *Section 11B-223* shall be provided in addition to any medical isolation cells required to comply with *Section 11B-232.3*.

11B-232.5 Visiting areas. Visiting areas shall comply with *Section 11B-232.5*.

11B-232.5.1 Cubicles and counters. At least 5 percent, but no fewer than one, of cubicles shall comply with *Section 11B-902* on both the visitor and detainee sides. Where counters are provided, at least one shall comply with *Section 11B-904.4.2* on both the visitor and detainee or inmate sides.

Exception: The inmate or detainee side of cubicles or counters at non-contact visiting areas not serving holding cells or housing cells required to comply with *Section 11B-232* shall not be required to comply with *Section 11B-902* or *11B-904.4.2*.

11B-232.5.2 Partitions. Where solid partitions or security glazing separate visitors from detainees or inmates at least one of each type of cubicle or counter partition shall comply with *Section 11B-904.6*.

11B-233 Public housing facilities

11B-233.1 General. Public housing facilities with residential dwelling units shall comply with *Section 11B-233*. See *Chapter 2, Section 202* of this code for the definition of Public Housing.

11B-233.2 Reserved.

11B-233.3 Public housing facilities. Public housing facilities with residential dwelling units shall comply with *Section 11B-233.3*.

Note: Senior citizen housing may also be subject to Civil Code, Division 1. Part 2. Sections 51.2, 51.3 and 51.4.

11B-233.3.1 Minimum number: new construction. Newly constructed facilities with residential dwelling units shall comply with *Section 11B-233.3.1*.

Exception: Where facilities contain 15 or fewer residential dwelling units, the requirements of *Sections 11B-233.3.1.1* and *11B-233.3.1.3* shall apply to the total number of residential dwelling units that are constructed under a single contract, or are developed as a whole, whether or not located on a common site.

11B-233.3.1.1 Residential dwelling units with mobility features. In facilities with residential dwelling units, at least 5 percent, but no fewer than one unit, of the total number of residential dwelling units shall provide mobility features complying with *Sections 11B-809.2* through *11B-809.4* and shall be on an accessible route as required by *Section 11B-206*.

11B-233.3.1.2 Residential dwelling units with adaptable features. In buildings with three or more residential dwelling units, adaptable residential dwelling units complying with *Sections 11B-809.6* through *11B-809.12* shall be provided as required by *Sections 11B-*

233.3.1.2.1 through *11B-233.3.1.2.6*. Adaptable residential dwelling units shall be on an accessible route as required by *Section 11B-206*.

Exception: The number of required adaptable residential dwelling units shall be reduced by the number of units required by *Section 11B-233.3.1.1*.

11B-233.3.1.2.1 Elevator buildings. A residential building with one or more elevators shall have an elevator serve all floors with a residential dwelling unit primary entrance and all floors with common use areas. Elevators shall comply with *Section 11B-407*. Residential dwelling units on floors served by an elevator shall be adaptable.

Exceptions:

1. A building with only an elevator that serves a parking garage or building entry level not containing residential dwelling units to the first ground floor above grade containing residential dwelling units.
2. A building with a multi-story residential dwelling unit with an elevator within the unit.

11B-233.3.1.2.2 Ground floor residential dwelling units. Ground floor residential dwelling units shall be adaptable. A building may have one or more ground floors.

11B-233.3.1.2.3 Ground floors above grade. Where the first floor in a building containing residential dwelling units is a floor above grade, all units on that floor shall be adaptable.

11B-233.3.1.2.4 Multistory residential dwelling units in buildings with one or more elevators. In elevator buildings, facilities with multistory residential dwelling units shall comply with the following:

1. The primary entry of the multistory residential dwelling unit shall be on an accessible route on the floor served by the elevator.
2. At least one powder room or bathroom and kitchen shall be located on the primary entry level.
3. Rooms or spaces located on the primary entry level shall be served by an accessible route and comply with *Sections 11B-809.6* through *11B-809.12*.

11B-233.3.1.2.5 Multistory residential dwelling units in buildings with no elevator. In non-elevator buildings, a minimum of 10 percent but not less than one of the ground floor multistory residential dwelling units shall be calculated using the total number of multistory residential dwelling units in buildings on a site and shall comply with the following:

1. The primary entry of the multistory residential dwelling unit shall be on an accessible route.
2. At least one powder room or bathroom shall be located on the primary entry level.
3. Rooms or spaces located on the primary entry level shall be served by an accessible route and comply with *Sections 11B-809.6* through *11B-809.12*.

11B-233.3.1.2.6 Public housing facility site impracticability. The site impracticability tests in this section may be used to determine the number of required residential dwelling units with adaptable features in buildings without an elevator, located on sites with difficult terrain conditions or unusual characteristics.

Except as provided for in Section 11B-233.3.1.2.5, the provisions of this section do not apply to multi-story dwelling units in non-elevator buildings.

11B-233.3.1.2.6.1 Single building with one common (lobby) entrance. The following may only be used for determining required access to 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 units in non-elevator 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, a minimum of 20 percent of the ground floor dwelling units shall comply with Section 11B-809.6, and all remaining ground floor dwelling units shall comply with the features listed in Section 11B-233.3.1.2.6.2 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 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.

11B-233.3.1.2.6.2 Test number one, 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 in a straight line 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 site arrival points include public or resident parking areas, public transportation stops, passenger loading zones and public streets or sidewalks. To determine site impracticability, 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.

11B-233.3.1.2.6.3 Test number two, 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 a building entrance on 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 units required on an accessible route shall equal the percentage of the total buildable area (not restricted-use areas, flood plains or wetlands) of the undisturbed site with an existing natural grade of less than 10 percent slope.
3. In addition to the percentage established in paragraph (2), all ground floor units in a building, or ground floor units served by a particular entrance on an accessible route defined by a calculation of the straight line slope not exceeding 8.33 percent, between their planned entrances and an arrival point, shall be on an accessible route and comply with the provisions of Section 11B-809.6.

11B-244 Religious facilities

11B-244.1 General. Religious facilities shall be accessible in accordance with the provisions of this code. Where specific areas within religious facilities contain more than one use, each portion shall comply with the applicable requirements for that use.

11B-245 Public accommodations located in private residences

11B-245.1 General. Public accommodations located in private residences shall comply with Section 11B-245.

11B-245.2 Application. When a public accommodation is located in a private residence, that portion used exclusively in the operation of the public accommodation or that portion used both for the public accommodation and for residential purposes is covered by the new construction and alterations requirements of this chapter.

Exception: The portion of the residence used exclusively as a residence is not required to be accessible in accordance with this chapter.

11B-245.3 Accessible elements required. The accessible portion of the residence extends to those elements used to enter the public accommodation, including the front sidewalk, if any, the door or entryway, and hallways; and those portions of the residence, interior or exterior, available to or used by employees or visitors of the public accommodation, including restrooms.

11B-246 Outdoor developed areas

11B-246.1 General. Outdoor developed areas shall comply with Section 11B-246.

Exceptions:

1. Where the enforcing agency finds that, in specific areas, the natural environment would be materially damaged by compliance with these regulations, such areas shall be subject to these regulations only to the extent that such material damage would not occur.
2. Automobile access or accessible routes are not required when the enforcing agency determines compliance with this chapter would create an unreasonable hardship as defined in Chapter 2, Section 202.

11B-246.2 Camping facilities. In camping facilities where campsites are provided, at least two campsites and one additional campsite for each 100 campsites or fraction thereof, shall be accessed by and connected to sanitary facilities by travel routes with a maximum slope of 1:12. Permanent toilet and bathing facilities serving campsites shall comply with Section 11B-603.

11B-246.3 Beaches. Beaches shall be accessible.

11B-246.4 Day use areas and vista points. Day use areas, vista points and similar areas shall be accessible.

11B-246.5 Picnic areas. Where picnic tables are provided, at least one picnic table, and one additional table for each 20 tables or fraction thereof, shall be accessible and comply with Section 11B-902.

11B-246.6 Parking lots. Parking lots shall comply with Sections 11B-208 and 11B-502 and shall be provided with curb cuts leading to adjacent walks, paths or trails.

11B-246.7 Trails and paths. Trails, paths and nature walk areas, or portions of them, shall be constructed with gradients permitting at least partial use by wheelchair occupants. Buildings and other functional areas shall be served by paths or walks with firm and stable surfaces.

11B-246.8 Nature trails. Nature trails and similar educational and informational areas shall be accessible to individuals with vision impairments by the provision of rope guidelines, raised Arabic numerals and symbols, or other similar guide and assistance devices.

11B-247 Detectable warnings and detectable directional texture**11B-247.1 Detectable warnings.**

11B-247.1.1 General. Detectable warnings shall be provided in accordance with Section 11B-247.1 and shall comply with Section 11B-705.1.

11B-247.1.2 Where required. Detectable warnings shall be provided where required by Section 11B-247.1.2.

11B-247.1.2.1 Platform edges. Platform boarding edges shall have detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.1.

11B-247.1.2.2 Curb ramps. Curb ramps shall have detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.2.

11B-247.1.2.3 Islands or cut-through medians. Islands or cut-through medians shall have detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.3.

11B-247.1.2.4 Bus stops. Where detectable warnings are provided at bus stop boarding and alighting areas in compliance with Section 11B-810.2.3, detectable warnings shall comply with Sections 11B-705.1.1 and 11B-705.1.2.4.

11B-247.1.2.5 Blended transitions. Blended transitions shall have detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.5.

11B-247.1.2.6 Reflecting pools. The edges of reflecting pools shall be protected by railings, walls, warning curbs or detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.6.

11B-247.1.2.7 Track crossings. Where it is necessary to cross tracks to reach transit boarding platforms, detectable warnings complying with Sections 11B-705.1.1 and 11B-705.1.2.7 shall be provided.

11B-247.2 Detectable directional texture. At transit boarding platforms, the pedestrian access shall be identified with a detectable directional texture complying with Section 11B-705.2.

11B-248 Common use areas and employee work areas.

11B-248.1 Common use areas. Common use areas shall comply with this chapter.

11B-248.2 Employee work areas. Employee work areas shall comply with this chapter.

11B-249 Adult changing facilities

11B-249.1 General. Adult changing facilities shall comply with Section 11B-249.

11B-249.1.1 Where adult changing facilities are provided, each adult changing facility shall comply with Section 11B-813.

11B-249.1.2 Newly constructed commercial places of public amusement shall provide no fewer than one adult changing facility in compliance with Section 11B-813.

11B-249.1.3 On or after January 1, 2025, alterations to existing commercial places of public amusement which require a permit or for which the estimated cost is ten thousand dollars (\$10,000) or more shall provide no fewer than one adult changing facility in compliance with Section 11B-813.

Exception: Existing commercial places of public amusement with an existing adult changing facility in compliance with Section 11B-813 shall not be required to provide additional adult changing facilities.

11B-250 Circulation paths

11B-250.1 General. Circulation paths contiguous to vehicular traffic shall be physically separated from vehicular traffic. Vehicular traffic includes travel through parking facilities, into and out of parking spaces, into and out of electric vehicle charging spaces, and along roadways, driveways and drive aisles. Physical separation shall be provided with circulation paths raised 4 inches (102 mm) minimum above the area where vehicular traffic occurs.

Exceptions:

1. Curb ramps and blended transitions with detectable warnings complying with Section 11B-247 may be used to connect raised circulation paths and pedestrian crossings within areas of vehicular traffic. Blended transitions and cut-through medians with detectable warnings complying with Section 11B-247 may be used to connect circulation paths and pedestrian crossings at similar elevations within areas of vehicular traffic.
2. At locations where sidewalks and walks in the public right-of-way cross driveways without yield or stop traffic control, compliance with this section shall not be required.
3. At locations where circulation paths cross driveways or drive aisles, circulation paths shall not be required to comply with this section and detectable warnings shall not be permitted. Beyond the crossing where continuation of the circulation path within a parking facility leads immediately to and does not continue beyond only parking spaces complying with Section 11B-502, passenger drop-off and loading zones complying with Section 11B-503 and electric vehicle charging stations complying with Section 11B-812, the circulation path shall not be required to be raised.

4. In alterations to existing parking facilities, including alterations required by Section 11B-202.4, physical separation may be provided with detectable warnings complying with Sections 11B-247 and 11B-705.1 in lieu of raised circulation paths.
5. Access aisles serving any electric vehicle charging station vehicle spaces complying with Section 11B-812, parking spaces complying with Section 11B-502, or passenger drop-off and loading zones complying with Section 11B-503 shall not be required to comply with this section.
6. At each electric vehicle charging station complying with Section 11B-812 where the charger and its controls are oriented toward the vehicle space it serves and the charger's clear floor spaces for operable parts and point-of-sale devices are at the same elevation as the vehicle space, the accessible route complying with Section 11B-812.5.2 shall not be required to comply with this section.

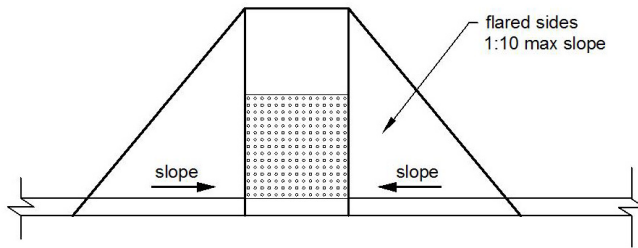


FIGURE 11B-406.2.2
SIDES OF CURB RAMPS

11B-406.3.1 Slope. The running slope of the curb ramp segments shall be in-line with the direction of sidewalk travel. Ramp runs shall have a running slope not steeper than 1:12.

11B-406.3.2 Turning space. A turning space 48 inches (1219 mm) minimum by 48 inches (1219 mm) minimum shall be provided at the bottom of the curb ramp. The slope of the turning space in all directions shall be 1:48 maximum.

11B-406.4 Blended transitions. Blended transitions shall comply with Sections 11B-406.4 and 11B-406.5.

11B-406.4.1 Slope. Blended transitions shall have a running slope not steeper than 1:20.

11B-406.5 Common requirements. Curb ramps and blended transitions shall comply with Section 11B-406.5.

11B-406.5.1 Location. Curb ramps and the flared sides of curb ramps shall be located so that they do not project into vehicular traffic lanes, parking spaces or parking access aisles. Curb ramps at marked crossings shall be wholly contained within the markings, excluding any flared sides.

Exception: Diagonal curb ramps shall comply with Section 11B-406.5.9.

11B-406.5.2 Width. The clear width of curb ramp runs (excluding any flared sides), blended transitions, and turning spaces shall be 48 inches (1219 mm) minimum.

11B-406.5.3 Landings. Landings shall be provided at the tops of curb ramps and blended transitions. The landing clear length shall be 48 inches (1219 mm) minimum. The landing clear width shall be at least as wide as the curb ramp, excluding any flared sides, or the blended transition leading to the landing. The slope of the landing in all directions shall be 1:48 maximum.

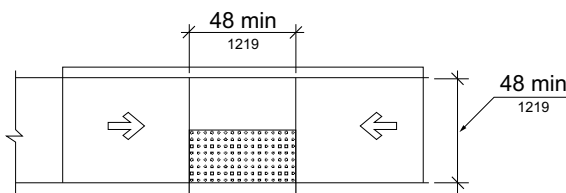


FIGURE 11B-406.3.2
PARALLEL CURB RAMPS

Exception: Parallel curb ramps shall not be required to comply with Section 11B-406.5.3.

11B-406.5.4 Floor or ground surfaces. Floor or ground surfaces of curb ramps and blended transitions shall comply with Section 11B-405.4.

11B-406.5.5 Wet conditions. Curb ramps and blended transitions shall comply with Section 11B-405.10.

11B-406.5.6 Grade breaks. Grade breaks at the top and bottom of curb ramp runs shall be perpendicular to the direction of the ramp run. Grade breaks shall not be permitted on the surface of ramp runs and turning spaces. Surface slopes that meet at grade breaks shall be flush.

11B-406.5.7 Cross slope. The cross slope of curb ramps and blended transitions shall be 1:48 maximum.

11B-406.5.8 Counter slope. Counter slopes of adjoining gutters and road surfaces immediately adjacent to and within 24 inches (610 mm) of the curb ramp shall not be steeper than 1:20. The adjacent surfaces at transitions at curb ramps to walks, gutters and streets shall be at the same level.

11B-406.5.9 Clear space at diagonal curb ramps. The bottom of diagonal curb ramps shall have a clear space 48 inches (1219 mm) minimum outside active traffic lanes of the roadway. Diagonal curb ramps provided at marked crossings shall provide the 48 inches (1219 mm) minimum clear space within the markings.

11B-406.5.10 Diagonal curb ramps. Diagonal or corner type curb ramps are perpendicular or parallel curb ramps that are oriented diagonally at an intersection. Diagonal or corner type curb ramps with returned curbs or other well-defined edges shall have the edges parallel to the direction of pedestrian flow. Diagonal curb ramps with flared sides shall have a segment of curb 24 inches (610 mm) long minimum located on each side of the curb ramp and within the marked crossing.

11B-406.5.11 Reserved.

11B-406.5.12 Detectable warnings. Curb ramps and blended transitions shall have detectable warnings complying with Section 11B-705.

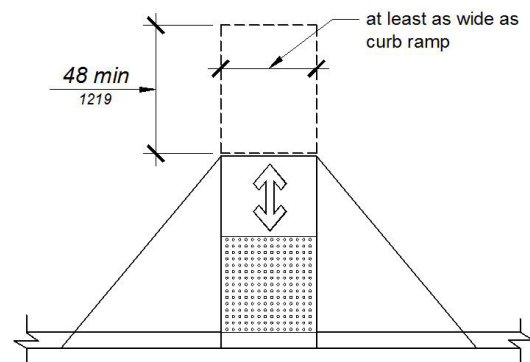


FIGURE 11B-406.5.3
LANDINGS AT THE TOP OF CURB RAMPS

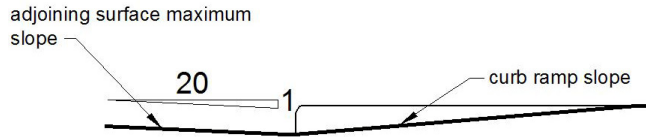


FIGURE 11B-406.5.8
COUNTER SLOPE OF SURFACES ADJACENT TO CURB RAMP

11B-406.6 Islands. Raised islands in crossings shall be cut through level with the street or have curb ramps at both sides. The clear width of the accessible route at islands shall be 60 inches (1524 mm) wide minimum. Where curb ramps are provided, they shall comply with Section 11B-406. Landings complying with Section 11B-406.5.3 and the accessible route shall be permitted to overlap. Islands shall have detectable warnings complying with Section 11B-705.

11B-407 Elevators

11B-407.1 General. Elevators shall comply with Section 11B-407 and with ASME A17.1. They shall be passenger elevators as classified by ASME A17.1. Elevator operation shall be automatic.

11B-407.1.1 Combined passenger and freight elevators. When the only elevators provided for use by the public and employees are combination passenger and freight elevators, they shall comply with Section 11B-407 and with ASME A17.1.

11B-407.2 Elevator landing requirements. Elevator landings shall comply with Section 11B-407.2.

11B-407.2.1 Call controls. Where elevator call buttons or keypads are provided, they shall comply with Sections 11B-407.2.1 and 11B-309.4.

Exception: Reserved.

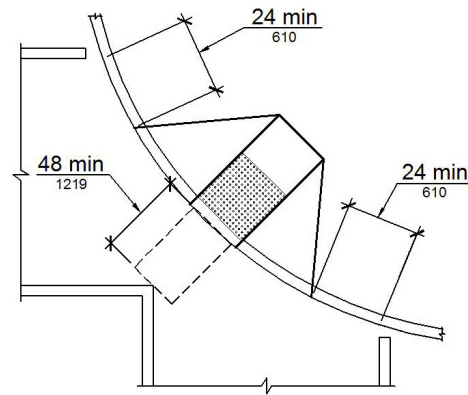


FIGURE 11B-406.5.10
DIAGONAL OR CORNER TYPE CURB RAMP

11B-407.2.1.1 Height. Call buttons and keypads shall be located within one of the reach ranges specified in Section 11B-308, measured to the centerline of the highest operable part.

Exception: Reserved.

11B-407.2.1.2 Size and shape. Call buttons shall have square shoulders, be $\frac{3}{4}$ inch (19.1 mm) minimum in the smallest dimension and shall be raised $\frac{1}{8}$ inch (3.2 mm) plus or minus $\frac{1}{32}$ inch (0.8 mm) above the surrounding surface. The buttons shall be activated by a mechanical motion that is detectable.

Exception: Reserved.

11B-407.2.1.3 Clear floor or ground space. A clear floor or ground space complying with Section 11B-305 shall be provided at call controls.

11B-407.2.1.4 Location. The call button that designates the up direction shall be located above the call button that designates the down direction.

Exception: Reserved.

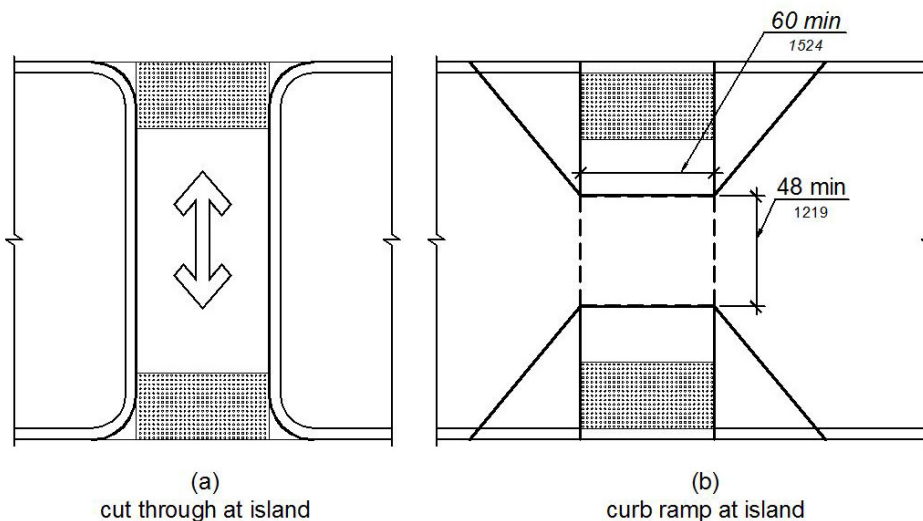


FIGURE 11B-406.6
ISLANDS IN CROSSINGS

not be of a type that controls delivery or that does not allow continuous paper flow.

11B-604.7.2 Disposal units. Sanitary napkin disposal units, if provided, shall comply with Section 11B-309.4 and shall be wall mounted and located on the sidewall between the rear wall of the toilet and the toilet paper dispenser, adjacent to the toilet paper dispenser. The disposal unit shall be located below the grab bar with the opening of the disposal unit 19 inches minimum (483 mm) above the finish floor.

11B-604.8 Toilet compartments. Wheelchair accessible toilet compartments shall meet the requirements of *Sections 11B-604.8.1* and *11B-604.8.3*. Compartments containing more than one plumbing fixture shall comply with *Section 11B-603*. Ambulatory accessible compartments shall comply with *Sections 11B-604.8.2* and *11B-604.8.3*.

11B-604.8.1 Wheelchair accessible compartments. Wheelchair accessible compartments shall comply with *Section 11B-604.8.1*.

11B-604.8.1.1 Size. Wheelchair accessible compartments shall be 60 inches (1524 mm) wide minimum measured perpendicular to the side wall, and 56 inches (1422 mm) deep minimum for wall hung water closets and 59 inches (1499 mm) deep minimum for floor mounted water closets measured perpendicular to the rear wall. *Wheelchair accessible compartments shall additionally provide maneuvering space complying with Section 11B-604.8.1.1.1, 11B-604.8.1.1.2 or 11B-604.8.1.1.3, as applicable.* Wheelchair accessible compartments for children's use shall be 60 inches (1524 mm) wide minimum measured perpendicular to the side wall, and 59 inches (1499 mm) deep minimum for wall hung and floor mounted water closets measured perpendicular to the rear wall.

11B-604.8.1.1.1 Maneuvering space with in-swinging door. In a wheelchair accessible compartment with an in-swinging door, a minimum 60 inches (1524 mm) wide by 36 inches (914 mm) deep maneu-

vering space shall be provided in front of the clearance required in Section 11B-604.8.1.1. See Figures 11B-604.8.1.1.2 (b) and 11B-604.8.1.1.3 (b).

11B-604.8.1.1.2 Maneuvering space with side-opening door. In a wheelchair accessible compartment with a door located in the side wall or partition, either in-swinging or out-swinging, a minimum 60 inches (1524 mm) wide and 60 inches (1524 mm) deep maneuvering space shall be provided in front of the water closet. See Figure 11B-604.8.1.1.2.

11B-604.8.1.1.3 Maneuvering space with end-opening door. In a wheelchair accessible compartment with a door located in the front wall or partition (facing the water closet), either in-swinging or out-swinging, a minimum 60 inches (1524 mm) wide and 48 inches (1219 mm) deep maneuvering space shall be provided in front of the water closet. See Figure 11B-604.8.1.1.3.

11B-604.8.1.2 Doors. Toilet compartment doors, including door hardware, shall comply with *Section 11B-404* except that if the approach is *from the push side* of the compartment door, clearance between the door side of the compartment and any obstruction shall be *48 inches (1219 mm) minimum measured perpendicular to the compartment door in its closed position*. Doors shall be located in the front partition or in the side wall or partition farthest from the water closet. Where located in the front partition, the door opening shall be *4 inches (102 mm) maximum* from the side wall or partition farthest from the water closet. Where located in the side wall or partition, *the door opening shall be farthest from the water closet and shall be 54 inches (1372 mm) minimum from the rear wall*. The door shall be self-closing and *have a privacy latch*. A door pull complying with *Section 11B-404.2.7* shall be placed on both sides of the door near the latch. *Doors shall not swing into the clear floor space or clearance required for any fixture. Doors may swing into that portion of maneu-*

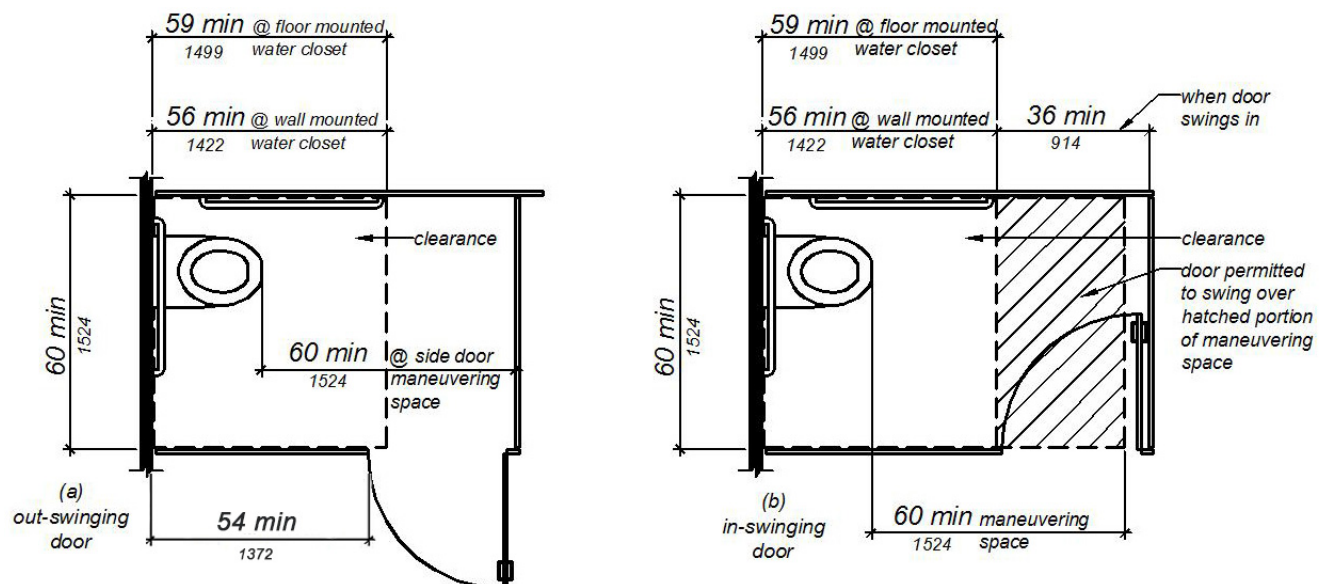


FIGURE 11B-604.8.1.1.2
MANEUVERING SPACE WITH SIDE-OPENING DOOR

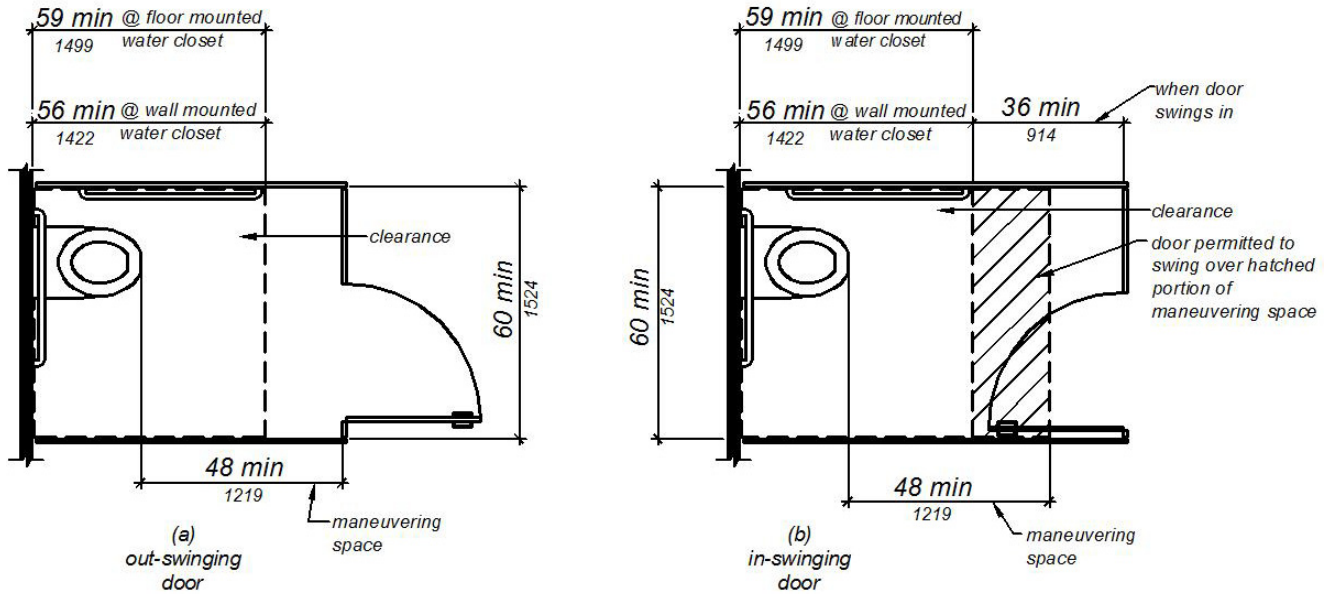


FIGURE 11B-604.8.1.1.3
MANEUVERING SPACE WITH END-OPENING DOOR

vering space which does not overlap the clearance required at a water closet.

Exception: When located at the side of a toilet compartment, the toilet compartment door opening shall provide a clear width of 34 inches (864 mm) minimum.

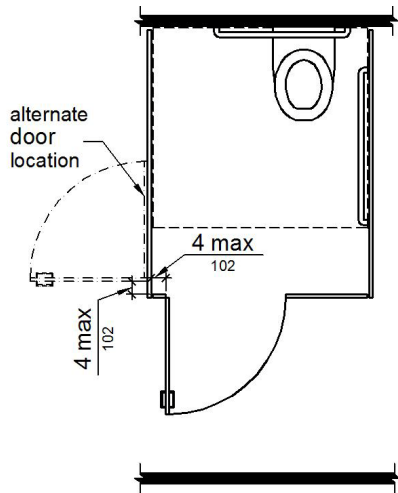


FIGURE 11B-604.8.1.2
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT DOORS

11B-604.8.1.3 Approach. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

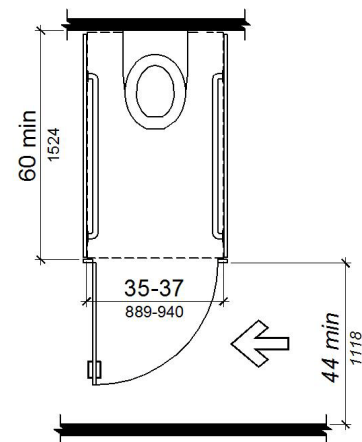
11B-604.8.1.4 Toe clearance. At least one side partition shall provide a toe clearance of 9 inches (229 mm) minimum above the finish floor and 6 inches (152 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Partition components at toe clearances shall be smooth without sharp edges or abrasive surfaces. Compartments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

Exception: Toe clearance at the side partition is not required in a compartment greater than 66 inches (1676 mm) wide.

11B-604.8.1.5 Grab bars. Grab bars shall comply with Section 11B-609. A side-wall grab bar complying with Section 11B-604.5.1 shall be provided and shall be located on the wall closest to the water closet. In addition, a rear-wall grab bar complying with Section 11B-604.5.2 shall be provided. Where separate grab bars are required on adjacent walls at a common mounting height, an L-shaped grab bar meeting the dimensional requirements of Sections 11B-604.5.1 and 11B-604.5.2 shall be permitted.

11B-604.8.2 Ambulatory accessible compartments. Ambulatory accessible compartments shall comply with Section 11B-604.8.2.

11B-604.8.2.1 Size. Ambulatory accessible compartments shall have a depth of 60 inches (1524 mm) minimum and a width of 35 inches (889 mm) minimum and 37 inches (940 mm) maximum.



11B-604.8.2
AMBULATORY ACCESSIBLE TOILET COMPARTMENT

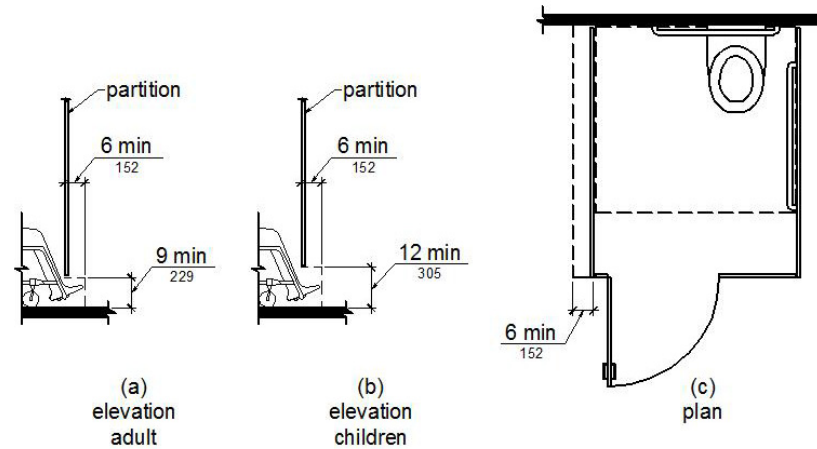


FIGURE 11B-604.8.1.4
WHEELCHAIR ACCESSIBLE TOILET COMPARTMENT TOE CLEARANCE

11B-604.8.2.2 Doors. Toilet compartment doors, including door hardware, shall comply with *Section 11B-404*, except that if the approach is to the latch side of the compartment door, clearance between the door side of the compartment and any obstruction shall be *44 inches (1118 mm)* minimum. The door shall be self-closing and have a privacy latch. A door pull complying with *Section 11B-404.2.7* shall be placed on both sides of the door near the latch. Toilet compartment doors shall not swing into the minimum required compartment area.

11B-604.8.2.3 Grab bars. Grab bars shall comply with *Section 11B-609*. A side-wall grab bar complying with *Section 11B-604.5.1* shall be provided on both sides of the compartment.

11B-604.8.3 Coat hooks and shelves. Coat hooks shall be located within one of the reach ranges specified in *Section 11B-308*. Shelves shall be located 40 inches (1016 mm) minimum and 48 inches (1219 mm) maximum above the finish floor.

11B-604.9 Water closets and toilet compartments for children's use. Water closets and toilet compartments for children's use shall comply with *Section 11B-604.9*. When the exception in *Section 11B-604.1* is used, the suggested dimensions of *Table 11B-604.9* for a single age group shall be applied consistently to the installation of a water closet and all associated components.

11B-604.9.1 Location. The water closet shall be located with a wall or partition to the rear and to one side. The centerline of the water closet shall be 12 inches (305 mm) minimum and 18 inches (457 mm) maximum from the side wall or partition, except that the water closet shall be 17 inches (432 mm) minimum and 19 inches (483 mm) maximum from the side wall or partition in the ambulatory accessible toilet compartment specified in *Section 11B-604.8.2*. Compartments shall be arranged for left-hand or right-hand approach to the water closet.

11B-604.9.2 Clearance. Clearance around a water closet shall comply with *Section 11B-604.3*.

11B-604.9.3 Height. The height of water closets shall be 11 inches (279 mm) minimum and 17 inches (432 mm) maximum measured to the top of the seat. Seats shall not be sprung to return to a lifted position.

11B-604.9.4 Grab bars. Grab bars for water closets shall comply with *Section 11B-604.5*.

11B-604.9.5 Flush controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with *Sections 11B-309.2* and *11B-309.4* and shall be installed 36 inches (914 mm) maximum above the finish floor. Flush controls shall be located on the open side of the water closet except in ambulatory accessible compartments complying with *Section 11B-604.8.2*.

11B-604.9.6 Dispensers. Toilet paper dispensers shall comply with *Section 11B-309.4* and shall be 7 inches (178 mm) minimum and 9 inches (229 mm) maximum in front of the water closet measured to the centerline of the dispenser. The outlet of the dispenser shall be 14 inches (356 mm) minimum and 19 inches (483 mm) maximum above the finish floor. There shall be a clearance of 1½ inches (38 mm) minimum below the grab bar. Dispensers shall not be of a type that controls delivery or that does not allow continuous paper flow.

11B-604.9.7 Toilet compartments. Toilet compartments shall comply with *Section 11B-604.8*.

11B-605 Urinals

11B-605.1 General. Urinals not provided in urinal compartments shall comply with *Sections 11B-605.1* through *11B-605.4*. Urinals provided in urinal compartments shall comply with *Sections 11B-605.1* through *11B-605.5*.

11B-605.2 Height and depth. Urinals shall be the stall-type or the wall-hung type with the rim 17 inches (432 mm) maximum above the finish floor or ground. Urinals shall be 13½ inches (343 mm) deep minimum measured from the outer face of the urinal rim to the back of the fixture.

11B-605.3 Clear floor space. A clear floor or ground space complying with *Section 11B-305* positioned for forward approach shall be provided.

11B-605.4 Flush controls. Flush controls shall be hand operated or automatic. Hand operated flush controls shall comply with *Section 11B-309* except that the flush control shall be mounted at a maximum height of 44 inches (1118 mm) above the finish floor. Urinals provided in urinal compartments and with hand operated flush controls shall have the controls located on the open side of the urinal.

11B-605.5 Urinal compartments. Wheelchair accessible urinal compartments shall comply with *Section 11B-605.5*.

TABLE 11B-604.9
SUGGESTED DIMENSIONS FOR CHILDREN'S USE

SUGGESTED DIMENSIONS FOR WATER CLOSETS SERVING CHILDREN AGES 3 THROUGH 12			
	Ages 3 and 4	Ages 5 through 8	Ages 9 through 12
Water Closet Centerline	12 inches (305 mm)	12 to 15 inches (305 to 381 mm)	15 to 18 inches (381 to 457 mm)
Toilet Seat Height	11 to 12 inches (279 to 305 mm)	12 to 15 inches (305 to 381 mm)	15 to 17 inches (381 to 432 mm)
Grab Bar Height	18 to 20 inches (457 to 508 mm)	20 to 25 inches (508 to 635 mm)	25 to 27 inches (635 to 686 mm)
Dispenser Height	14 inches (356 mm)	14 to 17 inches (356 to 432 mm)	17 to 19 inches (432 to 483 mm)

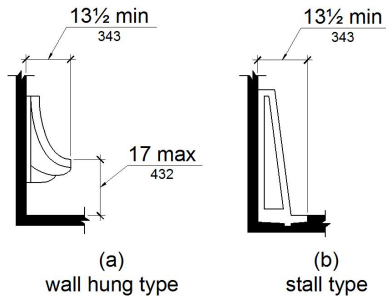


FIGURE 11B-605.2
HEIGHT AND DEPTH OF URINALS

Compartments containing more than one plumbing fixture shall comply with Section 11B-603.

11B-605.5.1 Urinal location. Urinals in compartments shall have the centerline of the urinal located 17 inches (432 mm) minimum to 18 inches (457 mm) maximum from the side wall or partition. Urinals shall be arranged for a left-hand or right-hand approach.

11B-605.5.2 Maneuvering clearance. A minimum 66 inches (1676 mm) wide and 66 inches (1676 mm) deep maneuvering space shall be provided in front of the urinal. A turning space complying with Section 11B-304 shall be provided within the compartment.

Exception: Where toe clearance complying with Section 11B-605.5.4 is provided, the required maneuvering space in front of the urinal fixture shall be permitted to

be reduced to 60 inches (1524 mm) minimum wide and 60 inches (1524 mm) minimum deep.

11B-605.5.3 Doors. Urinal compartment doors, including door hardware, shall comply with Section 11B-404 except that if the approach is from the push side of the compartment door, clearance between the door side of the compartment and any obstruction shall be 48 inches (1219 mm) minimum measured perpendicular to the compartment door in its closed position. Doors shall be located in the front partition or in the side wall or partition farthest from the urinal. Where located in the front partition, the door opening shall be 4 inches (102 mm) maximum from the side wall or partition farthest from the urinal. Where located in the side wall or partition, the door opening shall be 4 inches maximum (102 mm) from the front partition. The urinal compartment door shall be out-swinging, self-closing and have a privacy latch. Door pulls complying with Section 11B-404.2.7 shall be placed on both sides of the door near the latch.

Exception: When located at the side wall or partition of a urinal compartment, the compartment door opening shall provide a clear width of 34 inches (864 mm) minimum.

11B-605.5.4 Toe clearance. The front partition and at least one side partition shall provide a toe clearance of 9 inches (229 mm) minimum above the finish floor and 6 inches (152 mm) deep minimum beyond the compartment-side face of the partition, exclusive of partition support members. Partition components at toe clearances shall be smooth without sharp edges or abrasive surfaces. Com-

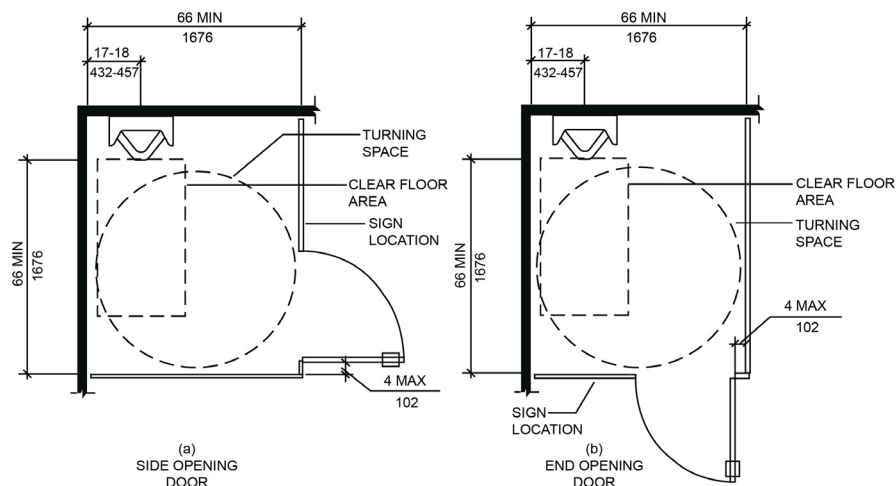


FIGURE 11B-605.5
URINAL COMPARTMENT

partments for children's use shall provide a toe clearance of 12 inches (305 mm) minimum above the finish floor.

11B-606 Lavatories and sinks

11B-606.1 General. Lavatories and sinks shall comply with Section 11B-606.

11B-606.2 Clear floor space. A clear floor space complying with Section 11B-305, positioned for a forward approach, and knee and toe clearance complying with Section 11B-306 shall be provided.

Exceptions:

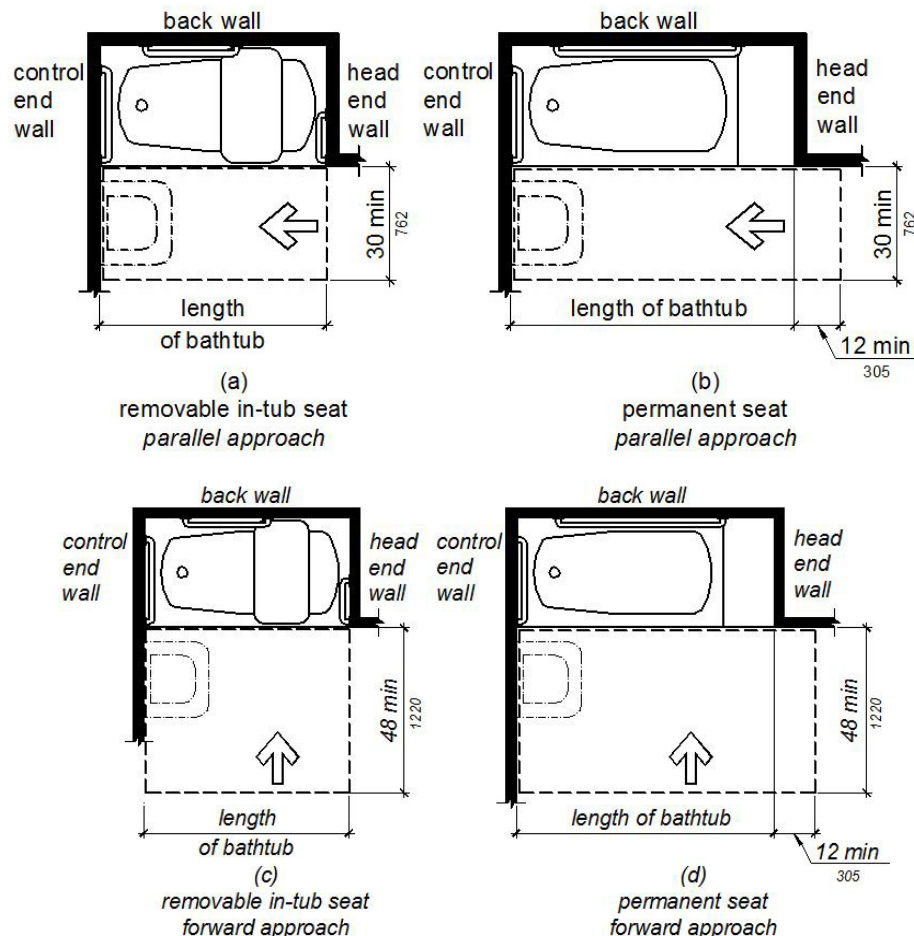
1. A parallel approach complying with Section 11B-305 shall be permitted to a kitchen sink in a space where a cook top or conventional range is not provided and to wet bars.
2. *Reserved.*
3. In residential dwelling units, cabinetry shall be permitted under lavatories and kitchen sinks provided that all of the following conditions are met:
 - (a) the cabinetry can be removed without removal or replacement of the fixture;
 - (b) the finish floor extends under the cabinetry; and
 - (c) the walls behind and surrounding the cabinetry are finished.

4. A knee clearance of 24 inches (610 mm) minimum above the finish floor or ground shall be permitted at lavatories and sinks used primarily by children 6 through 12 years where the rim or counter surface is 31 inches (787 mm) maximum above the finish floor or ground.
5. A parallel approach complying with Section 11B-305 shall be permitted to lavatories and sinks used primarily by children 5 years and younger.
6. The dip of the overflow shall not be considered in determining knee and toe clearances.
7. No more than one bowl of a multibowl sink shall be required to provide knee and toe clearance complying with Section 11B-306.

11B-606.3 Height. Lavatories and sinks shall be installed with the front of the higher of the rim or counter surface 34 inches (864 mm) maximum above the finish floor or ground.

Exceptions:

1. *Reserved.*
2. In residential dwelling unit kitchens, sinks that are adjustable to variable heights, 29 inches (737 mm) minimum and 36 inches (914 mm) maximum, shall be permitted where rough-in plumbing permits connections of supply and drain pipes for sinks mounted at the height of 29 inches (737 mm).



**FIGURE 11B-607.2
CLEARANCE FOR BATHTUBS**

11B-606.4 Faucets. Controls for faucets shall comply with Section 11B-309. Hand-operated metering faucets shall remain open for 10 seconds minimum.

11B-606.5 Exposed pipes and surfaces. Water supply and drain pipes under lavatories and sinks shall be insulated or otherwise configured to protect against contact. There shall be no sharp or abrasive surfaces under lavatories and sinks.

11B-606.6 Adjacent side wall or partition. Lavatories, when located adjacent to a side wall or partition, shall be a minimum of 18 inches (457 mm) to the centerline of the fixture.

11B-606.7 Sink depth. Where a forward approach is required at a sink, knee and toe clearance shall be provided in compliance with Section 11B-306.

11B-607 Bathtubs

11B-607.1 General. Bathtubs shall comply with Section 11B-607.

11B-607.2 Clearance. Clearance in front of bathtubs shall extend the length of the bathtub and shall be 48 inches (1219 mm) wide minimum for forward approach and 30 inches (762 mm) wide minimum for parallel approach. A lavatory complying with Section 11B-606 shall be permitted at the control end of the clearance. Where a permanent seat is provided at the head end of the bathtub, the clearance shall extend 12 inches (305 mm) minimum beyond the wall at the head end of the bathtub.

11B-607.3 Seat. A permanent seat at the head end of the bathtub or a removable in-tub seat shall be provided. Seats shall comply with Section 11B-610.

11B-607.4 Grab bars. Grab bars for bathtubs shall comply with Section 11B-609 and shall be provided in accordance with Section 11B-607.4.1 or 11B-607.4.2. Where separate grab bars are required on adjacent walls at a common

mounting height, an L-shaped or U-shaped grab bar meeting the dimensional requirements of Section 11B-607.4.1 or 11B-607.4.2 shall be permitted.

Exceptions:

1. Reserved.

- In residential dwelling units, grab bars shall not be required to be installed in bathtubs located in bathing facilities provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with Section 11B-607.4.

11B-607.4.1 Bathtubs with permanent seats. For bathtubs with permanent seats, grab bars shall be provided in accordance with Section 11B-607.4.1.

11B-607.4.1.1 Back wall. Two grab bars shall be installed on the back wall, one located in accordance with Section 11B-609.4 and the other located 8 inches (203 mm) minimum and 10 inches (254 mm) maximum above the rim of the bathtub. Each grab bar shall be installed 15 inches (381 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

11B-607.4.1.2 Control end wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

11B-607.4.2 Bathtubs without permanent seats. For bathtubs without permanent seats, grab bars shall comply with Section 11B-607.4.2.

11B-607.4.2.1 Back wall. Two grab bars shall be installed on the back wall, one located in accordance with Section 11B-609.4 and the other located 8 inches (203 mm) minimum and 10 inches (254 mm) maximum above the rim of

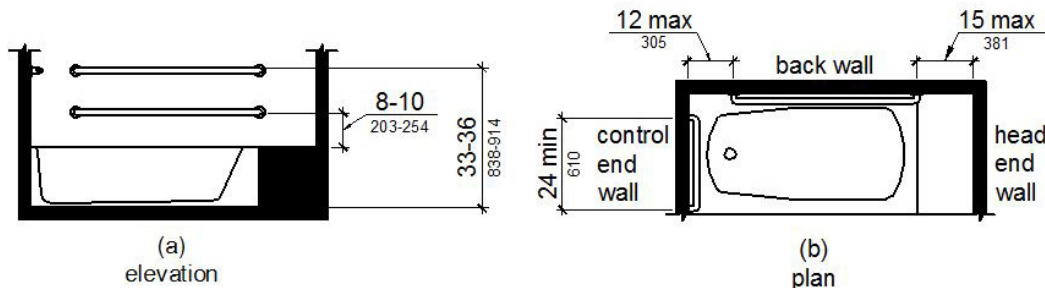


FIGURE 11B-607.4.1
GRAB BARS FOR BATHTUBS WITH PERMANENT SEATS

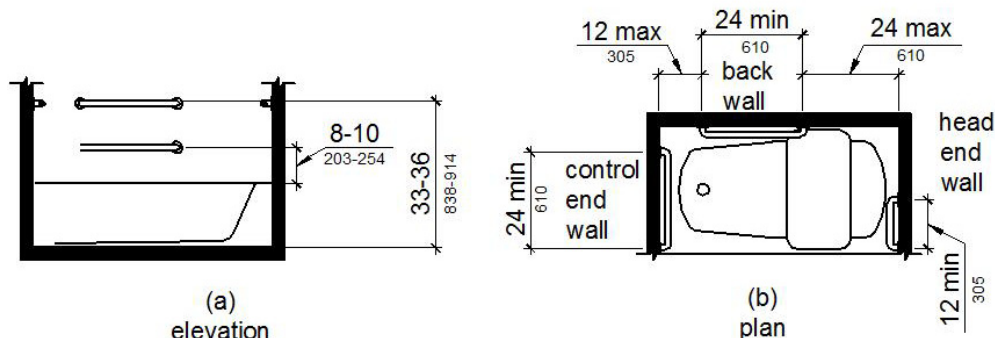


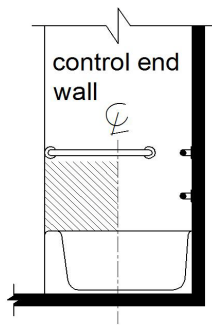
FIGURE 11B-607.4.2
GRAB BARS FOR BATHTUBS WITH REMOVABLE IN-TUB SEATS

the bathtub. Each grab bar shall be 24 inches (610 mm) long minimum and shall be installed 24 inches (610 mm) maximum from the head end wall and 12 inches (305 mm) maximum from the control end wall.

11B-607.4.2.2 Control end wall. A grab bar 24 inches (610 mm) long minimum shall be installed on the control end wall at the front edge of the bathtub.

11B-607.4.2.3 Head end wall. A grab bar 12 inches (305 mm) long minimum shall be installed on the head end wall at the front edge of the bathtub.

11B-607.5 Controls. Controls, other than drain stoppers, shall be located on an end wall. Controls shall be between the bathtub rim and grab bar, and between the open side of the bathtub and the centerline of the width of the bathtub. Controls shall comply with *Section 11B-309.4*.



**FIGURE 11B-607.5
BATHTUB CONTROL LOCATION**

11B-607.6 Shower spray unit and water. A shower spray unit with a hose 59 inches (1499 mm) long minimum that can be used both as a fixed-position shower head and as a hand-held shower shall be provided. The shower spray unit shall have an on/off control with a non-positive shut-off. If an adjustable-height shower head on a vertical bar is used, the bar shall be installed so as not to obstruct the use of grab bars. Bathtub shower spray units shall deliver water that is 120°F (49°C) maximum.

11B-607.7 Bathtub enclosures. Enclosures for bathtubs shall not obstruct controls, faucets, shower and spray units or obstruct transfer from wheelchairs onto bathtub seats or into bathtubs. Enclosures on bathtubs shall not have tracks installed on the rim of the open face of the bathtub.

11B-608 Shower compartments

11B-608.1 General. Shower compartments shall comply with *Section 11B-608*.

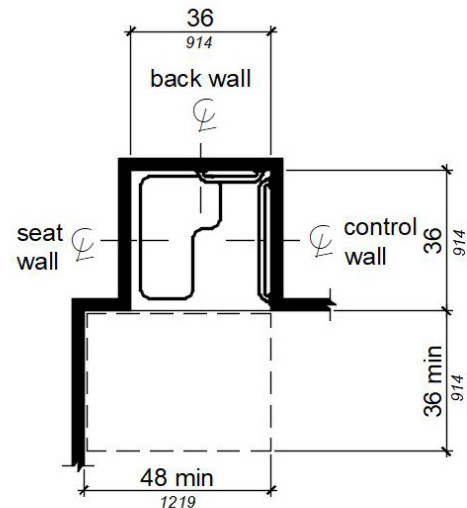
11B-608.2 Size and clearances for shower compartments. Shower compartments shall have sizes and clearances complying with *Section 11B-608.2*.

11B-608.2.1 Transfer type shower compartments.

Transfer type shower compartments shall be 36 inches (914 mm) by 36 inches (914 mm) clear inside dimensions measured at the center points of opposing sides and shall have a 36-inch (914 mm) wide minimum entry on the face of the shower compartment. Clearance of 36 inches (914 mm) wide minimum by 48 inches (1219 mm) long minimum measured from the control wall shall be provided. *Transfer type shower compartments shall be permitted in*

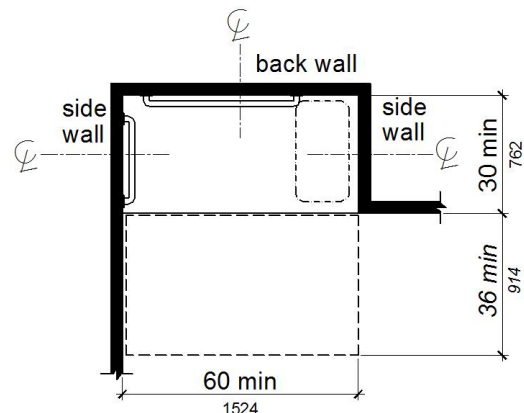
transient lodging guest rooms, multibedroom housing units in undergraduate student housing and residential dwelling units; and shall not be permitted at other locations to meet the requirements of Section 11B-213.3.6.

11B-608.2.2 Standard roll-in type shower compartments. Standard roll-in type shower compartments shall be 30 inches (762 mm) wide minimum by 60 inches (1524 mm) deep minimum clear inside dimensions measured at center points of opposing sides *with a full opening width on the long side*.



Note: inside finished dimensions measured at the center points of opposing sides

**FIGURE 11B-608.2.1
TRANSFER TYPE SHOWER
COMPARTMENT SIZE AND CLEARANCE**



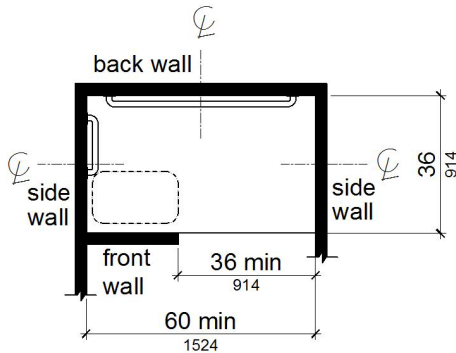
Note: inside finished dimensions measured at the center points of opposing sides

**FIGURE 11B-608.2.2
STANDARD ROLL-IN TYPE
SHOWER COMPARTMENT SIZE AND CLEARANCE**

11B-608.2.2.1 Clearance. A 36 inch (914 mm) wide minimum by 60 inch (1524 mm) long minimum clearance shall be provided adjacent to the open face of the shower compartment.

Exception: Reserved.

11B-608.2.3 Alternate roll-in type shower compartments. Alternate roll-in type shower compartments shall be 36 inches (914 mm) wide and 60 inches (1524 mm) deep minimum clear inside dimensions measured at center points of opposing sides. A 36 inch (914 mm) wide minimum entry shall be provided at one end of the long side of the compartment.



Note: inside finished dimensions measured at the center points of opposing sides

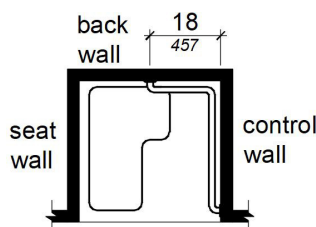
**FIGURE 11B-608.2.3
ALTERNATE ROLL-IN TYPE
SHOWER COMPARTMENT SIZE AND CLEARANCE**

11B-608.3 Grab bars. Grab bars shall comply with *Section 11B-609* and shall be provided in accordance with *Section 11B-608.3*. Where multiple grab bars are used, required horizontal grab bars shall be installed at the same height above the finish floor. Where separate grab bars are required on adjacent walls at a common mounting height, an L-shaped or U-shaped grab bar meeting the dimensional requirements of *Section 11B-608.3.2* or *11B-608.3.3* shall be permitted.

Exceptions:

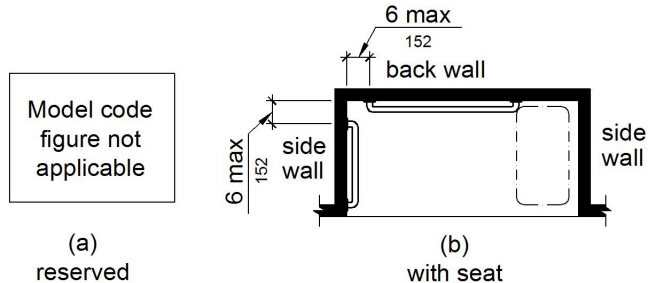
1. *Reserved.*
2. In residential dwelling units, grab bars shall not be required to be installed in showers located in bathing facilities provided that reinforcement has been installed in walls and located so as to permit the installation of grab bars complying with *Section 11B-608.3*.

11B-608.3.1 Transfer type shower compartments. In transfer type compartments, grab bars shall be provided across the control wall and back wall to a point 18 inches (457 mm) from the control wall.



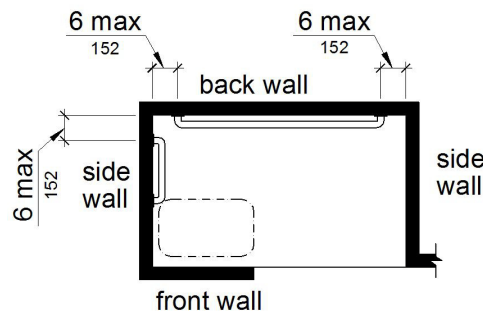
**FIGURE 11B-608.3.1
GRAB BARS FOR TRANSFER TYPE SHOWERS**

11B-608.3.2 Standard roll-in type shower compartments. Grab bars shall be provided on the back wall and the side wall opposite the seat. Grab bars shall not be provided above the seat. Grab bars shall be installed 6 inches (152 mm) maximum from adjacent walls.



**FIGURE 11B-608.3.2
GRAB BARS FOR STANDARD ROLL-IN TYPE SHOWER**

11B-608.3.3 Alternate roll-in type shower compartments. In alternate roll-in type shower compartments, grab bars shall be provided on the back wall and the side wall farthest from the compartment entry. Grab bars shall not be provided above the seat. Grab bars shall be installed 6 inches (152 mm) maximum from adjacent walls.



**FIGURE 11B-608.3.3
GRAB BARS FOR ALTERNATE ROLL-IN TYPE SHOWERS**

11B-608.4 Seats. A folding seat shall be provided in roll-in type showers and transfer type shower compartments. Seats shall comply with *Section 11B-610*.

Exception: In residential dwelling units, seats shall not be required in shower compartments provided that reinforcement has been installed in walls so as to permit the installation of seats complying with *Section 11B-608.4*.

11B-608.5 Controls. Controls, faucets and shower spray units shall comply with *Section 11B-309.4*. Controls and faucets shall allow the user to close and open the water supply.

11B-608.5.1 Transfer type shower compartments. In transfer type shower compartments, the controls, faucets and shower spray unit shall be installed on the side wall opposite the seat 38 inches (965 mm) minimum and 48 inches (1219 mm) maximum above the shower floor and shall be located on the control wall 15 inches (380 mm)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 12 – INTERIOR ENVIRONMENT

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC-CG	SFM	HCD			DSA			OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3/6	4	5							
Adopt entire chapter								X	X													
Adopt entire chapter as amended (amended sections listed below)	X			X	X					X	X	X	X	X	X							
Adopt only those sections that are listed below		X	X													X	X	X		X		
Chapter / Section																						
1202.1				X	X																	
1202.2.1				X	X																	
1202.3				X	X																	
1202.4.1.3																				X		
1202.5				X	X																	
1202.5.2.1				X	X																	
1202.6			X																			
1203.1, Exceptions 2 & 4				X	X																	
1203.1, Exception 3										X	X	X	3	X	X							
Table 1203.3.1																			X			
1203.4.1.1																				X		
1203.4.2																				X		
1204.1				X	X																	
1204.4.1				X	X																	
1204.6		X																				
1204.7	X																					
1204.7.1	X																					
1205			X																			
1206.3, Exception				X	X																	
1206.4				X	X																	
1206.5		X																				
1208.1				X																		
1208.2										X	X	X	3	X	X							
1208.2, Exception 5										X		X	3		X							
1208.2, Exception 6														X								
1208.4				X																		
1209			X																			
1209.1.1																				X		
1210.2										X		X	3	X	X							
1211 – 1211.6				X	X																	
1212				X																		
Table 1224.4.6.5										X	X	X	3	X	X							
1224										X												
1225												X										
1226													3									
1227														X								
1228															X							
1229													6									
1230																X						
1231																X						
1235																	X					
1236																	X					

(continued)

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 12 – INTERIOR ENVIRONMENT—continued

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHDP						BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3/6	4	5								
Adopt entire chapter								X	X														
Adopt entire chapter as amended (amended sections listed below)	X			X	X					X	X	X	X	X	X								
Adopt only those sections that are listed below		X	X													X	X	X			X		
Chapter / Section																							
1237																	X						
1240																		X					
1241																		X					
1242																		X					
1243																		X					
1250																				X			
1251																				X			
1252																				X			
1253																				X			
1254																				X			

The Office of the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures regulated by other state agencies pursuant to Section 1.11.

CHAPTER 12

INTERIOR ENVIRONMENT

User note:

About this chapter: Chapter 12 provides minimum provisions for the interior of buildings—the occupied environment. Ventilation, lighting, and space heating are directly regulated in this chapter and in conjunction with the California Mechanical Code and the California Energy Code. Minimum room size, maximum room-to-room sound transmission and classroom acoustics are set for educational occupancies.

SECTION 1201 GENERAL

1201.1 Scope. The provisions of this chapter shall govern ventilation, temperature control, lighting, yards and courts, sound transmission, room dimensions, surrounding materials and rodentproofing associated with the interior spaces of buildings.

SECTION 1202 VENTILATION

1202.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1202.5, or mechanical ventilation in accordance with the *California Mechanical Code*.

1202.2 Roof ventilation. Roof assemblies shall be ventilated in accordance with this section or shall comply with Section 1202.3.

1202.2.1 Ventilated attics and rafter spaces. Enclosed attics and enclosed rafter spaces formed where ceilings are applied directly to the underside of roof framing members shall have cross ventilation for each separate space by ventilation openings protected against the entrance of rain and snow. Blocking and bridging shall be arranged so as not to interfere with the movement of air. An airspace of not less than 1 inch (25 mm) shall be provided between the insulation and the roof sheathing. The net free ventilating area shall be not less than $\frac{1}{150}$ of the area of the space ventilated. Ventilators shall be installed in accordance with manufacturer's installation instructions.

Exception: The net free cross-ventilation area shall be permitted to be reduced to $\frac{1}{300}$ provided both of the following conditions are met:

1. In Climate Zones 6, 7 and 8, a Class I or II vapor retarder is installed on the warm-in-winter side of the ceiling.
2. At least 40 percent and not more than 50 percent of the required venting area is provided by ventilators located in the upper portion of the attic or rafter space. Upper ventilators shall be located not more than 3 feet (914 mm) below the ridge or highest point of the space, measured vertically, with the balance of the ventilation provided by eave or cornice vents. Where the location of wall

or roof framing members conflicts with the installation of upper ventilators, installation more than 3 feet (914 mm) below the ridge or highest point of the space shall be permitted.

1202.2.2 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 not less than $\frac{1}{16}$ inch (1.6 mm) and not more than $\frac{1}{4}$ inch (6.4 mm) shall be permitted. Openings for ventilation having a least dimension larger than $\frac{1}{4}$ 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 not less than $\frac{1}{16}$ inch (1.6 mm) and not more than $\frac{1}{4}$ inch (6.4 mm). Where combustion air is obtained from an attic area, it shall be in accordance with Chapter 7 of the *California Mechanical Code*.

1202.3 Unvented attic and unvented enclosed rafter assemblies. Unvented attics and unvented enclosed roof framing assemblies created by ceilings applied directly to the underside of the roof framing members/rafters and the structural roof sheathing at the top of the roof framing members shall be permitted where all of the following conditions are met:

1. The unvented attic space is completely within the building thermal envelope.
2. No interior Class I vapor retarders are installed on the ceiling side (attic floor) of the unvented attic assembly or on the ceiling side of the unvented enclosed roof framing assembly.
3. Where wood shingles or shakes are used, not less than a $\frac{1}{4}$ -inch (6.4 mm) vented airspace separates the shingles or shakes and the roofing underlayment above the structural sheathing.
4. In Climate Zones 5, 6, 7 and 8, any air-impermeable insulation shall be a Class II vapor retarder or shall have a Class II vapor retarder coating or covering in direct contact with the underside of the insulation.

4.1. [HCD 1 & HCD 2] In California Climate Zones 14 and 16, a Class I or Class II vapor retarder shall be installed on the indirectly conditioned space side of all insulation in an unvented attic

with air-permeable insulation, for condensation control.

5. Insulation shall comply with either Item 5.1 or 5.2, and additionally Item 5.3.

5.1. Item 5.1.1, 5.1.2, 5.1.3 or 5.1.4 shall be met, depending on the air permeability of the insulation directly under the structural roof sheathing.

5.1.1. Where only air-impermeable insulation is provided, it shall be applied in direct contact with the underside of the structural roof sheathing.

5.1.2. Where air-permeable insulation is provided inside the building thermal envelope, it shall be installed in accordance with Item 5.1.1. In addition to the air-permeable insulation installed directly below the structural sheathing, rigid board or sheet insulation shall be installed directly above the structural roof sheathing in accordance with the *R*-values in Table 1202.3 for condensation control.

5.1.3. Where both air-impermeable and air-permeable insulation are provided, the air-impermeable insulation shall be applied in direct contact with the underside of the structural roof sheathing and shall be in accordance with the *R*-values in Table 1202.3 for condensation control. The air-permeable insulation shall be installed directly under the air-impermeable insulation.

5.1.4. Alternatively, sufficient rigid board or sheet insulation shall be installed directly above the structural roof sheathing to maintain the monthly average temperature of the underside of the structural roof sheathing above 45°F (7°C). For calculation purposes, an interior air temperature of 68°F (20°C) is assumed and the exterior air temperature is assumed to be the monthly average outside air temperature of the three coldest months.

- 5.2. In Climate Zones 1, 2 and 3, air-permeable insulation installed in unvented attics shall meet the following requirements:

5.2.1. A vapor diffusion port shall be installed not more than 12 inches (305 mm) from the highest point of the roof, measured vertically from the highest point of the roof to the lower edge of the port.

5.2.2. The port area shall be greater than or equal to $\frac{1}{600}$ of the ceiling area. Where there are multiple ports in the attic, the sum of the port areas shall be greater than or equal to the area requirement.

5.2.3. The vapor permeable membrane in the vapor diffusion port shall have a vapor permeance rating of greater than or equal to 20 perms when tested in accordance with Procedure A of ASTM E96.

5.2.4. The vapor diffusion port shall serve as an air barrier between the attic and the exterior of the building.

5.2.5. The vapor diffusion port shall protect the attic against the entrance of rain and snow.

5.2.6. Framing members and blocking shall not block the free flow of water vapor to the port. Not less than a 2-inch (50 mm) space shall be provided between any blocking and the roof sheathing. Air-permeable insulation shall be permitted within that space.

5.2.7. The roof slope shall be greater than or equal to 3 units vertical in 12 units horizontal (3:12).

5.2.8. Where only air-permeable insulation is used, it shall be installed directly below the structural roof sheathing, on top the attic floor, or on top of the ceiling.

5.2.9. Where only air-permeable insulation is used and is installed directly below the structural roof sheathing, air shall be supplied at a flow rate greater than or equal to 50 cubic feet per minute (23.6 L/s) per 1,000 square feet (93 m²) of ceiling.

- 5.3. The air shall be supplied from ductwork providing supply air to the occupiable space when the conditioning system is operating. Alternatively, the air shall be supplied by a supply fan when the conditioning system is operating. Where preformed insulation board is used as the air-impermeable insulation layer, it shall be sealed at the perimeter of each individual sheet interior surface to form a continuous layer.

Exceptions:

1. Section 1202.3 does not apply to special use structures or enclosures such as swimming pool enclosures, data processing centers, hospitals or art galleries.

SECTION 1212 [HCD 1] POLLUTANT CONTROL

1212.1 Finish material pollutant control. *Finish materials, including adhesives, sealants, caulks, paints and coatings, aerosol paints and coatings, carpet systems, carpet cushion, carpet adhesive, resilient flooring systems and composite wood products shall meet the volatile organic compound (VOC) emission limits in accordance with the California Green Building Standards Code (CALGreen), Chapter 4, Division 4.5.*

SECTION 1213 Reserved

SECTION 1214 Reserved

SECTION 1215 Reserved

SECTION 1216 Reserved

SECTION 1217 Reserved

SECTION 1218 Reserved

SECTION 1219 Reserved

SECTION 1220 Reserved

SECTION 1221 Reserved

SECTION 1222 Reserved

SECTION 1223 Reserved

SECTION 1224 [OSHDP 1] HOSPITALS

1224.1 Scope. [OSHDP 1] *The provisions of this section shall apply to general acute-care hospitals and general acute-care hospitals providing only acute medical rehabilitation center services. The provisions of Section 1225 shall apply to distinct part skilled nursing and intermediate-care services on a general acute-care hospital license provided in a separate unit. The provisions of Section 1229 shall apply to distinct part chemical dependency recovery hospitals on a general acute-care license provided in a separate unit.*

[OSHDP 1R] *This section shall apply to buildings removed from acute care service, in compliance with Part 10, California Existing Building Code, Chapter 3A, and remain under OSHDP jurisdiction.*

1224.2 Application. *New buildings and additions, alterations or repairs to existing buildings subject to licensure shall comply with applicable provisions of the California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code, California Existing Building Code (Parts 3, 4, 5, 6, 9 and 10 of Title 24) and this section.*

Exceptions:

1. *Facilities licensed and in operation prior to the effective date of this section shall not be required to institute corrective alterations or construction to comply with any new requirements imposed thereby or subsequently, except where specifically required or where the enforcing agency determines that a definite hazard to health and safety exists. Facilities for which preliminary drawings have been submitted to the enforcing agency prior to the effective date of this change shall not be required to comply with such new requirements, provided working drawings are submitted within one year of the effective date of such new requirements.*
2. *A change in function shall require compliance with all the functional requirements for new construction in this code, including requirements in Sections 1224, 1225, 1226, 1227 and 1228.*
3. *The provisions of this section do not prohibit the use of alternate space utilization, new concepts of design, treatment techniques, equipment and alternate finish materials provided the intent of this section is accommodated and written approval for such alternative is granted by the enforcing agency. Written substantiating evidence in support of the alternate and a written request for consideration shall be submitted to the enforcing agency.*
4. *Nothing in this section shall prohibit the provisions of required services from a centralized service facility serving two or more licensed facilities when approved in writing by the licensing agency. Buildings and required spaces for services provided in a separate centralized services facility shall comply with all applicable provisions of these regulations and applicable local codes and ordinances for the services so provided.*
5. *Acute psychiatric hospitals and general acute-care hospitals providing only acute medical rehabilitation center services may provide for surgical and anesthesia services to be provided by an outside licensed facility when approved by the licensing agency.*
6. *When the Corrections Standards Authority, the Department of Corrections or the Department of Youth Authority determines that a particular requirement for hospitals located in a correctional facility may compromise the safety, security or protection of staff, inmates or property, the enforcement agency shall consider an alternate design.*

1224.2.1 Removed from acute care service [OSHDP 1R]. *Hospital buildings removed from acute care service in accordance with Part 10, California Existing Building*

Code, Section 309A may provide outpatient services and other uses. Required Basic or Supplemental Services on the hospital's license may not be provided.

Exceptions:

1. Duplicative hospital services when permitted by California Department of Public Health.
2. Skilled Nursing Services may be provided in conformance with Section 1225.
3. Acute Psychiatric Services may be provided in conformance with Section 1228.

1224.3 Definitions. Specific terms and definitions are provided to facilitate consistency in the interpretation and application of these requirements. Some of these terms may have a broader definition in other contexts, but the definitions provided here reflect the use of the terms for OSHPD requirements.

AIR CONDITIONING. The process or system by which simultaneously the temperature, humidity, air motion and quality are maintained within required limits.

AIRBORNE INFECTION ISOLATION ROOM. A single-occupancy patient room where environmental factors are controlled in an effort to minimize the transmission of those infectious agents usually spread from person to person by droplet nuclei associated with coughing and inhalation.

AMBULATORY CARE. A defined health care encounter(s) of less than 24 hours in duration that requires direct professional health care support within a specific facility.

AMBULATORY SURGICAL FACILITY. Any surgical facility organized for the purpose of providing procedural, invasive surgical care to patients with the expectation that they will be recovered sufficiently to be discharged in less than a 24-hour period.

ANGIOGRAPHY. The radiographic visualization of blood vessels following introduction of contrast material for purposes of diagnosis.

BASIC SERVICES. Those essential services required for licensure as a hospital, including medical, nursing, surgical, anesthesia, laboratory, radiology, pharmacy, dietary services and support services. See "SUPPLEMENTAL SERVICES."

BIOTERRORISM. The use or threat of use, of biological agents to intimidate a political entity or population group.

CENTRAL AIR-HANDLING SYSTEMS. Any units requiring ductwork on the supply or inlet side and serving more than one room.

CHANGE IN FUNCTION. A change in function is a change in activity, service or licensed service provided, within the project limits, that does not necessarily change the use, specific use and/or occupancy. Conversion of a space that results in a change in activity such that the space will be required to satisfy the functional requirements under a different code sub-section than that of the prior use is considered a change in function.

CLEAR DIMENSION. An unobstructed room dimension exclusive of built-in casework and equipment and available for functional use.

COURT. An open exterior space bounded on three or more sides by the walls of a structure.

ENVIRONMENT OF CARE. Those features in a built health care entity that are created, structured and maintained to support quality health care.

EXAM ROOM. A room with a bed, stretcher or examination table and capability for periodic monitoring (e.g., measurement of blood pressure or pulse oximetry) in which procedures that do not require a specialized suite can be performed (e.g., pelvic examination, blood transfusion).

FLOOR AREA, CLEAR. The actual occupied area exclusive of fixed or wall-mounted cabinets, fixed beds and furnishings, built-in shelves, toilet rooms, closets, lockers, wardrobes, alcoves, anterooms or vestibules.

GENERAL ACUTE-CARE HOSPITAL. A hospital, licensed by the California Department of Public Health, having a duly constituted governing body with overall administrative and professional responsibility and an organized medical staff which provides 24-hour inpatient care, including the basic services.

HANDWASHING STATION. A clinical staff-use area that provides a handwashing fixture, cleansing agents and means for drying hands. Handwashing stations shall be immediately accessible to the patient care area they serve without requiring passage through a doorway unless hands-free door operation is provided. Refer to the California Plumbing Code, Section 210.0 for the definition of handwashing fixture.

HOSPITAL. A general acute-care hospital, including those providing only acute medical rehabilitation center services and acute psychiatric hospitals.

HOUSEKEEPING. Services anywhere within a health care facility that include general cleaning and tidying and the provision and positioning of identified materials, e.g., soaps, towels, etc. (While routine disinfection protocols can be included in such a definition, the definition is not intended to include complex, nonroutine disinfection procedures nor the nonroutine disposition of hazardous materials such as potentially toxic drugs or other chemicals and radioactive wastes.)

INVASIVE PROCEDURE. A procedure that is performed in an aseptic surgical field and penetrates the protective surfaces of a patient's body (e.g., subcutaneous tissue, mucous membranes, cornea). An invasive procedure may fall into one or more of the following categories:

1. Requires entry into or opening of a sterile body cavity (i.e., cranium, chest, abdomen, pelvis, joint spaces).
2. Involves insertion of an indwelling foreign body.
3. Includes excision and grafting of burns that cover more than 20 percent of total body area.
4. Does not begin as an open procedure but has a recognized measurable risk of requiring conversion to an open procedure.

LDR. Labor, Delivery, Recovery (an unlicensed patient bed)

LDRP. Labor, Delivery, Recovery, Postpartum (a licensed patient bed)

LICENSING AGENCY. The Department of Public Health, Licensing and Certification.

LOCATION TERMINOLOGY (terms for relationship to an area or room)

ADJACENT. Located next to but not necessarily connected to the identified area or room.

DIRECTLY ACCESSIBLE. Connected to the identified area or room through a doorway or other opening without going through an intervening room or public space.

IMMEDIATELY ACCESSIBLE. Available either in the identified area or room, or directly accessible from a room or area located within the same department or service space.

IN. Located within the identified area or room.

READILY ACCESSIBLE. Located within the same department or service space as the identified area or room, located in and shared with an adjacent unit, or within 200 feet (60.96 m) of the department or service space in an accessible corridor.

MONOLITHIC. A surface free of fissures, cracks, perforations and crevices.

MONOLITHIC CEILING. A ceiling constructed with a surface free of fissures, cracks and crevices. Any penetrations such as lights, diffusers and access panels shall be sealed or gasketed. Lay-in ceilings are not considered “monolithic.”

NURSING UNIT. A designated patient care area of the hospital which is planned organized, operated and maintained to function as a unit. It includes patient rooms with adequate support facilities, services and personnel providing nursing care and necessary management of patients.

OPERATING ROOM. A room specifically designed for the performance of surgical procedures. (In common understanding, this means most types of surgical procedures, especially those involving the administration of anesthesia, multiple personnel, recovery room access and a fully controlled environment.)

HYBRID OPERATING ROOM. A room that meets the definition of an operating room and is also equipped to enable diagnostic imaging before, during and after surgical procedures. Imaging equipment is permanently installed in the room and may include MRI, fixed single-plane and bi-plane tomographic imaging systems and computed tomographic equipment.

Note: Use of portable imaging technology does not make an operating room a hybrid operating room.

OUTPATIENT SERVICE. An organizational unit of the hospital, which provides nonemergency healthcare services to patients.

PATIENT CARE LOCATIONS. Multi-patient treatment rooms, where allowed, may provide patient care stations in bays or cubicles as follows:

BAY (patient). A space for human occupancy with one hard wall at the headwall and up to one hard wall at either side, with two to three soft walls (e.g., cubicle curtains or portable privacy screen). The required area for the specific patient care space shall be provided within the cubicle curtain and not overlap with access circulation aisle.

CUBICLE. A space intended for human occupancy that has at least one opening and no door and is enclosed on three sides with full-height or partial-height partitions.

PATIENT CARE STATION. A designated space for a specific patient care function. This term does not imply any structural requirement (e.g., a Post-anesthesia Care Unit (PACU) can have 10 patient care stations of which three are rooms, three are cubicles and four are bays).

PATIENT ROOM. Licensed patient bed rooms or rooms occupied by one or more individuals during an overnight stay over 24 hours in a health facility. Also referred to as a patient bedroom.

PERIOPERATIVE. Patient care and other related supportive activities before, during or after the operative event.

PROCEDURE ROOM. A room designated for the performance of patient care that requires high-level disinfection or sterile instruments and some environmental controls but is not required to be performed with the environmental controls of an operating room.

PROTECTIVE ENVIRONMENT. A bedded unit or patient room where severely immunosuppressed patients are cared for.

RESTRICTED AREA. Applies to a designated space contained within the semi-restricted area and accessible only through a semi-restricted area. The restricted area includes operating and other rooms in which operative or other invasive procedures are performed. Such space has one or more of the following attributes: specific signage, physical barriers, security controls and protocols that delineate requirements for monitoring, maintenance, attire and use.

ROOM. A space enclosed by hard walls and having a door. Where the word “room” or “office” is used, a separate, enclosed space for the one named function is intended. Otherwise, the described area may be a specific space in another room or common area.

SCRUB SINK. A sink used to wash and scrub the hands and arms during the aseptic preparation for surgery and equipped with a supply spout and controls as required for a handwashing fixture. Refer to the California Plumbing Code Sections 210.0 and 221.0.

SEMI-RESTRICTED AREA. Applies to peripheral areas that support surgical services or intermediate level procedures or imaging. These areas may include storage for equipment and clean and sterile supplies; work area for processing instruments; sterile processing facilities; hand scrub stations; corridors leading from the unrestricted area to the restricted area of the surgical suite; entrances to staff changing areas; pre- and postoperative patient care areas; and sterile processing facilities. The semi-restricted area of the surgical suite is entered directly from the unrestricted area past a nurse station or from other areas. Public access is controlled.

SERVICE SINK. A sink located in a housekeeping room and designed for the purpose of cleaning mops and the disposal of waste water.

SERVICE SPACE. Service Space refers to the distinct area of a health facility where a licensed Basic Service or Supplemental Service is provided. The Service Space shall include all the functional area requirements required to deliver the specific Service. Basic Service Spaces are identified in Sections 1224.14 through 1224.27. Supplemental Service Spaces are identified in Sections 1224.28 through 1224.41. Similar

distinctions are made between Basic and Supplemental or Optional Services in Section 1225 through Section 1228. Required functional areas may be a portion of a larger space, one or more Patient Care Locations, support areas or separate Rooms as defined in Section 1224.3. See departmental boundary requirements under Section 1224.4.7.6.

SUB-ACUTE CARE. A segment within a continuum of levels of care determined by patient acuity, clinical stability and resource needs.

SUPPLEMENTAL SERVICE. An inpatient or outpatient service which is not required to be provided by law or regulation for licensure. A supplemental service, when provided, must accommodate the provisions of this section.

Note: See “BASIC SERVICES.”

SURGICAL SERVICE SPACE. A space that includes the operating room(s) and service areas.

TREATMENT ROOM. A room designated for the performance of patient care activities that may require high-level disinfected or sterile instruments but do not require the environmental controls of a procedure room. A treatment room may be used for a variety of functions, patient examination and various treatments or procedures, including wound packing, suture placement, or casting. This room may contain specialized equipment as identified in the functional program.

UNRESTRICTED AREA. Applies to any area of the surgery or medical department that is not defined as semi-restricted or restricted. These areas may include a central control point for designated personnel to monitor the entrance of patients, personnel and materials into the semi-restricted areas; staff changing areas; a staff lounge; offices; waiting rooms or area; pre- and postoperative patient care areas; or access to procedure rooms. Public access may be limited.

1224.4 GENERAL CONSTRUCTION.

1224.4.1 Jurisdiction.

1224.4.1.1 Services/systems and utilities.

[OSHDP 1J] Services/systems and utilities shall comply with California Existing Building Code Section 310A.

[OSHDP 1R] Services/systems and utilities shall only originate in, or pass through or under structures which are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHDP).

1224.4.1.2 Means of egress.

[OSHDP 1J] Means of egress shall comply with Part 10, California Existing Building Code, Section 308A.

[OSHDP 1R] Means of egress shall only pass through structures that are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHDP).

1224.4.2 Environmental engineering and support service spaces. Spaces for dietary, laundry, morgue, ambulance entrance, receiving areas, power plants, mechanical equipment, incinerator, garbage can cleaning, automobile parking and storage areas for garbage, trash and medical gases shall be located and constructed to minimize noise,

steam, odors, hazards and unsightliness in patient-care areas and bedrooms.

1224.4.3 Treatment spaces. Radiology, laboratory, pharmacy, physical therapy and service spaces serving only outpatients and similar outpatient service departments shall not be located in nursing units, surgical units, perinatal units, nursery areas, central sterilization rooms, food-service areas, power plants, mechanical equipment rooms, maintenance shops, general storage, laundry, employees' dressing or housekeeping facilities.

Exception: Physical and occupational therapy spaces of a rehabilitation service may serve both outpatients and inpatients.

1224.4.4 Support areas for patient care. Identifiable spaces shall be provided for each function indicated in all Basic and applicable Supplemental Service Space sections with requirements for support areas. The following rooms and spaces are common to most types of health care facilities and the requirements associated with each, as listed below, shall be used unless modified under a specific Service Space section.

1224.4.4.1 Examination, treatment and procedure rooms.

1224.4.4.1.1 Examination room. Unless specified elsewhere, if an exam room is provided, it shall have a minimum clear floor area of 80 square feet (7.4 m²), the least dimension of which shall be 8 feet (2438 mm). The room shall contain a handwashing fixture and accommodations for written or electronic documentation shall be provided.

1224.4.4.1.2 Treatment room. Unless specified elsewhere, if a treatment room is provided, it shall have a minimum clear floor area of 120 square feet (11.15 m²), the least dimension of which shall be 10 feet (3048 mm). A minimum of 3 feet (914 mm) is required between the sides and foot of the bed/gurney/table and any wall or other fixed obstruction. The room shall contain an examination light, a work counter for medical equipment, a handwashing fixture, cabinets, medication storage and counter space for writing or electronic documentation. If used for exercise stress testing, include space for a crash cart and patient resuscitation and omit the exam light. Multi-bed treatment rooms shall have separate patient cubicles with a minimum clear floor area of 80 square feet (7.4 m²) per cubicle. Each cubicle shall contain an examination light, counter and storage facilities. In multi-bed treatment rooms, a handwashing fixture shall be provided in the room for each three or fewer cubicles.

1224.4.4.1.3 Airborne infection isolation exam/treatment room. When provided, the airborne infection isolation room shall be an exam/treatment room, shall be labeled with the words “Airborne Infection Room”, and provide the following:

1. Capacity. Each airborne infection isolation exam/treatment room shall contain only one examination table or recliner.

2. *Handwashing station.* A handwashing station shall be located in each airborne infection isolation exam/treatment room.
3. *Gowning and storage area.* An area for gowning and storage of clean and soiled materials shall be located directly outside or inside the entry door to the airborne infection isolation exam/treatment room.
4. *Doors.* Room doors shall be self-closing and include latching devices.
5. *Sealed-tight room.* Room perimeter walls, ceiling, floors, doors and penetration shall be sealed tightly to minimize air infiltration from the outside or from other spaces.
6. *Ventilation.* The ventilation shall be provided as required by the California Mechanical Code for airborne infection isolation room.

1224.4.4.1.3.1 Airborne infection isolation exam/treatment anteroom. An airborne infection isolation anteroom is not required; however, when an anteroom is provided, it shall meet the following requirements:

1. The anteroom shall provide space for persons to don personal protective equipment before entering the patient room.
2. All doors to the anteroom shall have self-closing devices.
3. The anteroom shall provide storage of personal protective equipment (e.g., respirators, gowns, gloves) and clean equipment.
4. Ventilation shall be provided in the anteroom as required by the California Mechanical Code for airborne infection isolation anteroom.

1224.4.4.1.4 Procedure room. Unless specified elsewhere, if a procedure room is provided, it shall meet the requirements in this section.

1224.4.4.1.4.1 General.

- (1) *Application.* The governing body shall perform a clinical assessment of the procedures to be performed to determine the appropriate room type and location for these procedures and document this in the Functional Program in compliance with the California Administrative Code, Section 7-119. Where a procedure room is used for multiple procedure types, the room shall meet the most stringent requirements for the space.
- (2) *Location.* The procedure room shall meet the requirements of a semi-restricted area. The procedure room shall be permitted to be accessed from a semi-restricted corridor or from an unrestricted corridor.

1224.4.4.1.4.2 Space requirements.

- (1) *Area.* Procedure rooms shall have a minimum clear floor area of 130 square feet

(12.08 m²). Procedure rooms where anesthesia will be administered using an anesthesia machine and supply carts shall have a minimum clear floor area of 160 square feet (14.86 m²). Procedure rooms where procedures will be performed that require additional personnel and/or large equipment shall be sized to accommodate the personnel and equipment planned to be in the room during procedures, including additional personnel and equipment that will be needed for emergency rescue.

- (2) *Clearances.* Procedure rooms shall have the following minimum clearances around the table, gurney or procedure chair:
 - (a) 3 feet 6 inches (1070 mm) on each side.
 - (b) 3 feet (914.4 mm) at the head and foot. Where an anesthesia machine and associated supply cart is used, the clearance at the head shall be a minimum of 6 feet (1830 mm).
- (3) *Fixed encroachments into the minimum clear floor area.* Fixed encroachments shall be permitted to be included when determining the minimum clear floor area for a procedure room as long as:
 - (a) The encroachments do not extend more than 12 inches (305 mm) into the minimum clear floor area.
 - (b) Where a sterile field is provided, the encroachment shall not extend into the sterile field.
 - (c) The encroachment width along each wall does not exceed 10 percent of the length of that wall.

1224.4.4.1.4.3 Documentation area.

- (1) Accommodations for written and/or electronic documentation shall be provided in the procedure room.
- (2) Where a built-in feature is provided for documentation, it shall allow for direct observation of the patient.

1224.4.4.1.4.4 Patient privacy. Provisions shall be made for patient visual and speech privacy.

1224.4.4.1.4.5 Handwashing station. A handwashing station shall be provided in the procedure room. Where a hand scrub station is directly accessible to the procedure room, omission of the handwashing station is permitted.

1224.4.4.1.5 Seclusion room. Where provided, seclusion rooms shall comply with the following requirements:

1224.4.4.1.5.1 General.

1. *Capacity.* Each room shall accommodate only one patient.

2. *Layout and access.* Seclusion rooms shall be accessed through an anteroom or vestibule that also provides access to a toilet room. The door openings to the anteroom and the toilet room shall have a minimum clear width of 3 feet 8 inches (1118 mm).
3. *The room(s) shall be located to permit observation from the nurse station.*
4. *Seclusion rooms shall be permitted to be grouped together and may share a common vestibule/anteroom.*

1224.4.4.1.5.2 Space requirements. Seclusion rooms shall have a minimum clear floor area of 60 square feet (5.57 m²) with a minimum wall length of 7 feet (2134 mm) and a maximum wall length of 11 feet (3353 mm).

Exception: Where a room for restraining patients is authorized by the California Department of Public Health, it shall have a minimum clear floor area of 80 square feet (7.43 m²) with a minimum wall length of 7 feet (2134 mm) and a maximum wall length of 11 feet (3353 mm).

1224.4.4.1.5.3 Special design elements. Seclusion rooms shall be designed and constructed in compliance with the following requirements:

1. *The walls, ceiling and floor of the seclusion room shall be designed to withstand direct and forceful impact. If padded materials are used inside the room, they shall meet the interior finish requirements in Chapter 8, Interior Finishes, of this code.*
2. *Minimum ceiling height shall be 9 feet (2743 mm).*
3. *Doors.*
 - 3.1. *Door hardware shall be ligature resistant.*
 - 3.2. *The entrance door to the seclusion room shall swing outward.*
 - 3.3. *Doors shall permit staff observation of the patient through a view panel while also maintaining provisions for patient privacy. The maximum sill height shall be 36 inches (914 mm) above the finish floor. The view panel shall be fixed glazing with polycarbonate or laminate on the inside of the glazing.*
4. *Seclusion rooms shall not contain outside corners or edges.*
5. *All items in the room (e.g., lighting fixtures, sprinkler heads, HVAC grilles and surveillance cameras, etc.) shall be tamper resistant.*

6. *Electrical switches and receptacles are prohibited in the seclusion room.*

1224.4.4.2 Nurse station(s). This area shall have space for counters and storage and at least one handwashing station shall be located in or directly accessible to the nurse station. It may be combined with or include centers for reception, charting and communication.

1224.4.4.3 Specimen and blood collection facilities.

1224.4.4.3.1 Specimen collection facilities. When provided, specimen collection facilities shall comply with the following requirements:

1. *Urine collection rooms shall be equipped with a water closet and handwashing station.*
Exception: The handwashing station may be located immediately outside the collection room when the specimen is used for drug testing.
2. *Use of the toilet room provided within the examination and treatment room shall be permitted for specimen collection.*

1224.4.4.3.2 Blood collection facilities. When provided, blood collection facilities shall comply with the following requirements:

1. *Space for a chair and work counter shall be provided.*
2. *A handwashing station shall be provided.*

1224.4.4.4 Medication station. Provision shall be made for distribution of medications. This shall be done from a medication preparation room or from a self-contained dispensing unit.

1224.4.4.4.1 Medication preparation room. If provided, this room shall be lockable. When a medication preparation room is to be used to store one or more self-contained medication dispensing units, the room shall be designed with adequate space to prepare medicines with the self-contained medication dispensing unit(s) present. Medication preparation rooms shall include:

1. *Work counter.*
2. *Handwashing station.*
3. *Refrigerator.*
4. *Locked storage for controlled drugs.*

1224.4.4.4.2 Self-contained medication dispensing unit. If provided, a self-contained medication dispensing unit shall be located at the nurse station, in the clean utility room, or in an area where access to the self-contained medication dispensing unit is under the monitoring and control of nursing staff. Self-contained medication dispensing units shall be provided with essential power and lighting.

1224.4.4.5 Nourishment area or room. Nourishment areas or rooms required in patient care areas shall include the following:

1. Sink
2. Work counter
3. Refrigerator
4. Storage cabinets
5. Equipment for hot and cold nourishment between scheduled meals.
6. The nourishment shall include space for trays and dishes used for nonscheduled meal service.
7. Provisions and space shall be included for separate temporary storage of unused and soiled dietary trays not picked up at mealtime.
8. Handwashing stations separate from the nourishment sink shall be in the nourishment area or immediately accessible without passing through a door.

1224.4.4.6 Clean utility/workroom. The clean workroom or clean supply room shall be separate from and have no connection with the soiled workroom or soiled holding room. If the room is used for preparing patient care items, it shall contain the following:

1. Work counter
2. Handwashing station
3. Storage facilities for clean and sterile supplies

1224.4.4.6.1 Clean supply room. If the room is used only for storage and holding as part of a system for distribution of clean and sterile materials, the work counter or a handwashing station may be omitted.

1224.4.4.7 Soiled utility/workroom. The soiled workroom or soiled holding room shall be separate from and have no connection with either clean workrooms or clean supply rooms. The soiled utility/workroom shall contain:

1. Clinical sink (or equivalent flushing-rim fixture).
2. Handwashing station
3. Work counter
4. Space for separate covered containers for soiled linen and/or waste

1224.4.4.7.1 Soiled holding room. Rooms used only for temporary holding soiled material may omit the clinical sink and work counter. If the flushing-rim clinical sink is eliminated, facilities for cleaning bedpans shall be provided elsewhere.

1224.4.4.8 Toilet rooms. Separate toilet rooms shall be provided for the use of patients, staff and public.

1224.4.4.8.1 Staff toilets. The number of staff toilets provided in a health facility shall comply with the requirements of the California Plumbing Code, Table 4-2. When staff toilet rooms are required to be dedicated to a specific Service Space, the number of staff toilet rooms provided under the California

Plumbing Code shall be based on the number of staff within the specific Service Space served. Satellite service spaces do not require dedicated toilet rooms.

1224.4.4.8.2 Signage. When provided, single-user toilets shall include a door-mounted geometric symbol, as identified in Section 11B-703.7.2.6.3, Unisex toilet and bathing facilities and wall signage designating use for patients, staff or public. When existing toilet rooms are not compliant with Section 11B-603, Toilet and bathing rooms, directional signage in compliance with Section 11B-216.8, Toilet rooms and bathing rooms, shall also be provided.

Exception: Patient toilet rooms accessed directly from patient bedrooms are not required to include signage.

1224.4.5 Outpatient waiting rooms. Waiting rooms for outpatients shall provide a seating area and space for wheelchairs and have public corridor access. Public toilets, drinking fountains and telephones shall be readily accessible.

Note: One waiting area may serve more than one department or service.

1224.4.5.1 Outpatient access. Outpatient access to services shall not traverse a nursing unit.

1224.4.6 Miscellaneous requirements.

1224.4.6.1 Station outlets. Station outlets for oxygen, vacuum and medical air shall comply with Table 1224.4.6.1.

1224.4.6.2 Gas and vacuum systems. The design, installation and testing of medical gas and vacuum systems shall conform to Table 1224.4.6.1 and NFPA 99.

1224.4.6.3 Hyperbaric facilities. The design and construction of hyperbaric facilities shall conform to NFPA 99; Health Care Facilities and Section 1224.39.5.

1224.4.6.4 Laboratories. The design and construction of hospital laboratories shall conform to NFPA 99.

1224.4.6.5 Nurse call systems. The location of nurse call devices shall comply with Table 1224.4.6.5. The design of call systems shall comply with the California Electrical Code, Part 3 of Title 24.

1224.4.7 Corridors.

1224.4.7.1 Width. The minimum width of corridors and hallways shall be 8 feet (2438 mm).

Exception: Patient-care corridors and hallways in hospitals for patients who are not bedridden shall have a minimum clear and unobstructed width of 6 feet (1829 mm). For the purposes of this section, bedridden patients shall be defined as patients confined to beds who would be transported or evacuated in beds, stretchers, or litters.

INTERIOR ENVIRONMENT

TABLE 1224.4.6.1
STATION OUTLETS FOR OXYGEN, VACUUM (SUCTION) AND MEDICAL AIR SYSTEMS^{1, 6}

	LOCATIONS	OXYGEN	VACUUM	MEDICAL AIR	WAGD ³
1	Patient rooms (medical/surgical unit)	1/bed	1/bed	—	—
2	Examination or treatment (medical/surgical unit and postpartum care)	1/room	1/room	—	—
3	Airborne infection isolation or protective environment rooms (medical/surgical unit)	1/bed	1/bed	—	—
4	Seclusion room (medical/surgical unit and postpartum care)	1/bed	1/bed	—	—
5	Intensive care (general)	3/bed	3/bed	1/bed	—
6	Airborne infection isolation (intensive care)	3/bed	3/bed	1/bed	—
7	Coronary-care service space	3/bed	2/bed	1/bed	—
8	Pediatric intensive care	3/bed	3/bed	1/bed	—
9	Newborn intensive care	3/bassinet	3/bassinet	3/bassinet	—
10	Newborn nursery (full term)	1/4 bassinets ²	1/4 bassinets ²	1/4 bassinets ²	—
11	Pediatric and adolescent	1/bed	1/bed	1/bed	—
12	Pediatric nursery	1/bassinet	1/bassinet	1/bassinet	—
13	Psychiatric patient room	—	—	—	—
14	Seclusion treatment room (psychiatric unit)	—	—	—	—
15	General operating room and Class 3 imaging room	2/room	5/room	1/room	1/room
16	Cardio and special procedures	2/room	5/room	1/room	1/room
17	Orthopedic surgery	2/room	5/room	1/room	1/room
18	Surgical cystoscopic and other endo-urolgic procedures	1/room	3/room	—	—
19	Post-anesthesia care unit	2/bed	3/bed	1/bed	—
20	Anesthesia workroom	1/workstation	—	1/workstation	—
21	Endoscopy procedure room	1/room	3/room	—	—
22	Postpartum bedroom	1/bed	1/bed	—	—
23	Cesarean operating/delivery room	2/room	4/room	1/room	1/room
24	Recovery space for cesarean delivery	1/bed	3/bed	1/bed	—
25	Infant resuscitation space ⁴	3/bassinet	3/bassinet	3/bassinet	—
26	Labor room	1/room	1/room	—	—
27	OB recovery room	1/bed	3/bed	—	—
28	Labor/delivery/recovery (LDR) ⁵	1/bed	1/bed	—	—
29	Labor/deliver/recovery/postpartum (LDRP) ⁵	1/bed	1/bed	—	—
30	Initial emergency management	1/bed	1/bed	1/bed	—
31	Triage area (definitive emergency care)	1/station	1/station	—	—
32	Definitive emergency care examination or treatment rooms	1/bed	1/bed	1/bed	—
33	Observation unit ⁸	1/bed	1/bed	—	—
34	Trauma/cardiac room(s)	2/bed	3/bed	1/bed	—
35	Orthopedic and cast room	1/room	1/room	—	—
36	Cardiac catheterization lab	2/bed	2/bed	2/bed	—
37	Autopsy room	—	1/workstation	—	—
38	MRI	1/room	1/room	1/room	—
39	Procedure room and Class 2 imaging room	2/room	2/room	1/room	—
40	Hyperbaric suite pre-procedure/patient holding area	2/station	2/station	—	—
41	Electroconvulsive therapy procedure room	1/room ⁷	1/room ⁷	—	—

1. For any area or room not described above, the facility clinical staff shall determine outlet requirements after consultation with the enforcing agency.

2. Four bassinets may share one outlet that is accessible to each bassinet.

3. WAGD stands for “waste anesthesia gas disposal” system.

4. When infant resuscitation takes place in a room such as cesarean section/delivery or LDRP, then the infant resuscitation services shall be provided in that room in addition to the minimum service required for the mother.

5. One outlet for mother and one for each bassinet.

6. Renovation projects of existing spaces where the existing function is not changed, are not required to comply with the requirements of this table.

7. Use of portable equipment shall be permitted.

8. Use of portable equipment is permitted in outpatient observation units provided under Section 1224.39.6.

TABLE 1224.4.6.5
[OSHPD 1, 2, 3, 4 & 5] LOCATION OF NURSE CALL DEVICES
 • = Required

AREA DESIGNATION	STATION TYPE	1224	1225	1226	1227	1228
Nursing Units						
Patient toilet room	B	•	•		•	
Patient bathing	B	•	•		•	
Special bathing	E	•				
Patient bed (nursing service)	P,E,C	•			•	
Patient bed (intensive care)	P,E,C	•			•	
Patient bed (LDR/LDRP)	P,E,C	•			•	
Patient bed (Dementia Unit)	P	•	•		•	
Patient bed (SNF/ICF)	P	•	•		•	
NICU	E,C	•			•	
Nursery	E,C	•			•	
Support Areas						
Nurse/control station	M	•	•	•	•	•
Medication preparation room	D	•			•	
Soiled workroom/utility/holding	D	•			•	
Clean workroom/utility/holding	D	•			•	
Diagnostic and Treatment Areas						
Seclusion room or vestibule	E	•				•
Emergency exam, treatment, triage rooms	P,E	•			•	
Operating room/Cesarean	E,C	•		•	•	
Delivery room/Birthing room	E,C	•		•	•	
Observation unit bed/gurney	P,E,C	•			•	
Pre-op patient care	P,E,C	•		•	•	
Post-op patient care/PACU	P,E,C	•		•	•	
Imaging exam/procedure room	E,C	•		•	•	
Procedure Room, including Endoscopy	E,C	•		•	•	
Patient toilet room	B	•		• ¹	•	
Electroconvulsive therapy	E,C	•			•	•

Station Types

P = Patient Station, B = Bath Station, E = Staff Emergency, C = Code Call, M = Master, D = Duty

1. Not required for Primary Care, Chronic Dialysis, Rehabilitation or Psychology Clinics.

1224.4.7.2 Light traffic. Service corridors and hallways with anticipated light traffic volume for nonpatient use may be reduced to a width of 5 feet (1524 mm) if approved by the enforcing agency.

Exception: Corridors and hallways in administrative and business areas may be reduced to a width of 44 inches (1118 mm).

1224.4.7.3 Outpatient services. Outpatient clinics which contain facilities for outpatient use only, such as laboratory, x-ray, physical therapy or occupational therapy, shall have a minimum corridor or hallway width of 5 feet (1524 mm). Outpatient departments caring for one or more nonambulatory outpatients shall have a minimum corridor or hallway width of 6 feet

(1829 mm). Corridors serving gurney or stretcher traffic shall comply with minimum width requirements of Section 1020.3. Outpatient clinics and outpatient departments consisting only of waiting rooms, business offices, doctor's offices and examining rooms, where there is no traffic through such area to other services or to exits from the building, shall have a minimum corridor or hallway width of 44 inches (1118 mm).

1224.4.7.4 Handrails. Corridors for patient traffic in areas providing skilled nursing, intermediate care or rehabilitation services shall be furnished with a handrail on both sides at a height not less than 30 inches (762 mm) or greater than 36 inches (914 mm).

1224.4.7.5 Connections. Corridor systems shall connect all patient rooms and basic services.

Exception: Covered pedestrian walkways connecting separate buildings are permitted for ambulatory, psychiatric or chemical dependency patients.

1224.4.7.6 Departmental boundaries. Department/service space areas shall be contiguous and include internal circulation to access each of the rooms/spaces associated with it, as identified under the specific Service Space requirements. Identifiable spaces are required for each of the indicated functions for all service areas, including their support spaces. Where the words “room” or “offices” are used, a separate, enclosed space for the one named function is intended; otherwise, the described area may be specific space in another room or common area.

Exceptions:

1. Satellite radiology, laboratory, pharmacy and physical and occupational therapy space serving inpatients may be located in nursing units and inpatient treatment areas.
2. Rooms and functional areas specifically noted under the Service Space requirements that may be shared with other units and departments.

1224.4.8 Doors and door openings.

1224.4.8.1 Toilet room doors. Doors to toilet rooms shall have an opening of not less than 32 inches (813 mm) clear in width and shall be equipped with hardware which will permit the door to swing outward or in a manner to negate the need to push against a patient who may have collapsed within the toilet room.

1224.4.8.2 Pocket doors. Pocket sliding doors are not permitted.

Exception: Administration and business areas.

1224.4.9 Windows and screens.

1224.4.9.1 Windows. Rooms approved for the housing of patients shall be provided with natural light by means of exterior glazed openings excluding clerestory windows, obscure glass and skylights, with an area not less than one tenth of the total floor area.

1224.4.9.2 Operation and sills. Patient room windows shall have sills not more than 36 inches (914 mm) above the floor. If operable windows are provided that require the use of tools or keys for operation, the tools or keys shall be located at the nurse station.

Exception: Window sills in special nursing care areas may be up to 60 inches (1524 mm) above the floor. Sill height does not apply to newborn nurseries and rooms intended for occupancy less than 24 hours.

1224.4.9.2.1 Airborne infection isolation or protective environment rooms. If operable windows are provided in airborne infection isolation or protective environment rooms, they shall only be operable

by the use of tools or keys which shall be located at the nurse station.

1224.4.9.3 Psychiatric unit windows. Safety glass or plastic glazing materials shall be used in windows in psychiatric patient areas.

1224.4.9.4 Screens. Windows which may be frequently left in an open position shall be provided with insect screens of 16 meshes to the inch.

1224.4.9.5 Light and ventilation. All portions of a building used by patients, personnel or other persons shall be provided with artificial light and a mechanically operated ventilating system as specified in the California Electrical Code and the California Mechanical Code.

1224.4.10 Ceiling heights.

1224.4.10.1 Minimum height. The minimum height of ceilings shall be 8 feet (2438 mm).

Exception: Closet, toilet room and bathroom minimum ceiling heights and soffits over fixed cabinets and work surfaces, shall not be less than 7 feet (2134 mm).

1224.4.10.2 Minimum height with fixed ceiling equipment. Operating rooms, emergency rooms, delivery rooms, radiographic rooms and other rooms containing ceiling-mounted, major fixed equipment or ceiling-mounted surgical light fixtures shall have ceiling heights to accommodate the equipment or fixtures and their normal movement. Suspended tracks, rails and pipes located in the traffic path for patients in beds and/or on stretchers, including those in inpatient service areas, shall be not less than 7 feet (2134 mm) above the floor.

Exception: Mobile suspended tracks such as traverse rails for overhead patient lifts that may be moved out of the traffic path shall provide a clearance of not less than 6 feet, 8 inches (2032 mm) above the floor when in use.

1224.4.11 Interior finishes. For imaging, examination/treatment, procedure and operating rooms, also see Table 1224.4.11.4a.

1224.4.11.1 Floor finishes. Floor finishes shall be smooth, waterproof and durable. Flooring surfaces shall provide smooth transitions between different floor materials. Slip-resistant flooring products shall be used for flooring surfaces in wet areas (e.g., kitchens, shower and bath areas), ramps, stairways, entries from exterior to interior space and other areas as determined by the functional program. Joints for floor openings for pipes, ducts and conduits shall be tightly sealed. Joints of structural elements shall be similarly sealed.

Exception: Upon written appropriate documented requests, the licensing agency may grant approval of the installation of carpets. See Table 1224.4.11.

**TABLE 1224.4.11
ACCEPTABLE CEILING AND CARPET LOCATIONS**

AREAS/ROOMS ^{3,4}	GENERAL ACUTE CARE HOSPITAL CEILING/CARPET		ACUTE PSYCHIATRIC HOSPITAL CEILING/CARPET		SKILLED NURSING AND INTERMEDIATE-CARE FACILITIES CEILING/CARPET		CLINIC CEILING/CARPET	
Patient bedrooms	3	*	3	*	3	*	—	—
Patient corridors/hallways	3	*	3	*	3	*	3	*
Airborne infection isolation rooms	2	N	2	N	2	N	2	N
Protective environment rooms	1	N	1	N	1	N	-	-
Nurse or administration station	3	Y	3	Y	3	Y	3	Y
Utility rooms	2	N	2	N	2	N	2	N
Surgical units ²	2	N	—	—	—	—	2	N
Operation rooms, sterile core	1	N	—	—	—	—	1	N
Surgical corridors/hallways	2	N	—	—	—	—	2	N
Recovery	3	N	—	—	—	—	3	N
Radiological unit ²	3	*	3	*	—	—	3	—
X-ray rooms ¹	3	N	3	N	—	—	3	N
Treatment rooms ²	2	N	3	N	2	N	2	N
Examination rooms	3	*	3	*	3	*	3	*
Administration	4	Y	4	Y	4	Y	4	Y
Central sterile supply	2	N	2	N	2	N	2	N
Clinical laboratories	3	N	3	N	—	—	3	N
Pharmacy	3	*	3	*	3	*	3	*
Morgue and autopsy	3	N	—	—	—	—	—	—
General storage rooms	3	N	3	N	3	N	3	N
Housekeeping rooms	2	N	2	N	2	N	2	N
Laundry	1 ⁵	N	1 ⁵	N	1 ⁵	N	—	—
Soiled linen	2	N	3	N	3	N	3	N
Clean linen	3	N	3	N	3	N	3	N
Kitchens	1 ⁵	N	1 ⁵	N	1 ⁵	N	1 ⁵	N
Dining rooms	3	*	3	*	3	*	3	*
Dishwasher rooms	2	N	2	N	2	N	2	N
Dietary day storage	2	N	2	N	2	N	—	—
Catheterization laboratory	1	N	—	—	—	—	—	—
Chronic dialysis	3	*	—	—	—	—	3	*
Coronary care	3	*	—	—	—	—	—	—
Dental	3	*	—	—	—	—	3	*
Hydrotherapy	2	N	2	N	2	N	2	N
Intensive-care nursery	3	*	—	—	—	—	—	—
Intensive care	3	*	—	—	—	—	—	—
Occupational therapy	3	*	3	*	3	*	3	*
Obstetrical unit ²	3	*	—	—	—	—	—	—
Delivery rooms	1	N	—	—	—	—	—	—
Labor rooms, LDRP and LDR	3	N	—	—	—	—	—	—
Nurseries	3	N	—	—	—	—	—	—
Physical therapy	3	*	3	*	3	*	3	*
Radiation therapy	3	*	—	—	—	—	3	*
Speech pathology and audiology	3	Y	3	Y	3	Y	3	Y

Ceilings:

1 – Continuous monolithic surface equal in smoothness to enamel plaster.

2 – Smooth and easily cleanable without perforations or fissures.

3 – Pin perforated, fine fissured or lightly textured.

4 – Any finish meeting code requirements.

Carpets:

Yes = Y

No = N

* Upon approval by the licensing agency with adequate maintenance procedure. However, should the carpet not be maintained adequately, the licensing agency has the right to have it removed and replaced with another acceptable material.

Footnotes:

1. Carpet permitted in mammography.

2. Except those rooms specified otherwise.

3. For rooms not listed, contact the Office of Statewide Health Planning and Development (OSHPD).

4. Table applies to new construction, additions, remodels and conversions. The patching and replacement of existing materials will be permitted.

5. Lay-in ceiling meeting the requirements of Section 1224.4.11.4.1.7 may be substituted in laundry and kitchens.

TABLE 1224.4.11.4a
EXAMINATION/TREATMENT, IMAGING, PROCEDURE AND OPERATING ROOM CLASSIFICATION^{1, 2}

ROOM	USE	ROOM TYPE	LOCATION	SURFACES
Exam or treatment room	Patient care that may require high-level disinfection or sterile instruments but does not require the environmental controls of a procedure room	Unrestricted area	Accessed from an unrestricted area	Flooring: cleanable and wear-resistant for the location; stable, firm and slip-resistant Wall finishes: washable Ceiling: cleanable with routine housekeeping equipment; lay-in ceiling permitted
Class 1 imaging room	Diagnostic radiology, fluoroscopy, mammography, computed tomography (CT), ultrasound, magnetic resonance imaging (MRI) and other imaging modalities. Services that either a) use natural orifice entry and do not penetrate natural protective membranes or b) are low-risk needle-based procedures that do not require a sterile field.			
Procedure room	Patient care that requires high-level disinfection of the room, sterile instruments and some environmental controls but does not require the environmental controls of an operating room. Endoscopic procedures	Semi-restricted area	Accessed from an unrestricted or a semi-restricted area	Flooring: cleanable and wear-resistant for the location; stable, firm and slip-resistant Floor and wall base assemblies: monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches Wall finishes: washable; free of fissures, open joints or crevices Ceiling: smooth and without crevices, scrubbable, non-absorptive, non-perforated; capable of withstanding cleaning chemicals; lay-in ceiling permitted if gasketed or each ceiling tile weighs at least 1 pound per square foot and no perforated, tegular, serrated or highly textured tiles
Class 2 imaging room	Diagnostic and therapeutic procedures such as coronary, neurological or peripheral angiography. Electrophysiology procedures			
Operating room	Invasive procedures ³ or any procedure during which the patient will require physiological monitoring and is anticipated to require active life support	Restricted area	Accessed from a semi-restricted area	Flooring: cleanable and wear-resistant for the location, stable, firm and slip-resistant Floor and wall assemblies: monolithic floor with integral coved wall base carried up the wall a minimum of 6 inches Wall finishes: washable; free of fissures, open joints or crevices Ceiling: monolithic, scrubbable, capable of withstanding cleaning and/or disinfecting chemical, gasketed access openings
Class 3 imaging room	Invasive procedures ³ or any Class 2 procedure during which the patient will require physiological monitoring and is anticipated to require active life support			

1. This table includes a brief description of the services performed in these room types and a summary of some applicable requirements that appear elsewhere in the California Building Code.
2. Other requirements that apply to these room types include, but are not limited to, ventilation, lighting and sound transmission requirements. See California Mechanical Code Table 4-A and ASHRAE 170 for ventilation requirements. See California Electrical Code, Article 517 for lighting and power requirements. See California Building Code Table 1224.4.19 for noise transmission requirements.
3. "Invasive procedure" is defined in Section 1224.3 definitions.

than one nursing unit as indicated below, but, unless noted otherwise, at least one such support area shall be provided on each nursing floor.

1224.14.2.1 Nurse station(s). Nurse station(s) shall be provided in each nursing unit and shall comply with Section 1224.4.4.2.

1224.14.2.2 Nurse or supervisor office. A nurse or supervisor office shall be provided and may be shared between adjacent nursing units on the same floor.

1224.14.2.3 Toilet room(s) for staff use. Staff toilet rooms may be shared between adjacent nursing units on the same floor.

1224.14.2.4 Multipurpose room(s) Multipurpose rooms shall be provided for staff, patients, patients' families for patient conferences, reports, education, training sessions and consultation. These rooms must be readily accessible to each nursing unit. One such room may serve several nursing units and/or departments.

1224.14.2.5 Examination or treatment room(s). Examination or treatment rooms are optional. If provided, provision shall be made to preserve patient privacy from observation from outside the exam room through an open door.

1224.14.2.6 Clean utility/workroom. Clean utility/workroom shall be provided and shall comply with Section 1224.4.4.6.

1224.14.2.7 Soiled workroom or soiled holding room. A soiled workroom or soiled holding room shall be provided and shall comply with Section 1224.4.4.7.

1224.14.2.8 Medication station. A medication station shall be provided in each nursing unit and shall comply with Section 1224.4.4.4.

1224.14.2.9 Clean linen storage. Each nursing unit shall contain a designated area for clean linen storage. This may be within the clean utility room or a separate closet.

1224.14.2.10 Nourishment area. A nourishment area or room shall be provided for each nursing unit and shall comply with Section 1224.4.4.5.

1224.14.2.11 Ice machine. Each nursing unit shall have equipment to provide ice for treatments and nourishment. Ice making equipment may be in the clean utility room/holding room or at the nourishment station. Ice intended for human consumption shall be from self-dispensing icemakers.

1224.14.2.12 Equipment storage room. Appropriate room(s) shall be provided for storage of equipment necessary for patient care with not less than 10 square feet (0.93 m²) per patient bed.

1224.14.2.13 Gurneys and wheelchairs. Provide a storage room or alcove for gurneys and wheelchairs which shall be a minimum of 15 square feet (1.39 m²).

1224.14.2.14 Centralized bathing facilities. When individual bathing facilities are not provided in patient

rooms, there shall be at least one shower and/or bathtub for each 12 beds without such facilities. Each bathtub or shower shall be in an individual room or enclosure that provides privacy for bathing, drying and dressing. Each centralized bathing facility shall have direct access to a patient toilet and handwashing fixture.

1224.14.2.15 Special bathing facilities. If provided, special bathing facilities for patients on gurneys, carts and wheelchairs shall include space for an attendant.

1224.14.2.16 Patient toilet room(s). Common patient toilet room(s), in addition to those serving bed areas, should be located adjacent to multipurpose room(s) and within, or directly accessible to each central bathing facility.

1224.14.2.17 Emergency equipment storage. Space shall be provided for emergency equipment that is under direct control of the nursing staff, such as a cardiopulmonary resuscitation (CPR) cart. This space shall be directly accessible from the nursing station, but out of normal traffic.

1224.14.2.18 Housekeeping room. Housekeeping rooms may be shared between adjacent compatible nursing units.

1224.14.2.19 Grab bars. Grab bars shall be installed in accordance with Section 1224.4.18.

1224.14.3 Airborne infection isolation rooms.

1224.14.3.1 General. Single rooms shall be provided for the isolation of patients with airborne communicable disease at a ratio of one room for each 35 licensed beds, and for each major fraction thereof. At least one airborne infection isolation room shall be provided. Airborne infection isolation rooms shall be labeled with the words "Airborne Infection Room" on or adjacent to the anteroom side of the door between the isolation room and the anteroom.

Exceptions:

1. Acute psychiatric hospitals shall provide airborne infection isolation rooms at the ratio of one room for each 50 beds, or major fraction thereof.
2. Airborne infection isolation rooms are not required for chemical dependency recovery services.

1224.14.3.2 Anteroom doors. Airborne infection isolation room(s) shall have self-closing and latching devices on all anteroom doors.

1224.14.3.3 Anteroom. A separate anteroom shall be provided between the airborne infection isolation room and the corridor, which shall constitute the primary entrance to the airborne infection isolation room. This anteroom shall have a handwashing station, work counter at least 3 feet (914 mm) long, cabinets and space to gown and to store clean and soiled materials. There shall be a view window from the anteroom to the isolation room and means to allow for airflow from the anteroom into the airborne infection isolation room.

Doors shall be aligned to allow large equipment to be wheeled into the airborne infection isolation room unless a secondary door complying with Section 1224.14.3.2 is provided. One anteroom may serve no more than two airborne infection isolation rooms.

1224.14.3.4 Secondary entry. When a secondary entry is provided, the secondary doors shall be provided with locking devices which are readily operable from the room side and which are readily operable by the facility staff on the other side. When key locks are used on isolation rooms, keys shall be located at the nurse station in a prominent readily accessible location.

1224.14.3.5 Sealed-tight room. Airborne infection isolation room perimeter walls, ceilings, floors, doors and penetrations shall be sealed tightly to minimize air infiltration from the outside or from other spaces.

1224.14.3.6 Adjoining toilet room. Each isolation room shall have its own directly accessible toilet room with an emergency nurse call system, a lavatory, a shower providing a seat or a space for a shower chair and a toilet equipped with a bedpan flushing attachment with a vacuum breaker.

1224.14.4 Protective environment room(s).

1224.14.4.1 General. Protective environment rooms for the protection of certain immunosuppressed patients may be provided by the facility. Protective environment rooms shall be labeled "Protective Environment Room" on or adjacent to the anteroom side of the door between the isolation room and the anteroom. Protective environment rooms shall contain only one bed.

1224.14.4.2 Anteroom doors. Protective environment room (s) shall have self-closing and latching devices on all anteroom doors.

1224.14.4.3 Anteroom. A separate anteroom shall be provided between the protective environment room and the corridor, hallway or adjoining space which shall constitute the only entrance to the protective environment room. This anteroom shall have a handwashing station, work counter at least 3 feet (914 mm) long, cabinets and space to gown and to store clean and soiled materials. There shall be a view window from the anteroom to the protective environment room. There shall be means to allow for airflow from the protective environment room into the anteroom. Anteroom doors shall be aligned so that large equipment can be wheeled into the protective environment room. One anteroom may serve no more than one protective environment room.

Exception: Alternate designs for protective environment rooms, without individual anterooms, may be approved by the enforcement agency when it can be demonstrated that the alternate design meets the requirements of the California Mechanical Code and does not compromise or alter any health or fire protection component, assembly or system.

1224.14.4.4 Adjoining toilet room. Room shall meet the requirements of Section 1224.14.3.6.

1224.14.4.5 Sealed-tight room. Protective environment room perimeter walls, ceiling, floors, doors and penetrations shall be sealed tightly to minimize air infiltration from the outside or from other spaces.

1224.14.5 Seclusion room(s). If provided, the hospital shall provide one or more single bedrooms for patients needing close supervision for medical and/or psychiatric care. This may be part of the psychiatric unit described in Section 1224.31. If the single bedroom(s) is part of the acute-care nursing unit, the provisions of Section 1224.14.1 shall apply, with the following exceptions: each room shall be for single occupancy; each shall be located to permit staff observation of the entrance, preferably adjacent to the nurse station; and each shall be designed to minimize the potential for escape, hiding, injury or suicide. If vision panels are used for observation of patients, the arrangement shall insure patient privacy and prevent casual observation by visitors and other patients.

1224.15 SURGICAL SERVICE SPACE.

1224.15.1 General. The surgical service space shall be divided into two designated areas: 1) semi-restricted areas (e.g., storage areas for clean and sterile supplies, sterile processing rooms, scrub stations and corridors leading to restricted areas of the surgical suite, etc.); and 2) restricted areas (e.g., operating rooms, hybrid operating rooms, sterile procedure rooms, cardiac catheterization labs, sterile cores, etc.) that can be reached only through a semi-restricted area. The surgical service space shall be located and arranged to provide direct support from the anesthesia/recovery service space with a common door to prevent nonrelated traffic through the surgical service space.

An operating room suite design with a sterile core shall provide for no cross traffic of staff and supplies from the decontaminated/soiled areas to the sterile/clean areas. The use of facilities outside the operating room for soiled/decontaminated processing and clean assembly and sterile processing shall be designed to move the flow of goods and personnel from dirty to clean/sterile without compromising universal precautions or aseptic techniques in either department.

The number of operating rooms and recovery beds, and the sizes of the support areas, shall be based on the expected surgical workload. Hospitals shall maintain at least the number of operating rooms in ratio to licensed bed capacity as follows:

Licensed Bed Capacity	Number of Operating Rooms
Less than 25	One
25 to 99	Two
100 or more	Three

For each additional 100 beds, and for each major fraction thereof, at least one additional operating room shall be maintained, unless approved to the contrary by the Department of Public Health. Required operating rooms are in addition to special operating rooms, cys-

toscopy rooms and fracture rooms which are provided by the hospital. Beds in a distinct-part skilled nursing service, intermediate care service or psychiatric unit shall be excluded from calculating the number of operating rooms required.

Exception: Surgical service space is not required in a rural general acute care hospital, if the hospital maintains written transfer agreements with one or more general acute care hospitals that provide surgical and anesthesia services. Written transfer agreements shall be approved by the Department of Public Health, Licensing and Certification.

1224.15.2 Surgery.

1224.15.2.1 General operating room(s). Each room shall have a minimum clear floor area of 400 square feet (37.16 m²) with a minimum of 20 feet (6096 mm) clear dimension between fixed cabinets and built-in shelves; and a system for emergency communication with the surgical service space control station. X-ray or imaging viewing capabilities shall be provided.

Exception: Where renovation of existing operating rooms is undertaken in facilities built under the 2001 or prior California Building Code, each operating room shall have a minimum clear floor area of 324 square feet (30.10 m²) with a minimum of 18 feet (5486 mm) clear dimension between fixed cabinets and built-in shelves.

1224.15.2.2 Procedure room(s). Where a procedure room is provided, it shall comply with Section 1224.4.4.1.4 unless specified elsewhere.

1224.15.2.2.1 Surgical cystoscopic and other endourologic procedures. Each room shall have a minimum clear floor area of 250 square feet (23.23 m²) with a minimum of 15 feet (4572 mm) clear dimension between fixed cabinets and built-in shelves. X-ray viewing and/or other imaging modality capabilities shall be provided

Exception: Where renovation of operating rooms is undertaken in facilities built under the 2001 or prior California Building Code rooms for surgical cystoscopy shall have a minimum clear floor area of 180 square feet (16.72 m²). Cast rooms for open reductions, if provided, shall have a minimum clear floor area of 180 square feet (16.72 m²), no dimension of which shall be less than 11 feet (3353 mm).

1224.15.3 Service areas. Services, except for the enclosed soiled workroom referenced in Section 1224.15.3.7 and the housekeeping room referenced in Section 1224.15.3.12, may be shared with the obstetrical facilities. Service areas, when shared with delivery rooms, shall be designed to avoid the passing of patients or staff between the operating room and the delivery room areas. The following shall be provided in support of the surgical service space:

1224.15.3.1 Control station. Control stations shall be located to permit visual observation of all traffic into the surgical service space. Staff locker rooms may be provided at a location with alternative controlled access.

1224.15.3.2 Supervisor's office or station.

1224.15.3.3 Sub-sterile areas. If provided within the surgery suite, a sub-sterile area(s) shall be equipped with a flash sterilizer, warming cabinet, countertop and handwashing station. If a sterilizing facility(ies) with high-speed sterilizer(s) or other sterilizing equipment for immediate or emergency use are provided, they shall be directly accessible from the operating room(s) it serves or shall be located inside the clean core if the clean core is directly accessible from the operating room(s). This room shall be accessible without traveling through any operating room. Other facilities for processing and sterilizing reusable instruments, etc., may be located in another hospital department such as central sterile supply.

1224.15.3.4 Medication station. A medication station shall be provided in accordance with Section 1224.4.4.4.

1224.15.3.5 Scrub facilities. Scrub sinks shall be located outside of sterile areas. A minimum of two scrub sinks shall be provided in a surgical unit containing one operating room. Four scrub sinks shall be provided in surgical units containing two operating rooms. One additional scrub sink shall be provided for each additional operating room. Scrub sinks shall have water supply controls not requiring direct contact of the hands for operation.

1224.15.3.6 Clock. A direct-wired or battery-operated clock or other equivalent timing device shall be visible from the scrub-up sinks.

1224.15.3.7 Soiled workroom. An enclosed soiled workroom (or soiled holding room that is part of a system for the collection and disposal of soiled material) for the exclusive use of the surgical service space shall be provided. The soiled workroom shall contain a flushing-rim clinical sink or equivalent flushing-rim fixture, a handwashing station, a work counter and space for waste receptacles and soiled linen receptacles. Rooms used only for temporary holding of soiled material may omit the flushing-rim clinical sink and work counters. However, if the flushing-rim clinical sink is omitted, other provisions for disposal of liquid waste shall be provided. The room shall not have direct connection with operating rooms. Soiled and clean utility room or holding rooms shall be separated. The soiled workroom shall provide 24 square feet (2.23 m²) per operating room up to eight operating rooms and shall have a minimum area of 48 square feet (4.46 m²), with no dimension less than 6 feet (1829 mm).

1224.15.3.8 Clean utility room. This room shall not be used for food preparation.

A clean utility room is required when clean materials are assembled within the surgical service space prior to use or following the decontamination cycle. It shall contain a work counter, a handwashing station, storage facilities for clean supplies and a space to package reusable items. The storage for sterile supplies must be separated from this space. If the room is used only for storage and holding as part of a system for distribution

of clean supply materials, the work counter and hand-washing station may be omitted. Soiled and clean utility rooms or holding rooms shall be separated.

1224.15.3.9 Anesthesia workroom. Provide an anesthesia workroom for cleaning, testing and storing anesthesia equipment. This room shall contain work counter(s) and sink(s) and racks for cylinders.

1224.15.3.10 Equipment storage room(s) for equipment and supplies used in surgical service space. Each surgical service space shall provide sufficient storage area to keep its required corridor width free of equipment and supplies, but not less than 150 square feet (13.94 m²) or 50 square feet (4.65 m²) per operating room, whichever is greater.

1224.15.3.11 Staff clothing change areas. Appropriate areas shall be provided for male and female staff working within the surgical service space. The areas shall contain lockers, showers, toilets, handwashing stations and space for donning surgical attire. These areas shall be arranged to ensure a traffic pattern so that personnel entering from unrestricted area outside the surgical service space enter, change their clothing and move directly into the surgical service space semi-restricted corridor.

1224.15.3.12 Housekeeping room. Shall be provided for the exclusive use of the surgical service space. It shall be directly accessible from the service space.

1224.16 ANESTHESIA/RECOVERY SERVICE SPACE.

1224.16.1 General. The anesthesia/recovery service space shall provide perioperative support services to the surgical service space as required under this section. Perioperative services shall include preoperative patient care and post-operative recovery with a Post-Anesthesia Care Unit (PACU). The anesthesia/recovery service space shall be located adjacent to the surgical service space with direct access to the surgical suite's semi-restricted corridor.

Exception: In a rural general acute care hospital, when the surgical service space is not provided, the anesthesia service space is not required. The hospital must maintain written transfer agreements with one or more general acute care hospitals that provide surgical and anesthesia services. Written transfer agreements shall be approved by the Department of Public Health, Licensing and Certification.

1224.16.2 Preoperative patient holding area(s). In facilities with two or more operating rooms, area(s) with patient care stations shall be provided to accommodate gurney patients or sitting space for ambulatory patients not requiring gurneys. The preoperative area is an unrestricted area and shall be under the direct visual control of the nursing staff and may be part of the recovery space. If the preoperative patient care area will serve other purposes, such as overflow PACU or holding area, applicable requirements in Section 1224.16.3 PACU shall be met.

1224.16.2.1 Space requirements. Each station shall have a minimum clear floor area of 80 square feet (7.43 m²) and a minimum clearance of 3 feet (914 mm) shall be provided between the sides and foot of patient

lounge chairs/gurneys and adjacent walls, partitions or fixed elements.

1224.16.2.2 Patient privacy. Provisions for patient privacy such as cubicle curtains shall be made.

1224.16.2.3 Handwashing stations. Handwashing station(s) shall be provided in the preoperative service area at a ratio of one for each 4 stations, and for each major fraction thereof, in open bay areas. A handwashing station shall be provided in each single care station room.

1224.16.3 Recovery and Post-Anesthesia Care Unit (PACU). The recovery area and Post-Anesthesia Care Unit is an unrestricted area and located such that at least one door to the recovery room shall provide access directly from the surgical service space without crossing unrestricted corridors. A minimum of 1.5, or major fraction thereof, post-anesthesia care stations per operating room shall be provided. If pediatric surgery is provided, pediatric recovery stations shall be provided. They shall be separate from adult stations, and shall include space for family or visitors and be visible from the nurse station.

1224.16.3.1 Space requirements. A minimum of 4 feet (1218 mm) clearance shall be provided between the sides and the foot of patient gurneys or beds and adjacent walls or other fixed elements. A minimum clear floor area of 80 square feet (7.43 m²) shall be provided for each station in an open-bay plan. A minimum clearance of 5 feet (1524 mm) shall be provided between sides of gurneys or beds, and a minimum of 3 feet (914 mm) clearance shall be provided between the foot of the gurney or bed, to a closed cubicle curtain. A minimum width of 6 feet (1829 mm) of access/circulation outside the curtain shall be provided. See Patient Bay under Patient Care Locations in Section 1224.3.

1224.16.3.2 Patient privacy. Provisions for patient privacy such as cubicle curtains shall be made.

1224.16.3.3 Handwashing stations. Handwashing stations shall be provided in the post-anesthesia care unit with at least one for every four patient positions, and for each major fraction thereof, uniformly distributed to provide equal access from each patient station. A handwashing station shall be provided in each single care station room.

1224.16.4 Reserved.

1224.16.5 Support areas for patient care.

1224.16.5.1 Nurse station. A nurse station shall be provided in postoperative patient care areas, and shall allow direct observation of the patients and charting facilities. The nurse station shall comply with the requirements of Section 1224.4.4.2.

1224.16.5.2 Clinical sink. A clinical sink shall be provided in postoperative patient care areas with provisions for bedpan cleaning.

1224.16.5.3 Medication station. Each Post-Anesthesia Care Unit shall contain a medication station. The med-

with interventional imaging requirements in Section 1224.28.4. If cardiac catheterization procedures are performed refer to Section 1224.28.2.

1224.18.3 Computerized tomography (CT) scanning. If provided, CT space shall accommodate the following:

1224.18.3.1 Spaces required. If provided, CT scan spaces shall accommodate the equipment with a minimum of 3 feet (914 mm) on the sides and foot of the equipment as well as required service clearance at the rear, together with the following:

1. A control room or alcove shall be provided that is designed to accommodate the computer and other controls for the equipment. A view window shall be provided to permit view of the patient.
2. A patient toilet room readily accessible to the procedure room.

1224.18.3.2 Intraoperative computerized tomography. If provided, intraoperative CT scanning spaces shall comply with Section 1224.28.5.

1224.18.4 Magnetic resonance imaging (MRI). If provided, the MRI room shall accommodate the equipment with a minimum of 3 feet (914 mm) on all sides of the equipment, together with the following:

1. A control room shall be provided with full view of the patient in the MRI scanner. The control console shall be positioned so the operator has a full view of the approach and entrance to the MRI scanner room.
2. An anteroom or area visible from the control room shall be located outside the MRI scanner room so that patients, health care personnel and other employees must pass through it before entering the scanning area and control room. The room or area shall be outside the restricted areas of the MRI's magnetic field.
3. Safety Zones One through Four shall be identified.
 - a) Zone One consists of all areas freely accessible to the general public. This zone includes the entrance to the MR facility.
 - b) Zone Two acts as a buffer between Zone One and the more restrictive Zone Three. Patients are under the general supervision of MR personnel. Zone Two may include the reception area, dressing room and interview room.
 - c) Zone Three should be restricted by a physical barrier. The MR control room and/or computer room are located within Zone Three.
 - d) Zone Four is strictly the area within the walls of the MR scanner room. Access into the MR scanner room should only be available by passing through Zone Three.
4. An imaging equipment room shall be provided if needed for the operation of the MRI.

1224.18.4.1 Handwashing station. Handwashing station(s) shall be immediately accessible to the MRI scanner room.

1224.18.4.2 Wall, floor and ceiling assemblies. Wall, floor and ceiling assemblies shall accommodate the installation of required radio frequency (RF)-shielded assemblies. All doors, windows and penetrations into the RF-shielded enclosure shall be RF-shielded. As well as RF shielding, individual sites may also require magnetic shielding on some or all surfaces to contain portions of the magnetic field not contained by the RF shield.

1224.18.4.3 Lighted sign. MRI rooms shall be clearly marked with a red light and lighted sign stating, "The Magnet Is On". This light and sign are to be lighted at all times and have a backup energy source to remain illuminated for at least 24 hours in the event of a loss of power.

1224.18.4.4 Magnetic field strength identification. Facilities shall use finishes or markings to identify the critical values of the magnetic field surrounding the MRI scanner, including the 5-gauss exclusion zone or other magnetic field strength values that may impair the operation of equipment.

1224.18.4.5 Special ventilation requirements. Where superconducting MRI scanners are installed, an insulated cryogen quench exhaust pipe as well as room exhaust and pressure equalization shall be provided to protect occupants in the event of a cryogen breach.

1224.18.4.6 Intraoperative magnetic resonance imaging. If provided, the intraoperative magnetic resonance imaging (iMRI) suite shall comply with Section 1224.28.5.

1224.18.5 Ultrasound. When provided, the ultrasound room shall comply with the following:

1224.18.5.1 Space requirements.

1. Area. Rooms used for ultrasound examination/treatment shall have a minimum clear floor area of 120 square feet (11.15 m²).
2. Clearances. A minimum clear dimension of 3 feet (914 mm) shall be provided on three sides of the table/stretcher.

1224.18.5.2 Handwashing station. A handwashing station shall be provided within the exam room.

1224.18.5.3 Patient toilet(s). A patient toilet shall be directly accessible to the ultrasound exam room. The patient toilet may be permitted to serve more than one ultrasound exam room. If exams performed are limited to cardiology, vascular, breast ultrasound or used only for image guided procedures, then the toilet is not required to have direct access.

1224.18.5.4 Processing room. If provided, a processing room shall contain distinct areas for cleaning and decontaminating instruments. The cleaning area shall

provide for flow of instruments from the contaminated area to the clean area and then to storage.

1224.18.5.4.1 The decontamination area shall be equipped with the following:

1. One freestanding handwashing station.
2. Work counter space(s).
3. Separate storage room or cabinets for HLD probes.

1224.18.6 Mammography. When provided, the mammography room shall comply with the following:

1224.18.6.1 Space requirements.

1. Area. Mammography rooms shall be a minimum of 100 square feet (9.3 m²).
2. Shielded alcove. Each x-ray room shall include a shielded control alcove. For mammography machines with built-in shielding for the operator, omission of the alcove shall be permitted when approved by the certified physicist.

1224.18.6.2 Handwashing station. A handwashing station shall be provided within the procedure room.

1224.18.7 Support spaces. The following spaces are common to the imaging service area and are minimum requirements unless stated otherwise:

1224.18.7.1 Patient's toilet room(s). In service spaces with procedure rooms that do not have dedicated patient toilets, provide a minimum of one patient toilet room within the service space.

1224.18.7.2 Patient dressing areas. Dressing areas shall be provided adjacent to the imaging rooms.

1224.18.7.3 Staff facilities. In service space of three or more procedure rooms, staff toilet room(s) internal to the service space shall be provided.

1224.18.7.4 Film storage (active). If film systems are used, provide the following:

1. A room with cabinet or shelves for filing patient film for immediate retrieval shall be provided.
2. Storage facilities for unexposed film which shall include protection of film against exposure or damage.

1224.18.7.5 Locked storage. Provision shall be made for locked storage of medications and drugs.

1224.19 PHARMACEUTICAL SERVICE SPACE

1224.19.1 General. Facilities shall be provided to accommodate services and equipment associated with the drug distribution system used, the number of patients to be served, and the extent of shared or purchased services as licensed by the California Board of Pharmacy. Hospital pharmacies shall comply with the requirements of Section 1224.19.2 through 1224.19.7. Exempt hospitals shall provide a drug room and the supporting spaces, in compliance with Section 1224.19.1.2.

1224.19.1.1 Licensed pharmacy. All hospitals having a licensed capacity of 100 or more beds shall have a pharmacy on the premises licensed by the California Board of Pharmacy.

Note: See General Acute Care Hospitals §70263(a), Article 3, Chapter 1, Division 5, Title 22, California Code of Regulations, for requirements concerning hospitals with fewer than 100 beds. The pharmacy room or service space shall conform to the requirements of § 1751, Article 7, Division 17, Title 16, California Code of Regulations as enforced by the California Board of Pharmacy.

1224.19.1.2 Less than 100-bed exemption. Hospitals under a Hospital Pharmacy Permit Exemption issued by the Board of Pharmacy, associated with Business and Professions Code Section 4056, shall provide all basic pharmaceutical services in compliance with Section 1224.19.1.2.

1224.19.1.2.1 Drug room. Licensed pharmaceutical space with drug distribution shall be under the supervision of a physician and be monitored by a pharmacist consultant. The drug room shall include the following:

1224.19.1.2.1.1. A room or area for receiving, breakout and inventory control of drugs used in the hospital.

1224.19.1.2.1.2. Cleanable work counters and space for automated and/or manual dispensing activities.

1224.19.1.2.1.3. Reserved.

1224.19.1.2.1.4. An area for reviewing and recording.

1224.19.1.2.1.5. An area for storage, exchange and restocking of carts.

1224.19.1.2.1.6. Security provisions for drugs and personnel in the dispensing counter area.

1224.19.1.2.2 Handwashing station. A hand-washing station shall be provided in the area where medication(s) are handled or be immediately accessible, without going through a door unless the door is equipped with hands-free operation.

1224.19.1.2.3 Storage. Cabinets, shelves and/or separate rooms or closets shall be provided for the following:

1224.19.1.2.3.1. Bulk storage.

1224.19.1.2.3.2. Active storage.

1224.19.1.2.3.3. Refrigerated storage.

1224.19.1.2.3.4. Storage for volatile fluids and alcohol in accordance with applicable fire safety codes for the substances involved.

1224.19.1.2.3.5. Secured lockable storage for controlled drugs.

1224.19.1.2.3.6. Equipment and supply storage for general supplies and equipment not in use.

1224.19.2 Pharmacy areas.

1224.19.2.1 Dispensing facilities. Hospital pharmacies shall provide the following areas for patient-specific compounding and dose repackaging of non-sterile preparations.

1224.19.2.1.1 Receiving. A room or area for receiving, breakout and inventory control of materials used in the pharmacy.

1224.19.2.1.2 Dispensing. Work counters and space for automated and/or manual dispensing activities shall be provided to serve the volume of doses per day for in-patient and out-patient needs.

1224.19.2.1.3 Non-sterile compounding areas. An extemporaneous compounding/dose repackaging area shall be located next to bulk storage and include the following:

1224.19.2.1.3.1 Size. Work stations shall have sufficient counter space for drug preparation.

1224.19.2.1.3.2 Handwashing station. Handwashing station(s) shall be in or immediately accessible to all areas where pharmaceuticals are handled without going through a door unless the door is equipped with hands-free operation.

1224.19.2.1.3.3 Utility sink. A utility sink shall be provided.

1224.19.2.1.3.4. If carousel or analogous robotic technologies are used, the area shall respond to the special system requirements.

1224.19.2.1.4 Recording. An area for reviewing and recording shall be provided. The area shall include counter space and electronic workstation(s).

1224.19.2.1.5 Temporary storage. An area for temporary storage, exchange and restocking of carts.

1224.19.2.1.6 Security. Security provisions shall be provided for drugs and personnel in the dispensing counter area.

1224.19.2.2 Reserved.

1224.19.2.3 Storage. The following storage facilities shall be provided in the pharmaceutical service area.

1224.19.2.3.1 Bulk storage. A separate bulk storage area, or room, may be provided.

1224.19.2.3.2 Active storage. Active storage in support of repackaging and dispensing activities shall be provided.

1224.19.2.3.3 Refrigerated storage. Refrigeration/freezer area shall be provided.

1224.19.2.3.4 Hazardous materials. Storage for volatile fluids and alcohol shall comply with Section 307.

1224.19.2.3.5 Secured storage. Secured lockable storage shall be provided for narcotics and controlled drugs.

1224.19.2.3.6 Equipment and supplies. Equipment and supply storage for general supplies and equipment not in use.

1224.19.3 Sterile compounding areas.

1224.19.3.1 General. If sterile compounding areas are provided, the requirements in this section shall be met. Buffer rooms (also known as clean rooms) and their anterooms, and Segregated Compounding Areas (SCA) are classified as semi-restricted areas. The pharmacy shall be laid out to preclude unrelated traffic to hazardous and nonhazardous preparation rooms. The buffer room, anteroom and SCA must be separated from areas not directly related to compounding and must be appropriately controlled to achieve and maintain required air quality classifications. A monitoring system shall be used in a cleanroom suite to continuously monitor the pressure differential between the anteroom(s) and buffer room(s) and between the ante-room and the general pharmacy area. Sterile compounding areas in hospitals shall comply with Sections 1735 and 1751 in Article 4.5 of Division 17 of Title 16 of the California Code of Regulations and US Pharmacopeia (USP) Chapters 797 and 800, and the requirements in this section.

Note: Where robotic systems are used in the preparation of IV solutions in either the positive pressure nonhazardous preparation room or the negative pressure hazardous prep room, the robotics shall be separate systems and not pass through from one area to the other.

1224.19.3.2 Nonhazardous sterile preparation area. If IV solutions are prepared in the pharmacy, a sterile compounding work area with a laminar airflow workstation designed for product protection shall be provided in accordance with Title 16, Section 1735, and USP Chapter 797 and include the following.

1224.19.3.2.1 Workstation. The Primary Engineering Control (PEC) shall be a laminar airflow work bench or isolator (CAI) as required. The workstation shall have a visible pressure gauge for detection of filter leaks or defects. All exposed sides of the workstation shall be accessible for cleaning and allow for reach behind the unit if not built against a wall. If built against a wall, the space behind the unit shall be sealed to prevent intrusion of moisture, contaminants and bacteria growth.

1224.19.3.2.2 Buffer room. Workstations shall be located in a Secondary Engineering Control (SEC) room. The SEC shall be a buffer/clean room, with the following requirements:

1224.19.3.2.2.1 Air quality. Nonhazardous buffer rooms shall be sealed tight, and be under positive pressure relative to the anteroom. Air supply shall be laminar airflow with a low-level return. Refer to California Mechanical Code Table 4A, Title 16 Section 1735 and USP Chapter 797 for additional requirements.

1224.19.3.2.2.2 Finishes. The buffer room is considered a semi-restricted area with non-porous and cleanable surfaces, ceilings, walls and floors subject to wet cleaning. The surfaces of ceilings, walls, floors, fixtures, shelving, work surfaces, counters and cabinets shall be smooth, seamless, impervious, free from cracks and crevices and be non-shedding. Ceilings shall be monolithic or utilize cleanroom style scrubbable panels, able to withstand cleaning with chemicals. If ceilings consist of inlaid panels, the panels must be caulked around each panel to seal them to the support frame. Junctures of ceilings to walls shall be coved or caulked to avoid cracks and crevices where dirt can accumulate. Sprinkler systems shall be recessed, covered, easily cleanable and of a type suitable for a cleanroom environment. Wall finishes shall be 2-coat epoxy-covered gypsum board, seamless vinyl or other impervious covering. Work surfaces, shelving and cabinets shall be constructed of smooth, impervious materials, such as stainless steel or molded plastic, so that they are easily cleaned and disinfected. Plastic laminate finish over a pervious substrate is not permitted.

1224.19.3.2.2.3 Eyewash station. If provided in the buffer room, the eyewash station shall be located just inside the door from the anteroom, and must be dry, unless in use. Drains are not permitted in the buffer room.

1224.19.3.2.2.4 Sealed tight room. Room perimeter walls, ceiling, floors, doors and penetrations shall be sealed tightly to minimize air infiltration from the outside or from other rooms. Buffer room doors shall be glass, metal or other phenolic material, self-closing and with hands-free door operation. Normal operation may include automatic door controls sequencing such that only the buffer room door or the anteroom door is open at one time. Egress provisions shall not be impeded.

1224.19.3.2.2.5. If a pass-through is used, both doors shall not be capable of being open at the same time, and the doors should be interlocking.

1224.19.3.2.3 Anteroom. Nonhazardous buffer rooms shall be accessed through an anteroom with the following requirements:

1224.19.3.2.3.1 Size. The anteroom shall be of adequate size to accommodate a demarked area for donning and doffing, and anticipated staging of carts and supplies. The minimum size for the anteroom is 120 square feet (11.15 m²).

Note: A common anteroom may be shared between hazardous and nonhazardous buffer rooms. The anteroom must comply with both 1224.19.3.2.3 and 1224.19.3.3.3, provide a minimum of 5 feet (1524 mm) between the buffer room doors, and provide automatic door

controls sequencing such that only one of the buffer room doors may be open at one time. Egress provisions shall not be impeded.

1224.19.3.2.3.2 Air quality. Nonhazardous anterooms shall be under negative pressure relative to the buffer room and positive pressure relative to nonrestricted areas. Refer to California Mechanical Code Table 4A, Title 16 Section 1735 and USP Chapter 797 for additional requirements.

1224.19.3.2.3.3 Handwashing station. A handwashing station, with hands-free controls and nonrefillable closed soap dispensing system, providing support for scrubbing up to the elbows, shall be located in the anteroom.

1224.19.3.2.3.4 Eyewash station. An eyewash station shall be provided in the anteroom if one is not provided in the buffer room.

1224.19.3.2.3.5 Housekeeping. Dedicated environmental services, materials and supplies for the buffer room and the anteroom shall be located in the anteroom.

1224.19.3.2.3.6 Finishes. The anteroom room is considered a semi-restricted area with non-porous and cleanable surfaces, ceilings, walls and floors subject to wet cleaning. The surfaces of ceilings, walls, floors, fixtures, shelving, work surfaces, counters and cabinets shall be smooth, seamless, impervious, free from cracks and crevices and be non-shedding. Ceilings shall be monolithic or utilize cleanroom style scrubbable panels, able to withstand cleaning with chemicals. If ceilings consist of inlaid panels, the panels must be caulked around each panel to seal them to the support frame. Junctures of ceilings to walls shall be coved or caulked to avoid cracks and crevices where dirt can accumulate. Sprinkler systems shall be recessed, covered, easily cleanable and of a type suitable for a cleanroom environment. Wall finishes shall be 2-coat epoxy-covered gypsum board, seamless vinyl or other impervious covering. Work surfaces, shelving and cabinets shall be constructed of smooth, impervious materials, such as stainless steel or molded plastic so that they are easily cleaned and disinfected. Plastic laminate finish over a pervious substrate is not permitted.

1224.19.3.2.3.7 Sealed tight room. Room perimeter walls, ceiling, floors, doors and penetrations shall be sealed tightly to minimize air infiltration from the outside or from other rooms. Buffer room doors shall be glass, metal or other phenolic material, self-closing and with hands-free door operation.

1224.19.3.2.4 Segregated Compounding Area (SCA). When provided in lieu of a buffer/clean room and anteroom, a segregated compounding area, with a limitation on permitted compounded sterile

preparations and allowable time of use, shall comply with the requirements of Title 16, Section 1735 and USP Chapter 797. The SCA shall include the PEC and extend to a line of demarcation between the PEC and other surrounding areas with a minimum clearance of 3.281 feet (1 meter) between the PEC and the line of demarcation.

1224.19.3.2.4.1 Air quality. Nonhazardous Segregated Compounding Areas shall provide airflow from clean to less clean areas. Refer to California Mechanical Code Table 4A, Title 16 Section 1735 and USP Chapter 797 for additional requirements.

1224.19.3.2.4.2 Handwashing station. A handwashing station, with hands-free controls and nonrefillable closed soap dispensing system, providing support for scrubbing up to the elbows, shall be located in the SCA with a minimum clearance of 3.281 feet (1 meter) between the rim of the sink and the PEC.

1224.19.3.2.4.3 Finishes. The segregated compounding area is considered a semi-restricted area with nonporous and cleanable surfaces, ceilings, walls and floors subject to wet cleaning. The surfaces of ceilings, walls, floors, fixtures, shelving, work surfaces, counters and cabinets shall be smooth, seamless, impervious, free from cracks and crevices and be non-shedding. Ceilings shall be monolithic or utilize cleanroom style scrubbable panels, able to withstand cleaning with chemicals. If ceilings consist of inlaid panels, the panels must be caulked around each panel to seal them to the support frame. Junctures of ceilings to walls shall be coved or caulked to avoid cracks and crevices where dirt can accumulate. Sprinkler systems shall be recessed, covered and easily cleanable. Wall finishes shall be 2-coat epoxy-covered gypsum board, seamless vinyl or other impervious covering. Work surfaces, shelving and cabinets shall be constructed of smooth, impervious materials, such as stainless steel or molded plastic so that they are easily cleaned and disinfected. Plastic laminate finish over a pervious substrate is not permitted.

1224.19.3.3 Hazardous sterile preparation room. If hazardous drugs are used in compounding activities, a separate room shall be provided for preparation of hazardous admixtures in accordance with Title 16, Sections 1735 and 1751 and USP Chapters 797 and 800.

1224.19.3.3.1 Workstation. The Primary Engineering Control (PEC) shall be a negative pressure biological safety cabinet or isolator (CACI) as required. The workstation shall have an exhaust to the outside with a visible pressure gauge for detection of filter leaks or defects. All exposed sides of the workstation shall be accessible for cleaning and allow for reach behind the unit if not built against a wall. If built against a wall, the space behind the

unit shall be sealed to prevent intrusion of moisture, contaminants and bacteria growth.

1224.19.3.3.2 Buffer room. Workstations shall be located in a Secondary Engineering Control (SEC) room. The SEC shall be a buffer/clean room, with the following requirements:

1224.19.3.3.2.1 Reserved.

1224.19.3.3.2.2 Air quality. Hazardous buffer rooms shall be sealed tight and be under negative pressure relative to the anteroom. Air supply shall be laminar airflow with a low-level return. Refer to California Mechanical Code Table 4A, Title 16 Section 1751 and USP Chapter 800 for additional requirements.

1224.19.3.3.2.3 Finishes. The buffer room is considered a semirestricted area with nonporous and cleanable surfaces, ceilings, walls and floors subject to wet cleaning. The surfaces of ceilings, walls, floors, fixtures, shelving, work surfaces, counters and cabinets shall be smooth, seamless and impervious, free from cracks and crevices and be nonshedding. Ceilings shall be monolithic or utilize cleanroom style scrubbable panels, able to withstand cleaning with chemicals. If ceilings consist of inlaid panels, the panels must be caulked around each panel to seal them to the support frame. Juncture of ceilings to wall shall be coved or caulked to avoid cracks and crevices where dirt can accumulate. Sprinkler systems shall be recessed, covered, easily cleanable and of a type suitable for a cleanroom environment. Wall finishes shall be 2-coat epoxy covered gypsum board, seamless vinyl or other impervious covering. Work surfaces, shelving and cabinets shall be constructed of smooth, impervious materials, such as stainless steel or molded plastic so that they are easily cleaned and disinfected. Plastic laminate finish over a pervious substrate is not permitted.

1224.19.3.3.2.4 Eyewash station. If provided in the buffer room, the eyewash station shall be located just inside the door from the anteroom, a minimum clearance of 3.281 feet (1 meter) from the PEC, and must be dry, unless in use. Drains are not permitted in the buffer room.

1224.19.3.3.2.5 Refrigerator. Refrigerated storage may be provided in the negative pressure buffer room. Clearance around the refrigerator shall be accessible for cleaning.

1224.19.3.3.2.6 Doffing area. An area for doffing with a hamper shall be demarked inside the buffer/clean room at the door to the anteroom.

1224.19.3.3.2.7 Sealed tight room. Room perimeter walls, ceiling, floors, doors and penetrations shall be sealed tightly to minimize air infiltration from the outside or from other rooms. Buffer room doors shall be glass, metal or other pheno-

lic material, self-closing and with hands-free door operation. Normal operation may include automatic door controls sequencing such that only the buffer room door or the anteroom door is open at one time. Egress provisions shall not be impeded.

1224.19.3.3.2.8 Pass-throughs. If a pass-through is used between the buffer and anteroom, both doors should not be capable of being open at the same time, and the doors should be interlocking. A pass-through is not permitted between the hazardous drug buffer room and any unclassified area.

1224.19.3.3.2.9 Housekeeping. Dedicated environmental services, materials and supplies shall be located in the buffer room.

1224.19.3.3.3 Anteroom. Hazardous buffer rooms shall be accessed through an anteroom with the following requirements:

1224.19.3.3.3.1 Size. The anteroom shall be of adequate size to accommodate a demarked area for donning and doffing, and anticipated staging of carts and supplies.

Note: A common anteroom may be shared between hazardous and nonhazardous buffer rooms. Refer to note under Section 1224.19.3.2.3.1.

1224.19.3.3.3.2 Air quality. Hazardous anterooms shall be under positive pressure relative to the buffer room and positive pressure relative to nonrestricted areas. Refer to California Mechanical Code Table 4A, Title 16 Section 1751 and USP Chapter 800 for additional requirements.

1224.19.3.3.3.3 Handwashing station. A handwashing station with hands-free controls and nonrefillable closed soap dispensing system, providing support for scrubbing up to the elbows, shall be located in the anteroom, with a minimum clearance of 3.281 feet (1 meter) between the rim of the sink and the door opening to the buffer room.

1224.19.3.3.3.4 Eyewash station. An eyewash station shall be provided in the anteroom if one is not provided in the buffer room.

1224.19.3.3.3.5 Housekeeping. Dedicated environmental services, materials and supplies shall be located in the anteroom.

1224.19.3.3.3.6 Finishes. The anteroom is considered a semi-restricted area with nonporous and cleanable surfaces, ceilings, walls and floors subject to wet cleaning. The surfaces of ceilings, walls, floors, fixtures, shelving, work surfaces, counters and cabinets shall be smooth, seamless and impervious, free from cracks and crevices and be nonshedding. Ceilings shall be monolithic or utilize cleanroom style scrubbable panels, able to withstand cleaning with chemicals. If ceilings consist of inlaid panels, the panels must be caulked

around each panel to seal them to the support frame. Juncture of ceilings to wall shall be coved or caulked to avoid cracks and crevices where dirt can accumulate. Sprinkler systems shall be recessed, covered, easily cleanable and of a type suitable for a cleanroom environment. Wall finishes shall be 2-coat epoxy-covered gypsum board, seamless vinyl or other impervious covering. Work surfaces, shelving and cabinets shall be constructed of smooth, impervious materials, such as stainless steel or molded plastic so that they are easily cleaned and disinfected. Plastic laminate finish over a pervious substrate is not permitted.

1224.19.3.3.3.7 Sealed tight room. Room perimeter walls, ceiling, floors, doors and penetrations shall be sealed tightly to minimize air infiltration from the outside or from other rooms. Buffer room doors shall be glass, metal or other phenolic material, self-closing and with hands-free door operation.

1224.19.3.3.4 Segregated Compounding Area (SCA). When provided in lieu of a buffer/clean room and anteroom, a segregated compounding area, with a limitation on permitted compounded sterile preparations and allowable time of use, shall comply with the requirements of Title 16 Section 1751 and USP Chapter 800. The SCA shall include the PEC and be located in a negative pressure room dedicated to this use.

1224.19.3.3.4.1 Air quality. Hazardous Segregated Compounding Areas shall be under negative pressure and provide airflow from clean to less clean areas. Refer to California Mechanical Code Table 4A, Title 16 Section 1735 and USP Chapter 797 for additional requirements.

1224.19.3.3.4.2 Handwashing station. A handwashing station, with hands-free controls and nonrefillable closed soap dispensing system, providing support for scrubbing up to the elbows, shall be located in the SCA with a minimum clearance of 3.281 feet (1 meter) between the rim of the sink and the PEC.

1224.19.3.3.4.3 Finishes. The segregated compounding area is considered a semi-restricted area with nonporous and cleanable surfaces, ceilings, walls and floors subject to wet cleaning. The surfaces of ceilings, walls, floors, fixtures, shelving, work surfaces, counters and cabinets shall be smooth, seamless, impervious, free from cracks and crevices and be nonshedding. Ceilings shall be monolithic or utilize cleanroom style scrubbable panels, able to withstand cleaning with chemicals. If ceilings consist of inlaid panels, the panels must be caulked around each panel to seal them to the support frame. Juncture of ceilings to wall shall be coved or caulked to avoid cracks and crevices where dirt can accumulate. Sprinkler systems

1224.21.2 Records. Hospitals shall provide a health record service which shall accommodate the following functions:

1. Work area for sorting and recording records for either paper or electronic media.
2. Storage area for records for either paper or electronic media.

1224.22 CENTRAL STERILE SUPPLY.

1224.22.1 Minimum requirements. A central supply and sterilizing area shall be provided. Rooms or distinct spaces shall accommodate the following services and equipment:

1. **Soiled work area.** A receiving and gross cleaning area which shall contain work space and equipment for cleaning medical and surgical equipment and for disposal of or processing of soiled material.
2. **Clean work area.** A clean work area which shall contain work space and equipment for sterilizing medical and surgical equipment and supplies.
3. **Sterilizing space.**
4. **Storage.** Provide storage space for sterile supplies and unsterile supplies.

Exception: Section 1224.22.1 does not apply to hospitals which serve psychiatric or alcoholism patients exclusively.

1224.22.2 All sterilizers and autoclaves which emit steam exhaust shall be vented to the outside of the building. Such vents shall be independent from the plumbing vent system.

Exception: Small instrument sterilizers.

1224.23 STORAGE.

1224.23.1 General storage. Hospitals shall provide general storage space of at least 20 square feet (1.86 m²) per bed in addition to specialized storage spaces. All storage spaces shall be located within a conforming hospital building and readily accessible to the connecting corridor required under Section 1224.4.7.5. Required storage, including but not limited to patient, dietary, etc., shall accommodate at least 72 hours of storage capacity in a conforming building. Storage beyond this requirement may be in a non-hospital or nonconforming building.

1224.23.2 Specialized storage. Specialized storage spaces shall include the following:

1224.23.2.1 Linen. Provide separate and enclosed facilities for clean and soiled linen in each nursing unit. The clean linen storage space shall have a minimum area of 10 square feet (0.93 m²) and may be within the clean utility room. The soiled linen collection space shall have an area of no less than 10 square feet (0.93 m²), except where linen chutes are provided, and may be within the soiled utility room.

1224.23.2.2 Supply. One supply storage space having a minimum area of 15 square feet (1.39 m²) shall be provided in each nursing unit. Supply storage may be within the clean utility room used only as part of a system for distributing clean and sterile supplies.

1224.23.2.3 Wheelchairs. A room or space shall be provided in each nursing unit for wheelchairs and gurneys. The wheelchair and gurney space shall have a minimum area of 15 square feet (1.39 m²).

1224.23.2.4 Sterile and unsterile supplies shall be stored separately.

1224.23.2.5 Food storage shall be as described in Section 1224.20.

1224.24 MORGUE AND AUTOPSY FACILITIES.

1224.24.1 General acute-care hospitals with a licensed bed capacity of 50 to 99 beds shall provide a morgue with autopsy facilities.

Exception: This may not be required if it can be demonstrated to the licensing agency that morgue and autopsy facilities are available locally.

1224.24.2 General acute-care hospitals with a licensed bed capacity of 100 or more shall provide a morgue with autopsy facilities.

1224.24.3 Minimum requirements. The morgue and autopsy space shall have a minimum of 250 square feet (23.23 m²) of floor area, no dimension of which shall be less than 10 feet (3048 mm), and provide for:

1. Handwashing station or scrub sink.
2. Space for refrigerated compartments if human remains are held unembalmed. Refrigerated rooms and prefabricated body refrigerator temperatures shall not be higher than 45°F (25°C).

1224.25 EMPLOYEE DRESSING ROOMS AND LOCKERS.

1224.25.1 Minimum facilities. Hospitals shall provide the following:

1. Separate dressing rooms for male and female personnel with lockers and a toilet room.
2. Additional dressing rooms for the surgical service and as required within any of the supplemental services.

1224.26 HOUSEKEEPING ROOMS. Shall be provided to serve each department and nursing unit, and may be shared by compatible departments, except when specifically required by other sections.

1224.27 LAUNDRY.

1224.27.1 If a laundry is to be provided, the following is required in addition to the laundry room:

1. A separate soiled linen receiving, holding and sorting room with handwashing fixture.
2. A separate clean linen storage, issuing and holding room.
3. Storage for laundry supplies.

1224.27.2 Outside service. If linen is processed off site, the following shall be provided within the hospital:

1. Soiled linen holding room.
2. Clean linen receiving room.
3. Clean linen storage room.

SUPPLEMENTAL SERVICES

1224.28 SUPPLEMENTAL SURGERY AND SPECIAL PROCEDURE SERVICES. When provided, the following supplemental surgery and special procedure services shall meet the requirements below:

1224.28.1 Cardiovascular and other special procedures. When provided, the cardiovascular room shall have a minimum clear floor area of 650 square feet (60.39 m²), with a minimum of 20 feet (6096 mm) clear dimension. Orthopedic surgical and other special procedure rooms shall have a minimum clear floor area of 600 square feet (55.74 m²), with a minimum of 20 feet (6096 mm) clear dimension. When open-heart surgery is performed, an additional room in the restricted area of the surgical service space, that is directly accessible to this operating room, shall be designated as a pump room where extra corporeal pump(s), supplies and accessories are stored and serviced. Appropriate plumbing and electrical connections shall be provided in the cardiovascular, pump and storage rooms.

1224.28.1.1 Service areas. Shall be provided in accordance with Section 1224.15.3.

Exception: Where renovation work is undertaken in facilities built under the 2001 or prior California Building Code, existing rooms for cardiovascular, and other special procedures may have a minimum clear floor area of 500 square feet (46.45 m²). Orthopedic surgical rooms shall have a minimum clear floor area of 360 square feet (33.44 m²) and a minimum dimension of 18 feet (5486 mm).

1224.28.2 Cardiac catheterization.

1224.28.2.1 Procedure room. A procedure room with a minimum clear floor area of 400 square feet (37.16 m²) for the procedure room in addition to spaces for control, monitoring and recording equipment and imaging equipment power and controls and a minimum of one scrub sink for each catheterization laboratory. This space does not include the control room.

1224.28.2.1.1 Emergency response space. Where electrophysiology studies are performed, dedicated space and equipment for emergency resuscitation and stabilization shall be immediately accessible to the procedure room.

1224.28.2.2 Control room. A control room or area shall be provided. A view window permitting full view of the patient from the control console shall be provided.

1224.28.2.3 Equipment space. An equipment space or enclosure large enough to contain imaging equipment transformers, power modules and associated electronics and electrical gear shall be provided.

1224.28.2.4 Scrub facilities. Scrub facilities with hands-free operable controls shall be provided adjacent to the entrance of procedure rooms.

1224.28.2.5 Staff clothing change areas. Appropriate areas shall be provided for male and female staff working within the surgical service space. The areas shall

contain lockers, showers, toilets, handwashing stations and space for donning surgical attire. These areas shall be arranged to ensure a traffic pattern so that personnel entering from outside the service space can enter, change their clothing and move directly into the cardiac catheterization service space. The staff change area may be combined with the surgical staff change area.

1224.28.2.6 Patient holding. A patient preparation, holding, and recovery area or room shall be provided and arranged to provide visual observation before and after the procedure. This may occur in a unit outside of the catheterization service space.

1224.28.2.7 Clean utility room. A clean utility room shall be provided. If the room is used for preparing patient care items, it shall contain a work counter and handwashing station. If the room is used only for storage and holding of clean and sterile supply materials, the work counter and handwashing station shall be permitted to be omitted. The clean utility room may be shared with an adjacent surgical unit.

1224.28.2.8 Soiled utility room. A soiled utility room shall be provided which shall contain a handwashing station and a clinical sink (or equivalent flushing rim fixtures). When the room is used for temporary holding of soiled materials, the clinical sink and handwashing station shall be permitted to be omitted. The soiled utility may be shared with an adjacent surgical unit.

1224.28.2.9 Housekeeping room. Shall be a minimum floor area of 15 square feet (1.4 m²). It shall contain a service sink or floor receptor and provisions for storage of supplies and housekeeping equipment. This may be shared with an adjacent surgical unit.

1224.28.3 Freestanding cardiac catheterization laboratory service space. A general acute care hospital referenced in Health and Safety Code Section 1255 (d)(3)(E) may provide cardiac catheterization laboratory service in a freestanding nonhospital building in conformance with this section and Section 1226.2.2. In addition, the service space shall comply with Section 1224.28.2 and applicable requirements in Section 1224.15.3 that are not covered by this section.

1224.28.3.1 Outpatient support areas. Outpatient support areas shall include outpatient waiting rooms in compliance with Section 1224.4.5. A separate space shall be provided where outpatients change from street clothing and are prepared for a procedure. This space shall include provisions for clothing storage, toilet room(s), sink and an area for clothing change and gowning.

1224.28.3.2 Connection to hospital. The freestanding cardiac catheterization laboratory service space shall be located in the nonhospital building such that the service space has a direct connection to the general acute care hospital providing cardiac surgery by a patient corridor link in compliance with Section 1224.4.7. The corridor link shall have a minimum width of 8 feet

1224.29.1.2 Patient space. In new construction, each patient space (whether separate rooms, cubicles or multiple bed space) shall have a minimum of 200 square feet (18.58 m²) of clear floor area with a minimum headwall width of 13 feet (3962 mm) per bed. There shall be a minimum clear dimension of 1 foot (305 mm) clear space from the head of the bed to the wall, a minimum of 5 feet (1524 mm) clear space from the foot of the bed to the wall, a minimum of 5 feet (1524 mm) clear space on one side of each bed for patient transfer, a minimum of 4 feet (1218 mm) clear width on the non-transfer side and a minimum of 8 feet (2438 mm) clear space between beds.

Exception: Where renovation of existing intensive care units is undertaken, in facilities approved under the 2001 or prior California Building Code, existing patient space (whether separate rooms, cubicles or multiple bed space) may be renovated or replaced in kind one for one in the renovated space. Such patient space shall have no less than 132 square feet (12.26 m²) with no dimension less than 11 feet (3353 mm), and with 4 feet (1219 mm) of clearance at each side and the foot of the bed, and with a minimum of 8 feet (2438 mm) between beds. The space shall be designed so that all beds shall be placed in relation to the nurse station or work area to permit, enable or allow maximum observance of patients.

1224.29.1.3 Private rooms. When private rooms or cubicles are provided, view panels to the corridor shall be required with a means to provide visual privacy. Where only one door is provided to a bed space, it shall be arranged to minimize interference with movement of beds and large equipment. Sliding doors shall not have floor tracks. Where sliding doors are used for access to cubicles within a service space, a 3-foot-wide (914 mm) swinging door may also be provided for personnel communication.

1224.29.1.4 Modular toilet. Modular toilet/sink combination units located within a privacy curtain may be used within each patient space or private room. The toilet fixture shall be completely contained within cabinetry when not in use. This fixture shall not be equipped with a bedpan washing attachment. Exhaust ventilation requirements shall comply with the California Mechanical Code.

1224.29.1.5 Visitors and visual privacy. Each patient bed area shall have space at each bedside for visitors, and provisions for visual privacy from casual observation by other patients and visitors. For both adult and pediatric units, there shall be a minimum of 8 feet (2438 mm) between beds.

1224.29.1.6 Outside environment. Each patient bed shall have visual access, other than clerestory windows and skylights, to the outside environment with not less than one outside window in each patient bed area.

1224.29.1.6.1 Distance. The distance from the patient bed to the outside window shall not exceed

50 feet (15 240 mm). When partitioned cubicles are used, patients' view to outside windows may be through no more than two separate clear vision panels.

1224.29.1.7 Handwashing stations. Handwashing stations shall be directly accessible to nurse stations and patient bed areas. There shall be at least one handwashing station for every three beds in open plan areas, and one in each patient room. The handwashing station shall be located near the entrance to the patient cubicle or room.

1224.29.1.8 Nurse station. This area shall have space for counters and storage. It may be combined with or include centers for reception and communication.

1224.29.1.9 Nurses' work area. There shall be direct visual observation between either a centralized or distributed nurse station or work station and the heads of all patient beds in the intensive care unit.

1224.29.1.10 Monitoring. Each unit shall contain equipment for continuous monitoring. Monitors shall be located to permit easy viewing but not interfere with access to the patient.

1224.29.1.11 Emergency equipment storage. Space that is easily accessible to the staff shall be provided for emergency equipment such as a CPR cart.

1224.29.1.12 Medication station. A medication station shall be provided in accordance with Section 1224.4.4.4. Refrigerated storage is required.

1224.29.1.13 Airborne infection isolation room. At least one airborne infection isolation room shall be provided per unit. The room shall comply with the requirements of Section 1224.14.3; however, the adjoining toilet room is not required. Modular toilet units located within a privacy curtain may be used within the airborne infection isolation room. The modular toilet fixture shall comply with Section 1224.29.1.4.

Exception: When approved by the licensing agency an airborne infection isolation room is not required for small or rural hospitals or protected environment units.

1224.29.1.14 Additional service spaces. The following additional service spaces shall be immediately accessible within each intensive care service space. These may be shared by more than one intensive care unit provided that direct access is available from each.

1224.29.1.14.1 Clean utility/workroom. Clean utility/workroom shall be provided in accordance with Section 1224.4.4.6.

1224.29.1.14.2 Clean linen storage. There shall be a designated area for clean linen storage. This may be within the clean utility room or a separate closet.

1224.29.1.14.3 Soiled utility/workroom. Soiled workroom or soiled holding room shall be provided in accordance with Section 1224.4.4.7.

1224.29.1.14.4 Nourishment area. A nourishment area or room shall be provided in accordance with Section 1224.4.4.5.

1224.29.1.14.5 Ice machine. Each unit shall have equipment to provide ice for treatments and nourishment. Ice-making equipment may be in the clean utility room or at the nourishment station. Ice intended for human consumption shall be from self-dispensing icemakers.

1224.29.1.14.6 Equipment storage room. Appropriate room(s) shall be provided for storage of large items of equipment necessary for patient care. Each intensive care unit shall provide not less than 20 square feet (1.86 m²) per patient bed.

1224.29.1.15 Support. The following shall be provided and shall be located immediately accessible to the unit:

1. **Visitors' waiting room.**
2. **Office space.**
3. **Staff lounge(s) and toilet room(s).**
4. **Multipurpose room(s).** Provide for staff, patients and patients' families for patient conferences, reports, education, training sessions and consultation.
5. **Housekeeping room.** Provide within or immediately adjacent to the intensive care unit. It shall not be shared with other nursing units or departments.
6. **Gurney and wheelchair storage.** Provide a minimum 15 square feet (1.39 m²) per each nursing unit.

1224.29.2 Newborn intensive care units (NICU). The NICU shall comply with all the requirements of Section 1224.29.1 except as supplemented, amended or modified below.

1224.29.2.1 Entrance. The NICU shall have a clearly identified entrance and reception area for families. The area shall permit visual observation and contact with all traffic entering the unit.

1224.29.2.2 Handwashing station(s). Provide one handwashing station for each four infants and for each major fraction thereof. In a multiple-bed room, every bed position shall be within 20 feet (6096 mm) of a handwashing station. Where an individual room concept is used, a handwashing station shall be provided within each infant care room.

1224.29.2.3 Doors. At least one door to each patient room shall be a minimum of 44 inches (1118 mm) wide.

1224.29.2.4 View windows. When viewing windows are provided, provision shall be made to control casual viewing of infants. Controls shall be provided to enable lighting to be adjusted over individual patient care spaces. Darkening sufficient for transillumination shall be available when necessary.

1224.29.2.5 Control station. A central area shall serve as a control station, and shall have space for counters

and storage, and direct access to a handwashing station and gowning. It may be combined with or include centers for reception, communication and patient monitoring. ||

1224.29.2.6 Area. Each patient care space shall contain a minimum of 120 square feet (11.15 m²) of clear floor area per bassinet excluding handwashing fixtures and aisles with a minimum width of 11 feet (3353 mm) at headwall. There shall be an aisle for circulation adjacent to each patient care space with a minimum width of 4 feet (1219 mm). Where multi-patient rooms are used, a separate treatment area of 120 square feet (15.15 m²) shall be provided in compliance with Section 1224.4.4.1.2.

Exception: Where renovation of existing NICUs is undertaken in facilities built under the 2001 or prior California Building Code, patient care areas shall have no less than 80 square feet (7.43 m²) of clear floor area per bassinet exclusive of space for nurse control, scrubbing and gowning and reception area.

1224.29.2.6.1 Treatment area/room. A treatment area/room, with temperature control, shall be provided immediately accessible to the general patient care space.

1224.29.2.7 Ceilings. Ceilings shall have a noise reduction coefficient (NRC) of at least 0.90.

1224.29.2.8 Airborne infection isolation room. Shall comply with the requirements of Section 1224.29.1.13 except for separate toilet, bathtubs or shower. The room shall be enclosed and separated from the nursery unit with provisions for observation of the infant from adjacent nurseries or control area(s).

1224.29.2.9 Lactation. Space shall be provided for lactation support and consultation in or immediately adjacent to the NICU.

1224.29.2.10 Infant formula facilities. Nourishment area required under Section 1224.29.1.14.4 not required. Newborn intensive care units shall include infant formula facilities complying with the following requirements:

1224.29.2.10.1 Location.

1. Where infant formula is prepared on site, direct access from the formula preparation room to any infant care room is prohibited.
2. The formula preparation room shall be located in or adjacent to the NICU. The formula preparation room may be located at another location as approved by the Licensing Agency.

1224.29.2.10.2 Formula preparation room. The formula preparation room shall be securable, facilitate workflow that supports aseptic technique, and include the following:

1. A separate cleanup area for washing and sanitizing. This area shall include a handwashing station, a work counter and work space and

1224.32.3.1.5 Housekeeping. A housekeeping room shall be provided for the use of the cesarean delivery suite.

1224.32.3.1.6 Perioperative support services. Pre-operative patient holding and post-anesthesia recovery shall be provided in accordance with Section 1224.16. Post-anesthesia care shall provide direct access to the cesarean surgical service space without crossing unrestricted corridors.

1224.32.3.2 Delivery room(s). At least one delivery room shall be provided in the obstetrical unit. Delivery rooms shall have a minimum clear floor area of 300 square feet (27.87 m²). An emergency communication system shall be connected with the obstetrical facilities control station.

1224.32.3.2.1 Postpartum bed ratio. Delivery rooms, which are used for no other purpose, shall be provided at the ratio of one per 12 postpartum beds and for each major fraction thereof.

Exceptions:

1. If LDR or LDRP beds are provided, each LDR or LDRP may be counted as a delivery room in the postpartum bed ratio. This does not exempt the delivery room required per Section 1224.32.3.2.
2. When approved by the licensing agency, the operating room of small or rural hospitals with a licensed bed capacity of 50 or less may serve as the delivery room.

1224.32.3.3 Clocks. Shall be provided as follows:

1. A direct-wired or battery-operated clock with sweep second hand and lapsed time indicators in each cesarean operating and delivery room.
2. A direct-wired or battery-operated clock or other equivalent timing device, visible from the scrub-up sinks.

1224.32.3.4 Surgical lights. Provide a surgical light in each cesarean operating or delivery room.

1224.32.3.5 Infant resuscitation. Provide within cesarean operating rooms and delivery rooms a minimum clear floor area of 80 square feet (7.43 m²) in addition to the required area of each room or may be provided in a separate but immediately accessible room with a clear floor area of 150 square feet (13.94 m²). Six single or three duplex electrical outlets shall be provided for the infant in addition to the facilities required for the mother.

1224.32.3.6 Labor room(s) (LDR or LDRP rooms may be substituted). Where LDRs or LDRPs are not provided, a minimum of two labor beds shall be provided for each cesarean operating room. Each room shall be designed for either one or two beds with a minimum clear floor area of 120 square feet (11.15 m²) per bed. Each labor room shall contain a handwashing station and have access to a toilet room. One toilet room may serve two labor rooms, Labor rooms shall have con-

trolled access with doors that are arranged for observation from a nursing station. At least one shower (which may be separate from the labor room if under staff control) for use of patients in labor shall be provided. Windows in labor rooms, if provided, shall be located, draped or otherwise arranged, to preserve patient privacy from casual observation from outside the labor room.

Exception: Where renovation of labor rooms is undertaken in facilities built under the 2001 or prior California Building Code, existing labor rooms shall have a minimum clear floor area of 100 square feet (9.29 m²) per bed.

1224.32.3.7 Recovery room(s) (LDR or LDRP rooms may be substituted). Each recovery room shall contain at least two patient care stations and have a nurse station, with charting facilities, located to permit visual observation of all beds. Each room shall include a handwashing station and a medication station. A clinical sink with bedpan flushing device shall be directly accessible, as shall storage for supplies and equipment. Provide visual privacy of the new family.

1224.32.3.8 Service areas. Individual rooms shall be provided as indicated in the following standards; otherwise, alcoves or other open spaces that do not interfere with traffic may be used.

1224.32.3.8.1 Services. The following services shall be provided:

1. Control/nurse station. This shall be located to restrict unauthorized traffic into the service space.
2. Soiled workroom or soiled holding room. See Section 1224.4.4.7.
3. Fluid waste disposal.

1224.32.3.8.2 Shared services. The following services shall be provided and may be shared with the surgical facilities. Where shared, areas shall be arranged to avoid direct traffic between the delivery and operating rooms.

1224.32.3.8.2.1 Supervisor's office or station. Office or station shall be a minimum of 80 square feet (7.43 m²) and have a desk.

1224.32.3.8.2.2 Waiting room. This room shall have toilet rooms, telephone(s) and drinking fountains that are immediately accessible. The toilet rooms shall contain a lavatory.

1224.32.3.8.2.3 Drug distribution station. The drug distribution station shall have a handwashing station and provisions for controlled storage, preparation and distribution of medication.

1224.32.3.8.2.4 Scrub facilities for cesarean operating or delivery rooms(s). Two positions shall be provided adjacent to entrance to the first cesarean operating room. Provide one additional scrub sink per cesarean or delivery operating room. Scrub facilities shall be arranged to mini-

mize any splatter on nearby personnel or supply carts. In new construction, provide view windows at scrub stations to permit the observation of room interiors.

1224.32.3.8.2.5 Clean utility room. A clean utility room shall be provided if clean materials are assembled within the obstetrical service space prior to use. If a clean utility room is provided see Section 1224.4.4.6.

1224.32.3.8.2.6 Storage.

1. Clean sterile storage area readily accessible to the delivery room.
2. Equipment storage room(s) for equipment and supplies used in the obstetrical service space.

1224.32.3.8.2.7 Workroom. An anesthesia workroom for cleaning, testing and storing anesthesia equipment. It shall contain a work counter, sink and provisions for separation of clean and soiled items.

1224.32.3.8.2.8 Male and female staff clothing change areas. The clothing change area shall be designed to ensure a traffic pattern so that personnel entering from unrestricted area outside the delivery service space enter, change their clothing and move directly into the delivery service semi-restricted area, and eliminate cross-traffic between clean and contaminated personnel. The area shall contain lockers, showers, toilets, handwashing stations and space for donning and disposing scrub suits and booties.

1224.32.3.8.2.9 Staff lounge. Lounge and toilet room facilities for obstetrical staff shall be readily accessible to cesarean operating rooms(s), delivery room(s), labor rooms(s) and recovery room(s). Each toilet room shall contain a handwashing station.

1224.32.3.8.2.10 On-call room. An on-call room(s) for physician and/or staff shall be provided, but may be located elsewhere in the facility.

1224.32.3.8.2.11 Housekeeping room.

1224.32.4 LDR and LDRP facilities.

1224.32.4.1 Location. LDR room(s) may be located in a separate LDR service space or as part of the cesarean/delivery service space. The postpartum unit may contain LDRP rooms.

1224.32.4.2 Space requirements. These rooms shall have a minimum of 250 square feet (23.23 m²) of clear floor area with a minimum dimension of 13 feet (3962 mm). There shall be space for crib and sleeping space for support person. If an infant resuscitation room is not provided elsewhere, service space shall be provided in this room per Section 1224.32.3.5 in addition to the minimum service required for the mother. The medical gas outlets shall be located in the room so that they are

accessible to the mother's delivery area and infant resuscitation area.

1224.32.4.3 Occupancy. Each LDR or LDRP room shall be for single occupancy.

1224.32.4.4 Shower or tub. Each LDR or LDRP room shall have direct access to a private toilet room with shower or tub.

1224.32.4.5 Handwashing stations. Each LDR or LDRP room shall be equipped with handwashing stations.

1224.32.5 Newborn/well baby nurseries

1224.32.5.1 General. Infants shall be housed in nurseries that comply with the standards below. All nurseries shall be immediately accessible to the postpartum unit and obstetrical facilities. The nurseries shall be located and arranged to preclude the need for unrelated pedestrian traffic. No nursery shall open directly onto another nursery. Each nursery shall contain the following:

1224.32.5.1.1 Handwashing stations. At least one handwashing station shall be provided for each six infant bassinets.

1224.32.5.1.2 Storage. Storage for linens and infant supplies at each nursery room.

1224.32.5.1.3 Lactation. A consultation/demonstration/breast feeding or pump room shall be provided in a location that is readily accessible to the nursery. Provisions shall be made, either within the room or immediately accessible to the room, for a sink, counter, refrigeration and freezing, storage for pump and attachments and educational materials. This area may be shared between units.

1224.32.5.1.4 Workroom(s). Each nursery shall be served by a connecting workroom. The workroom shall contain gowning facilities at the entrance for staff and housekeeping personnel, work counter, refrigerator, storage for supplies and a handwashing station. One workroom may serve more than one nursery room provided that required services are convenient to each. Adequate provision shall be made for storage of emergency cart(s) and equipment out of traffic and for the sanitary storage and disposal of soiled waste.

1224.32.5.1.5 Housekeeping room. A housekeeping room shall be provided for the exclusive use of the nursery unit. It shall be directly accessible from the unit.

1224.32.5.1.6 Charting space. Charting facilities shall have linear surface space to ensure that staff and physicians may chart and have simultaneous access to information and communication systems.

1224.32.5.2 Space requirements. Each newborn nursery room shall contain no more than 16 infant stations. Nurseries shall provide a minimum of 25 square feet (2.32 m²) of floor area per bassinet, with at least 3 feet (914 mm) between bassinets and at least 6 inches (152 mm) from a wall.

1224.33 EMERGENCY SERVICE.

1224.33.1 Definition. Levels of emergency care range from initial emergency management as Standby Emergency Medical Service, with a Physician on call; to definitive emergency care as Basic Emergency Medical Service, with a Physician on duty; to a Comprehensive Emergency Medical Service as an Emergency Department.

1224.33.2 Standby Emergency Medical Service. If provided, initial emergency management shall be provided in a specifically designated area of the hospital which shall include the following elements:

1224.33.2.1 Exterior entrance. A well-marked, illuminated and covered entrance, at grade level. The emergency vehicle entry cover shall provide shelter for both the patient and the emergency medical crew during transfer from an emergency vehicle into the building. This exterior entrance shall not be substituted for the required accessible entrance to the hospital, protected from the weather by canopy or roof overhang assigned for passengers loading zone. Ambulance entrances shall provide a minimum of 6 feet (183 mm) in clear width to accommodate bariatric stretchers, mobile patient lift devices and accompanying attendants. Reception shall be located to permit staff observation and control of access to treatment area, pedestrian and ambulance entrances and public waiting area.

1224.33.2.2 Treatment room. Standby emergency service shall include at least one treatment room with the following elements:

1. The area shall not be less than 120 square feet (11.15 m²) of clear floor area, exclusive of toilet room(s), waiting area and storage.
2. Each treatment room shall contain an examination light, work counter and handwashing station.
3. Medical equipment, cabinets, medication storage and counter space for writing.
4. The dimensions and arrangement of treatment rooms shall be such that there is a minimum of 3 feet (914 mm) between the sides and foot of the bed/gurney and any wall or any other fixed obstruction. The treatment room may have additional space and provisions for several patients with cubicle curtains for privacy.
5. Multiple-station treatment rooms shall provide a minimum of 80 square feet (7.43 m²) per patient gurney, with a minimum 8 foot width (2,438 mm) and 3 feet (914 mm) at the foot of the bed/gurney, with a minimum of 3 feet to any wall or fixed obstruction, and a minimum of 5 feet (1524 mm) between patient gurneys. Patient gurneys shall be separated from adjoining patient care stations by curtains. A minimum width of 6 feet (1829 mm) of access/circulation outside the curtain shall be provided. Handwashing stations shall be provided for each four treatment stations and for each major fraction thereof in multiple-station areas. These

shall be uniformly distributed to provide equal access from each patient station.

Exception: Where renovation of existing treatment rooms is undertaken in facilities approved under the 2001 or prior California Building Code, existing treatment rooms may be renovated, or replaced in kind one for one in the renovated space. Such treatment rooms shall have no less than 80 square feet (7.43 m²) of clear floor area, the least dimension of which shall be 8 feet (2438 mm).

1224.33.2.3 Storage. Equipment and supply storage shall be provided and be sized for general medical/surgical emergency supplies, medications and equipment such as ventilator, defibrillator, splints, etc. This storage shall be located in an alcove or room, out of corridor or hallway traffic and under staff control.

1224.33.2.4 Lobby. Provisions for reception, control and public waiting, including a public toilet room(s) with handwashing fixture(s) and public telephone.

1224.33.2.5 Toilet room(s). Patient toilet room(s) with handwashing station(s) shall be immediately accessible to the treatment room(s).

1224.33.2.6 Communication. Communication connections to the Poison Control Center and local EMS system shall be provided.

1224.33.2.7 Observation area. A patient station with a minimum clear floor area of 100 square feet (9.29 m²) shall be provided under the visual control of an emergency service staff work area. The patient station shall have space at bedside for visitors and shall have provision for visual privacy from casual observation by other patients and visitors. The dimensions and arrangement of rooms with multiple beds/gurneys shall be such that there is a minimum of 3 feet (914 mm) between the sides and any wall or any other fixed obstruction. A minimum clearance of 3 feet (914 mm) shall be provided between beds, and a clearance of 4 feet (1219 mm) shall be available at the foot of each bed to permit the passage of equipment and beds. A handwashing station shall be located in each room, and at least one handwashing station shall be provided for every four patient stations, and for each major fraction thereof, in open-bay areas. These shall be uniformly distributed to provide equal access from each patient station.

Exception: For small and rural hospitals, the observation area need not be dedicated solely for that purpose.

1224.33.2.7.1 Behavioral health observation area. If provided, a patient station with a minimum clear floor area of 40 square feet (12.19 m²) shall be provided under the visual control of an emergency service staff work area. The patient station shall have provision for visual privacy from casual observation by other patients and visitors. The dimensions and arrangement of rooms with multiple beds/gurneys shall be such that there is a minimum of 3 feet (914 mm) at one side and any wall or any other fixed obstruction. A minimum clearance of 3 feet (914 mm)

shall be provided between patient stations, and a clearance of 4 feet (1219 mm) shall be available at the foot of each patient station to permit the passage of equipment and beds. A handwashing station shall be located in each room, and at least one handwashing station shall be provided for every eight patient stations, and for each major fraction thereof, in open-bay areas. These shall be uniformly distributed to provide equal access from each patient station.

1224.33.2.8 Airborne infection isolation exam/treatment room. If provided, the airborne infection isolation exam/treatment room shall comply with the requirements of Section 1224.4.4.1.3.

1224.33.3 Basic Emergency Medical Service. When 24-hour basic emergency service is to be provided, at a minimum, all the provisions of Standby Emergency Service under Section 1224.33.2 and the following shall be provided:

1224.33.3.1 Exterior entrance. In addition to the requirements of Section 1224.33.2.1 the emergency entrance shall have direct access from public roads for ambulance and vehicle traffic conforming with the requirements of the local authorities having jurisdiction. Entrance and driveway shall be clearly marked. If a raised platform is used for ambulance discharge, provide a ramp for pedestrian and wheelchair access.

1224.33.3.2 Patient access. Paved emergency access shall be provided to permit discharge of patients from automobiles and ambulances, and temporary parking convenient to the entrance.

1224.33.3.3 Reception, triage and control station(s). This area shall be located to permit staff observation and control of access to treatment areas, pedestrian and ambulance entrances and public waiting area.

1224.33.3.4 Wheelchair and gurney storage. Storage for wheelchairs and gurneys for arriving patients shall be located out of circulation paths with access to emergency entrances.

1224.33.3.5 Public waiting area. A public waiting area shall be provided in compliance with Section 1224.4.5 and include provision of public toilet room(s), drinking fountains and telephone adjacent to the waiting area, dedicated to, and within, the Emergency Service Space.

1224.33.3.6. Examination and treatment room(s). Examination and treatment rooms shall meet the requirements under Section 1224.33.2.2.

1224.33.3.7 Trauma/cardiac rooms. These rooms are for emergency procedures, including emergency surgery, and shall have at least 250 square feet (23.23 m²) of clear floor space. A minimum clearance of 5 feet (152 mm) shall be provided around all sides of the procedure table or gurney. Each room shall have cabinets and emergency supply shelves, image viewing capability, examination lights and counter space for writing. Additional space with cubicle curtains for privacy may be provided to accommodate more than one patient at a time in the trauma room with a minimum clear floor area of 200 square feet (18.58 m²) for each patient bay defined by the privacy curtains. There shall be storage provided for

immediate access to attire used for universal precautions. Doors leading from the ambulance entrance to the cardiac trauma room shall have an opening with a minimum width of 5 feet (1524 mm). At least one scrub sink shall be located outside the entrance to each trauma room. One scrub station consisting of two scrub positions is permitted to serve two trauma rooms if located adjacent to the entrance of each procedure room. The placement of scrub sinks shall not restrict the minimum required corridor width. If a handwashing station is provided within the trauma room, it does not satisfy the requirement for a scrub sink. The handwashing station shall have a minimum of 5 feet (1524 mm) clearance from the procedure table and not located between any curtained procedure area and the entrance to a multi-bay trauma room.

1224.33.3.8 Orthopedic and cast work. At least one orthopedic or cast room shall be provided within the emergency service space. Provisions shall include storage for splints and other orthopedic supplies, traction hooks, image viewing capability and examination lights. If a sink is used for the disposal of plaster of paris, a plaster trap shall be provided. The clear floor space for this area shall be a minimum of 180 square feet (16.7 m²)

1224.33.3.9 Poison Control Center and EMS communications center. Communication connections shall be provided as required under Section 1224.33.2.6. The communications center may be a part of the staff work and charting area.

1224.33.3.10 Emergency equipment storage space. Equipment and supply storage shall be provided as required under Section 1224.33.2.3.

1224.33.3.11 Patients' toilet room. A patient toilet room with a lavatory shall be immediately accessible to the treatment room(s). Where there are more than eight treatment stations, a minimum of two toilet rooms, with a lavatory in each toilet room, shall be required.

1224.33.3.12 Storage. Provide rooms for clean, soiled or used supplies.

1224.33.3.12.1 Soiled workroom or soiled holding room. See Section 1224.4.4.7. This room is for the exclusive use of the emergency service space.

1224.33.3.12.2 Clean utility room. See Section 1224.4.4.6.

1224.33.3.13 Administrative center or nurse station for staff work and charting. These areas shall have space for counters, cabinets and shall be provided with handwashing stations. They may be combined with or include centers for reception and communication.

1224.33.3.14 Medication preparation room. A minimum of one medication preparation room shall be provided in accordance with Section 1224.4.4.4.1. Self-contained medication dispensing units may be provided in addition.

1224.33.3.15 Staff lounge. A staff lounge shall be located within the Emergency Department.

1224.33.3.16 Staff clothing change areas. Appropriate areas shall be provided for male and female staff work-

ing within the emergency service space. The areas shall contain lockers, showers, toilets and handwashing stations.

1224.33.3.17 Housekeeping room. A housekeeping room, compliant with Section 1224.4.15, shall be located within the unit and dedicated to the emergency service space.

1224.33.3.18 Airborne infection isolation exam/treatment room. If provided shall comply with the requirements of Section 1224.4.4.1.3.

1224.33.3.19 Secured holding room. When a secure holding room is provided, it shall meet the following requirements. The location of the secure holding room(s) shall facilitate staff observation and monitoring of patients in these areas. The secure holding room shall have a minimum clear floor area of 60 square feet (5.57 square meters) with a minimum wall length of 7 feet (2.13 meters) and a maximum wall length of 11 feet (3.35 meters). This room shall be designed to prevent injury to patients:

1. All finishes, light fixtures, vents, diffusers and fire protection/alarm components shall be tamper resistant and ligature resistant.
2. There shall not be any electrical outlets, medical gas outlets or similar devices.
3. There shall be no sharp corners, edges or protrusions, and the walls shall be free of objects or accessories of any kind.
4. Patient room doors shall swing out and shall have hardware on the exterior side of the door only. The minimum width shall be 44 inches (1120 mm).
5. A small impact-resistant view panel or window shall be provided in the door for discreet staff observation of the patient.

1224.33.4 Comprehensive Emergency Medical Service. When 24-hour comprehensive emergency service is to be provided, an Emergency Department shall be provided. At a minimum, all the provisions of Stand-by Emergency Service under Section 1224.33.2, the provisions of Basic Emergency Service under Section 1224.33.3, and all of the following shall be provided:

1224.33.4.1 Triage stations. In addition to the requirements of Section 1224.33.3.3, the triage area shall include triage station(s) with the following minimum requirements:

1. 100 square feet (9.29 m²) minimum clear floor area for each private triage room and 80 square feet (7.4 m²) minimum clear floor area for each station in open-bay triage areas.
2. Provisions for patient privacy.
3. Handwashing station in each triage room. In open-bay triage areas, one handwashing station shall be provided for every four triage stations.
4. Immediate access to emergency call and code call stations.
5. Medical gas outlets for triage areas in compliance with Table 1224.4.6.1.

1224.33.4.2 Fast-track area. A fast-track area may be used for treating patients presenting simple and less serious conditions. If a fast-track area is provided, it shall meet the following requirements:

1. Space requirements – each fast-track station shall have a minimum 100 square feet (9.29 m²) of clear floor area for each private room and 80 square feet (7.4 m²) minimum clear floor area for each station in open-bay triage areas.
2. Each station shall include a work/documentation counter and an examination table light.
3. A handwashing station shall be located in each room, and at least one handwashing station shall be provided for every four patient stations, and for each major fraction thereof, in open-bay areas.
4. Storage areas for supplies and medication.
5. A separate procedure room may be provided. It shall have a minimum clear floor area of 120 square feet (11.15 m²).

1224.33.4.3 Pre-screening stations. A pre-screening area may be used prior to admission to the Emergency Department. If pre-screening is provided, each station must have a minimum of 80 square feet (7.4 m²) of clear floor area, a handwashing station, documentation counter and a storage cabinet. In open bay pre-screening areas, one handwashing station shall be provided for every four patient stations. Pre-screening stations, whether private rooms or open bays, are considered a part of the waiting area and must meet the same ventilation requirements.

1224.33.4.4 Diagnostic service areas. Radiological/Imaging services shall be readily accessible. The Emergency Department shall be supported by Clinical Laboratory services. A STAT lab may be provided within the emergency medical service space in addition to more comprehensive support provided by the Clinical Lab.

1224.33.4.5 On-call room(s). Provisions shall be made to accommodate on-call sleeping room(s) for physicians and/or medical staff within the Emergency Department.

1224.33.4.6 Police and press room. Provisions shall be made to accommodate police briefing/debriefing and press releases. This may be located outside the Emergency Department.

1224.33.5 Other space considerations.

1224.33.5.1 Observation units. Observation rooms for the monitoring of patients up to 24 hours may be provided as a distinct unit within, the emergency department. If provided the unit shall have the following:

1. Handwashing stations shall be provided in each patient room and for each four treatment stations, and for each major fraction thereof. These shall be uniformly distributed to provide equal access from each patient station. Handwashing stations shall be directly accessible to nurse stations and patient care areas.
2. Each patient station shall provide space at each bedside for visitors and provision for visual pri-

vacy from casual observation by other patients and visitors. Single station rooms shall have a minimum of 120 square feet (11.15 m²) of clear floor area. Multiple-station rooms shall provide a minimum of 80 square feet (7.43 m²) per patient station with a minimum 8-foot width (2438 mm). A minimum distance of 3 feet (914 mm) between the sides and any wall or any other fixed obstruction shall be provided. A minimum distance of 3 feet (914 mm) shall be provided between beds and 4 feet (1219 mm) at the foot of each bed to permit the passage of equipment and beds. Patient gurneys shall be separated from adjoining patient stations by curtains.

3. One toilet room shall be provided for each six treatment stations and for each major fraction thereof.
4. An administrative center/nurse station, in compliance with Section 1224.4.4.2, positioned to allow staff to observe each patient care station or room.
5. A nourishment area in compliance with Section 1224.4.4.5.

1224.34 NUCLEAR MEDICINE

1224.34.1 General. If nuclear medicine is provided, the following shall be provided:

1224.34.1.1 Radiation protection. A certified physicist shall specify the type, location and amount of radiation protection to be installed in accordance with final approved department layout and equipment selection. A physicist report shall also address dosing areas and circulation paths of dosed patients, including within multi-bay scanner rooms. Radiation protection requirements shall be incorporated into the construction documents and comply with Chapter 31C and the requirements of California Radiation Control Regulations, California Code of Regulations, Title 17, Division 1, Chapter 5, and Subchapter 4.

1224.34.1.2 Nuclear medicine room. Shall be sized to accommodate the equipment and a gurney.

When provided, the following facilities shall meet the requirements below:

1224.34.1.2.1 Scintigraphy (Gamma Camera) Facilities. Shall include the following:

1. Scanner room. The scanner room shall provide a minimum clearance of 4 feet (1218 mm) at each side and the foot of the table.
2. Handwashing stations shall be provided throughout the gamma camera suite at locations of patient contact and at locations where radiopharmaceutical materials are handled, prepared or disposed of.

1224.34.1.2.2 Positron Emission Tomography (PET). Shall include the following:

1. Scanner room shall provide a minimum clearance of 4 feet (1218 mm) at each side and the

foot of the table. Additional space shall be provided when PET is combined with CT and include compliance with Section 1224.18.3 and shielding requirements in Section 1224.34.1.1.

2. Cyclotron room. Where radiopharmaceuticals are prepared on-site, a cyclotron shall be provided. Cyclotron facilities shall be located in access-restricted areas. Shielding requirements for cyclotron facilities shall comply with Section 1224.34.1.1.
3. Control room. If a control room is required based on the physicist's report, it shall be provided with a full direct view of the patient in the PET scanner.
4. Patient uptake/cool-down room. A shielded room with access to a dedicated patient toilet, to accommodate radioactive waste, and lavatory shall be provided.
5. Handwashing stations shall be provided throughout the PET suite at locations of patient contact and at locations where radiopharmaceutical materials are handled, prepared or disposed of.
6. Pre-procedure patient care and recovery area shall be provided to accommodate at least two stretchers. This area shall comply with Section 1224.34.2.6.
7. Imaging equipment room shall be provided in support of the equipment provided.
8. Contaminated (hot) soiled holding shall be provided and operationally integrated to minimize incidental exposure to ionizing radiation.

1224.34.1.2.3 Single-Photon Emission Computed Tomography (SPECT) Facilities. When provided shall include the following:

1. Scanner room shall provide a minimum clearance of 4 feet (1218 mm) at each side and the foot of the table. Additional space shall be provided when SPECT is combined with CT and include compliance with Section 1224.18.3 and shielding requirements in Section 1224.34.1.1. In multi-bay scanner rooms, a minimum clearance of 4 feet (1218 mm) shall be provided between each scanner and any mobile screen used between bays.
2. If a control room is required based on the physicist's report, it shall be provided with a full view of the patient in the SPECT scanner.
3. Imaging equipment room shall be provided in support of the equipment provided.
4. Handwashing stations shall be provided throughout the SPECT suite at locations of patient contact and at locations where radiopharmaceutical materials are handled, prepared or disposed of.

1224.34.1.3 Radiopharmacy. If radiopharmaceutical preparation is performed, an area adequate to house a radiopharmacy shall be provided with appropriate shielding. This area shall include adequate space for storage of radionuclides, chemicals for preparation, dose calibrators and record keeping. If preprepared materials are used, storage and calculation area may be considerably smaller than that for on-site preparation. Space shall provide adequately for dose calibration, quality assurance and record keeping. The area may still require shielding from other portions of the facilities.

1224.34.2 Support areas for nuclear medicine services. The nuclear medicine area shall provide the following support areas. If nuclear medicine is provided within the imaging department, compatible areas may be shared with other imaging modalities:

1224.34.2.1 Entrance. Space shall be adequate to permit entry of gurneys, beds, and able to accommodate imaging equipment, electronic consoles, and if present, computer terminals.

1224.34.2.2 Cleanup. Provisions for cleanup shall be located within the service space and be readily accessible. They shall include a service sink or floor receptacle as well as storage space for equipment and supplies.

1224.34.2.3 Consultation. A consultation area may be provided.

1224.34.2.4 Waiting. Waiting areas shall be provided out of traffic, under staff control. If the department is routinely used for outpatients and inpatients at the same time, separate waiting areas shall be provided with screening or visual privacy between the waiting areas.

1224.34.2.5 Dose administration area. Provide a dose administration area that is immediately accessible to the preparation area. Since as much as several hours may elapse for the dose to take effect, the area shall provide for visual privacy from other areas.

1224.34.2.6 Pre-procedure/holding area. A pre-procedure/holding area for patients on gurneys or beds shall be provided out of traffic and under control of staff and may be combined with the dose administration area with visual privacy between the areas.

1224.34.2.7 Patient dressing rooms. Patient dressing rooms shall be immediately accessible to the waiting area and procedure rooms. Each dressing room shall include a seat or bench, a mirror, and provisions for hanging patients' clothing and for securing valuables.

1224.34.2.8 Patient toilet room(s). Patient toilet rooms shall be reserved for nuclear medicine patients and shall be immediately accessible to waiting and procedure rooms.

1224.34.2.9 Staff toilet rooms. Staff toilet rooms shall be readily accessible to the nuclear medicine laboratory.

1224.34.2.10 Handwashing stations. Handwashing stations shall be located within each procedure room.

1224.34.2.11 Control desk and reception.

1224.34.2.12 Storage area for clean linen.

1224.34.2.13 Soiled and contaminated material. Provisions with handwashing stations shall be made for holding soiled material. Separate provisions shall be made for holding contaminated material.

1224.34.2.14 Hot lab for scintigraphy (gamma camera), PET and SPECT facilities. A securable area or room shall be provided in which radiopharmaceuticals can be safely stored and doses can be calculated and prepared.

1. A single hot lab shall be permitted to serve multiple scanners and nuclear medicine modalities.
2. The hot lab shall be shielded in compliance with Section 1224.34.1.1.
3. A source storage area, a dose area and a storage area for syringe shields shall be provided.

1224.34.3 Radiotherapy service space.

1224.34.3.1 Radiation therapy space. If radiation therapy is provided, the following shall be accommodated:

1. Patient reception and waiting areas.
2. Space for medical and physics staff functions.
3. Space for equipment and supplies.
4. Housekeeping room.
5. Direct access to space provided for radiation measurement and calibration equipment, including a calibration constancy instrument and access to a secondary standard dose meter.
 - 5.1. A megavoltage treatment unit capable of delivering x-rays or gamma rays of effective energy 500 KeV or more and conforming to the requirements of Chapter 31C and the California Radiation Control Regulations, California Code of Regulations, Title 17, Division 1, Chapter 5, Subchapter 4.
 - 5.2. Access to a medium voltage or superficial treatment unit delivering 500 KeV or less, but otherwise having the same functional characteristics as the above mega-voltage units and conforming to the requirements of Chapter 31C and the California Radiation Control Regulations, California Code of Regulations, Title 17, Division 1, Chapter 5, Subchapter 4.
 - 5.3. Direct access to space provided for brachytherapy equipment which shall meet the requirements of Chapter 31C and the California Radiation Control Regulations, California Code of Regulations, Title 17, Division 1, Chapter 5, Subchapter 4.
 - 5.4. Shielding of the rooms shall meet the requirements of Chapter 31C and the California Radiation Control Regulations. California Code of Regulations, Title 17, Division 1, Chapter 5, Subchapter 4.

1224.34.3.2 Radiation protection. Cobalt, linear accelerators, hot lab and high dose rate brachytherapy rooms and simulation rooms require radiation protection. All rooms that provide radiation treatment shall be appropriately shielded. A certified physicist shall specify the type, location and amount of protection to be installed in accordance with final approved department layout and equipment selection. Radiation protection requirements shall be incorporated into the construction documents and comply with Chapter 31C and the requirements of California Radiation Control Regulations, California Code of Regulations, Title 17, Division 1, Chapter 5 and Subchapter 4.

1224.34.3.3 Room sizes. Rooms shall be sized as follows:

1. Cobalt rooms and linear accelerators shall be sized in accordance with equipment requirements and shall accommodate a gurney for litter borne patients. Layouts shall provide for preventing the escape of radioactive particles. Openings into the room, including doors, ductwork, vents and electrical raceways and conduits, shall be baffled to prevent direct exposure to other areas of the facility.
2. Simulator, accelerator and cobalt rooms shall be sized to accommodate the equipment with patient access on a gurney, medical staff access to the equipment and patient, and service access.
3. Where a table is used, the room shall be sized to provide a minimum clearance of 4 feet (1218 mm) on three sides of the table to facilitate bed transfer and provide access to the patient. The door swing shall not encroach on the equipment space, patient circulation space or transfer space.
4. Minimum room size shall be 260 square feet (24.15 m²) for the simulator room; 680 square feet (63.17 m²), including the maze, for accelerator rooms; 200 square feet (18.58 m²) for brachytherapy rooms; and 450 square feet (41.81 m²) for cobalt rooms.

1224.34.3.4 General support area. The following areas shall be provided:

1. A gurney hold area adjacent to the treatment rooms, screened for privacy and combined with a seating area for outpatients.
2. Exam or treatment room shall be provided with a minimum of 100 square feet (9.29 m²) with a minimum dimension of 8 feet (2438 mm). Each exam room shall be equipped with a handwashing station.

Exceptions:

1. Where renovation of existing treatment rooms is undertaken in facilities built under the 2001 or prior California Building Code, treatment rooms shall have no less than 80 square feet (7.43 m²) of clear floor area.

2. Darkroom is optional. If provided, shall be readily accessible to the treatment room(s)
3. Patient gowning area with provision for safe storage of valuables and clothing and with direct access to toilet room(s). At least one space shall be large enough for staff-assisted dressing.
4. Film files area is optional. If provided shall have storage for unprocessed film.

1224.34.4 Additional support areas for linear accelerator.

1224.34.4.1 Mold room with exhaust hood and handwashing fixture.

1224.34.4.2 Block room with storage. The block room may be combined with the mold room.

1224.34.5 Additional support areas for cobalt room.

1224.34.5.1 Hot lab. A hot lab shall be provided in accordance with Section 1224.34.2.14.

1224.34.6 Radiosurgery suite. If radiosurgery (gamma knife/cyber knife) is provided, the following shall be provided:

1224.34.6.1 General. The radiosurgery suite shall be located near the imaging services suite to facilitate image acquisition prior to radiosurgery treatment. Location of gamma knife or cyber knife treatment rooms in a radiation therapy suite shall be permitted.

1224.34.6.2 Radiosurgery treatment rooms. Radiosurgery (gamma knife/cyber knife) treatment rooms shall provide a minimum clearance of 4 feet (1218 mm) shall be provided on all sides of the treatment table/chair. The door shall not encroach on the equipment or on patient circulation or transfer space. A handwashing station shall be provided in each radiosurgery treatment room.

1224.34.6.3 Pre-procedure/recovery accommodations. If provided, pre-procedure/recovery patient care stations shall meet the following requirements:

1. Pre-procedure and recovery area(s) shall be immediately accessible to procedure rooms and separate from corridors. The pre-procedure and recovery patient area or room shall be arranged to permit visual observation of the patient by staff before and after the procedure. Bays, cubicles or single-bed rooms shall be permitted to serve as patient care stations.
2. Area. Where open bays are used, each patient care station shall have a minimum clear floor area of 80 square feet (7.43 m²).
3. Clearances. Each bay or cubicle shall have a minimum clearance of 3 feet (914 mm) between walls or partitions and the sides and foot of gurneys or patient beds. Each bay shall have a minimum clearance of 4 feet (1218 mm) between sides of gurneys or patient beds. A minimum width of 6 feet (1829 mm) of access/circulation outside the curtain shall be provided.
4. Patient privacy. Provisions such as cubicle curtains shall be provided for patient privacy.

5. Handwashing station. A handwashing station shall be provided within the pre-procedure/recovery area.

1224.34.6.4 Support areas for radiosurgery treatment rooms. The following shall be provided:

1. Space for sterilization of head-frames.
2. Area for target planning.
3. Medication station.
4. Nourishment area.
5. Head-frame storage.
6. Toilet room(s) for patients, staff and the public.
7. Area for sedation of pediatric patients.

1224.35 REHABILITATION THERAPY DEPARTMENT.

Where two or more rehabilitation services are provided, facilities and equipment between services may be shared. Rehabilitation therapy services may be provided as part of a dedicated inpatient nursing unit in a rehabilitation center or as outpatient services, or both.

1224.35.1 Rehabilitation center space. If provided, a rehabilitation center space shall be designed to meet the requirements of Section 1224.14, except as follows:

1. Patient bedrooms shall contain a minimum of 110 square feet (10.22 m²) of clear floor area per bed, exclusive of toilet room(s), closets, lockers, wardrobes, alcoves or vestibules, with greater space provided for special needs such as circ-o-electric beds.
2. Space for group dining shall be provided at the minimum rate of 20 square feet (1.86 m²) per bed.
3. Space for group recreation or patient's lounge shall be provided at the minimum rate of 20 square feet (1.86 m²) per bed.
4. Space for staff conferences, patient evaluation and progress reports.
5. A classroom space.
6. If outpatient rehabilitation services are provided, an examination and treatment room, adjacent or directly accessible to an office for the physician in charge of the outpatient service.
7. If outpatient rehabilitation services are provided, a patient waiting area with access to telephone, drinking fountain and men's and women's toilet room facilities in or adjacent to the rehabilitation outpatient service area. Outpatients shall not traverse an inpatient nursing unit.
8. Access to an outside area to be used for therapeutic procedures for patients.
9. At least one training toilet room in each patient unit with minimum dimensions of 5 feet by 6 feet (1524 mm by 1829 mm).
10. Patient bathtubs, where provided, of standard height and located to provide access to both sides and one end of the tub.

11. Patient showers, where provided in centralized bathing facilities, shall comply with Section 11B-608.2.2, no dimension of which shall be less than 4 feet (1219 mm), be equipped with handrails, privacy curtains, and designed for ease of accessibility. The floor shall be sloped to provide drainage.

1224.35.2 Physical therapy service space. If physical therapy is part of the service, the following shall be included:

1. The minimum floor area for a physical therapy space shall be 300 square feet (27.87 m²) with no dimensions less than 12 feet (3658 mm) in addition to any provided therapy stations. Each individual patient care station shall have a minimum clear floor area of 60 square feet (5.57 m²), except individual patient care stations formed with permanent partitions shall have a minimum clear floor area of 80 square feet (7.43 m²). Each individual patient care station shall have privacy screens or curtains.
2. Handwashing stations for staff shall be provided in each treatment room. At least one handwashing station shall be provided for every four patient care stations, and for every major fraction thereof, in an open treatment area. One handwashing station may serve several treatment stations.
3. Exercise area and facilities.
4. Clean linen and towel storage.
5. Storage for equipment and supplies.
6. Separate storage for soiled linen, towels and supplies.

Exception: When approved by the licensing agency small or rural hospitals are exempt from Sections 1224.35.2.1 through 1224.35.2.6.

1224.35.3 Occupational therapy service space. If this service is provided, the following shall be included:

1. Work areas and counters suitable for wheelchair access.
2. Handwashing stations.
3. Storage for supplies and equipment.
4. An area for teaching daily living activities shall be provided. It shall contain an area for a bed, kitchen counter with appliances and sink, bathroom and a table/chair.

1224.35.4 Speech pathology and/or audiology service space. If a speech pathology service is provided, space shall be provided for:

1. Tables and chairs to conduct interviews, consultations and treatment, and to accommodate patients in wheelchairs and stretchers.
2. A waiting area with access to public toilet room(s) if outpatients are being served.
3. Handwashing stations.
4. Testing unit. If an audiology service is provided, there shall be, in addition to Items 1, 2 and 3 above,

a minimum of one two-room testing unit that meets the American National Standards Institute, ANSI/ASA S-3.1, 1999, (2008) Maximum Permissible Ambient Noise Levels for Audiometric Test Rooms.

1224.36 RENAL DIALYSIS SERVICE SPACE (ACUTE AND CHRONIC)

1224.36.1 General. *If provided, renal dialysis service shall comply with the following:*

1224.36.2 Treatment area.

1224.36.2.1 Location. *The treatment area may be an open area and shall be separate from administrative and waiting areas.*

1224.36.2.2 Nurse station(s). *Shall be located within the dialysis treatment area and designed to provide visual observation of all patient stations.*

1224.36.2.3 Individual patient treatment areas. *Shall contain at least 80 square feet (7.44 m²). There shall be at least a 4-foot (1219 mm) space around and between beds and/or lounge chairs.*

1224.36.2.4 Handwashing stations. *Handwashing stations shall be directly accessible to the nurse station and to patient treatment areas. Handwashing stations shall be provided for each four treatment stations, and for each major fraction thereof. These shall be uniformly distributed to provide equal access from each patient station.*

1224.36.2.5 Privacy. *The open unit shall be designed to provide privacy for each patient.*

1224.36.2.6 Bloodborne infection isolation room. *A minimum of one bloodborne infection isolation room of at least 120 square feet (11.15 m²) of clear floor space shall be provided for patients. This room shall contain a counter and handwashing station.*

1224.36.2.7 Medication station. *There shall be a medication station for the dialysis center. The medication station shall comply with the provisions of Section 1224.4.4.4.*

1224.36.2.8 Home training. *If provided in the unit, a private treatment area of at least 120 square feet (11.15 m²) shall be provided for patients who are being trained to use dialysis equipment at home. This room shall contain a counter, a handwashing station and a separate drain for fluid disposal.*

1224.36.2.9 Examination room. *An examination room with a handwashing station shall be provided with at least 100 square feet (9.29 m²).*

1224.36.2.10 Clean utility room. *A clean utility room shall be provided. If the room is used for preparing patient care items, it shall contain a work counter, a handwashing station and storage facilities for clean and sterile supplies. If the room is used only for storage and holding as part of a system for distribution of clean and sterile materials, the work counter and handwashing fixture may be omitted. Soiled and clean utility*

rooms or holding rooms shall be separated and have no direct connection.

1224.36.2.11 Soiled utility room. *A soiled workroom shall be provided and contain a sink, handwashing station, work counter, storage cabinets, waste receptacles and a soiled linen receptacle.*

1224.36.2.12 Reprocessing room. *If dialyzers are reused, a reprocessing room is required and sized to perform the functions required and include one-way flow of materials from soiled to clean with provisions for a refrigerator (temporary storage or dialyzer), decontamination/cleaning areas, sinks, processors, computer processors and label printers, packaging area and dialyzer storage and disinfectants cabinets.*

1224.36.2.13 Nourishment station. *If a nourishment station for the dialysis service is provided, the nourishment station shall contain a sink, a work counter, a refrigerator, storage cabinets and equipment for serving nourishments as required.*

1224.36.2.14 Housekeeping room. *Provide a housekeeping room that is immediately accessible to, and for the exclusive use of the unit.*

1224.36.2.15 Repair room. *If required, an equipment repair and breakdown room shall be equipped with a handwashing fixture, deep service sink, work counter and storage cabinet. Needs water supply and drain connection for testing machines.*

1224.36.2.16 Supplies. *Supply areas or supply carts shall be provided.*

1224.36.2.17 Storage. *Storage space shall be available for wheelchairs and gurneys, if gurneys are provided, out of direct line of traffic.*

1224.36.2.18 Clean linen storage. *A clean linen storage area shall be provided. This may be within the clean utility room, a separate closet or an approved distribution system. If a closed cart system is used, storage may be in an alcove. It must be out of the path of normal traffic and under staff control.*

1224.36.2.19 Mixing room. *Each facility using a central batch delivery system shall provide, either on the premises or through written arrangements, individual delivery systems for the treatment of any patient requiring special dialysis solutions. The mixing room shall also include a sink, storage space and holding tanks.*

1224.36.2.20 Water treatment room. *The water treatment equipment shall be located in an enclosed room.*

1224.36.2.21 Patient toilet. *A patient toilet room with a lavatory shall be provided.*

1224.36.3 Ancillary facilities.

1224.36.3.1 Staff lounge, lockers and toilet(s). *Space shall be available for male and female personnel for staff clothing change area and lounge. The areas shall contain lockers, shower, toilet(s) and handwashing stations.*

SECTION 1225 [OSHPD 2] SKILLED NURSING AND INTERMEDIATE-CARE FACILITIES

1225.1 Scope. The provisions of this section shall apply to skilled nursing and intermediate-care facilities, including distinct part skilled nursing and intermediate-care services of a general acute-care or acute psychiatric hospital license, provided either is in a separate unit or a freestanding building. Skilled nursing facilities and intermediate-care facilities shall provide all common elements and support services. The required services for skilled nursing and intermediate-care facility licensure: physician, skilled nursing, dietary, pharmaceutical services and activity program shall be provided. At the option of the provider, the medical model or the household model may be used.

1225.1.1 Small house skilled nursing facilities. Skilled nursing facilities participating in the Small House Nursing Facilities Pilot Program established by and in conformance with Section 1323.5 of the California Health and Safety Code, shall meet all the provisions of Section 1225.4 Common Elements and Section 1225.5.2 Household Model applicable to small house skilled nursing facilities.

1225.1.2 Subacute care. Patient rooms providing subacute care shall comply with Section 1225.5.1.2. Equipment and components supporting subacute bed(s) shall have special seismic certification per Section 1705. Electrical requirements shall comply with California Electrical Code Article 517.

Note: Construction documents for OSHPD 2 buildings without subacute beds shall explicitly state that the skilled nursing facility or intermediate care facility does not admit patients needing sustained electrical life support equipment

1225.2 Application. New buildings and additions, alterations or repairs to existing buildings subject to licensure shall comply with applicable provisions of the California Electrical Code, California Mechanical Code, California Plumbing Code, California Fire Code (Parts 3, 4, 5 and 9 of Title 24), and this section.

Exception: See Section 1224.2.

1225.2.1 Services/systems and utilities. Services/systems and utilities shall only originate in, pass through or under structures which are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).

1225.2.2 Means of egress. Means of egress shall only pass through structures that are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).

1225.3 Definitions. Refer to Section 1224.3.

1225.4 COMMON ELEMENTS.

1225.4.1 NURSING SERVICE SPACE.

1225.4.1.1 Nurse station. A nurse station in free-standing skilled nursing and intermediate-care facilities shall be provided within each nursing unit. Nurse

stations shall be designed to serve no more than 60 beds.

1225.4.1.1.1 Components. Nurse stations shall be provided with a cabinet, a desk, space for records, a bulletin board, a telephone, a specifically designated, lockable and illuminated medicine storage compartment and a handwashing station. If a separate medicine room is provided, it shall have a lockable door and a sink. This sink cannot replace the required nurse station handwashing fixture.

1225.4.1.1.2 Size. Nurse stations serving 25 or less beds shall have a minimum floor area of 100 square feet (9.29 m²). Nurse stations servicing more than 25 beds shall have a minimum floor area of 125 square feet (11.6 m²). The minimum dimension of any nurse station shall not be less than 8 feet (2438 mm).

1225.4.1.1.3 Distance. In free-standing skilled nursing and intermediate-care facilities, the distance between the nurse station entrance and the center of the doorway of the most remote patient bedroom shall not exceed 150 linear feet (45,720 mm).

Exception: The 150-foot (45,720 mm) limit does not apply to distinct part skilled nursing and intermediate-care services provided as a separate unit in a general acute-care hospital or acute psychiatric hospital.

1225.4.1.2 Room identification. Each patient room shall be labeled with an identification number, letter or combination of the two.

Exception: Small house skilled nursing facilities.

1225.4.1.3 Utility rooms. Utility rooms shall be provided in each nursing unit. Soiled and clean utility or holding rooms shall be separated and have no direct connection.

1225.4.1.3.1 Clean utility room. If the room is used for preparing patient care items, it shall contain a work counter, a handwashing station and storage facilities for clean and sterile supplies. If the room is used only for storage and holding as part of a system for distribution of clean and sterile materials, the work counter and handwashing station may be omitted.

1225.4.1.3.2 Soiled workroom or soiled holding room. This room shall be separate from the clean utility room. The soiled workroom/utility room shall contain a clinical sink (or equivalent flushing-rim fixture). The room shall contain a handwashing station. The above fixtures shall both have a hot and cold mixing faucet. The room shall have a work counter and space for separate covered containers for soiled linen and waste. Rooms used only for temporary holding of soiled material may omit the clinical sink and work counter. If the flushing-rim clinical sink is eliminated, facilities for cleaning bedpans shall be provided elsewhere.

1225.4.1.4 Visual privacy. A method of assuring visual privacy for each patient shall be provided in patient rooms and in tub, shower and toilet rooms.

1225.4.1.5 Treatment or exam room. If provided, the treatment or exam room shall comply with all of the requirements of Section 1224.4.4.

1225.4.1.6 Toilet room and bath facilities. Separate toilet room facilities shall be provided for the use of patients, staff and the public. Fixtures serving individual patient rooms shall not be considered as meeting the required ratios for bedrooms not served by individual adjoining toilet room or bathrooms.

1225.4.1.6.1 Grab bars. Each toilet, bathtub and shower serving patients shall be provided with conveniently located grab bars.

1225.4.1.6.2 Toilet rooms. One patient toilet room shall serve no more than two patients. The toilet room shall contain a toilet, a handwashing station, a mirror and individual storage for the personal effects of each patient.

Exception. Where renovation of existing patient rooms is undertaken in facilities built under the 2013, or prior, California Building Code, each toilet room may continue to serve up to the number of beds previously served, but not more than two patient rooms or eight beds.

1225.4.1.6.3 Bathroom facilities. Bathtubs or showers shall be provided at a ratio of 1:20 patients, and for each major fraction thereof. A separate private toilet shall be provided that is directly accessible to each multi-bathing fixture central bathing area without requiring entry into the general corridor.

1225.4.1.7 Patient/nurse call system. A patient/nurse call system complying with Section 517.123, California Electrical Code, shall be provided.

1225.4.1.7.1 In small house skilled nursing facilities, visitor toilet room(s) shall be equipped with a nurse call station.

1225.4.1.8 Special-purpose rooms. Special-purpose rooms for the purpose of single-patient occupancy shall be provided at a ratio of one room for every 35 patients or fraction thereof. Airborne infection isolation rooms may be included in determining the number of special-purpose rooms required for the facilities.

Exception: The special-purpose room may be omitted if all patient rooms are single-resident rooms.

1225.4.1.9 Airborne infection isolation rooms. If provided, the airborne infection isolation room shall comply with all of the requirements of Section 1224.14.3.

1225.4.1.10 Protective environment room(s). If provided, the protective environment room shall comply with all of the requirements of Section 1224.14.4.

1225.4.1.11 Quiet room. If a quiet room is provided, the quiet room shall comply with the following requirements.

1225.4.1.11.1 Space requirements. Refer to Section 1225.5.1.2, Nursing service space.

1225.4.1.11.2 Toilet room. Provide a patient toilet room adjacent to the quiet room. The patient toilet room shall not be shared with another patient room. If the quiet room is located in a common area, the patient toilet room may be shared with compatible services or activities.

1225.4.1.11.3 Noise control. The quiet room shall comply with the acoustic requirements of Section 1224.4.19, Noise control.

1225.4.2 DIETETIC SERVICE SPACE.

1225.4.2.1 General. Food service facilities and equipment shall conform with these standards, the standards of the National Sanitation Foundation and the requirements of the local public health agency.

1225.4.2.1.1 Distribution. Provision(s) shall be made for transport of hot and cold foods as required, appropriate for the type of food service selected.

1225.4.2.1.2 Dining space. Separate dining spaces shall be provided for patients and staff. These spaces shall be separate from the food preparation and distribution areas.

Exception: Shared dining shall be provided for patients and staff in small house skilled nursing facilities.

1225.4.2.1.3 Location. The design and location of dining facilities shall encourage patient use.

1225.4.2.1.4 Food service. Facilities shall be furnished to provide nourishment and snacks between scheduled meal service.

1225.4.2.2 Functional elements. The following facilities, in the size and number appropriate for the type of food service selected, shall be provided:

1225.4.2.2.1 Location. Food-service areas shall be directly accessible to the entry for food supply deliveries and for the removal of kitchen wastes.

1225.4.2.2.2 Receiving/control stations. A control station shall be provided for the receiving and control of incoming dietary supplies.

1225.4.2.2.3 Food preparation facilities. Food preparation facilities shall be provided to accommodate the method of food preparation required.

1. Conventional food preparation systems require space and equipment for preparing, cooking and baking.

1225.4.7.1 Outside service. If linen is processed off site, the following shall be provided within the facility:

1. A soiled linen holding room.
2. A separate clean linen receiving and storage room.

1225.4.8 EMPLOYEE DRESSING ROOMS AND LOCKERS. Separate dressing rooms with toilet(s), lavatories and lockers for male and female personnel shall be provided.

Exception: Small house skilled nursing facilities, with a peak shift of less than five staff, may provide a single toilet room serving both male and female personnel in compliance with the California Plumbing Code Table 4-3, footnote 7.

1225.5 SKILLED NURSING UNIT MODELS. The requirements of the Medical Model or the Household Model shall apply to the Nursing Unit(s) in its entirety.

1225.5.1 MEDICAL MODEL.

1225.5.1.1 General construction. Skilled nursing and intermediate-care facilities shall comply with Sections 1224.4 through 1224.13 whenever applicable.

1225.5.1.2 NURSING SERVICE SPACE.

1225.5.1.2.1 Patient bedrooms. Patients shall be accommodated only in rooms with the following minimum floor area, exclusive of toilet rooms, wardrobes, entrance vestibules and fixed furnishings or equipment.

1. Single-patient rooms: 110 square feet (10.21 m²).
2. Multi-patient rooms: 80 square feet (7.43 m²) per bed.

1225.5.1.2.2 Bed clearance. The dimensions and arrangement shall be such that there is a minimum distance of 3 feet (914 mm) between the sides and foot of the beds and any wall or any other fixed obstruction. In multiple-bed rooms, in addition to the above, a minimum clearance of 3 feet (914 mm) shall be provided between beds and a clearance of 4 feet (1219 mm) shall be available at the foot of each bed to permit the passage of equipment and beds.

1225.5.1.2.3 Patient room beds. Patient rooms shall be of such shape and dimensions to allow for the performance of routine functions, including the easy transfer of patients to and from bed to wheelchair or wheeled stretcher. Patient rooms shall provide direct access to a toilet room without entering or passing through a patient bed area. Maximum occupancy shall be two patients per patient room.

Exception: Where renovation of existing individual patient rooms is undertaken in facilities built under the 2013, or prior, California Building Code, maximum room capacity shall be no more than the present capacity, to a maximum of four patients per patient room. Placement of beds shall not be more than three deep from the exte-

rior window. This exception is not permitted for patient rooms providing subacute care.

1225.5.1.2.4 Outside exposure. Each patient bed area shall have an outside exposure and shall not be below ground level. The window or glazed opening shall provide an unobstructed view from the head of each patient bed to the outdoors and shall be accessible to approach using a wheelchair or other patient-operated mobility device.

1225.5.1.2.5 Operation and sills. Patient room windows shall have sills not more than 36 inches (914 mm) above the floor. If operable windows are provided that require the use of tools or keys for operation, the tools or keys shall be located at the nurses' station.

1225.5.1.2.6 Patient storage. Each patient room shall be provided with wardrobe or locker spaces for clothing, toilet articles or other personal belongings for each patient.

Exception: Pediatric and psychiatric patient rooms.

1225.5.1.2.7 Patient toilet room. Each patient room shall have its own patient toilet room. Each patient shall have direct access to a toilet room without entering a general corridor or patient bed area in a shared patient room.

1225.5.1.3 PHARMACEUTICAL SERVICE SPACE.

1225.5.1.3.1 Drug space and storage. Adequate space shall be provided at each nursing station for the storage of drugs and preparation of medication doses.

1225.5.1.3.2 Drug access. All spaces and areas used for the storage of drugs shall be lockable and accessible to authorized personnel only.

1225.5.1.3.3 Narcotics. Specific space shall be designed for safe storage of narcotics and other dangerous drugs.

1225.5.1.3.4 Drug refrigeration. Facilities shall provide for storage of drugs requiring refrigeration.

1225.5.1.3.5 Pharmacy. The pharmacy shall not serve the general public unless a separate public entrance or a separate public serving window is utilized.

1225.5.1.4 ACTIVITY PROGRAMMING SPACE. Designated activity areas appropriate to independent and group needs of patients shall be provided as follows:

1225.5.1.4.1 Skilled nursing facilities.

1. Recreation room. Each floor of each building accommodating six or more patients shall be provided with a recreation room with a minimum of 100 square feet (9.29 m²).
2. Recreation and dining. A minimum of 100 square feet (9.29 m²) plus 12 square feet (1.11 m²) per bed shall be provided for recreation and dining activities.

1225.5.1.4.2 Intermediate-care facilities.

1. Recreation room. Each floor of each building accommodating five or more patients shall be provided with a recreation room with a minimum of 150 square feet (13.94 m²).
2. Recreation and dining. A minimum of 30 square feet (2.79 m²) per bed for recreation and dining activities.
3. Outdoor space for activities and recreation.

1225.5.1.4.3 Equipment and supplies. Recreation and dining spaces shall be provided with space to store equipment and supplies.

1225.5.2 HOUSEHOLD MODEL.

1225.5.2.1 General construction. Skilled nursing and intermediate-care facilities and small house skilled nursing facilities shall comply with Sections 1224.4 through 1224.13 whenever applicable, and the following sections:

1225.5.2.1.1 Door thresholds. Door thresholds, except where required at exterior doors and expansion joint covers, shall be designed to facilitate use of wheelchairs and carts and to prevent tripping, and shall provide a smooth and level transition from surface-to-surface.

1225.5.2.1.2 Seating area. A seating area(s) located out of the required egress width shall be provided along the access corridor that is used by patients.

1225.5.2.1.3 Towel bars. Towel bars shall be provided at each bathing facility.

1225.5.2.1.4 Hardware. All patient use plumbing fixtures and door operating hardware shall be equipped with lever type hardware for easy gripping and turning.

1225.5.2.1.5 Drinking fountain. A minimum of one drinking fountain shall be provided per resident floor, unless drinking water is available from the resident dietary area.

1225.5.2.2 Cluster/household unit and resident unit.

1225.5.2.2.1 Design. Each resident unit shall consist of the resident rooms, resident support areas and resident living areas. The unit shall be designed as a cluster/household resident unit or as a resident unit with double or single loaded access corridors. If the cluster/household unit design is utilized, it shall be designed around resident support and living areas with a maximum of 20 patients per cluster/household unit. If the double or single loaded corridor resident unit design is utilized, the access corridor shall be designed so that travel distance from the entrance of the resident unit to the furthest resident room door is no more than 60 feet (18.29 m) without a change of corridor direction or a node for a resident sitting area.

Exception: Small house skilled nursing facilities are limited to household units with a maximum of

12 patients per unit. Small house household units may also be developed as individual, free-standing facilities.

1225.5.2.2.2 Arrangement. Each resident unit shall be arranged to avoid unnecessary and unrelated travel through the unit.

1225.5.2.2.3 Distinct parts or neighborhoods. Both the cluster/household unit and resident unit designs may be grouped into distinct parts or neighborhoods to a maximum of 60 patients. These distinct parts or neighborhoods composed of the resident unit(s) as described in Section 1225.5.2.2.1 may share the functional requirements of the resident support areas as described in Sections 1225.5.2.4 and 1225.5.2.5 of this code.

1225.5.2.3 Resident room.

1225.5.2.3.1 Capacity. In new construction and additions, the maximum room capacity shall be two patients. Resident sleeping areas in all double resident room designs shall be visually separated from each other by a full height wall or a permanently installed sliding or folding door or partition, and shall provide each patient direct use of and direct access to an exterior window at all times. Walls, doors or partitions used to separate resident beds shall provide visual and acoustical separation. A door leading to each resident bed area in addition to the corridor door is not required. Other resident room arrangements where a permanent partition or door is not used to separate the resident sleeping areas may be utilized if adequate visual separation such as a cubicle curtain(s) and an exterior window for each individual resident sleeping area is provided. In this case individual thermostats for the resident bed areas shall not be required.

Exception: In small house skilled nursing facilities, resident sleeping areas in all double-resident room designs shall be visually separated from each other by a full-height wall or a permanently installed sliding or folding door or partition, and shall provide each patient direct use of and direct access to an exterior window at all times. Walls, doors or partitions used to separate resident beds shall provide visual and acoustical separation.

1225.5.2.3.2 Renovation. Where renovation work is undertaken of the resident room that alters the physical configuration of the resident room and the present capacity is more than two patients, the maximum room capacity shall be no more than two patients at the conclusion of the renovation.

1225.5.2.3.3 Space requirements. Rooms shall have a minimum of 100 square feet (9.29 m²) of clear floor area per bed in double resident rooms and 120 square feet (11.15 m²) of clear floor area in single resident rooms, exclusive of the space consumed by toilet rooms, closets, lockers, wardrobes, lavatories, alcoves and door swings into the room or entrance vestibules, whichever is greater. For the purpose of

GASTROINTESTINAL ENDOSCOPY

1226.5.11 Gastrointestinal endoscopy. When provided, gastrointestinal endoscopy services space shall comply with Section 1224.39.3 and the provisions of this section:

1226.5.11.1 Procedure Room(s).

1226.5.11.1.1 Space requirements. Refer to Section 1224.39.3.1.1.

1226.5.11.1.2 Handwashing station. Refer to Section 1224.39.3.1.2.

1226.5.11.2 Processing room. Refer to Section 1224.39.3.2.

1226.5.11.3 Preoperative patient holding. Refer to Section 1224.16.2.

1226.5.11.4 Post-anesthesia recovery area. Refer to Section 1224.16.

1226.5.11.5 Communication system. Refer to Section 1224.39.3.5.

1226.5.11.6 Support areas for outpatient gastrointestinal endoscopy.

1226.5.11.6.1 Control station. Refer to Section 1224.15.3.1.

1226.5.11.6.2 Medication station. Refer to Section 1226.4.13.2.

1226.5.11.6.3 Soiled workroom. Refer to Section 1224.15.3.7.

1226.5.11.6.4 Clean utility room. Refer to Section 1224.15.3.8.

1226.5.11.6.5 Anesthesia workroom. Refer to Section 1224.15.3.9.

1226.5.11.6.6 Storage room(s) for equipment and supplies used in gastrointestinal endoscopy service space. Refer to Section 1224.15.3.10.

1226.5.11.6.7 Staff clothing change areas. Refer to Section 1224.15.3.11.

1226.5.11.6.8 Housekeeping room. Refer to Section 1224.39.2.3.2.

1226.5.11.6.9 Sterile and pharmaceutical supply storage. Refer to Section 1226.4.13.5.

1226.5.11.7 Additional support areas for patients.

1226.5.11.7.1 Outpatient change area. A separate space shall be provided where patients change out of their street clothing and are prepared for the procedure. This space shall include provisions for clothing storage, toilet room(s), sink, space for clothing change and gowning area.

NUCLEAR MEDICINE

1226.5.12 Nuclear medicine. When provided, nuclear medicine services space shall comply with Section 1224.34 and the provisions of this section:

1226.5.12.1 Radiation protection. When provided, refer to Section 1224.34.1.1.

1226.5.12.2 Nuclear medicine room. Refer to Section 1224.34.1.2.

1226.5.12.3 Radiopharmacy. When provided, refer to Section 1224.34.1.3.

1226.5.12.4 Support areas for nuclear medicine services.

1226.5.12.4.1 Cleanup. Refer to Section 1224.34.2.2.

1226.5.12.4.2 Dose administration area. Refer to Section 1224.34.2.5.

1226.5.12.4.3 Holding. Refer to Section 1224.34.2.6.

1226.5.12.4.4 Patient dressing rooms. Refer to Section 1224.34.2.7.

1226.5.12.4.5 Patient toilet room(s). Refer to Section 1224.34.2.8.

1226.5.12.4.6 Staff toilet room(s). Refer to Section 1224.34.2.9.

1226.5.12.4.7 Handwashing stations. Refer to Section 1224.34.2.10.

1226.5.12.4.8 Control desk and reception. Refer to Section 1226.5.3.

1226.5.12.4.9 Clean linen storage. A storage area for clean linen shall be provided.

1226.5.12.4.10 Soiled and contaminated material. Refer to Section 1224.34.2.13.

1226.5.12.5 Radiotherapy service space. When provided, radiotherapy service space shall comply with the following provisions of this section:

1226.5.12.5.1 Radiation protection. Refer to Section 1224.34.3.2.

1226.5.12.5.2 Room sizes. Refer to Section 1224.34.3.3.

1226.5.12.5.3 General support area. Refer to Section 1224.34.3.4.

1226.5.12.6 Additional support areas for linear accelerator.

1226.5.12.6.1 Mold room. Refer to Section 1224.34.4.1.

1226.5.12.6.2 Block room. Refer to Section 1224.34.4.2.

1226.5.12.7 Additional support areas for cobalt room.

1226.5.12.7.1 Hot lab.

1226.5.12.8 High dose rate brachytherapy room.

CANCER TREATMENT/INFUSION THERAPY

1226.5.13 Cancer treatment/infusion therapy service space. When provided, cancer treatment/infusion therapy service space shall comply with the provisions of this section:

1226.5.13.1 Treatment area.

1226.5.13.1.1 Location. Refer to Section 1224.39.4.2.1.

1226.5.13.1.2 Nurse station(s). Refer to Section 1224.39.4.2.2.

1226.5.13.1.3 Individual patient treatment areas. Refer to Section 1224.39.4.2.3.

1226.5.13.1.4 Handwashing stations. Refer to Section 1224.39.4.2.4.

1226.5.13.1.5 Privacy. Refer to Section 1224.39.4.2.5.

1226.5.13.1.6 Medication dispensing. Refer to Section 1224.39.4.2.6.

1226.5.13.1.7 Examination room. Refer to Section 1224.39.4.2.7.

1226.5.13.1.8 Clean utility room. Refer to Section 1224.39.4.2.8.

1226.5.13.1.9 Soiled utility room. Refer to Section 1224.39.4.2.9.

1226.5.13.1.10 Nourishment station. Refer to Section 1224.39.4.2.10.

1226.5.13.1.11 Housekeeping room. Refer to Section 1224.39.4.2.11.

1226.5.13.1.12 Supplies. Refer to Section 1224.39.4.2.12.

1226.5.13.1.13 Storage. Refer to Section 1224.39.4.2.13.

1226.5.13.1.14 Clean linen storage. Refer to Section 1224.39.4.2.14.

1226.5.13.1.15 Patient storage. Refer to Section 1224.39.4.3.2.

HYPERBARIC THERAPY

1226.5.14 Hyperbaric therapy service space. When provided, hyperbaric therapy service space shall comply with Section 1224.39.5 and the provisions of this section:

1226.5.14.1 General. Refer to Section 1224.39.5.1.

1226.5.14.2 Hyperbaric chambers. Refer to Section 1224.39.5.2.

1226.5.14.3 Pre-procedure patient holding area(s). Refer to Section 1224.39.5.3.

1226.5.14.4 Medical gas station outlets. Refer to Section 1224.39.5.4.

1226.5.14.5 Support areas for the hyperbaric suite.

1226.5.14.5.1 Reception/control desk. Refer to Section 1224.39.5.5.1.

1226.5.14.5.2 Examination/treatment room(s). Refer to Section 1224.39.5.5.2.

1226.5.14.5.3 Clean linen storage. Refer to Section 1224.39.5.5.3.

1226.5.14.5.4 Clean supply room. Refer to Section 1224.39.5.5.4.

1226.5.14.5.5 Gas cylinder room. Refer to Section 1224.39.5.5.5.

1226.5.14.5.6 Gurney and wheelchair storage. Refer to Section 1224.39.5.5.6.

1226.5.14.5.7 Housekeeping room. Refer to Section 1224.39.5.5.7.

1226.5.14.5.8 Compressor room. Refer to Section 1224.39.5.5.8.

1226.5.14.6 Support areas for staff. Refer to Section 1224.39.5.6.

1226.5.14.7 Support areas for patients.

1226.5.14.7.1 Patient waiting area. Refer to Section 1224.39.5.7.1.

1226.5.14.7.2 Patient changing area. Refer to Section 1224.39.5.7.2.

1226.5.14.7.3 Patient toilet room. Refer to Section 1224.39.5.7.3.

PRIMARY CARE CLINICS

1226.6 PRIMARY CARE CLINICS. Primary care clinics and outpatient clinical services of a hospital providing services equivalent to a primary care clinic shall comply with Sections 1226.4.3 through 1226.4.8 and the provisions of this section.

1226.6.1 Examination and treatment areas.

1226.6.1.1 Examination room(s). Refer to Section 1224.4.4.1.

1226.6.1.2 Treatment room(s). Treatment room(s) for minor procedures (e.g., minor surgical procedures, casting), if provided, shall have a minimum area of 120 square feet (11.15 m²), the least dimension of which shall be a minimum of 10 feet (3048 mm), excluding such spaces as vestibules and work counters, and shall meet the requirements in Section 1224.4.4.1.

1226.6.1.3 Dental examination and treatment areas. When provided, the examination and treatment space shall be permitted to be a room or a patient care station in an open treatment area.

1226.6.1.3.1 Area. The treatment space shall have a minimum clear floor area of 80 square feet (7.4 m²). This space is required for each station in an open operatory or treatment area. A minimum of 3 feet (915 mm) clearance shall be provided along the full length of one side of the chair, the head of the chair, and between the cuspidor and the head of the chair on the other side for assisting dental staff.

1226.6.1.3.2 Pediatric patients. At least one private consultation/treatment room shall be provided when pediatric patients are treated in a facility.

1226.6.1.3.3 Handwashing. Each treatment room shall include a handwashing station. If treatment is provided at stations in an open operatory, a handwashing station may be permitted to serve two treatment stations.

1226.6.1.3.4 Imaging. If provided, the space for a dental panoramic x-ray system and printer shall comply with shielding requirements in Section

1226.5.5.2 and alcove requirements in Section 1224.18.1.1.

1226.6.1.4 Oral surgery. When provided, treatment areas for procedures for which general anesthesia is used on more than five patients at a time shall comply with the requirements in Section 1226.8.

1226.6.2 Support areas for examination rooms.

1226.6.2.1 Nurse station. Refer to Section 1226.4.13.1.

1226.6.2.2 Medication station. Refer to Section 1226.4.13.2.

1226.6.2.3 Clean utility room. Refer to Section 1226.4.13.3.

1226.6.2.4 Soiled workroom or soiled linen holding. Refer to Section 1226.4.13.4.

1226.6.2.5 Consultation room. Dental facilities must provide a consultation room for private conferences with patients.

1226.6.2.6 Sterilization facilities. If sterile processing and/or high level disinfection is provided, the sterile processing room shall consist of a decontamination area and a clean work area. The sterile processing/high level disinfection room shall be designed to provide one-way flow of contaminated materials/instruments to the sterilizer/high level disinfection equipment. Sterile/high level disinfected instruments should be distributed from the area in such a manner that processed items do not pass through the decontamination area.

1226.6.2.6.1 Decontamination area. The decontamination area shall be equipped with the following:

1. Countertop, separated from clean countertop by 4 feet minimum distance.
2. Handwashing station separate from the instrument washing sink.
3. Sink for washing instruments. To avoid splash, the decontamination sink shall be separated from the clean work area by either a 4-foot distance from the edge of the sink or a separating wall or screen. If a screen is used, it shall extend a minimum of 4 feet (1220 mm) above the sink rim.
4. Storage for supplies.

1226.6.2.6.2 Clean work area. The clean work area shall be equipped with the following:

1. Countertop, separated from decontamination countertop by 4 feet minimum distance.
2. Sterilizer/high level disinfection equipment, as required for the services provided.
3. Handwashing station, may share with decontamination area handwashing station.
4. Built-in storage for supplies.

1226.6.2.7 Laboratory. Facilities for laboratory services shall be provided in dental facilities or through a contract arrangement with a laboratory service.

1226.6.3 Support areas for patients.

1226.6.3.1 Patient toilet room(s). Refer to Section 1226.4.14.1.

1226.6.3.2 Specimen collection and/or blood collection facilities. When provided, refer to Section 1224.4.4.2.

1226.6.4 General support services and facilities.

1226.6.4.1 Garbage, solid waste, medical waste and trash storage. Refer to Section 1226.4.9.

1226.6.4.2 Housekeeping room. Refer to Section 1224.4.15.

1226.6.5 Public and administrative areas.

1226.6.5.1 Public area.

1226.6.5.1.1 Reception. Refer to Section 1226.4.16.1.1.

1226.6.5.1.2 Outpatient waiting room. Refer to Section 1224.4.5.

1226.6.5.1.3 Public toilet(s). Refer to Section 1224.4.5.

1226.6.5.1.4 Public telephone access. Refer to Section 1224.4.5.

1226.6.5.1.5 Drinking fountain(s). Refer to Section 1224.4.5.

1226.6.5.2 Administrative services

1226.6.5.2.1 Medical records storage. Refer to Section 1226.4.16.2.1.

1226.6.5.2.2 Equipment and supply storage. Refer to Section 1226.4.16.2.2.

1226.6.6 Support areas for staff.

1226.6.6.1 Staff toilet(s). Refer to Section 1226.4.17.1.

1226.6.6.2 Storage for employees. Refer to Section 1226.4.17.2.

1226.7 Reserved.

1226.8 SURGICAL CLINICS. Outpatient surgical clinics, and outpatient clinical services of a hospital providing services equivalent to a surgical clinic, shall comply with Sections 1226.4.2 through 1226.4.8 and the provisions of this section.

1226.8.1 Outpatient surgical service space.

1226.8.1.1 Operating room(s). Refer to Section 1224.39.2, Item 1.

1226.8.1.2 Perioperative services. Provide preoperative patient holding and post-anesthesia recovery area. Refer to Section 1224.16.

1226.8.2 Support areas for outpatient surgery.

1226.8.2.1 Control station. Refer to Section 1224.15.3.1.

1226.8.2.2 Supervisor's office or station. Refer to Section 1224.15.3.2.

1226.8.2.3 Substerile areas. When provided, refer to Section 1224.15.3.3.

1226.8.2.4 Medication station. Refer to Section 1226.4.13.2.

1226.8.2.5 Scrub facilities. Refer to Section 1224.15.3.5.

1226.8.2.6 Clock. Refer to Section 1224.15.3.6.

1226.8.2.7 Soiled workroom. Refer to Section 1224.15.3.7.

1226.8.2.8 Clean utility room. Refer to Section 1224.15.3.8.

1226.8.2.9 Anesthesia workroom. Refer to Section 1224.15.3.9.

1226.8.2.10 Equipment storage room(s) for equipment and supplies used in outpatient surgery. Refer to Section 1224.15.3.10.

1226.8.2.11 Staff clothing change areas. Refer to Section 1224.15.3.11.

1226.8.2.12 Housekeeping room. Refer to Section 1224.39.2.3.2.

1226.8.2.13 Sterile and pharmaceutical supply storage. Refer to Section 1226.4.13.5.

1226.8.2.14 Sterilization facilities. Refer to Section 1226.4.13.6.

1226.8.3 Support areas for patients.

1226.8.3.1 Patient toilet room(s). Refer to Section 1226.4.14.1.

1226.8.3.2 Outpatient change area. A separate space shall be provided where patients change out of their street clothing and are prepared for the procedure. This space shall include provisions for clothing storage, toilet room(s), sink, space for clothing change and gowning area.

1226.8.4 General support services and facilities.

1226.8.4.1 Garbage, solid waste, medical waste and trash storage. Refer to Section 1226.4.9.

1226.8.4.2 Areas for off-site laundry services. Refer to Section 1226.4.15.1.

1226.8.5 Public and administrative areas.

1226.8.5.1 Public area.

1226.8.5.1.1 Reception. Refer to Section 1226.4.16.1.1.

1226.8.5.1.2 Outpatient waiting room. Refer to Section 1224.4.5.

1226.8.5.1.3 Public toilet(s). Refer to Section 1224.4.5.

1226.8.5.1.4 Public telephone access. Refer to Section 1224.4.5.

1226.8.5.1.5 Drinking fountain(s). Refer to Section 1224.4.5.

1226.8.5.2 Administrative services

1226.8.5.2.1 Medical records storage. Refer to Section 1226.4.16.2.1.

1226.8.6 Support areas for staff.

1226.8.6.1 Staff toilet(s). Refer to Section 1226.4.17.1.

1226.8.6.2 Storage for employees. Refer to Section 1226.4.17.2.

CHRONIC DIALYSIS CLINICS

1226.9 CHRONIC DIALYSIS CLINICS. Chronic dialysis clinics and outpatient clinical services of a hospital providing services equivalent to a chronic dialysis clinic shall comply with Sections 1226.4.3 through 1226.4.8 and the provisions of this section.

1226.9.1 Examination and treatment rooms.

1226.9.1.1 Examination room(s). An examination room with a handwashing fixture shall be provided with a minimum clear floor area of 100 square feet (9.29 m²).

1226.9.1.2 Treatment room(s). When provided, refer to Section 1224.4.4.1.

1226.9.1.3 Individual patient treatment areas. Individual patient treatment areas shall contain at least 80 square feet (7.44 m²). There shall be at least a 4-foot (1219 mm) space around and between beds and/or lounge chairs. In addition, the following shall be provided:

1. **Location.** The treatment area may be an open area and shall be separate from administrative area and outpatient waiting room.
2. **Privacy.** An open unit shall be designed to provide visual privacy for each patient.

1226.9.1.4 Reception. Refer to Section 1226.4.16.1.1.

1226.9.1.5 Outpatient waiting room. Refer to Section 1224.4.5.

1226.9.1.6 Bloodborne infection isolation room. A minimum of one bloodborne infection isolation room of at least 120 square feet (11.15 m²) of clear floor space shall be provided for patients. This room shall contain a counter and handwashing station.

1226.9.1.7 Airborne infection isolation exam/treatment room. When provided, refer to Section 1224.4.4.1.3.

1226.9.1.8 Home training. When provided in the unit, a private treatment area of at least 120 square feet (11.15 m²) shall be provided for patients who are being trained to use dialysis equipment at home. This room shall contain a counter, a handwashing station and a separate drain for fluid disposal.

1226.9.2 Support areas for examination and treatment rooms.

1227.12.7.3 Distance. The distance between the nurse station entrance and the center of the doorway of the most remote patient bedroom shall not exceed 90 linear feet (27432 mm).

Exception: This section does not preclude designs based on primary nursing concepts incorporating more than one single nursing station of less than 100 square feet (9.29 m²) each and an additional work space or station for unit clerk/receptionist junctions.

1227.12.7.4 Correctional officer. A separate space for the correctional officer may adjoin the nurse station but shall not be included in the minimum square footage requirement for a nurse station.

1227.12.8 Utility rooms. Utility rooms shall be provided in each nursing unit. Soiled and clean utility or holding rooms shall be separated and have no direct connection.

1227.12.8.1 Clean utility room. Clean utility rooms shall contain a work counter, handwashing station and storage facilities unless the room is used only for storage and holding as part of a system for distribution of clean and sterile supplies, in which case the work counter and handwashing fixture may be omitted.

1227.12.8.2 Soiled workroom or soiled holding room. Soiled utility rooms shall contain a flushing-rim clinical sink or equivalent flushing-rim device, handwashing station, work counter, waste receptacles and linen hampers unless the room is used only for the temporary holding of soiled materials, in which case the flushing-rim clinical sink, handwashing station and work counter may be omitted. However, if the flushing-rim clinical sink is omitted, other provisions for disposal of liquid waste shall be provided.

1227.12.9 Treatment and exam rooms. If treatment rooms or exam rooms are provided, they shall comply with Sections 1227.4.4 and 1227.4.5.

1227.12.10 Toilet and bath facilities. Separate toilet room facilities shall be provided for the use of patients and personnel.

1227.12.10.1 Bathroom facilities. Provide for patients in the nursing unit in at least the following ratios:

Bathtubs or showers 1:12 patients

Lavatories 1:8 patients

(Fixtures shall be equipped without aerators and may have conventional controls. Gooseneck spouts shall not be used)

Toilets 1:6 patients

Fixtures serving individual patient rooms shall not be considered as meeting the required ratios for bedrooms not served by individual adjoining toilet rooms or bathrooms.

Changes in these ratios for wards or units in which bed patients only are to be cared for may be permitted by the enforcing agency.

1227.12.11 Patient/nurse call system. A patient/nurse call system shall be provided in compliance with Table 1224.4.6.5 and the provisions of Section 517.123 of the California Electrical Code.

1227.13 PHARMACEUTICAL SERVICE SPACE.

1227.13.1 Licensed pharmacy. A licensed pharmacy shall be provided and shall comply with the provisions of Section 1250.

1227.13.1.1 Entrance and waiting. If the pharmacy dispenses directly to inmates from the correctional institution, an entrance and a waiting area separate from the inpatient areas shall be provided.

1227.14 DIETETIC SERVICE SPACE.

1227.14.1 Dietetic service space. The dietetic service space shall accommodate the provisions of Section 1225.4.2.

Exceptions:

1. Unless the dietetic service in the correctional institution is found acceptable to the licensing agency.
2. A contractual arrangement for dietetic services with another health facility is acceptable to the licensing agency.

1227.15 OFFICES. Office spaces shall be provided for the provisions of nursing, physician, psychiatric and psychological services.

1227.15.1 Consultation/interviews. Consultation/interview rooms shall be provided.

1227.15.2 Conference/group activities. Separate rooms or spaces shall be provided for conferences and group activities.

Exception: If conference room or space is available to the correctional treatment facility staff in the correctional institution, this room or space need not be duplicated.

1227.16 ADMINISTRATION SPACE.

1227.16.1 Administration. An administration area shall be provided which shall provide for the following functions:

1. Waiting area.
2. Offices for the administrator and clerical personnel.

1227.16.2 Records. Spaces shall be provided which accommodate the following functions:

1. Work area for sorting and recording records, for either paper or electronic media.
2. Secure storage area for medical records, for either paper or electronic media.

1227.17 CENTRAL STERILE SUPPLY.

1227.17.1 Minimum requirements. A central supply and sterilizing area shall be provided. Rooms and spaces shall accommodate the following services and equipment:

1. Soiled work area. A receiving and gross cleaning area which shall contain workspace and equipment

for cleaning medical and surgical equipment and for disposal of or processing of soiled material.

2. Clean work area. A clean work area which shall contain work space and equipment for sterilizing medical and surgical equipment and supplies.
3. Sterilizing space.

Exception: Items 1 through 3 do not apply to facilities with contractual arrangements for outside autoclaving and sterilizing services.

4. Storage. Space for sterile supplies and unsterile supplies.

1227.17.2 Sterilizers and autoclaves. All sterilizers and autoclaves which emit steam exhaust shall be vented to the outside of the building. Such vents shall be independent from the plumbing vent system.

Exception: Small instrument sterilizers.

1227.18 STORAGE.

1227.18.1 General storage. Correctional treatment centers shall provide combined general and specialized storage space in accordance with the following:

1–10 beds	120 square feet (11.15 m ²) minimum
11–100 beds	12 square feet (1.11 m ²) per bed
over 100 beds	1,200 square feet (111.48 m ²) plus 5 square feet (0.46 m ²) per bed for each bed over 100

1227.18.2 Specialized storage. Specialized storage spaces shall include the following:

1. Linen. Separate and enclosed facilities for clean and soiled linen in each nursing unit. The clean linen storage space shall have a minimum area of 10 square feet (0.93 m²) and may be within the clean utility room. The soiled linen collection space shall have an area of no less than 10 square feet (0.93 m²), and may be within the soiled utility room.
2. Supply. One supply storage space having a minimum area of 15 square feet (1.39 m²) shall be provided in each nursing unit. Supply storage may be within the clean utility room used only as part of a system for distributing clean and sterile supplies.
3. Wheelchairs. A room or space shall be provided in each nursing unit for wheelchairs and stretchers. The wheelchair and stretcher space shall have a minimum area of 15 square feet (1.39 m²).
4. Storage. Sterile and unsterile supplies shall be stored separately.

1227.19 EMPLOYEE DRESSING ROOMS AND LOCKERS.

1227.19.1 Minimum facilities. Correctional treatment centers shall provide the following:

1. Dressing rooms. Separate dressing rooms for male and female personnel with lockers, lavatory and toilet(s).

Exception: If provided for the correctional treatment center staff in adjacent correctional institu-

tions, dressing rooms and lockers need not be duplicated.

1227.20 HOUSEKEEPING ROOM.

1227.20.1 A securely lockable housekeeping room with service sink and supply storage spaces shall be provided in each nursing unit.

OPTIONAL SERVICES

1227.21 SERVICE SPACES. Service spaces, such as laboratory, radiology and any other services approved by the licensing agency, shall comply with the applicable space requirements of Sections 1224 and 1225. Service spaces shall also comply with applicable provisions of the California Building Standards Administrative Code (Part 1).

1227.22 OUTPATIENT SERVICES. The following shall be provided or made available to an outpatient service space.

1227.22.1 Waiting. Waiting area(s) shall be provided with access to toilet room facilities and a drinking fountain both meeting the requirements of Sections 1231.3.1, 1231.3.2 and 1231.3.3.

1227.22.1.1 Holding cell. If a temporary holding cell or room is used for this purpose, it shall comply with Section 1231.2.2.

Exception: The minimum floor area shall be 80 square feet (7.43 m²).

1227.23 24-HOUR MENTAL HEALTH CARE SERVICES.

1227.23.1 Program/dining space. Provide within the Correctional Treatment Center for use by mental health treatment program patients, as is consistent with security requirements. Program/dining space shall be provided with a minimum floor area of 30 square feet (2.79 m²) per patient served at a given time.

1227.23.2 Mental health treatment. Correctional treatment centers providing a mental health treatment program shall include one seclusion room providing direct observation of every portion of the room for every 15 mental health beds and for each major fraction thereof. At least one seclusion room shall be provided.

SECTION 1228 [OSHPD 5] ACUTE PSYCHIATRIC HOSPITALS

1228.1 Scope. The provisions of this section shall apply to acute psychiatric hospitals.

1228.2 Application. An acute psychiatric hospital or unit shall meet the requirements of Section 1224.14 for a unit that provides acute medical care or 1228.14 for a non-medical unit, in addition to the requirements of Section 1228.4 based on the functional program. Specific application shall respond to the patient injury and suicide prevention component of the Patient Safety Risk Assessment prepared under California Administrative Code (Part 1 of Title 24) Section 7-119. If a facility or unit provides acute medical care, the unit shall be located in a building that is compliant with California Administrative Code Chapter 6 for OSHPD 1. New buildings and additions, alterations or repairs to existing buildings subject to licensure shall comply with applicable provisions of the California Electrical

Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code (Parts 3, 4, 5, 6 and 9 of Title 24) and this section.

Note: Refer to the applicable exceptions under Section 1224.2.

1228.2.1 Functional program. Refer to California Administrative Code (Part 1 of Title 24), Section 7-119, Functional Program, for requirements. Projects associated with acute psychiatric hospitals and with psychiatric nursing units in general acute-care hospitals shall include a Patient Safety Risk Assessment.

1228.3 Definitions. The definitions provided under Section 1224.3 apply to this section except as modified below:

ACUTE PSYCHIATRIC HOSPITAL. Acute psychiatric hospital means a hospital having a duly constituted governing body with overall administrative and professional responsibility and an organized medical staff which provides 24-hour inpatient care for mentally disordered, incompetent or other patients referred to in Division 5 (commencing with Section 5000) or Division 6 (commencing with Section 6000) of the Welfare and Institutions Code, including the following basic services: medical, nursing, rehabilitative, pharmacy and dietary services.

BASIC SERVICES. Basic services mean those essential services required by law for licensure as an acute psychiatric hospital including medical, nursing, rehabilitative, pharmaceutical, dietary and support services.

HOSPITAL. Hospital, where used in this section, means an acute psychiatric hospital.

SALLY PORT. A compartment provided with two or more doors where the intended purpose is to prevent continuous and unobstructed passage by allowing the release of only one door at a time.

TAMPER RESISTANT means designed to prevent damage, destruction or interference or indicates the product is designed to withstand dismantling, removal of the product, or interference with the operation of the product.

1228.4 GENERAL CONSTRUCTION. Acute psychiatric hospitals shall comply with the provisions under Section 1224.4, General Construction, where applicable, except as supplemented, amended or modified below. Specific application shall respond to the patient injury and suicide prevention component of the Patient Safety Risk Assessment prepared under California Administrative Code (Part 1 of Title 24), Section 7-119.

1228.4.1 Jurisdiction.

1228.4.1.1 Services/systems and utilities. Services/systems and utilities shall only originate in, pass through or under structures which are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).

1228.4.1.2 Means of egress. Means of egress shall only pass through structures that are under the jurisdiction of the Office of Statewide Health Planning and Development (OSHPD).

1228.4.2 Reserved.

1228.4.3 Reserved.

1228.4.4 Support areas for patients.

1228.4.4.1 Examination and treatment rooms.

1228.4.4.1.1 Examination room. Examination rooms in acute psychiatric hospitals shall meet the requirements of Section 1224.4.4.1.1 as amended below:

1228.4.4.1.1.1 Location. Examination rooms shall be permitted to serve several nursing units and shall be permitted to be on a different floor, unless prohibited by specific sections of this code or by the Patient Safety Risk Assessment.

1228.4.4.1.1.2 Space requirements. Examination rooms shall have a minimum clear floor area of 120 square feet (11.15 m²).

1228.4.4.1.2 Treatment room. Where provided, refer to Section 1224.4.4.1.2.

1228.4.4.1.3 Airborne infection isolation exam/treatment room. Where provided, refer to Section 1224.4.4.1.3.

1228.4.4.1.4 Seclusion room. Refer to Section 1224.4.4.1.5.

1228.4.4.1.5 Quiet room. Where provided, a quiet room for a single patient who requires a period of solitude but does not require a seclusion room, shall have a minimum clear floor area of 80 square feet (7.43 m²).

1228.4.4.2 Reserved.

1228.4.4.3 Specimen and blood collection facilities. Where provided, refer to Section 1224.4.4.3.

1228.4.4.4 Medication station. Refer to Section 1224.4.4.4.

1228.4.4.5 Nourishment area or room. Refer to Section 1224.4.4.5.

1228.4.4.6 Clean utility/work room. Refer to Section 1224.4.4.6.

1228.4.4.7 Soiled utility/work room. Refer to Section 1224.4.4.7.

1228.4.5 Outpatient waiting rooms. Where provided, refer to Section 1224.4.5.

1228.4.6 Miscellaneous requirements. Refer to Section 1224.4.6 for requirements regarding station outlets, gas and vacuum systems, hyperbaric facilities, laboratories and nurse call systems.

1228.4.7 Corridors. Refer to Section 1224.4.7.

1228.4.8 Doors and door openings. Refer to Section 1224.4.8 with the following modifications and amendments:

1. Where indicated by the Patient Safety Risk Assessment, toilet room doors shall be equipped with keyed locks that allow staff to control access to the toilet room.
2. Use of door closers is to be avoided unless required by other sections of this code.

3. Door hinges shall be designed to minimize accessible anchor points (e.g., cut hinge type, piano hinge, concealed hinge, etc.).
4. Except for specifically designed ligature-resistant hardware, door lever handles shall point downward when in the latched and in the unlatched position.
5. All hardware shall have tamper-resistant fasteners.
6. Soft doors may be used for patient room toilets where indicated in the Patient Safety Risk Assessment.

1228.4.9 Windows and screens.

1. Windows located in patient care areas or areas used by patients, shall limit the opportunities for patients to inflict harm to themselves or others.
 - 1.1. All glazing (interior and exterior) shall be fabricated with polycarbonate or laminate on the inside of the glazing or with any glazing that meets or exceeds the requirements for Class 1.4 per ASTM F1233-08 (2013), Standard Test Method for Security Glazing Material and Systems. Translucent film may be used up to 60 inches (1524 mm) for privacy.

Exception: Use of tempered glass for interior borrowed lights shall be permitted where allowed by the Patient Safety Risk Assessment.

- 1.2. Where window treatments are provided, they shall be designed without accessible anchor points.
- 1.3. Where operable windows are provided in patient rooms or suites, openings shall be limited to prevent the passage of a 4-inch (102 mm) sphere.
2. Anchorage for windows and window assemblies (including frames, hinges and locking devices) shall be designed to resist impact loads applied from the inside and shall be tested in accordance with ANSI Z97.1, Safety Glazing Materials Used in Buildings.
3. A minimum net glazed area of not less than 8 percent of the floor area of each indoor activity space and dining space shall be provided for observation from nurse station.

1228.4.10 Ceiling heights. Refer to Section 1224.4.10 unless noted otherwise.

1228.4.11 Interior finishes. Interior finishes shall comply with Section 1224.4.11 as amended in this section. Special design consideration shall be given to injury and suicide prevention in the context of the Patient Safety Risk Assessment.

1228.4.11.1 Reserved.

1228.4.11.2 Reserved.

1228.4.11.3 Reserved.

1228.4.11.4 Ceilings. Refer to Section 1224.4.11.4 with the following modifications and amendments:

Ceilings shall be monolithic in seclusion rooms, exam/treatment rooms, patient bedrooms, patient toilet rooms or patient bathing facilities.

1. In these rooms, the ceiling shall be secured from patient access.
2. Mechanical, electrical and plumbing systems, other than terminal elements serving the room (e.g., diffusers, registers, luminaires, etc.), shall be concealed above the ceiling.

1228.4.12 Courts. Refer to Section 1224.4.12.

1228.4.13 Elevators. Refer to Section 1224.4.13.

1228.4.14 Garbage, solid waste and trash storage. Refer to Section 1224.4.14.

1228.4.15 Housekeeping room. Refer to Section 1224.4.15.

1228.4.16 Laundry and trash chutes. Refer to Section 1224.4.16.

1228.4.17 Telephones. Refer to Section 1224.4.17.

1228.4.18 Grab bars. Refer to Section 1224.4.18 with the following modifications and amendments:

1. Grab bars, including those that are part of fixtures such as soap dishes, shall be sufficiently anchored to sustain a concentrated load of 250 pounds (113.4 kg).
2. Grab bars shall be graspable and shall be ligature resistant.

1228.4.19 Noise control. Refer to Section 1224.4.19.

1228.4.20 Built-in furnishings. Built-in furnishings in areas accessible to patients shall comply with the following requirements:

1. Built-in furnishings with doors or drawers shall not be provided.
2. Open shelves shall be fixed with tamper-resistant hardware.
3. When provided, clothing rods or hooks shall be ligature resistant.
4. The following are not permitted:
 - 4.1. Towel bars.
 - 4.2. Shower curtain rods.
 - 4.3. Lever handles, except where a specifically designed ligature-resistant lever handle is used.

1228.4.21 Building systems.

1228.4.21.1 Lighting. Lighting in areas identified in the Patient Safety Risk Assessment as high- and medium-risk areas shall be tamper resistant. Refer to California Electrical Code.

1228.4.21.2 Receptacles. When electrical receptacles are provided in a patient bedroom, the receptacles shall be in compliance with California Electrical Code.

1228.4.22 Handwashing stations. All handwashing fixtures that are accessible to patients, including those located in patient rooms and patient toilet rooms, shall include ligature-resistant features that do not compromise compliance with the hot and cold water supply controls,

laminar flow and sink requirements of the California Plumbing Code. Handwashing fixtures within patient rooms and patient toilet rooms in psychiatric nursing units are not required to be equipped with gooseneck spouts and the discharge point may be less than 5 inches (127 mm) above the fixture rim.

1228.5 Communication system. Refer to Section 1224.5.

BASIC SERVICES

1228.6 Reserved.

1228.7 Reserved.

1228.8 Reserved.

1228.9 Reserved.

1228.10 Reserved.

1228.11 Reserved.

1228.12 Reserved.

1228.13 PSYCHIATRIC REHABILITATION ACTIVITIES SERVICE SPACE. The psychiatric rehabilitation activities service space may be centralized for common use or may be located in each nursing unit in response to the Patient Safety Risk Assessment. The following areas are required in the psychiatric rehabilitation activities service space:

1228.13.1 Patient care areas.

1228.13.1.1 Indoor activity rooms.

1. At least two separate activity rooms, one appropriate for group recreation and one for quiet activities to serve as a patient lounge, shall be provided.
2. Space requirements. The combined area of these rooms shall have a minimum of 25 square feet (2.32 m²) per patient bed, with at least 120 square feet (11.15 m²) of clear floor area for each of the two spaces.

1228.13.1.2 Outdoor activity area. An outdoor activity area shall be provided. Outdoor areas shall meet the following requirements:

1. Fences and walls shall be designed to:
 - 1.1. Be installed with tamper-resistant hardware.
 - 1.2. Have a minimum height of 10 feet (3048 mm) above the outdoor area elevation.
 - 1.3. Be anchored and constructed to withstand the body force of a 350-pound (158-kg) person.
2. If provided, gates or doors in the fence or wall shall:
 - 2.1. Swing away from the outdoor activity area.
 - 2.2. Have the hinge installed on the outside of the outdoor activity area.
 - 2.3. Be provided with a locking mechanism that has been coordinated with egress requirements of Section 1004.5, Outdoor areas.

3. Lights shall not be accessible to patients. Lighting in the outdoor activity area shall not be pole mounted.
4. If provided, security cameras shall not be accessible to patients and cameras shall view the entire outdoor activity area.
5. If provided, furniture shall be secured from movement. Furniture shall not be placed in locations where it can be used to climb the fence or wall.

1228.13.1.3 General support areas.

1. Space for staff conferences, patient evaluation and progress reports.
 - 1.1. Staff conference room. A conference and treatment planning room shall be provided.
 - 1.2. Office space separate from the activities area.
2. Where outpatients are treated, there shall be a waiting area compliant with the requirements of Section 1228.4.5.

1228.13.2 Physical therapy service space. Where provided, the physical therapy service space shall comply with Section 1224.35.2.

1228.13.3 Occupational therapy service space. Where provided, the occupational therapy service space shall comply with Section 1224.35.3, Items 1, 2 and 3.

1228.13.4 Speech pathology and/or audiology service space. Where provided, the speech pathology service space shall comply with Section 1224.35.4.

1228.14 PSYCHIATRIC NURSING SERVICE SPACE. Psychiatric nursing units shall comply with the requirements of this section. If the nursing unit is a locked unit, the primary access point to the unit shall be through a sally port. For "secure treatment facilities," alternate designs for locked unit access without individual sally ports may be approved by the enforcement agency when it can be demonstrated that the alternate design meets performance requirements without compromising any health or life-safety requirement.

1228.14.1 Patient rooms. Each patient bedroom shall meet the following standards:

1228.14.1.1 Capacity. Maximum room capacity shall be two patients.

Exception: Where renovation of existing individual acute psychiatric hospital patient rooms is undertaken in facilities built under the 2013, or prior, California Building Code, maximum room capacity shall be no more than the present capacity, to a maximum of eight patients per patient room. Placement of beds shall not be more than three deep from the exterior window.

1228.14.1.2 Space requirements. Patient bedrooms shall have a minimum clear floor area inclusive of beds of 110 square feet (10.2 m²) for single-bed rooms and 80 square feet (7.43 m²) per bed for multiple-bed rooms.

1228.14.1.3 Windows. Each patient bedroom shall have a window in accordance with Section 1228.4.9.

1228.14.1.4 Reserved.

1228.14.1.5 Outside exposure. Refer to Section 1224.14.1.5.

1228.14.1.6 Handwashing stations. Handwashing stations shall comply with Section 1228.4.22. Handwashing stations are required in patient toilet rooms. Handwashing stations are not required in patient bedrooms.

1228.14.1.7 Patient toilet room.

1. Each patient shall have access to a toilet room without having to enter a corridor.

Exception: Corridor access to the patient toilet room shall be permitted at pediatric or adolescent patient bedrooms and in specific patient bedrooms where the use of corridor access is part of the hospital's written Patient Safety Risk Assessment and management program.

2. One toilet room shall serve no more than two patient bedrooms and no more than four patients.
3. The toilet room shall contain a toilet and a handwashing station.

1228.14.1.8 Patient storage. Each patient shall have in their room a separate wardrobe, locker or closet for storing personal effects. Shelves for folded garments shall be used instead of arrangements for hanging garments.

1228.14.1.9 Privacy. Visual privacy in multibed rooms (e.g., cubicle curtains) is not required in psychiatric nursing units.

1228.14.1.10 Grab bars. Grab bars provided in accessible patient toilet rooms shall comply with Section 1228.4.18.

1228.14.1.11 Room identification. Each patient room shall be labeled with an identification number, letter or combination of the two.

1228.14.2 Service areas. Provision for the services listed below shall be in or immediately accessible to each psychiatric nursing unit. The size and location of each service area will depend upon the numbers and types of beds served. Identifiable spaces are required for each of the indicated functions. If a service area is specifically permitted to serve more than one nursing unit, there shall be at least one such service area located on each nursing unit floor.

1228.14.2.1 Administrative center(s) or nurse station(s). Refer to Section 1224.4.4.2.

1228.14.2.1.1 Documentation area. A separate charting area with provisions for acoustic and patient file privacy shall be provided.

1228.14.2.1.2 Handwashing station(s). Refer to Section 1228.4.22 for the definition of handwashing

station. Handwashing stations in high- or medium-patient-risk areas shall be ligature resistant.

1228.14.2.2 Office(s) for staff. Office(s) for staff shall be provided.

1228.14.2.3 Support areas for staff.

1. Staff lounge facilities. Staff lounge facilities may be combined between units.
2. Staff toilet rooms.
3. Staff storage locations. Securable closets or cabinet compartments for the personal effects of nursing personnel shall be immediately accessible to the administrative center or nurse station.

1228.14.2.4 Multipurpose room(s). Multipurpose rooms shall be provided for staff, patients, patients' families for patient visits, conferences, reports, education, training sessions and consultation. These rooms shall be readily accessible to each nursing unit. One such room may serve several psychiatric nursing units.

1228.14.2.5 Examination and treatment room. Refer to Sections 1228.4.4.1.1 and 1228.4.4.1.2.

1228.14.2.6 Clean utility/workroom. Refer to Section 1228.4.4.6.

1228.14.2.7 Soiled utility/workroom. Refer to Section 1228.4.4.7.

1228.14.2.8 Medication station. Refer to Section 1228.4.4.4.

1228.14.2.9 Clean linen storage. Each psychiatric nursing unit shall contain a designated area for clean linen storage. This may be within the clean utility room or a separate closet.

1228.14.2.10 Nourishment area. Refer to Section 1228.4.4.5.

1228.14.2.11 Ice-making equipment. Each nursing unit shall have equipment to provide ice for treatments and nourishment. Ice-making equipment may be in the clean utility/workroom or at the nourishment station. Ice intended for human consumption shall be from self-dispensing icemakers.

1228.14.2.12 Equipment and supply storage. Appropriate room(s) shall be provided for storage of equipment necessary for patient care. Each unit shall provide not less than 15 square feet (1.39 m²). Location of the storage areas shall not present a risk to the patient population as indicated in the functional program.

1228.14.2.13 Reserved.

1228.14.2.14 Patient bathing facilities. A bathtub or shower shall be provided for each six patient beds not otherwise served by bathing facilities at patient bedrooms.

1228.14.2.15 Common patient toilet room(s). In addition to the toilet rooms serving bed areas, common patient toilet rooms shall be located adjacent to multi-

purpose room(s) and within or directly accessible to each common patient bathing facility.

1228.14.2.16 Emergency equipment storage. Emergency equipment storage shall be provided at each nursing unit that is under visual observation of staff.

1228.14.2.17 Housekeeping room. One housekeeping room shall be permitted to serve more than one nursing unit on a floor. Refer to Section 1228.4.15.

1228.14.2.18 Grab bars. Grab bars in common patient toilets and bathing facilities shall be installed in accordance with Section 1228.4.18.

SPECIAL PATIENT CARE ROOMS

1228.14.3 Airborne Infection Isolation (AII) room(s). There shall be at least one airborne infection isolation (AII) room provided for each 50 beds, and for each major fraction thereof. Airborne infection isolation rooms for pediatric/adolescent and forensic supplemental service nursing units shall be calculated independently from, and shall not be shared with each other or any other psychiatric nursing unit. Refer to Section 1224.14.3 and the general construction requirements of Section 1228.4. A bedpan flushing attachment is not required.

1228.14.4 Protective environment room(s). If provided, refer to Section 1224.14.4 and the general construction requirements of Section 1228.4.

1228.14.5 Seclusion room(s). There shall be at least one seclusion room provided for each 24 licensed beds, and for each major fraction thereof. At least one seclusion room shall be provided. A seclusion room may be shared by psychiatric nursing units. Seclusion rooms for pediatric/adolescent and forensic supplemental service nursing units shall be calculated independently from, and shall not be shared with each other or any other psychiatric nursing unit. Refer to the general construction requirements of Section 1228.4.

1228.14.6 Quiet room. A quiet room shall be provided in each psychiatric nursing unit for a patient who needs to be alone for a short period of time but does not require a seclusion room. Refer to Section 1228.4.4.1.5.

1228.14.7 Visitor/consultation room(s). Visitor/consultation rooms shall be provided at a room-to-bed ratio of one consultation room for each 12 psychiatric beds, or major fraction thereof with a minimum of one, in each psychiatric nursing unit. Additionally, the following requirements shall be met:

1. Visitor/consultation room(s) shall have a minimum clear floor area of 100 square feet (9.29 m²).
2. The room(s) shall be designed for acoustical and visual privacy. Refer to Table 1224.4.19, Sound Transmission Limitations in Hospitals.

1228.14.8 Conference room. A conference and treatment planning room shall be provided for use by the psychiatric nursing unit.

1228.14.9 Space for group therapy. An enclosed private space with a minimum clear floor area of at least 225

square feet (20.90 m²) shall be available for group therapy activities.

1228.15 Reserved.

1228.16 Reserved.

1228.17 Reserved.

1228.18 Reserved.

1228.19 PHARMACEUTICAL SERVICE SPACE. Pharmaceutical service space shall comply with the provisions of Section 1224.19.

1228.20 DIETETIC SERVICE SPACE. Refer to Section 1224.20, Dietetic Service Space for requirements, as modified below:

1228.20.1 Dining area. Provide dining space(s) for ambulatory patients, staff and visitors. Provide patient dining room(s) of 20 square feet (1.86 m²) per patient bed separate from staff dining. These spaces shall be separate from the food preparation and distribution areas.

SUPPORT SERVICES

1228.21 ADMINISTRATIVE SPACE. Refer to Section 1224.21.

1228.22 CENTRAL STERILE SUPPLY. Refer to Section 1224.22.

1228.23 STORAGE.

1228.23.1 General storage. Psychiatric hospitals shall provide general storage space of at least 10 square feet (0.93 m²) per bed in addition to specialized storage spaces. All storage spaces shall be located within the hospital building and shall be readily accessible to the connecting corridor required under Section 1224.4.7.5.

1228.23.2 Specialized storage. Specialized storage spaces shall include the following:

1228.23.2.1 Linen. Provide separate and enclosed facilities for clean and soiled linen in each nursing unit. The clean linen storage space shall have a minimum area of 10 square feet (0.93 m²) and may be within the clean utility room. The soiled linen collection space shall have an area of no less than 10 square feet (0.93 m²), except where linen chutes are provided, and may be within the soiled utility room.

1228.23.2.2 Supply. One supply storage space having a minimum area of 15 square feet (1.39 m²) shall be provided in each nursing unit. Supply storage may be within the clean utility room used only as part of a system for distributing clean and sterile supplies.

1228.23.2.3 Wheelchairs. A room or space shall be provided in each nursing unit for wheelchairs. Wheelchair storage areas may be located within the nursing unit or outside but readily accessible to the unit. The wheelchair space shall have a minimum area of 15 square feet (1.39 m²).

1228.23.2.4 Sterile and unsterile supplies shall be stored separately.

1228.23.2.5 Food storage shall be as described in Section 1224.20.

1228.23.3 Patient storage facilities. A staff-controlled secured storage area shall be provided for patient's effects that are determined to be potentially harmful (e.g., razors, nail files, cigarette lighters).

1228.24 MORGUE.

1228.24.1 Acute-care Psychiatric Hospitals with a licensed bed capacity of 50 to 199 shall provide a morgue with autopsy facilities.

Exception: This may not be required if it can be demonstrated to the licensing agency that morgue and autopsy facilities are available locally.

1228.24.2 Acute-care Psychiatric Hospitals with a licensed bed capacity of 200 or more shall provide a morgue with autopsy facilities.

1228.24.3 Minimum requirements. Refer to Section 1224.24.3.

1228.25 EMPLOYEE DRESSING ROOMS AND LOCKERS. Refer to Section 1224.25.

1228.26 HOUSEKEEPING ROOMS. Refer to Section 1224.26.

1228.27 LAUNDRY. Refer to Section 1224.27.

SUPPLEMENTAL SERVICES

1228.28 ELECTROCONVULSIVE THERAPY SERVICE SPACE. If electroconvulsive therapy (ECT) is provided in the facility, the requirements in Section 1224.28.6 shall be met.

1228.29 Reserved.

1228.30 PEDIATRIC AND ADOLESCENT PSYCHIATRIC SERVICE SPACE. Pediatric and adolescent psychiatric service space patient areas shall be separate and distinct from adult psychiatric service space patient areas. The requirements of Section 1228.14, Psychiatric Nursing Service Space shall apply to pediatric and adolescent units as amended below:

1228.30.1 Patient bedroom.

1228.30.1.1 Capacity. Maximum bedroom capacity shall be four patients.

1228.30.1.2 Space requirements. Patient bedroom areas (with beds or cribs) shall meet the following requirements:

1. For single-bed rooms, a minimum clear floor area of 100 square feet (9.29 m²).
2. For multiple-bed rooms, a minimum clear floor area of 80 square feet (7.43 m²) per bed and 60 square feet (5.57 m²) minimum clear floor area per crib.

1228.30.2 Patient toilet room.

1. Each patient shall have access to a toilet room, either from the patient room or from the corridor outside the patient room.
2. Where access is provided via a corridor, the following requirements shall be met:
 - 2.1. The toilet room shall be located in the nursing unit.

- 2.2. The toilet room shall be located no more than 150 feet (45.72 m) from the bedroom.

1228.30.3 Activity areas. The pediatric and adolescent activities space may be centralized for common use by multiple pediatric and adolescent psychiatric units or may be located in each individual unit, in response to the Patient Safety Risk Assessment. Centralized activity areas shall be readily accessible without traversing adult patient areas.

1228.30.3.1 Space requirements.

1. The combined area for activity space shall have 35 square feet (3.25 m²) of clear floor area per patient bed.
2. A separate dining space shall be provided and shall have a minimum of 15 square feet (1.39 m²) of clear floor area per patient bed.

1228.30.3.2 Outdoor areas. Pediatric and adolescent outdoor areas shall be separate from adult outdoor areas. Refer to Section 1228.13.1.2.

1228.30.4 Support areas for the pediatric and adolescent psychiatric unit. Storage space shall be provided for toys, equipment, extra cribs and beds and cots or recliners for parents who may stay overnight.

1228.30.5 Education. If a unit treats children of school age over a period of one month or more, it shall provide physical facilities for an educational program, such as classrooms and an office for the teacher.

1228.31 FORENSIC PSYCHIATRIC UNIT. Where provided, a forensic psychiatric unit shall be separate and distinct from other patient areas. The requirements of Section 1228.14, Psychiatric Nursing Service Space shall apply to forensic units as amended below:

1228.31.1 Sally port. Forensic units shall have security vestibules or sally ports at the unit entrance. For "secure treatment facilities," alternate designs for locked unit access without individual sally ports, may be approved by the enforcement agency when it can be demonstrated that the alternate design meets performance requirements, without compromising any health or life-safety requirement.

1228.31.2 Pediatrics and adolescents. Forensic unit areas for pediatrics and adolescents shall be separated from adult areas. Refer to Section 1228.30.

1228.31.3 Space requirements. Specialized program requirements may result in additional treatment areas, police and courtroom space, and security considerations. When a forensic unit is provided, the needs of the patient population and special requirements shall be specifically addressed in the Patient Safety Risk Assessment.

1228.32 Reserved.

1228.33 Reserved.

1228.34 Reserved.

1228.35 Reserved.

1228.36 Reserved.

1228.37 Reserved.

1228.38 INTERMEDIATE-CARE SERVICE SPACE. Where provided, an intermediate-care service unit shall be housed in a separate and distinct nursing unit and shall comply with the applicable requirements of Section 1225 and the general construction provisions of Section 1228.4.

1228.39 OUTPATIENT SERVICE SPACE. Where provided, outpatient service space shall comply with the applicable requirements of Section 1224.39 and the general construction provisions of Section 1228.4.

1228.40 SKILLED NURSING SERVICE SPACE. Where provided, the skilled nursing service unit shall be housed in a separate and distinct nursing unit and shall comply with the applicable requirements of Section 1225 and the general construction provisions of Section 1228.4.

1228.41 Reserved.

1228.42 CLINICAL LABORATORY SERVICE SPACE. Where provided, clinical laboratory service space shall comply with the requirements of Section 1224.17, Clinical Laboratory Service Space.

1228.43 RADIOLOGICAL SERVICE SPACE. Where provided, Radiology/Imaging Service Space shall comply with the requirements of Section 1224.18, Radiological/Imaging Service Space and the general construction provisions of Section 1228.4.

SECTION 1229 [OSHPD 6] CHEMICAL DEPENDENCY RECOVERY HOSPITALS

1229.1 Scope. The provisions of this section shall apply to chemical dependency recovery hospitals licensed under California Health and Safety Code Section 1250.3. General acute care hospitals and acute psychiatric hospitals licensed under Health and Safety Code Section 1250 may provide chemical dependency services as a supplemental service located within a distinct part as a separate unit.

1229.1.1 Distinct part. Beds in a general acute care hospital, or acute psychiatric hospital, classified as chemical dependency recovery beds shall be within a distinct part. "Distinct part" means an identifiable unit of a hospital or a freestanding facility accommodating beds, and related services, including, but not limited to, contiguous rooms, a wing, a floor, or a building that is approved by the California Department of Public Health for a specific purpose.

1229.2 Application. New buildings and additions, alterations, or repairs to existing buildings shall comply with applicable provisions of the California Electrical Code, California Mechanical Code, California Plumbing Code, California Energy Code, California Fire Code (Parts 3, 4, 5, 6 and 9 of Title 24) and this section.

Note: Refer to the applicable exceptions under Section 1224.2.

1229.2.1 Functional program. General acute care hospitals and acute psychiatric hospitals providing chemical dependency recovery services as a supplemental service on their hospital license shall include a Patient Safety Risk

Assessment as defined in California Administrative Code Section 7-119.

1229.3 Definitions. The definitions provided under Section 1224.3 apply to this section except as modified below:

BASIC SERVICES. Basic services mean those essential services required by law for licensure as a chemical dependency recovery hospital, including medical, nursing, rehabilitative, pharmaceutical, dietary and support services.

CHEMICAL DEPENDENCY RECOVERY HOSPITAL. Chemical dependency recovery hospital means a health facility that provides 24-hour inpatient chemical dependency recovery services for persons who have a dependency on alcohol or other drugs, or both alcohol and other drugs.

HOSPITAL. Hospital, where used in this section, means a chemical dependency recovery hospital, unless noted otherwise as a general acute care hospital or acute psychiatric hospital.

1229.4 General construction. Chemical dependency recovery units provided in general acute care hospitals shall comply with the provisions under Section 1224.4, General Construction, and chemical dependency recovery units provided in acute psychiatric hospitals shall comply with the provisions under Section 1228.4, General Construction, where applicable. Chemical dependency recovery hospitals under H&SC Section 1250.3 shall comply with the following requirements:

1229.4.1 Reserved.

1229.4.2 Reserved.

1229.4.3 Reserved.

1229.4.4 Support areas for patients.

1229.4.4.1 Examination and treatment rooms.

1229.4.4.1.1 Examination room. Examination rooms in chemical dependency recovery units shall meet the requirements of Section 1224.4.4.1.1 as amended below:

1229.4.4.1.1.1 Location. Examination rooms shall be permitted to serve several chemical dependency units and shall be permitted to be on a different floor.

1229.4.4.1.1.2 Space requirements. Examination rooms shall have a minimum clear floor area of 80 square feet (11.15 m²).

1229.4.4.1.2 Treatment room. Where provided, refer to Section 1224.4.4.1.2.

1229.4.5 Outpatient waiting rooms. Where provided, refer to Section 1224.4.5.

1229.4.6 Reserved.

1229.4.7 Corridors. Refer to Section 1224.4.7. Minimum width of corridors and hallways shall be 5 feet (1524 mm); refer to restrictions under Section 435.

Exceptions:

1. Chemical dependency recovery units provided as distinct part units of a General Acute-Care Hos-

pital must provide a minimum width of 8 feet subject to exemptions under Section 1224.4.7.

2. Chemical dependency recovery units provided as distinct part units of an Acute Psychiatric Hospital must provide a minimum width of 6 feet subject to exemptions under Section 1224.4.7.

1229.4.8 Doors and door openings. Refer to Section 1224.4.8.

1229.4.9 Windows and screens.

1. A minimum net glazed area of not less than 8 percent of the floor area of each indoor activity space and dining space shall be provided.

1229.4.10 Ceiling heights. Refer to Section 1224.4.10.

1229.4.11 Interior finishes. Interior finishes shall comply with Section 1224.4.11.

1229.4.12 Noise control. Refer to Section 1224.4.19.

1229.5 Communication system. Refer to Section 1224.5.

BASIC SERVICES

1229.6 Reserved.

1229.7 Reserved.

1229.8 Patient counseling.

1229.8.1 Patient counseling shall include space to conduct an interview or series of interviews with the patient to address the needs identified in the patient's recovery plan. Also refer to Section 1229.14.7.

1229.9 Group therapy.

1229.9.1 Service area(s) shall be provided for sessions conducted by the professional staff designed to promote the interaction of the individuals within the session for the purpose of alleviating, or changing, personal and/or family situations, attitudes and beliefs which present a threat to the recovery or stability of the patient or the family. Refer to Sections 1229.13 and 1229.14.9.

1229.10 Physical conditioning.

1229.10.1 Service area(s) shall be provided for patients' participation in an organized program of physical activities designed to improve the patient's wellbeing and as defined in the patient's individual recovery plan. See Section 1229.13.

1229.11 Family therapy.

1229.11.1 Family therapy shall include space(s) for individual counseling, group counseling, conjoint counseling and/or other appropriate activities provided for consenting family members and/or consenting significant others. Also refer to Section 1229.14.7.

1229.12 Outpatient services.

1229.12.1 Outpatient services means outreach programs, intervention, after care services, individual or group service and any other service provided for persons who are outpatients in the chemical dependency recovery unit.

1229.13 Chemical dependency recovery activity areas. The activity areas may be centralized for common use or may be

located in each residential unit. The following areas are required in support of the chemical dependency recovery group therapy and physical conditioning basic services:

1229.13.1 Patient care areas.

1229.13.1.1 Indoor activity rooms.

1. At least two separate activity rooms, one appropriate for group recreation and one for quiet activities to serve as a patient lounge, shall be provided.
2. Space requirements. The combined area of these rooms shall have a minimum of 25 square feet (2.32 m²) per patient bed, with at least 120 square feet (11.15 m²) of clear floor area for each of the two spaces.

1229.13.1.2 Outdoor activity area. If provided, an outdoor activity area shall be sized to meet the appropriate needs of the occupants and maintain egress.

1229.14 Chemical dependency recovery residential areas. Resident areas within chemical dependency hospital shall comply with the requirements of Sections 1202, 1203, 1204, 1205, 1206, 1207, 1209 and 1211 and the requirements of this section. Distinct part units within a General Acute Care Hospital shall comply with the requirements in Section 1224.14. Distinct part units within an Acute Psychiatric Hospital shall comply with the requirements in Section 1228.14.

1229.14.1 Patient rooms. Each patient bedroom shall meet the following standards:

1229.14.1.1 Capacity. Maximum room capacity shall be two patients.

1229.14.1.2 Space requirements. Patient bedrooms shall have a minimum clear floor area of 100 square feet (10.2 m²) for single-bed rooms and 80 square feet (7.43 m²) per bed for multiple-bed rooms.

1229.14.1.3 Windows. Each patient bedroom shall have a window in accordance with Section 1229.4.9.

1229.14.1.4 Reserved.

1229.14.1.5 Outside exposure. Refer to Section 1224.14.1.5.

1229.14.1.6 Reserved.

1229.14.1.7 Patient toilet room.

1. Each patient shall have access to a toilet room without having to enter a corridor.

Exception: Corridor access to the patient toilet room shall be permitted at adolescent patient bedrooms and in specific patient bedrooms where the use of corridor access is part of the hospital's written Patient Safety Risk Assessment and management program.

2. One toilet room shall serve no more than two patient bedrooms and no more than four patients.
3. The toilet room shall contain a toilet and a hand-washing station.

1229.14.1.8 Bathroom facilities. Showers shall be provided at a ratio of 1:20 patients, and for each major fraction thereof.

1229.14.1.9 Patient storage. Each patient shall have in their room a separate wardrobe, locker, or closet for storing personal effects.

1229.14.2 Service areas. Provision for the services listed below shall be in or immediately accessible to each chemical dependency recovery unit. The size and location of each service area will depend upon the numbers and types of beds served. Identifiable spaces are required for each of the indicated functions. If a service area is specifically permitted to serve more than one nursing unit, there shall be at least one such service area located on each nursing unit floor.

1229.14.2.1 Administrative center(s) or nurse station(s). Refer to Section 1224.4.4.2. A separate charting area with provisions for acoustic and patient file privacy shall be provided.

1229.14.2.2 Office(s) for staff. Office(s) for staff shall be provided.

PATIENT CARE SUPPORT AREAS

1229.14.3 Visitor/consultation room(s). Service support space shall be provided for Patient Counseling and Family Therapy Basic Services. Visitor/consultation rooms shall be provided at a room-to-bed ratio of one consultation room for each 12 beds, or major fraction thereof with a minimum of one, in each residential unit. Additionally, the following requirements shall be met:

1. Visitor/consultation room(s) shall have a minimum clear floor area of 100 square feet (9.29 m²).
2. The room(s) shall be designed for acoustical and visual privacy. Refer to Table 1224.4.19, Sound Transmission Limitations in Hospitals.

1229.14.4 Conference room. A conference and treatment planning room shall be provided for use by the chemical dependency recovery unit.

1229.14.5 Space for group therapy. Service support space shall be provided for Group Therapy Basic Services. An enclosed private space with a minimum clear floor area of at least 225 square feet (20.90 m²) shall be available for group therapy activities.

1229.15 Reserved.

1229.16 Reserved.

1229.17 Reserved.

1229.18 Reserved.

1229.19 Pharmaceutical service space. Pharmaceutical service space shall comply with the provisions of Section 1224.19.1.2.1.

1229.19.1 Shared services. Chemical Dependency Recovery units provided as Distinct Parts of General Acute Care Hospitals or Acute Psychiatric Hospitals may share pharmaceutical service space provided under Section 1224.19.

1229.20 Dietetic service space. Refer to Section 1224.20, Dietetic Service Space for requirements, as modified below:

1229.20.1 Dining area. Provide dining space(s) for ambulatory patients, staff and visitors. Provide patient dining room(s) of 20 square feet (1.86 m²) per patient bed separate from staff dining. These spaces shall be separate from the food preparation and distribution areas.

1229.20.2 Multi-use dining room. If minimum space requirements are met for dining, the dining area may serve as required group therapy room and/or as one of two required indoor activity spaces when not be used for dining.

1229.20.3 Shared services. Chemical Dependency Recovery units provided as Distinct Parts of General Acute Care Hospitals or Acute Psychiatric Hospitals may share dietetic service space provided under Section 1224.20.

SUPPORT SERVICES

1229.21 Administrative space. Refer to Section 1224.21.

1229.22 Reserved.

1229.23 Storage.

1229.23.1 General storage. Provide general storage space of at least 10 square feet (0.93 m²) per bed in addition to specialized storage spaces. All storage spaces shall be located within the hospital building.

1229.23.2 Specialized storage. Specialized storage spaces shall include the following:

1229.23.2.1 Linen. Provide separate and enclosed facilities for clean and soiled linen in each residential unit. The clean linen storage space shall have a minimum area of 10 square feet (0.93 m²). The soiled linen collection space shall have a minimum area of 10 square feet (0.93 m²), except where linen chutes are provided.

1229.23.2.2 Supply. One supply storage space having a minimum area of 15 square feet (1.39 m²) shall be provided in each residential unit.

1229.23.2.3 Reserved.

1229.23.2.4 Reserved.

1229.23.2.5. Food storage shall be as described in Section 1224.20.

1229.23.3 Patient storage facilities. A staff-controlled secured storage area shall be provided for patients' effects that are determined to be potentially harmful (e.g., razors, nail files, cigarette lighters).

1229.25 Employee lockers. Provide an area for staff lockers.

1229.26 Housekeeping rooms. Refer to Section 1224.26.

1229.27 Laundry. Refer to Section 1224.27.

OPTIONAL SERVICES

1229.28 Reserved.

1229.29 Reserved.

1229.30 Adolescent chemical dependency service space. Adolescent service space patient areas shall be separate and distinct from adult service space patient areas. The require-

ments of Section 1229.14 shall apply to adolescent units as amended below:

1229.30.1 Patient bedroom.

1229.30.1.1 Capacity. Maximum bedroom capacity shall be two patients.

1229.30.1.2 Space requirements. Patient bedroom areas shall meet the following requirements:

1. For single-bed rooms, a minimum clear floor area of 100 square feet (9.29 m²).
2. For multiple-bed rooms, a minimum clear floor area of 80 square feet (7.43 m²) per bed.

1229.30.2 Patient toilet room.

1. Each patient shall have access to a toilet room, either from the patient room or from the corridor outside the patient room.
2. Where access is provided via a corridor, the following requirements shall be met:

- 2.1. The toilet room shall be located in the unit.
- 2.2. The toilet room shall be located no more than 150 feet (45.72 m) from the bedroom.

1229.30.3 Bathroom facilities. Showers shall be provided at a ratio of 1:20 patients, and for each major fraction thereof.

1229.30.4 Activity areas. The adolescent activities space may be centralized for common use by multiple adolescent units or may be located in each individual unit. Centralized activity areas shall be readily accessible without traversing adult patient areas.

1229.30.4.1 Space requirements.

1. The combined area for activity space shall have 35 square feet (3.25 m²) of clear floor area per patient bed.
2. A separate dining space shall be provided and shall have a minimum of 15 square feet (1.39 m²) of clear floor area per patient bed.

1229.30.4.2 Outdoor areas. Adolescent outdoor areas shall be separate from adult outdoor areas. Refer to Section 1229.13.1.2.

1229.30.5 Support areas for the adolescent unit. Storage space shall be provided for equipment, extra beds and cots or recliners for parents who may stay overnight.

1229.30.6 Education. If a unit treats children of school age over a period of one month or more, it shall provide physical facilities for an educational program, such as classrooms and an office for the teacher.

1229.31 Other chemical dependency service space. Where provided, other service space(s) for services which are provided for the treatment of chemical dependency, not addressed in Section 1229, that have prior approval of the California Department of Health Services shall comply with other applicable sections.

**SECTION 1230 [BSCC]
MINIMUM STANDARDS FOR JUVENILE FACILITIES**

1230.1 Design criteria for required spaces.

1230.1.1 Reception/intake admission. In each juvenile hall, space used for the reception of youth pending admission to juvenile hall shall have the following space and equipment:

1. Weapons lockers as specified in Section 1230.2.9;
2. A secure room for the confinement of youth pending admission to juvenile hall as specified in Section 1230.1.2;
In each juvenile hall, camp and ranch, space used for the reception of youth pending admission to these facilities shall have the following space and equipment:
3. Access to a shower;
4. A secure vault or storage space for youth, valuables;
5. Telephones accessible to youth; and
6. Access to hot and cold running water for staff use.

1230.1.2 Locked holding room. A locked holding room shall:

1. Contain a minimum of 15 square feet (1.4 m²) of floor area per youth;
2. Provide no less than 45 square feet (4.2 m²) of floor space and have a clear ceiling height of 8 feet (2438 mm) or more;
3. Contain seating to accommodate all youth as specified in Section 1230.2.8;
4. Be equipped with a toilet, wash basin, mirror and drinking fountain as specified in Section 1230.2, unless a procedure is in effect to give the youth access to a toilet, wash basin, mirror and drinking fountain;
5. Maximize visual supervision of youth by staff; and
6. Have an outward swinging or lateral sliding door.

1230.1.3 Natural light. Outer-facing exterior windows where youth's privacy is not at risk shall be provided in locked sleeping rooms, single occupancy sleeping rooms, double occupancy sleeping rooms, dormitories and day rooms. Natural light may be provided by, but is not limited to, skylights or windows in dayrooms, windows in adjacent exterior exercise areas, and in sleeping rooms and/or dormitories.

1230.1.4 Corridors. Corridors in living units shall be at least 8 feet (2438 mm) wide.

1230.1.5 Living unit. A living unit shall be a self-contained unit containing locked sleeping rooms, single and double occupancy sleeping rooms or dormitories, day-room space, toilet, wash basins, drinking fountains and showers commensurate to the number of youth housed. A living unit shall not be divided in a way that hinders direct access, supervision, immediate intervention or other action if needed. In juvenile halls, the number of youth housed in a living unit shall not exceed 30.

1230.1.6 Locked sleeping rooms. Locked sleeping rooms shall be equipped with an individual or combination toi-

let, wash basin, mirror and drinking fountain. Doors to locked sleeping rooms shall swing outward or slide laterally.

1230.1.7 Single occupancy sleeping rooms. Single occupancy sleeping rooms shall provide the following:

1. A minimum of 70 square feet (1.78 m²) of floor area;
2. A minimum clear ceiling height of 8 feet (2438 mm); and
3. The door into this room shall swing outward or slide laterally and be provided with a view panel, a minimum of 144 square inches (92,903 mm²), constructed of security glazing.
4. Contain a bed as specified in 1230.2.5.

1230.1.8 Double occupancy sleeping rooms. Double occupancy sleeping rooms shall provide the following:

1. A minimum of 100 square feet (9.3 m²) of floor area;
2. A minimum clear ceiling height of 8 feet (2438 mm) and a minimum width of 7 feet (2134 mm); and
3. The door into this room shall swing outward or slide laterally and be provided with a view panel, a minimum of 144 square inches (92,903 mm²), constructed of security glazing.
4. Contain beds as specified in 1230.2.5.

1230.1.9 Dormitories. Dormitories shall provide the following:

1. A minimum of 50 square feet (4.6 m²) of floor area per youth with the minimum size of a dormitory being 200 square feet (18.6 m²) of floor area and a minimum 8-foot (2438 mm) clear ceiling height;
2. Designed for no fewer than four youth;
3. Dormitories in juvenile halls shall be designed for no more than 30 youth;
4. Camps shall conform to Items 1 and 2.

1230.1.10 Dayrooms. Dayrooms shall contain 35 square feet (3.3 m²) of floor area per youth, and contain tables and seating to accommodate the maximum numbers of youth allowed access at a given time. Access must be provided to toilets, wash basins, drinking fountains and showers as specified in Section 1230.2.

1230.1.11 Physical activity and recreation areas. Indoor / outdoor physical activity and recreation areas shall be designed as follows:

1. Facility capacity	Minimum indoor outdoor recreation space
40 or less	9,000 square feet (836 m ²)
41 to 274	225 square feet (21 m ²) per youth up to 61,650 square feet (5727 m ²)
275 or more	61,650 square feet (5727 m ²), plus 145 square feet (13.47 m ²) for each youth beyond 274 [up to a maximum of 87,120 square feet (8093 m ²)]

1.1. At least one quarter of the dedicated indoor/outdoor space shall be a paved or like surface.

1.2. The required recreation area shall contain no single dimension less than 40 feet (12.2 m).

2. A portion of the dedicated space for physical activity and recreation shall be out-of-doors and be of sufficient size and equipped in such a manner to allow compliance with Title 15, Section 1371, which requires at least one hour per day of outdoor activity for each detained youth.
3. Lighting of outdoor recreation areas shall be provided to allow for evening activities and to provide security.
4. Access must be provided to a toilet, wash basin and drinking fountain as specified in Section 1230.2.

1230.1.12 Academic classrooms. There shall be dedicated classroom space for every juvenile in every facility. The primary purpose for the academic classroom shall be for education. Each academic classroom shall contain a minimum of 160 square feet (14.9 m²) of floor space for the teachers' desk and work area and a minimum of 28 square feet (2.6 m²) of floor space per minor. A communication system shall be provided in each classroom to allow for immediate response to emergencies. The classroom shall be designed for a maximum of 20 minors. There shall be space available in every juvenile facility that may be used for specialized, one-on-one or small group educational purposes.

1230.1.13 Safety room. A safety room shall:

1. Contain a minimum of 48 square feet (4.5 m²) of floor area and a minimum clear ceiling height of 8 feet (2438 mm);
2. Be limited to one youth;
3. Be padded as specified in Section 1230.2.7;
4. Provide one or more vertical view panels constructed of security glazing. These view panels shall be no more than 4 inches (102 mm) wide nor less than 24 inches (610 mm) long, which shall provide a view of the entire room;
5. Provide an audio monitoring system as specified in Section 1230.1.22;
6. Contain a flushing ring toilet, capable of accepting solid waste, mounted flush with the floor, the controls for which must be located outside of the room;
7. Be equipped with a variable intensity, security-type lighting fixture with controls located outside the room;
8. Any wall or ceiling-mounted devices must be designed to prohibit access to the youth occupant; and
9. Provide a food pass with lockable shutter, no more than 4 inches (102 mm) high, and located between 26 inches (660 mm) and 32 inches (813 mm) as measured from the bottom of the food pass to the floor.

INTERIOR ENVIRONMENT

**TABLE 1230A
REQUIRED SPACES AND EQUIPMENT IN JUVENILE FACILITIES**

SECTION NUMBERS	REGULATION	HALLS	CAMPS	SPJH
1230.1.1	Reception/intake admission	X		
1230.1.2	Locked holding rooms	X	X [†]	
1230.1.3	Natural light	X	X	X
1230.1.4	Corridors	X [†]	X [†]	X [†]
1230.1.5	Living units	X		
1230.1.6	Locked sleeping rooms	X [†]	X [†]	X [†]
1230.1.7	Single occupancy sleeping rooms	X [†]	X [†]	X [†]
1230.1.8	Double occupancy sleeping rooms	X [†]	X [†]	X [†]
1230.1.9	Dormitories	X [†]	X [†]	X [†]
1230.1.10	Day rooms	X	X	X
1230.1.11	Physical activity and recreation areas	X	X	
1230.1.12	Academic classrooms	X	X	
1230.1.13	Safety rooms	X [†]		
1230.1.14	Medical examination rooms	X	X	
1230.1.15	Pharmaceutical storage	X	X	X
1230.1.16	Dining areas	X	X	
1230.1.17	Visiting space	X	X	X
1230.1.18	Institutional storage	X	X	X
1230.1.19	Personal storage	X	X	X
1230.1.20	Safety equipment storage	X	X	X
1230.1.21	Janitorial closet	X	X	X
1230.1.22	Audio monitoring system	X	X	X
1230.1.23	Emergency power	X	X	X
1230.1.24	Confidential interview rooms	X	X	X
1230.1.25	Special-purpose juvenile halls	X		
1230.1.26	Court holding rooms for youth*	X [†]		
1230.2.1	Toilets/urinals	X	X	X
1230.2.2	Wash basins	X	X	X
1230.2.3	Drinking fountains	X	X	X
1230.2.4	Showers	X	X	X
1230.2.5	Beds	X	X	X
1230.2.6	Lighting	X	X	X
1230.2.7	Padding	X [†]		
1230.2.8	Seating	X	X	X
1230.2.9	Weapons lockers	X	X [†]	X
1230.2.10	Security glazing	X	X [†]	X [†]
1230.2.11	Mirrors	X	X	X

Key:

Halls = Juvenile halls.

Camps = Camps, ranches, forestry camps or boot camps.

SPJH = Special-purpose juvenile halls.

* = For youth in jail, youth in temporary custody in a law enforcement facility and youth in court holding facilities, see Sections 1520, 1540 and 1560 of Title 15, respectively.

X = Regulation is applicable for all juvenile facilities.

X[†] = Regulation is applicable for halls, camps and special-purpose juvenile halls dependent on operational characteristics of the facility.

1230.1.14 Medical examination room. There must be a minimum of one suitably equipped medical examination room in every juvenile facility. Medical examination rooms shall provide the following:

1. Space for carrying out routine medical examinations and emergency care and used for no other purpose;
2. Privacy for youth;
3. Lockable storage space for medical supplies;
4. Not less than 144 square feet (13.4 m²) of floor space with no single dimension less than 7 feet (2134 mm);
5. Hot and cold running water;
6. Smooth, nonporous, washable surfaces;
7. A medical exam table; and
8. Adequate lighting.

1230.1.15 Pharmaceutical storage. Provide lockable storage space for medical supplies and pharmaceutical preparations as specified by Title 15, Section 1438.

1230.1.16 Dining areas. Dining areas in juvenile facilities shall contain a minimum of 15 square feet (1.4 m²) of floor space and sufficient tables and seating for each person being fed. Persons being fed include youth, staff and visitors. Dining areas shall not contain toilets or showers in the same room without appropriate visual barrier.

1230.1.17 Visiting space. Space shall be provided in all juvenile facilities for in-person visiting which shall be unobstructed by barriers such as, but not limited to, security glazing or mesh.

1230.1.18 Institutional storage. One or more storage rooms shall be provided to accommodate a minimum of 80 cubic feet (2.3 m³) of storage space per minor. Items to be stored shall be institutional clothing, bedding, supplies and activity equipment.

1230.1.19 Personal storage. Each youth in a juvenile facility shall be provided with a minimum of 9 cubic feet (0.25 m³) of secure storage space for personal clothing and belongings.

1230.1.20 Safety equipment storage. In all juvenile facilities, a secure area shall be provided for the storage of safety equipment, such as fire extinguishers, self-contained breathing apparatus, wire and bar cutters, emergency lights, etc.

1230.1.21 Janitorial closet. In all juvenile facilities, at least one securely lockable janitorial closet, containing a mop sink and sufficient area for the storage of cleaning implements, must be provided within the security area of the facility.

1230.1.22 Audio monitoring system. In safety rooms, locked holding rooms, locked sleeping rooms, single and double occupancy rooms and dormitories, there must be an audio monitoring system capable of actuation by the minor that alerts personnel.

1230.1.23 Emergency power. There shall be a source of emergency power in all juvenile facilities capable of providing minimal lighting in all living units, activities areas, corridors, stairs and central control points, and to maintain fire and life safety, security, communications and alarm systems (Title 24, Part 2, Chapter 27). Such an emergency power source shall conform to the requirements specified in Title, 24, Part 3, Article 700, California Electrical Code, California Code of Regulations.

1230.1.24 Confidential interview room. Confidential interview rooms shall contain a minimum of 60 square feet (5.6 m²) of floor area. In juvenile halls there shall be a minimum of one suitably furnished interview room for each 30 youth. In camps there shall be a minimum of one suitably furnished interview room for each facility. This interview room shall provide for confidential consultations with youth.

1230.1.25 Special-purpose juvenile halls. Special-purpose juvenile halls shall conform to all minimum standards for juvenile facilities contained in this section with the following exceptions:

1. Physical activity and recreation areas as specified in Section 1230.1.11;
2. Academic classrooms as specified in Section 1230.1.12;
3. Medical examination room as specified in Section 1230.1.14; and
4. Dining areas as specified in Section 1230.1.16.

1230.1.26 Court holding room for youth. A court holding room shall:

1. Contain a minimum of 10 square feet (0.93 m²) of floor area per youth;
2. Be limited to no more than 16 youth;
3. Provide no less than 40 square feet (3.7 m²) of floor area and have clear ceiling height of 8 feet (2438 mm) or more;
4. Contain seating to accommodate all youth as specified in Section 1230.2.8;
5. Contain a toilet, wash basin and drinking fountain as specified in Section 1230.2;
6. Maximize visual supervision of youth by staff; and
7. A mirror of a material appropriate to the level of security shall be provided as specified in Section 1230.2.11.

1230.1.27 Program and activity areas. All juvenile facilities shall include adequate space for specific programs in addition to recreation and exercise areas.

1230.2 Design criteria for furnishings and equipment.

1230.2.1 Toilet/urinals. All toilet areas shall provide privacy for the youth and help reduce the risk of voyeurism without mitigating staff's ability to supervise. Toilets must be available in a ratio to youth as follows:

1. Juvenile halls 1:6;

2. Camps 1:10; and
3. Locked holding rooms 1:8;

One toilet and one urinal may be substituted for every 15 males.

1230.2.2 Wash basins. In living units, wash basins must be available in a ratio to youth as follows:

1. Juvenile halls 1:6;
2. Camps 1:10; and
3. Locked holding rooms 1:8;

Wash basins must be provided with hot and cold or tempered water.

1230.2.3 Drinking fountains. In living areas and indoor and outdoor recreation areas, drinking fountains must be accessible to youth and to staff.

1. The drinking fountain bubbler shall be on an angle which prevents waste water from flowing over the drinking bubbler; and
2. The water flow shall be actuated by a mechanical means.

1230.2.4 Showers. Shower areas shall provide privacy for the youth and help reduce the risk of voyeurism without mitigating staff's ability to supervise. Showers shall be available to all youth on a ratio of at least one shower or bathtub to every six youth. Showers shall be provided with tempered water.

1230.2.5 Beds. Beds shall be at least 30 inches (762 mm) wide and 76 inches (1930 mm) long and be of the solid bottom type. Beds shall be at least 12 inches (305 mm) off the floor and spaced no less than 36 inches (914 mm) apart. Bunk beds must have no less than 33 inches vertically between the solid bottoms. In secure facilities, the bunks shall be securely anchored and flushed against the floor and/or wall.

1230.2.6 Lighting. Lighting in locked sleeping rooms, single occupancy rooms, double occupancy rooms, dormitories, day rooms and activity areas shall provide not less than 20 footcandles (216 lux) of illumination at desk level. Night lighting is required in these areas to provide good visibility for supervision and be conducive to sleep.

1230.2.7 Padding. In safety rooms, padding shall cover the entire floor, door, walls and everything on the walls to a clear height of 8 feet (2438 mm). Benches or platforms are not to be placed on the floor of this room.

All padded rooms must be equipped with a tamper-resistant fire sprinkler as approved by the State Fire Marshal. All padding must be:

1. Approved for use by the State Fire Marshal;
2. Nonporous to facilitate cleaning;
3. At least $\frac{1}{2}$ inch (12.7 mm) thick;
4. Of a unitary or laminated construction to prevent its destruction by teeth, hand tearing or small metal objects;

5. Firmly bonded to all padded surfaces to prevent tearing or ripping; and
6. Without any exposed seams susceptible to tearing or ripping.

1230.2.8 Seating. Seating shall be designed to the level of security. When bench seating is used, 18 inches (457 mm) of bench is seating for one person.

1230.2.9 Weapons lockers. Weapons lockers are required in all secure juvenile facilities and shall be located outside the secure area of the facility. Weapons lockers shall be equipped with individual compartments, each with an individual locking device.

1230.2.10 Security glazing. Security glazing shall comply with the minimum requirements of one of the following test standards: American Society for Testing and Materials, ASTM F1233-98, Class III glass, or; California Department of Corrections and Rehabilitation, CDCR 860-94d, Appendix H, Class C glass or; H.P. White Laboratory, Inc., HPW-TP-0500.02, Forced Entry Level III.

1230.2.11 Mirrors. A mirror of a material appropriate to the level of security must be provided near each wash basin specified in these regulations.

SECTION 1231 [BSCC] LOCAL DETENTION

1231.1 Definitions.

BOARD OF STATE & COMMUNITY CORRECTIONS means the Board of State & Community Corrections, which acts by and through its executive officer, deputy directors and field representatives.

LIVING AREAS means those areas of a facility utilized for the day-to-day housing and activities of incarcerated persons. These areas do not include special-use cells such as sobering, safety and holding or staging cells normally located in receiving areas.

LOCAL DETENTION FACILITY is any city, county, city and county or regional jail, camp, court holding facility or other correctional facility, whether publicly or privately operated, and court holding facility used for the confinement of adults or of both adults and minors, but does not include that portion of a facility for the confinement of both adults and minors which is devoted only to the confinement of minors. The types of local detention facilities are as follows:

Court holding facility means a local detention facility constructed within a court building after January 1, 1978, used for the confinement of persons solely for the purpose of a court appearance for a period not to exceed 12 hours.

Temporary holding facility means a local detention facility constructed after January 1, 1978, used for the confinement of persons for 24 hours or less pending release, transfer to another facility or appearance in court.

Type I facility means a local detention facility used for the detention of persons usually pending arraignment for not more than 96 hours, excluding holidays, after booking. Such a Type I facility may also detain persons on

court order either for their own safe-keeping or those committed to a city jail or may house people sentenced to the county jail provided such placement in the facility is made on a voluntary basis on the part of the person incarcerated. As used in this section, an incarcerated worker is defined as a person assigned to perform designated tasks outside of their cell or dormitory, pursuant to the written policy of the facility, for a minimum of four hours each day on a five-day scheduled work week.

TYPE II FACILITY means a local detention facility used for the detention of persons pending arraignment, after arraignment, during trial and upon a sentence of commitment.

TYPE III FACILITY means a local detention facility used only for the detention of convicted and sentenced persons.

TYPE IV FACILITY means a local detention facility or portion thereof designated for housing under Penal Code Section 1208 for work/education furlough or other programs involving access into the community.

RATED CAPACITY means the number of incarcerated occupants for which a facility's single and double occupancy cells or dormitories, except those dedicated for health care or disciplinary separation housing, were planned and designed in conformity to the standards and requirements contained herein and in Title 15, C.C.R.

1231.2 Design criteria for required spaces.

1231.2.1 Reception and booking. Facilities where booking and housing occur shall have the following space and equipment:

1. Weapons locker as specified in Section 1231.3.12.

**TABLE 1231A
REQUIRED SPACES AND EQUIPMENT IN JUVENILE FACILITIES**

	TYPE I	TYPE II	TYPE III	TYPE IV	COURT HOLDING	TEMPORARY HOLDING
Reception/booking	x	x	*	*		*
Temporary holding cells or room	x	x	*	*	x	x
Detoxification cell	*	x				
Safety cell	*	*				
Single-occupancy cell	x	x	*			
Dormitories	*	x	x	x		
Day room	*	x	x			
Exercise area		x	x	x ¹		
Shower area/delousing room	x	x				*
Program/multipurpose space		x	x	x		
Medical exam room ²		x	x			
Pharmaceutical storage space	x	x	x	x		*
Medical care housing		*	*			
Hair care space		x	x			
Commissary ³			x	x ³		
Dining facility ⁴	*	x	x	*		
Visiting space	x	x	x	x		
Attorney interview rooms	x	x	x		x	x
Confidential interview rooms		x	*			
Safety equipment storage	x	x ²	x	x	x	x
Janitor closet	x	x	x	x	x	x
Storage rooms	x	x ⁵	x	x	x	x
Audio/video-monitoring systems	x	x	x ⁶	*	x	x
Laundry facility		x		x ⁷		
Fire-detection alarm system	x	x	x	x	x	x
Emergency	x	x	x	x	x	x

x - Required.

* - Required when program statement identifies need.

1. Not required if community recreation facilities are available.

2. Not required if the incarcerated population is less than 25.

3. Not required if community access is available.

4. Not required if meals are served in day room.

5. Must be securely lockable and located within the security area.

6. Required in areas housing incarcerated persons of higher than minimum security.

7. Not required if community access is permitted.

2. A holding cell or room for the confinement of incarcerated persons pending their booking, complying with Section 1231.2.2.
3. A sobering cell as described in Section 1231.2.4 if intoxicated, incarcerated persons who may pose a danger to themselves or others are held. Except for temporary holding facilities, those facilities that accept male and female intoxicated persons two sobering cells shall be provided.
4. Access to a shower within the secure portion of the facility.
5. Provide access to a secure vault or storage space for valuables belonging to incarcerated people.
6. A safety cell or cells as described in Section 1231.2.5 if the program statement identifies the need for such a cell.
7. Telephones which are accessible to the inmates.
8. Unobstructed access to hot and cold running water for staff use.

1231.2.2 Temporary holding cell or room. A temporary holding cell or room shall:

1. Contain a minimum of 10 square feet (0.93 m²) of floor area per incarcerated person;
2. Be limited to no more than 16 incarcerated people;
3. Be no smaller than 40 square feet (3.7 m²) and have a clear ceiling height of 8 feet (2438 mm) or more;
4. Contain seating to accommodate all incarcerated people as required in Section 1231.3;
5. Contain a toilet, wash basin and drinking fountain as specified in Section 1231.3;
6. Maximize visual supervision of incarcerated people by staff; and
7. When located in a temporary holding facility, the cell or room shall be equipped with a bunk if incarcerated people are to be held longer than 12 hours.

1231.2.3 Temporary staging cell or room. A temporary staging cell or room shall:

1. Be constructed for the purpose of holding incarcerated people who have been classified and separated in accordance with Sections 1050 and 1053 of Title 15, Division 1, California Code of Regulations.
2. Be limited to holding incarcerated people up to four hours.
3. Be limited to no more than 80 incarcerated people.
4. Contain a minimum of 10 square feet (0.93 m²) of floor area per incarcerated person and a clear ceiling height of 8 feet (2438 mm) or more.
5. Be no smaller than 160 square feet (14.9 m²).
6. Contain seating to accommodate all incarcerated people as required in Section 1231.3.
7. Contain toilet, wash basin and drinking fountain as specified in Section 1231.3.
8. Maximize visual supervision of incarcerated people by staff.

1231.2.4 Sobering cell. A sobering cell shall:

1. Contain a minimum of 20 square feet (1.9 m²) of floor area per incarcerated person;
2. Be limited to eight incarcerated people;
3. Be no smaller than 60 square feet (5.6 m²) and have a clear ceiling height of 8 feet (2438 mm) or more;
4. Contain a toilet, wash basin and drinking fountain as specified in Section 1231.3;
5. Have padded partitions located next to toilet fixture in such a manner that they provide support to the user;
6. Maximize visual supervision of incarcerated people by staff;
7. Be padded on the floor as specified in Section 1231.3; and
8. Have accessible a shower in the secure portion of the facility.

1231.2.5 Safety cell. A safety cell shall:

1. Contain a minimum of 48 square feet (4.5 m²) of floor area with no one floor dimension being less than 6 feet (1829 mm) and a clear ceiling height of 8 feet (2438 mm) or more;
2. Be limited to one incarcerated person;
3. Contain a flushing ring toilet, capable of accepting solid waste, mounted flush with the floor, the controls for which must be located outside of the cell;
4. Be padded as specified in Section 1231.3;
5. Be equipped with a variable intensity, security-type lighting fixture which is inaccessible to the occupant, control of which is located outside of the cell;
6. Provide one or more vertical view panels not more than 4 inches (102 mm) wide nor less than 24 inches (610 mm) long which shall provide a view of the entire room;
7. Provide a food pass with lockable shutter, no more than 4 inches (102 mm) high, and located between 26 inches (660 mm) and 32 inches (813 mm) as measured from the bottom of the food pass to the floor; and
8. Any wall or ceiling mounted devices must be inaccessible to the occupant.

1231.2.6 Single-occupancy cells. Single-occupancy cells shall:

1. Have a maximum capacity of one incarcerated person;
2. Contain a minimum of 60 square feet (5.6 m²) of floor area in Type I facilities and 70 square feet (6.5 m²) of floor area in Type II and Type III facilities;
3. Have a minimum clear ceiling height of 8 feet (2438 mm) and a minimum width of 6 feet (1829 mm);
4. Contain a toilet, wash basin and drinking fountain as specified in Section 1231.3; and
5. Contain a bunk, desk and seat as specified in Section 1231.3.

Exception: A Type I facility does not require a desk and seat.

1231.2.7 Double-occupancy cells. Double-occupancy cells shall:

1. Have a maximum capacity of two incarcerated people;
2. Contain a minimum of 60 square feet (5.6 m²) of floor area in Type I facilities and 70 square feet (6.5 m²) of floor area in Type II and Type III facilities;
3. Have a minimum clear ceiling height of 8 feet (2438 mm) and a minimum width of 6 feet (1829 mm);
4. Contain a toilet, wash basin and drinking fountain as specified in Section 1231.3; and
5. Contain two bunks, and at least one desk and seat as specified in Section 1231.3.

Exception: A Type I facility does not require a desk and seat.

1231.2.8 Dormitories. Dormitories shall:

1. Contain a minimum of 50 square feet (4.7 m²) of floor area per incarcerated person for a single bunk fixture; a minimum of 70 square feet (7 m²) for a double bunk fixture; and a minimum of 90 square feet (9.3 m²) for triple bunk fixture and have a minimum ceiling height of 8 feet (2438 mm);
2. Be designed for no more than 64 incarcerated people and no fewer than four incarcerated people;
3. Provide access to water closets separate from the wash basin and drinking fountains as specified in Section 1231.3; and
4. In other than Type I facilities, provide storage space for personal items and clothing for each occupant.

1231.2.9 Dayrooms.

Dayrooms or dayroom space shall:

1. Contain 35 square feet (3.3 m²) of floor area per incarcerated person in width in front of cells/rooms;
2. Contain tables and seating to accommodate the maximum number of incarcerated people;
3. Provide access to water closets, wash basins and drinking fountains as specified in Section 1231.3;
4. Provide access to a shower or showers as specified in Section 1231.3; and
5. Be provided to all incarcerated people in Type II and Type III facilities (except those housed in special-use cells) and to incarcerated workers in Type I facilities. Dayroom space as described in this section may be a part of a single occupancy cell used for administrative separation or a dormitory, in which case the floor area of the cell or a dormitory must be increased by the square footage required for the dayroom.

1231.2.10 Exercise area. An outdoor exercise area or areas must be provided in every Type II and Type III facility. The exercise area shall accommodate the ability for large muscle activities, be equipped with a place for rest, and provide:

1. Natural light and access to fresh air;

2. Security and supervision appropriate to the level of custody;
3. At least one exercise area of not less than 600 square feet (55.7 m²);
4. Minimum clear height must be 15 feet (4572 mm);
5. Lighting to allow for evening activities;
6. Free access to a toilet, wash basin, and drinking fountain as provided in Section 1231.3;
7. Access for people with disabilities; and
8. Minimum number of square feet of surface area will be computed by multiplying 80 percent of maximum rated population by 50 square feet (4.7 m²) and dividing the result by the number of one-hour exercise periods per day.

Type IV facilities shall have an outdoor recreation area or access to community recreation facilities.

1231.2.11 Correctional program/multipurpose space. An area for correctional programming must be provided in every Type II and Type III facility. The program area and furnishings shall be designed to meet the needs specified by the facility's program statement.

Type IV facilities shall have multipurpose space for games and activities, dining, visiting, TV meetings and quiet space for study and reading, such that activities do not conflict with each other.

1231.2.12 Medical examination room. There must be a minimum of one suitably equipped medical examination room in every facility which provides on-site health care. The examination room shall be designed in consultation with the responsible physician/health authority. Such a medical examination room shall:

1. Be located within the security area and provide for privacy of the incarcerated person;
2. Provide not less than 100 square feet (9.3 m²) of floor space with no single dimension less than 7 feet (2134 mm);
3. Provide hot and cold running water;
4. Provide lockable storage for medical supplies;
5. Provide an examination table;
6. Provide adequate lighting; and
7. Any room where medical procedures are provided must be equipped with hot and cold running water

1231.2.13 Pharmaceutical storage space. Provide lockable storage space for medical supplies and pharmaceutical preparations as referenced by Title 15, California Code of Regulations, Section 1216.

1231.2.14 Medical care housing. There shall be some means to provide medical care and housing of ill and infirm incarcerated people. When the program statement for a Type II or Type III facility indicates that medical care housing is needed, such housing must provide lockable storage space for medical instruments and must be located within the security area of the facility accessible

to all incarcerated people, but not in the living area of either. The medical care housing unit shall be designed in consultation with the health authority. Medical/mental health areas may contain other than single occupancy cells.

If negative pressure rooms are being planned, they shall be designed to recognized industry standards.

1231.2.15 Reserved.

1231.2.16 Commissary. In all Type II, III and IV facilities, except where community access is available, there shall be provisions made for incarcerated people to purchase items (such as candy, toilet articles, stationery supplies, books, newspapers and magazines, etc.). An area shall be provided for the secure storage of the stock for such canteen items unless the stock is removed from the facility by an external vendor during times when commissary items are not available for sale.

1231.2.17 Dining facilities. In all Type II, III and IV facilities which serve meals, dining areas shall be provided which will allow groups of incarcerated people to dine together. Such dining areas shall not contain toilets, wash basins or showers in the same room without appropriate visual barrier. Wherever the facility contains a central dining room or rooms, it shall contain a minimum of 15 square feet (1.4 m²) of floor space and sufficient tables and seating for each incarcerated person being fed.

1231.2.18 Visiting space. Space shall be provided in all Types I, II, III and IV facilities for in-person visiting.

1231.2.19 Safety equipment storage. A secure area shall be provided for the storage of safety equipment such as fire extinguishers, self-contained breathing apparatus, wire and barcutters, emergency lights, etc.

1231.2.20 Janitors' closet. In Type II facilities, at least one securely lockable janitors' closet with sufficient area for the storage of cleaning implements and supplies must be provided within the security areas of the facility. A mop sink shall also be available within the security area of the facility. In court holding, temporary holding, Types I, III and IV facilities, the closet need not be in the security area.

1231.2.21 Storage rooms. One or more storage rooms shall be provided to accommodate a minimum of 80 cubic feet (2.3 m³) of storage area per incarcerated person for clothing and personal property, institutional clothing, bedding and supplies. Court holding, temporary holding and Type I facilities may be excluded from the storage space requirement for personal and institutional clothing unless clothing is issued.

1231.2.22 Audio monitoring system. In court holding, temporary holding, Type I, Type II and Type III facilities there shall be an occupant-actuated or sound-actuated audio monitoring system in temporary holding cells or rooms, temporary staging cells or rooms, sobering cells, safety cells, single and double occupancy cells, dormitories, dayrooms, exercise areas, dining rooms and correc-

tional program/multipurpose space, which is capable of alerting personnel who can respond immediately.

1231.2.23 Laundry facilities. In Type IV facilities, provision shall be made for washing and drying personal clothing by machines, either in the facility or in the community, if access is permitted for same.

1231.2.24 Emergency power. There shall be a source of emergency power in all detention facilities capable of providing minimal lighting in all housing units, activities areas, corridors, stairs and central control points, and to maintain fire and life safety, security, communications and alarm systems. Such an emergency power source shall conform to the requirements specified in Title 24, Part 3, Article 700, California Electrical Code, California Code of Regulations.

1231.2.25 Confidential interview rooms. There must be a minimum of one suitably furnished interview room for confidential interviews in every facility which provides on-site health care. The interview room shall be designed in consultation with responsible custodial staff and health care staff. Such an interview room shall:

1. Be located within the security area accessible to all incarcerated persons; and
2. Provide not less than 70 square feet (6.5 m²) of floor space with no single dimension less than 6 feet (1829 mm).

1231.2.26 Attorney interview space. All facilities except Type IV facilities shall include attorney interview areas which provide for confidential consultation with incarcerated persons.

Exception: The design of court holding and temporary holding facilities shall include the following required spaces from Sections 1231.2.2, 1231.2.19, 1231.2.20, 1231.2.21, 1231.2.22, 1231.2.24 and 1231.2.26.

1231.3 Design criteria for furnishings and equipment. Furnishings and equipment shall be as follows:

1231.3.1 Toilets/urinals.

1. Toilets/urinals must be provided in single-occupancy cells and double-occupancy cells.
2. In dormitories, toilets/urinals must be provided in a ratio to incarcerated people of 1:10.
3. Toilets/urinals must be accessible to the occupants of day-rooms and exercise areas.
4. In temporary holding cells and temporary staging cells toilets/urinals must be provided in a ratio to incarcerated people of 1:16.
5. In sobering cells toilets/urinals must be provided in a ratio to incarcerated people of 1:8.
6. One urinal or 2 feet (610 mm) of urinal trough may be substituted for each toilet up to one third of the total number of toilets required, except in those facilities or portions thereof used for females.
7. Toilet areas shall provide modesty for incarcerated people with staff being able to visually supervise.

1231.3.2 Wash basins.

1. Wash basins must be provided in single occupancy cells and double occupancy cells.
2. In dormitories, wash basins must be provided in a ratio to incarcerated people of 1:10.
3. Wash basins must be accessible to the occupants of day-rooms and exercise areas.
4. In temporary holding cells and temporary staging cells, wash basins must be provided in a ratio to incarcerated people of 1:16.
5. In sobering cells, wash basins must be provided in a ratio to incarcerated people of 1:8.
6. Wash basins must be provided with hot and cold or tempered water.
7. Two feet (610 mm) of wash basin trough may be substituted for each basin required.

1231.3.3 Drinking fountains. There must be a minimum of one drinking fountain in every single-occupancy cell, double-occupancy cell, dormitory, temporary holding cell, temporary staging cell, sobering cell, and be accessible to the occupants of day rooms and exercise areas. Additional drinking fountains shall be located in other areas of the facility so that drinking water will be available to incarcerated people and staff. Such drinking fountains must meet the following minimum health requirements:

1. The drinking fountain bubbler shall be on an angle which prevents waste water from flowing over the drinking fountain bubbler.
2. Water flow shall be actuated by mechanical means.

1231.3.4 Showers must be available to all incarcerated people on a ratio of at least one shower to every 20 incarcerated people or fraction thereof and must provide hot and cold water or tempered water. Shower stalls/shower areas must be designed and constructed of materials which are impervious to water and soap so they may be easily cleaned. Shower areas shall provide modesty for incarcerated people with staff being able to visually supervise.

1231.3.5 Beds must be elevated off the floor, have a solid bottom or pan with no perforations, and a sleeping surface of at least 30 inches (762 mm) wide and 76 inches (1930 mm) long. Bunk beds must have a minimum of 21 inches (533 mm) between bed pans. Except in minimum security areas, beds must be securely fastened to the floor or the wall in a manner to prevent creating a ligature point of attachment between the bed and the wall, i.e., ensuring that there is no space between the bed and the wall.

1231.3.6 Lighting. Lighting in housing units, dayrooms and activity areas must be sufficient to permit easy reading by a person with normal vision, and shall not be less than 20 footcandles (215.2 lux) at desk level and in the grooming area. Lighting shall be centrally controlled and occupant controlled in housing cells or rooms where appropriate. Night lighting in these areas shall be sufficient to give good visibility for purposes of supervision. In

minimum-security areas, lighting may be supplied by ordinary lighting fixtures, and in areas of higher security, light fixtures must be of secure design.

1231.3.7 Windows. In housing areas of higher than minimum security, exterior windows which are constantly accessible to incarcerated people for escape must be designed and constructed so that if broken out, the net area accessible for escape is no greater than 5 inches (127 mm) in one dimension.

1231.3.8 Cell padding. In sobering cells, the floor and partition shall be padded. In safety cells, padding must cover the entire floor, doors and walls and everything on them to a clear height of 8 feet (2438 mm).

All such padded cells must be equipped with a tamper-resistant fire sprinkler as approved by the State Fire Marshal. All padding must be:

1. Approved for use by the State Fire Marshal;
2. Nonporous to facilitate cleaning;
3. At least 1/2-inch (12.7 mm) thick;
4. Of a unitary or laminated construction to prevent its destruction by teeth, hand tearing or small metal objects;
5. Firmly bonded to all padded surfaces to prevent tearing or ripping; and
6. Without any exposed seams susceptible to tearing or ripping.

1231.3.9 Mirrors. A mirror of a material appropriate to the level of security must be provided near each wash basin specified in these regulations.

1231.3.10 Seating. In temporary holding and temporary staging cells, seating must be securely fixed to the floor or wall. When bench seating is used, 18 inches (457 mm) of bench width and no less than 12 inches depth is seating for one person.

1231.3.11 Desk/seat. In single and double occupancy cells, a desk and seat for the purpose of writing and dining shall be provided.

Exception: A Type I facility does not require a desk and a seat.

1231.3.12 Weapons locker. A secure weapons locker shall be located outside the security perimeter of the facility. Such weapons lockers shall be equipped with individual compartments, each with an individual locking device. Weapons lockers are required in temporary and court holding facilities and in all facilities of higher than minimum security.

Exception: The design of court holding and temporary holding facilities shall include the design criteria for furnishings and equipment from Sections 1231.3.1, 1231.3.2, 1231.3.3, 1231.3.6, 1231.3.10 and 1231.3.12.

1231.4 Enclosure of vertical openings. Elevator shafts, vent shafts and other vertical openings shall be enclosed, and the enclosure shall be as set forth in Chapter 7.

1231.5 Fire-extinguishing systems. Automatic fire-extinguishing systems, standpipes and basement pipe inlets shall be installed when and as required by Chapter 9.

1231.6 Existing Group I occupancies. Existing buildings housing existing protective social-care homes or facilities established prior to the effective date of these regulations may have their use continued if they conform, or are made to conform, to the following provisions.

1231.6.1 Use of floors. The use of floor levels in buildings of Type III, IV or V nonfire-rated construction may be as follows:

Nonambulatory—first floor only;

Ambulatory—not higher than the third-floor level, provided walls and partitions are constructed of materials equal in fire-resistive quality to that of wood lath and plaster in good repair and all walls are firestopped at each floor level.

1231.6.2 Enclosure of exits and vertical openings. Except for two-story structures housing ambulatory guests, all interior stairs shall be enclosed in accordance with Chapter 10. In lieu of stairway enclosures, floor separations or smoke barriers may be provided in such a manner that fire and smoke will not spread rapidly to floors above or otherwise impair exit facilities. In these instances, floor separations or smoke barriers shall have a fire resistance equal to not less than 1/2-inch (12.7 mm) gypsum wall board on each side of wood studs with openings protected by not less than a 1 3/4-inch (44 mm) solid bonded wood-core door of the self-closing type. All other vertical openings shall be enclosed in accordance with the provisions of Chapter 7.

1231.6.3 Exit access. Each floor or portion thereof of buildings used for the housing of existing protective social-care homes or facilities shall have access to not less than two exits in such a manner as to furnish egress from the building or structure in the event of an emergency substantially equivalent to the provisions of Chapter 10.

1231.6.4 Corridor openings. Openings from rooms to interior corridors shall be protected by not less than 1 3/4-inch (44 mm) solid-bonded wood-core doors. Transoms and other similar openings shall be sealed with materials equivalent to existing corridor wall construction.

1231.6.5 Interior wall and ceiling finishes shall conform to the requirements for a Group R, Division 1 occupancy as specified in Chapter 8.

1231.6.6 Automatic sprinkler systems shall be installed in existing protective social-care occupancies in accordance with the provisions of Chapter 9.

1231.6.7 Fire alarm systems. Automatic fire alarm systems shall be installed in existing protective social-care homes or facilities in accordance with the provisions of Chapter 9.

Exception: When an approved automatic sprinkler system conforming to Chapter 9 is installed, a separate

fire alarm system as specified in this subsection need not be provided.

SECTION 1232 Reserved

SECTION 1233 Reserved

SECTION 1234 Reserved

SECTION 1235 [DPH] SANITARY CONTROL OF SHELLFISH (PLANTS AND OPERATIONS)

1235.1 Culling plants. Culling plants shall be located in areas free from unsanitary conditions and faulty sewage disposal. They shall be provided with an ample supply of water under adequate pressure from a source approved by the Department of Health Services for the purpose of hosing down floor and benches and cleaning the shellfish. Floors and premises shall be kept in a clean and sanitary condition.

1235.2 Plant arrangement. Unless shellfish are shucked directly into packing containers with no further processing, the shucking and packing processes shall be done in separate rooms. There shall be installed in the partition between the two rooms a delivery window through which the shucked stock is passed to the packing room. Provision shall be made for storing the employees' outer garments, aprons, gloves, etc., in a separate room.

Note: In special instances where shucking is done on a small scale for local retail sales, shucking and packing may be permitted in a single room if approved by the Department of Health Services. This single room and all operations shall conform to all requirements of these regulations except that of separate shucking and packing rooms. "Limited" certificates shall be issued in these instances and all containers of shucked shellfish shall be clearly labeled or marked with words "Limited Certificate" and the appropriate certificate number.

1235.3 Floors. The floors of all rooms in which shellfish are stored, shucked, washed, packed or otherwise processed shall be constructed of concrete or other equally impervious material, graded to drain quickly, free from cracks or uneven surfaces that might interfere with proper cleaning or drainage, and maintained in clean and satisfactory condition.

1235.4 Walls and ceilings. Walls and ceilings shall be maintained in a smooth, clean, washable, light-colored conditions. They shall be impervious to moisture and shall be kept in good repair. Walls contiguous to benches shall, to a height of 2 feet (610 mm) above the bench top, be of smooth concrete, metal or equally nonabsorbent material.

1235.5 Screening. The plant shall have all openings effectively screened, unless other effective means are provided to prevent the entrance of flies and other insects.

1235.6 Light. Ample light to work by shall be provided in all working rooms. A light intensity of not less than 10 footcandles (108 lux) shall be maintained on all working surfaces when workers are at their working positions.

1235.7 Ventilation. Adequate ventilation shall be provided to prevent condensation on ceilings or other surfaces.

1235.8 Toilet facilities. Every shellfish culling, shucking, packing or repacking plant shall be provided with clean and adequate toilet facilities conveniently located. No toilet room shall be used for the storage of garments, food products, containers or equipment. Construction and maintenance of toilets shall comply with all local and state regulations.

1235.9 Handwashing facilities. An adequate number of lavatories shall be provided at locations convenient to toilet rooms and shellfish handling operations, including running hot and cold water, soap and individual disposal towels. The use of a common towel is prohibited. All employees shall wash their hands thoroughly with running water and soap on beginning work and after each visit to the toilet. Signs to this effect shall be posted in conspicuous places in the plant and in the toilet rooms.

1235.10 Sewers and drains. Sewage and other liquid wastes shall be discharged into public sewers wherever possible. Where private sewage or waste disposal systems must be utilized, they shall be constructed in accordance with state and local regulations pertaining thereto. Plant waste systems shall be properly trapped and vented. Waste liquids shall be disposed of in a manner that will not adversely affect the quality of the water in which shellfish are grown or stored. Waste lines from washing machines shall have suitable protection against the possibility of sewage or wastes entering these machines.

1235.11 Water supply. Shucking, packing or repacking plants shall be provided with an ample supply of water under adequate pressure from a source approved by the Department of Health Services. The supply shall be accessible to all parts of the plant, adequate in quantity, and of a safe sanitary quality. No cross connections with unapproved supplies or other possible sources of contamination shall be permitted.

SECTION 1236 [DPH] LABORATORY ANIMAL QUARTERS

Laboratory animal quarters shall meet the requirements of Part 12 California Referenced Standards Code, Chapter 12-4A, Section 12-4A-101.

See the 2010 Edition, Title 24, Part 12, Chapter 12-4A.

SECTION 1237 [DPH] WILD ANIMAL QUARANTINE FACILITIES

1237.1 Scope. The provisions of this section are intended to provide standards for the quarantine of wild animals.

1237.2 Definitions. For the purpose of this chapter, the following terms shall have the meaning indicated:

ESCAPEPROOF is a condition that will prohibit unintended release of wild animals from their quarantine enclosure.

HOUSING FACILITY is a room, building or area used to contain a primary enclosure or enclosures for animal quarantine.

PRIMARY ENCLOSURE is a structure used to immediately restrict an animal or animals to a limited amount of space, such as a room, pen, run, cage or compartment within the quarantine facility.

QUARANTINE FACILITY is a facility for the quarantine confinement of imported wild animals.

SPACE CONDITIONING is the regulation of ambient temperature.

1237.3 Construction.

1237.3.1 General. Housing facilities used for quarantine shall be constructed in accordance with these provisions and Group B occupancy requirements.

1237.3.2 Entry. Quarantine housing facilities shall restrict the entry of other animals and unauthorized persons by locking or bolting devices or other equipment methods.

Rooms containing primary enclosures shall be entered through double doors that maintain a minimum distance of 4 feet (1219 mm) between doors permitting closure of one door before the second is opened.

All animals must be visible through a viewpoint from the entry area.

Windows to the outside shall be escapeproof.

One handwashing sink shall be provided in each room in which animals are quarantined.

1237.3.3 Special provision. The interior building surfaces of housing facilities shall be smooth and impervious to moisture.

1237.4 Light and ventilation. All portions of the wild animal quarantine facility shall be space conditioned to maintain the health of the wild animals. Ventilation shall be provided in housing facilities so as not to create a health hazard by one or more of the following methods.

1. Openable windows
2. Doors
3. Vents
4. Air conditioning
5. Fans

Uniformly distributed illumination of not less than 50 footcandles (538 lux) at least the level of the cage racks shall be provided.

1237.5 Primary enclosure. Primary enclosures shall be capable of containing quarantined animals and excluding access by other animals. Enclosures shall provide space to allow each animal to make normal postural adjustments with freedom of movement and maintain social activity. Primates shall be provided with a minimum floor space equal to an area of at least three times the area occupied by such primates when standing on four feet.

**SECTION 1238
Reserved**

**SECTION 1239
Reserved**

**SECTION 1240 [AGR]
MEAT AND POULTRY PROCESSING PLANTS**

1240.1 General construction. The buildings shall be of sound construction and kept in good repair.

1240.1.1 The doors, windows, skylights and other outside openings of the plant, shall be protected by fitted screens or other devices, such as air screens, against the entrance of flies and other insects.

1240.1.2 Outside doors shall be hung so as to be close fitting when closed.

1240.1.3 Rooms or compartments used for edible products shall be separated and distinct from inedible products departments and from rooms where live poultry are held or slaughtered. Separate rooms shall be provided when required for conducting processing operations in a sanitary manner; and all rooms shall be able to accommodate equipment for processing operations.

Note: In the event of specific conflict, in federally inspected plants, between the provisions of Title 24 and federal regulations, the federal regulations shall take precedence.

1240.1.4 The rooms and compartments in which any product is prepared or handled shall be free from objectionable odors.

1240.1.5 The outer premises of every official establishment, including docks and areas where cars and vehicles are loaded, and the driveways, approaches, yards, pens and alleys shall be paved.

1240.2 Refuse rooms. A separate refuse room shall be required in official establishments where accumulations of refuse occur. Refuse rooms shall be entirely separate from other rooms in the establishment, and shall provide for the following:

1. Tight fitting doors.
2. Ventilation.
3. Drainage.
4. Cleanup facilities.
5. Floors and walls to a height of 6 feet (1829 mm) above the floor shall be impervious to moisture.
6. Wall above 6 feet (1829 mm), and ceilings shall be moisture resistant.

1240.3 Rooms for holding carcasses for further inspection. Room or other acceptable facilities in which carcasses or parts thereof are held for further inspection shall be in such numbers and such locations as needs of the inspection in the establishment may require. These rooms or facilities shall be equipped with hasps for locking.

1240.4 Coolers and freezers. Coolers and freezers shall be of adequate size and capacity and have cooling capability to fully enable compliance with the regulations governing the inspection of meat and poultry and meat and poultry products.

1240.5 Boiler room. The boiler room shall be a separate room where necessary to prevent dirt and objectionable odors entering from it into any room where dressed poultry or poultry products are prepared, handled or stored.

1240.6 Inspector's office. Office space for the use of government personnel shall be provided. The room or space must meet the approval of the inspection service and provide for the following:

1. Light
2. Heat
3. Ventilation
4. Desk space
5. File cabinets

1240.7 Facilities for program employees. Establishments shall have facilities for program employees.

1240.8 Lunch rooms. Lunch rooms or lunch areas separate from the processing, packing or supply rooms shall be provided in establishments where employees eat their lunches.

1240.9 Floors. All floors in rooms where exposed products are prepared or handled shall be constructed of, or finished with, materials impervious to moisture. The floors in killing, ice cooling, ice packing, eviscerating, cooking, boning and cannery rooms shall be graded for complete runoff with no standing water.

1240.10 Walls, posts, partitions and doors. All walls, posts, partitions and doors in rooms where exposed products are prepared or handled shall be smooth and constructed of materials impervious to moisture to a height of at least 8 feet (2438 mm) above the floor. All surfaces above this height must be smooth and finished with moisture-resistant material.

1240.11 Ceilings. Ceilings must be moisture resistant in rooms where exposed products are prepared or handled, finished and sealed.

1240.12 Rails. Rails should be located and passageway space provided so that exposed product does not come in contact with posts, walls and other fixed parts of the building or with barrels, boxes or other containers trafficked through holding and operation areas.

1240.13 Lighting. There shall be either natural or artificial light or both for all rooms and compartments.

1240.13.1 All rooms in which poultry or livestock are killed, eviscerated or otherwise processed shall have at least 30 foot-candles (323 lux) of light intensity on all working surfaces.

Exceptions:

1. At the inspection stations such light intensity shall be at least 50 footcandles (538 lux).
2. In all other rooms in which poultry or livestock are not killed, eviscerated or otherwise pro-

cessed, there shall be provided at least 5 footcandles (54 lux) of light intensity when measured at a distance of 30 inches (762 mm) from the floor.

1240.14 Ventilation. There shall be either natural or artificial ventilation, adequate to control odors, vapors and condensation to the extent necessary to prevent adulteration of product and the creation of insanitary conditions, in all rooms and compartments.

1240.14.1 Freezing rooms, other than those for plate freezers or liquid freezing, shall have forced-air circulation, and freezers and coolers shall be equipped with floor racks or pallets unless other means are used which will assure that products will be maintained in a wholesome condition.

1240.14.2 Toilet rooms shall be ventilated to the outside of the building.

1240.15 Lavatories, toilets and other sanitary facilities.

1240.15.1 Lavatory and toilet accommodations, including but not limited to, running hot and cold water, shall be provided as follows in Table 1240.15.1.

TABLE 1240.15.1

PERSONS OF SAME SEX	TOILET BOWLS REQUIRED
1 to 15, inclusive	1
1 to 15, inclusive	2
1 to 15, inclusive	3*
1 to 15, inclusive	4*
For each additional 30 persons in excess of 80	1*

* Urinals may be substituted for toilet bowls, but only to the extent of one-third of the total number of bowls stated.

1240.15.2 Lavatories shall be in or adjacent to toilet and locker rooms and at other places in the plant to provide for the cleanliness of all personnel handling products.

1240.15.3 Toilet rooms opening directly into rooms where products are exposed shall have self-closing doors.

1240.15.4 Dressing rooms and toilet rooms shall be provided in each establishment and shall be ample in size and readily accessible. They shall be separated from the rooms and compartments in which products are prepared, stored or handled. Where both sexes are employed, separate facilities shall be provided.

1240.15.5 Lockers or other facilities shall be provided for employees' wearing apparel and for the storing and changing of clothing. Lockers shall not be located in rooms where processing operations are conducted.

1240.15.6 Handwashing facilities serving areas where dressed livestock and poultry carcasses and parts and meat and poultry products are prepared shall be operated by other than hand-operated controls, or shall be continuous flow type that provides flow of water for washing hands.

1240.15.7 Catch basins. All catch basins on the premises shall accommodate the provisions of Section 1243.5.

SECTION 1241 [AGR] COLLECTION CENTERS AND FACILITIES

1241.1 General construction.

1241.1.1 Collection centers shall have facilities for the storage of carcasses and parts of dead animals and the cleaning and sanitizing of vehicles.

1241.1.2 Buildings used for the temporary storage of animal carcasses, packinghouse wastes and other products before transportation to a licensed rendering plant shall be of sound construction and shall be of such construction as to prevent the entrance or harboring of vermin.

1241.1.3 The floors, walls, ceilings, partitions and doors shall be of such material, construction and finish as to make them readily cleanable.

1241.1.4 The area for the cleaning and sanitizing of vehicles shall be provided with adequate live steam or hot water, producing a temperature of at least 180°F (82°C), or other method for sanitizing vehicles.

1241.1.5 Facilities shall be provided for the holding and disposal of solid waste resulting from the cleaning operation. Such facilities shall be accessible and easily cleaned and so constructed as to prevent the entrance or harborage of vermin, flies and other insects.

1241.1.6 The cleaning and sanitizing of vehicles shall be done on a slab of concrete or other material approved by the Department, which is sloped to drains so as to permit the rapid runoff of water.

1241.1.7 Carcasses and packinghouse waste. The unloading slab shall be of sufficient size to hold all animal carcasses and packinghouse waste material, be constructed of concrete or other material approved by the Department and sloped to drains so as to permit the rapid runoff of water.

1241.2 Floors. Floors of rooms in which carcasses and packinghouse wastes are received or stored shall be graded to permit runoff of water with no standing water. In new construction and in renovated buildings where floors are to be resurfaced, the pitch shall not be less than $\frac{1}{4}$ inch per foot (2 percent) to drains.

1241.3 Lavatories and toilets. Modern lavatory accommodations, including running hot and cold water, shall be provided except where the Department determines that they are not necessary.

SECTION 1242 [AGR] RENDERERS

1242.1 General construction.

1242.1.1 Separation from other businesses. Every licensed rendering establishment shall be separate and distinct from any establishments in which any meat, meat byproducts, poultry or poultry byproducts are handled and from any other business at the discretion of the Department.

1242.1.2 The cleaning and sanitizing of vehicles shall be done on a slab of concrete or other material approved by

the Department; which is sloped to drains so as to permit the rapid runoff of water.

SECTION 1243 [AGR] HORSEMEAT AND PET FOOD ESTABLISHMENTS

1243.1 Scope. In the event of specific conflict between the provisions of Title 24 and federal regulations, the federal regulations shall take precedence in establishments under federal inspection.

1243.2 General.

1243.2.1 Facilities for program employees. Office space, including light and heat shall be provided by official establishments for the inspector and other program employees. The office space shall be conveniently located and adequately ventilated, heated, cooled and provided with adequate desk and file space.

1243.2.2 Final inspection places.

1243.2.2.1 Final inspection places shall, by size, rail arrangement and other equipment, prevent contamination of edible carcasses or parts by inedible carcasses or parts.

1243.2.2.2 Floors. The floors shall be of such construction as to facilitate the maintenance of sanitary conditions and shall have drainage connections. When the final inspection place is part of a larger floor, it shall be separated from the rest of the floor by a curb, railing or otherwise.

1243.2.3 Docks and receiving rooms. Docks and receiving rooms shall be provided.

1243.2.4 The floors, walls, ceilings, partitions, posts, doors and other parts of all structures shall be of such material, construction and finish as will make them readily and thoroughly cleanable. The floors shall be kept watertight.

1243.2.5 Rails. Rails shall be located and passageway space provided, so that exposed product does not come in contact with post, walls and other fixed parts of the building or with barrels, boxes and other containers trafficked through holding and operation areas.

1243.2.6 The rooms and compartments used for edible products shall be separated and distinct from those used for inedible products.

1243.2.7 The rooms and compartments in which any product is prepared or handled shall be free from objectionable odor.

1243.2.8 Precaution shall be taken to exclude flies, rats, mice and other vermin from official establishments.

1243.2.9 The outer premises of horsemeat and pet food establishments shall meet the requirements of Section 1240.1.5.

1243.3 Lighting. There shall be light and ventilation for all rooms and compartments.

1243.4 Sanitary facilities and accommodations. Sanitary facilities and accommodations shall be furnished by every official establishment.

1243.4.1 Dressing rooms and toilet rooms shall be provided in each establishment and shall be ample in size and readily accessible. They shall be separated from the rooms and compartments in which products are prepared, stored or handled. Where both sexes are employed, separate facilities shall be provided.

1243.4.2 Lavatories, including running hot and cold water, shall be placed in or adjacent to toilet and urinal rooms and at other places in the establishment to assure cleanliness of all persons handling any product.

1243.4.3 Facilities shall be provided for cleansing and disinfecting utensils.

1243.5 Catch basins. All catch basins on the premises shall be of such construction and location to ensure they are kept clean and odorless. Catch basins shall not be located in department where any product is prepared, handled or stored.

1243.6 Final inspection space. Such spaces shall be equipped with hot water and a lavatory.

SECTION 1244 Reserved

SECTION 1245 Reserved

SECTION 1246 Reserved

SECTION 1247 Reserved

SECTION 1248 Reserved

SECTION 1249 Reserved

SECTION 1250 [CA] PHARMACIES

1250.1 Application. This section applies to pharmacies listed in Section 1.4.1 regulated by the Department of Consumer Affairs.

1250.2 Restrooms. A pharmacy shall maintain a readily accessible restroom. The restroom shall contain a toilet and washbasin supplied with running water.

1250.3 Sink. All pharmacies shall be equipped with a sink within the pharmacy for pharmaceutical purposes. The sink shall be supplied with hot and cold running water.

1250.4 Compounding area for parenteral solutions. The pharmacy shall have a designated area for the preparation of sterile products for dispensing which shall:

1. In accordance with Federal Standard 209 (b), Clean Room and Work Station Requirements, Controlled Environment as approved by the Commission, Federal Supply Service, General Service Administration meet standards for Class 100 HEPA (high efficiency particulate air) filtered air such as laminar airflow hood or clean room.
2. Have nonporous and cleanable surfaces, ceilings and ceiling tiles, walls, floors and floor coverings.
3. The pharmacy shall be arranged in such a manner that the laminar-flow hood is located in an area which is exposed to minimal traffic flow, and is separate from any area used for bulk storage of items not related to the compounding of parenteral solutions.

There shall be sufficient space, well separated from the laminar-flow hood area for the storage of bulk materials, equipment and waste materials.

4. A sink with hot and cold running water must be within the parenteral solution compounding area or adjacent to it.
5. Any pharmacy that compounds sterile injectable products from one or more nonsterile ingredients must compound the medication in one of the following environments:
 - 5.1. An ISO class 5 laminar airflow hood within an ISO class 7 cleanroom. The cleanroom must have a positive air pressure differential relative adjacent areas.
 - 5.2. An ISO class 5 cleanroom.
 - 5.3. A barrier isolator that provides an ISO class 5 environment for compounding.

Note: For additional pharmacy mechanical standard requirements, see Chapter 5, California Mechanical Code.

SECTION 1251 [CA] VETERINARY FACILITIES

1251.1 All premises where veterinary medicine, veterinary dentistry or veterinary surgery is being practiced, and all instruments, apparatus and apparel used in connection with those practices, shall be kept clean and sanitary at all times and shall conform to the standards of this section.

1251.2 Indoor lighting for halls, wards, reception areas and examining and surgical rooms shall be adequate for their intended purpose. All surgical rooms shall be provided with emergency lighting.

1251.3 A veterinary facility where animals are housed shall contain the following:

1. A reception room and office, or a combination of the two.
2. An examination room separate from other areas of the facility and of sufficient size to accommodate the doctor, assistant, patient and client.

3. A surgery room separate and distinct from all other rooms.

4. Housing. In those veterinary hospitals where animals are retained for treatment or hospitalization, the following shall be provided:

- 4.1. Separate compartments, one for each animal, maintained in a sanitary manner so as to assure comfort.
- 4.2. Facilities allowing for the effective separation of contagious and noncontagious cases.
- 4.3. Exercise runs which provide and allow effective separation of animals and their waste products.

Note: Where animals are kept in clinics for 24 hours or more, walking the animal meets this requirement.

1251.4 Practice management.

1251.4.1 Veterinary facilities shall maintain a sanitary environment to avoid sources and transmission of infection. This is to include the proper routine of disposal of waste materials and proper sterilization or sanitation of all equipment used in diagnosis or treatment.

1251.4.2 Fire precautions shall meet the requirements of local and state fire prevention codes.

1251.4.3 The temperature and ventilation of the facility shall be maintained so as to assure the comfort of all patients.

1251.4.4 The veterinary facility must have the capacity to render adequate diagnostic radiological services, either in the hospital or through other commercial facilities. Radiological procedures shall be in accordance with state public health standards.

1251.4.5 Sanitary methods for the disposal of deceased animals shall be provided and maintained. Where the owner of a deceased animal has not given the veterinarian authorization to dispose of the animal, the veterinarian shall be required to retain the carcass in a freezer for at least 14 days.

SECTION 1252 [CA] BARBER COLLEGES AND SHOPS

1252.1 Barber college floors. Floors of barber colleges shall be covered with hardwood, linoleum, asphalt tile or some other washable and nonporous material other than paint.

1252.2 Barber shop floors. Floors of barber shops shall be covered with hardwood, linoleum, asphalt tile, carpeting or some other washable material other than paint.

1252.3 Barber shop washbasin(s) and lavatory(ies). A barber shop owner shall provide washbasin(s) or lavatory(ies) within the working area of the barber shop.

1252.4 Minimum barber shop size. A barber shop shall be a minimum of 8 feet (2438 mm) wide, 8 feet (2438 mm) long, with an 8-foot (2438 mm) ceiling.

1252.5 Barber college premises. In a college of barbering, the room for practical work and demonstrations shall be at least

14 feet (4267 mm) wide for one row of barber chairs and shall be at least 20 feet (6096 mm) wide for two rows of chairs.

**SECTION 1253 [CA]
SCHOOLS OF COSMETOLOGY,
COSMETOLOGICAL ESTABLISHMENTS AND
SATELLITE CLASSROOMS**

1253.1 Floor space.

1253.1.1 Schools of cosmetology. The minimum floor space in any school of cosmetology premises shall be 3,000 square feet (279 m²), not less than 2,000 square feet (185.8 m²) of which shall be provided for the working, practice and classroom areas.

Exception: When the average daily attendance for either day or night school in a school of cosmetology exceeds 50 students for a period of three months, an additional 30 square feet (2.8 m²) of floor space shall be required for each additional student after the first 50, which shall be provided for the working, practice and classroom areas.

1253.1.2 Schools of electrology. The minimum floor space in any school of electrology premises shall be 1,000 square feet (93 m²), not less than 600 square feet (55.7 m²) of which shall be provided for the working, practice and classroom areas.

Exception: When the average daily attendance for either day or night school of electrology exceeds 15 students, an additional 30 square feet (2.8 m²) of floor space shall be required for each additional student after the first 15, which shall be provided for working, practice and classroom areas.

1253.1.3 Satellite classrooms. The minimum floor space in any satellite classroom of a school of cosmetology or electrology shall be 1,000 square feet (93 m²).

Exception: For each additional student after the first 50, an additional 20 square feet (1.9 m²) of floor space shall be required.

1253.2 Floor finish. The floors in the toilet area of each school and establishment shall be of nonabsorbent material.

1253.3 Ceiling height. The minimum ceiling height of the practice and classroom areas of school premises shall be at least 9 feet (2743 mm) in height.

**SECTION 1254 [CA]
ACUPUNCTURE OFFICES**

1254.1 Acupuncture offices. Every acupuncture office shall have a readily accessible bathroom facility which shall be maintained in a clean and sanitary condition at all times. In addition, there shall be a sink with hot and cold running water in or near each treatment room.

CALIFORNIA BUILDING CODE – MATRIX ADOPTION TABLE

CHAPTER 14 – EXTERIOR WALLS

(Matrix Adoption Tables are nonregulatory, intended only as an aid to the code user.
See Chapter 1 for state agency authority and building applications.)

Adopting agency	BSC	BSC- CG	SFM	HCD			DSA			OSHPD					BSCC	DPH	AGR	DWR	CEC	CA	SL	SLC
				1	2	1/AC	AC	SS	SS/CC	1	1R	2	3	4	5							
Adopt entire chapter	X			X	X								X									
Adopt entire chapter as amended (amended sections listed below)								X	X	X	X	X		X	X							
Adopt only those sections that are listed below		X	X																X			
Chapter / Section																						
1401			X																			
1402			X																			
1402.2.1		X																				
1403			X																			
1404			X																			
1404.1.1								X	X	X	X	X		X	X							
1404.3.3																			X			
1405			X																			
1406			X																			
1407			X																			
1408			X																			
1410								X	X	X	X	X		X	X							

The state agency does not adopt sections identified with the following symbol: †

The Office of the State Fire Marshal's adoption of this chapter or individual sections is applicable to structures regulated by other state agencies pursuant to Section 1.11.

Section 1404.18 and in accordance with the manufacturer's instructions. Polypropylene siding shall be secured to the building so as to provide weather protection for the exterior walls of the building.

1403.12.1 Flame spread index. The certification of the flame spread index shall be accompanied by a test report stating that all portions of the test specimen ahead of the flame front remained in position during the test in accordance with ASTM E84 or UL 723.

1403.12.2 Fire separation distance. The fire separation distance between a building with polypropylene siding and the adjacent building shall be not less than 10 feet (3048 mm).

1403.13 Foam plastic insulation. Foam plastic insulation used in exterior wall covering assemblies shall comply with Chapter 26.

1403.14 Attachments through insulation. Exterior wall coverings attached to the building structure through foam plastic insulating sheathing shall comply with the attachment requirements of Section 2603.11, 2603.12, or 2603.13.

SECTION 1404 INSTALLATION OF WALL COVERINGS

1404.1 General. *Exterior wall coverings* shall be designed and constructed in accordance with the applicable provisions of this section.

1404.1.1 Additional requirements. *[DSA-SS & DSA-SS/CC, OSHPD 1, 1R, 2, 4 & 5]* In addition to the requirements of Sections 1404.6, 1404.7, 1404.8, 1404.9 and 1404.10, the installation of anchored or adhered veneer shall comply with applicable provisions of Section 1410.

1404.2 Weather protection. Exterior walls shall provide weather protection for the building. The materials of the minimum nominal thickness specified in Table 1404.2 shall be acceptable as approved weather coverings.

1404.3 Vapor retarders. Vapor retarder materials shall be classified in accordance with Table 1404.3(1). A vapor retarder shall be provided on the interior side of frame walls in accordance with Tables 1404.3(2) and 1404.3(3), or an approved design using accepted engineering practice for hygrothermal analysis. The appropriate climate zone shall be selected in accordance with the *California Energy Code*.

Where a Class II vapor retarder is used in combination with foam plastic insulating sheathing installed as continuous insulation on the exterior side of frame walls, the continuous insulation shall comply with Table 1404.3(4) and the Class II vapor retarder shall have a vapor permeance greater than 1 perm when measured by ASTM E96 water method (Procedure B). Use of a Class I interior vapor retarder in frame walls with a Class I vapor retarder on the exterior side shall require an approved design.

Exceptions:

1. Basement walls.
2. Below-grade portion of any wall.

**TABLE 1404.2
MINIMUM THICKNESS OF WEATHER COVERINGS**

COVERING TYPE	MINIMUM THICKNESS (inches)
Adhered masonry veneer	0.25
Aluminum siding	0.019
Anchored masonry veneer	
Stone (natural)	2.0
Architectural cast stone	2.5
Other	2.0
Asbestos-cement boards	0.125
Asbestos shingles	0.156
Cold-rolled copper ^d	0.0216 nominal
Copper shingles ^d	0.0162 nominal
Exterior plywood (with sheathing)	0.313
Exterior plywood (without sheathing)	See Section 2304.6
Fiber cement lap siding	0.25 ^c
Fiber cement panel siding	0.25 ^c
Fiberboard siding	0.5
Glass-fiber reinforced concrete panels	0.375
Hardboard siding ^c	0.25
High-yield copper ^d	0.0162 nominal
Lead-coated copper ^d	0.0216 nominal
Lead-coated high-yield copper	0.0162 nominal
Marble slabs	1
Particleboard (with sheathing)	See Section 2304.6
Particleboard (without sheathing)	See Section 2304.6
Porcelain tile	0.125 nominal
Steel (approved corrosion resistant)	0.0149
Structural glass	0.344
Stucco or exterior cement plaster	
Three-coat work over:	
Metal plaster base	0.875 ^b
Unit masonry	0.625 ^b
Cast-in-place or precast concrete	0.625 ^b
Two-coat work over:	
Unit masonry	0.5 ^b
Cast-in-place or precast concrete	0.375 ^b
Terra cotta (anchored)	1
Terra cotta (adhered)	0.25
Vinyl siding	0.035
Wood shingles	0.375
Wood siding (without sheathing) ^a	0.5

For SI: 1 inch = 25.4 mm, 1 ounce = 28.35 g, 1 square foot = 0.093 m².

a. Wood siding of thicknesses less than 0.5 inch shall be placed over sheathing that conforms to Section 2304.6.

b. Exclusive of texture.

c. As measured at the bottom of decorative grooves.

d. 16 ounces per square foot for cold-rolled copper and lead-coated copper, 12 ounces per square foot for copper shingles, high-yield copper and lead-coated high-yield copper.

3. Construction where accumulation, condensation or freezing of moisture will not damage the materials.
4. Class I and II vapor retarders with vapor permeance greater than 1 perm when measured by ASTM E96 water method (Procedure B) shall be allowed on the interior side of any frame wall in all climate zones.

1404.3.1 Spray foam plastic insulation for moisture control with Class III vapor retarders. For purposes of compliance with Table 1404.3(3), spray foam with a maximum permeance of 1.5 perms at the installed thickness applied to the interior cavity side of wood structural panels, fiberboard, insulating sheathing or gypsum shall be deemed to meet the continuous insulation moisture control requirement where the spray foam *R*-value meets or exceeds the specified continuous insulation *R*-value.

1404.3.2 Hybrid insulation for moisture control with Class III vapor retarders. For the purposes of compliance with Table 1404.3(3), the combined *R*-values of spray foam plastic insulation and continuous insulation shall be permitted to be counted toward the continuous *R*-value requirement.

1404.3.3 California Energy Code and International Energy Conservation Code Climate Zones. The IECC climate zones used by this section differ from those used by the California Energy Code to determine applicability of energy efficiency measures. Comparison of IECC and California Energy Code climate zones is shown in Chapter 12, Table 1202.3.1.

**TABLE 1404.3(1)
VAPOR RETARDER MATERIALS AND CLASSES**

VAPOR RETARDER CLASS	ACCEPTABLE MATERIALS
I	Sheet polyethylene, nonperforated aluminum foil, or other approved materials with a perm rating of less than or equal to 0.1
II	Kraft-faced fiberglass batts or vapor retarder paint or other approved materials, applied in accordance with the manufacturer's instructions for a perm rating greater than 0.1 and less than or equal to 1.0
III	Latex paint, enamel paint, or other approved materials, applied in accordance with the manufacturer's instructions for a perm rating of greater than 1.0 and less than or equal to 10

**TABLE 1404.3(2)
VAPOR RETARDER OPTIONS**

CLIMATE ZONE	VAPOR RETARDER CLASS		
	I	II	III ^a
1, 2	Not Permitted	Not Permitted	Permitted
3	Not Permitted	Permitted	Permitted
4 (except Marine 4)	Not Permitted	Permitted	See Table 1404.3(3)
Marine 4, 5, 6, 7, 8	Permitted	Permitted	See Table 1404.3(3)

a. See also Sections 1404.3.1 and 1404.3.2.

**TABLE 1404.3(3)
CLASS III VAPOR RETARDERS**

ZONE	CLASS III VAPOR RETARDERS PERMITTED FOR: ^{a, b}
4	Vented cladding over wood structural panels Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with <i>R</i> -value \geq R-2.5 over 2 × 4 wall Continuous insulation with <i>R</i> -value \geq R-3.75 over 2 × 6 wall
5	Vented cladding over wood structural panels Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with <i>R</i> -value \geq R-5 over 2 × 4 wall Continuous insulation with <i>R</i> -value \geq R-7.5 over 2 × 6 wall
6	Vented cladding over fiberboard Vented cladding over gypsum Continuous insulation with <i>R</i> -value \geq R-7.5 over 2 × 4 wall Continuous insulation with <i>R</i> -value \geq R-11.25 over 2 × 6 wall
7	Continuous insulation with <i>R</i> -value \geq R-10 over 2 × 4 wall Continuous insulation with <i>R</i> -value \geq R-15 over 2 × 6 wall
8	Continuous insulation with <i>R</i> -value \geq R-12.5 over 2 × 4 wall Continuous insulation with <i>R</i> -value \geq R-20 over 2 × 6 wall

a. Vented cladding shall include vinyl lap siding, polypropylene, or horizontal aluminum siding, brick veneer with airspace as specified in this code, and other approved vented claddings.

b. The requirements in this table apply only to insulation used to control moisture in order to permit the use of Class III vapor retarders. The insulation materials used to satisfy this option also contribute to but do not supersede the thermal envelope requirements of the California Energy Code.

**TABLE 1404.3(4)
CONTINUOUS INSULATION WITH CLASS II VAPOR RETARDER**

CLIMATE ZONE	PERMITTED CONDITIONS ^a
3	Continuous insulation with <i>R</i> -value \geq R-2
4, 5, 6	Continuous insulation with <i>R</i> -value \geq R-3 over 2 × 4 wall Continuous insulation with <i>R</i> -value \geq R-5 over 2 × 6 wall
7	Continuous insulation with <i>R</i> -value \geq R-5 over 2 × 4 wall Continuous insulation with <i>R</i> -value \geq R-7.5 over 2 × 6 wall
8	Continuous insulation with <i>R</i> -value \geq R-7.5 over 2 × 4 wall Continuous insulation with <i>R</i> -value \geq R-10 over 2 × 6 wall

a. In addition to the vapor retarder, spray foam with a maximum permeance of 1.5 perms at the installed thickness, applied to the interior cavity side of wood structural panels, fiberboard, insulating sheathing or gypsum is deemed to comply with the continuous insulation requirement only for the moisture control purposes of this table where the spray foam *R*-value plus any continuous insulation *R*-value provided equals or exceeds the specified continuous insulation *R*-value.

1404.4 Flashing. Flashing shall be installed in such a manner so as to prevent moisture from entering the wall or to redirect that moisture to the surface of the exterior wall finish or to a water-resistive barrier complying with Section 1403.2 and that is part of a means of drainage complying with Section 1402.2. Flashing shall be installed at the perimeters of exterior door and window assemblies, penetrations and terminations of exterior wall assemblies, exterior wall intersections with roofs, chimneys, porches, decks, balconies and similar projections and at built-in gutters and similar locations where moisture could enter the wall. Flashing with projecting flanges shall be installed on both sides and the ends of copings, under sills and continuously above projecting trim. Where self-adhered membranes are used as flashings of fenestration in wall assemblies, those self-adhered flashings shall comply with AAMA 711. Where fluid applied membranes are used as flashing for exterior wall openings, those fluid applied membrane flashings shall comply with AAMA 714.

1404.4.1 Exterior wall pockets. In exterior walls of buildings or structures, wall pockets or crevices in which moisture can accumulate shall be avoided or protected with caps or drips, or other approved means shall be provided to prevent water damage.

1404.4.2 Masonry. Flashing and weep holes in anchored veneer designed in accordance with Section 1404.6 shall be located not more than 10 inches (254 mm) above finished ground level above the foundation wall or slab. At other points of support including structural floors, shelf angles and lintels, flashing and weep holes shall be located in the first course of masonry above the support.

1404.5 Wood veneers. Wood veneers on exterior walls of buildings of Types I, II, III and IV construction shall be not less than 1 inch (25 mm) nominal thickness, 0.438-inch (11.1 mm) exterior hardboard siding or 0.375-inch (9.5 mm) exterior-type wood structural panels or particleboard and shall conform to the following:

1. The veneer shall not exceed 40 feet (12 190 mm) in height above grade. Where fire-retardant-treated wood is used, the height shall not exceed 60 feet (18 290 mm) in height above grade.
2. The veneer is attached to or furred from a noncombustible backing that is fire-resistance rated as required by other provisions of this code.
3. Where open or spaced wood veneers (without concealed spaces) are used, they shall not project more than 24 inches (610 mm) from the building wall.

[BS] 1404.6 Anchored masonry veneer. Anchored masonry veneer shall comply with the provisions of Sections 1404.6 through 1404.9 and Sections 12.1 and 12.2 of TMS 402.

[BS] 1404.6.1 Tolerances. Anchored masonry veneers in accordance with Chapter 14 are not required to meet the tolerances in Article 3.3 F1 of TMS 602.

[BS] 1404.6.2 Seismic requirements. Anchored masonry veneer located in Seismic Design Category C, D, E or F shall conform to the requirements of Section 12.2.2.11 of TMS 402.

[BS] 1404.7 Stone veneer. Anchored stone veneer units not exceeding 10 inches (254 mm) in thickness shall be anchored directly to masonry, concrete or to stud construction by one of the following methods:

1. With concrete or masonry backing, anchor ties shall be not less than 0.1055-inch (2.68 mm) corrosion-resistant wire, or approved equal, formed beyond the base of the backing. The legs of the loops shall be not less than 6 inches (152 mm) in length bent at right angles and laid in the mortar joint, and spaced so that the eyes or loops are 12 inches (305 mm) maximum on center in both directions. There shall be provided not less than a 0.1055-inch (2.68 mm) corrosion-resistant wire tie, or approved equal, threaded through the exposed loops for every 2 square feet (0.2 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length bent so that the tie will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right-angle bend. One-inch (25 mm) minimum thickness of cement grout shall be placed between the backing and the stone veneer.
2. With wood stud backing, a 2-inch by 2-inch (51 by 51 mm) 0.0625-inch (1.59 mm) zinc-coated or non-metallic coated wire mesh with two layers of water-resistive barrier in accordance with Section 1403.2 shall be applied directly to wood studs spaced not more than 16 inches (406 mm) on center. On studs, the mesh shall be attached with 2-inch-long (51 mm) corrosion-resistant steel wire furring nails at 4 inches (102 mm) on center providing a minimum 1.125-inch (29 mm) penetration into each stud and with 8d annular threaded nails at 8 inches (203 mm) on center. into top and bottom plates or with equivalent wire ties. There shall be not less than a 0.1055-inch (2.68 mm) zinc-coated or nonmetallic coated wire, or approved equal, attached to the stud with not smaller than an 8d (0.120 in. diameter) annular threaded nail for every 2 square feet (0.2 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length, so bent that the tie will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right-angle bend. One-inch (25 mm) minimum thickness of cement grout shall be placed between the backing and the stone veneer.
3. With cold-formed steel stud backing, a 2-inch by 2-inch (51 by 51 mm) 0.0625-inch (1.59 mm) zinc-coated or nonmetallic coated wire mesh with two layers of water-resistive barrier in accordance with Section 1403.2 shall be applied directly to steel studs

spaced a not more than 16 inches (406 mm) on center. The mesh shall be attached with corrosion-resistant #8 self-drilling, tapping screws at 4 inches (102 mm) on center, and at 8 inches (203 mm) on center into top and bottom tracks or with equivalent wire ties. Screws shall extend through the steel connection not fewer than three exposed threads. There shall be not less than a 0.1055-inch (2.68 mm) corrosion-resistant wire, or approved equal, attached to the stud with not smaller than a #8 self-drilling, tapping screw extending through the steel framing not fewer than three exposed threads for every 2 square feet (0.2 m²) of stone veneer. This tie shall be a loop having legs not less than 15 inches (381 mm) in length, so bent that the tie will lie in the stone veneer mortar joint. The last 2 inches (51 mm) of each wire leg shall have a right-angle bend. Cement grout not less than 1 inch (25 mm) in thickness shall be placed between the backing and the stone veneer. The cold-formed steel framing members shall have a minimum bare steel thickness of 0.0428 inches (1.087 mm).

[BS] 1404.8 Slab-type veneer. Anchored slab-type veneer units not exceeding 2 inches (51 mm) in thickness shall be anchored directly to masonry, concrete or light-frame construction. For veneer units of marble, travertine, granite or other stone units of slab form, ties of corrosion-resistant dowels in drilled holes shall be located in the middle third of the edge of the units, spaced not more than 24 inches (610 mm) apart around the periphery of each unit with not less than four ties per veneer unit. Units shall not exceed 20 square feet (1.9 m²) in area. If the dowels are not tight fitting, the holes shall be drilled not more than 0.063 inch (1.6 mm) larger in diameter than the dowel, with the hole countersunk to a diameter and depth equal to twice the diameter of the dowel in order to provide a tight-fitting key of cement mortar at the dowel locations where the mortar in the joint has set. Veneer ties shall be corrosion-resistant metal capable of resisting, in tension or compression, a force equal to two times the weight of the attached veneer. If made of sheet metal, veneer ties shall be not smaller in area than 0.0336 by 1 inch (0.853 by 25 mm) or, if made of wire, not smaller in diameter than 0.1483-inch (3.76 mm) wire.

[BS] 1404.9 Terra cotta. Anchored terra cotta or ceramic units not less than 1⁵/₈ inches (41 mm) thick shall be anchored directly to masonry, concrete or stud construction. Tied terra cotta or ceramic veneer units shall be not less than 1⁵/₈ inches (41 mm) thick with projecting dovetail webs on the back surface spaced approximately 8 inches (203 mm) on center. The facing shall be tied to the backing wall with corrosion-resistant metal anchors of not less than No. 8

gage wire installed at the top of each piece in horizontal bed joints not less than 12 inches (305 mm) nor more than 18 inches (457 mm) on center; these anchors shall be secured to 1/4-inch (6.4 mm) corrosion-resistant pencil rods that pass through the vertical aligned loop anchors in the backing wall. The veneer ties shall have sufficient strength to support the full weight of the veneer in tension. The facing shall be set with not less than a 2-inch (51 mm) space from the backing wall and the space shall be filled solidly with Portland cement grout and pea gravel. Immediately prior to setting, the backing wall and the facing shall be drenched with clean water and shall be distinctly damp when the grout is poured.

[BS] 1404.10 Adhered masonry veneer. Adhered masonry veneer shall comply with the applicable requirements in this section and Sections 12.1 and 12.3 of TMS 402.

[BS] 1404.10.1 Exterior adhered masonry veneer. Exterior adhered masonry veneer shall be installed in accordance with Section 1404.10 and the manufacturer's instructions.

[BS] 1404.10.1.1 Water-resistive barriers. Water-resistive barriers shall be installed as required in Section 2510.6.

[BS] 1404.10.1.2 Flashing. Flashing shall comply with the applicable requirements of Sections 1404.4 and 1404.10.1.2.1.

[BS] 1404.10.1.2.1 Flashing at foundation. A corrosion-resistant screed or flashing of a minimum 0.019-inch (0.48 mm) or 26 gage galvanized or plastic with a minimum vertical attachment flange of 3¹/₂ inches (89 mm) shall be installed to extend not less than 1 inch (25 mm) below the foundation plate line on exterior stud walls in accordance with Section 1404.4. The water-resistive barrier shall lap over the exterior of the attachment flange of the screed or flashing.

[BS] 1404.10.1.3 Clearances. On exterior stud walls, adhered masonry veneer shall be installed not less than 4 inches (102 mm) above the earth, or not less than 2 inches (51 mm) above paved areas, or not less than 1¹/₂ inch (12.7 mm) above exterior walking surfaces that are supported by the same foundation that supports the exterior wall.

[BS] 1404.10.1.4 Adhered masonry veneer installed with lath and mortar. Exterior adhered masonry veneer installed with lath and mortar shall comply with the following.

[BS] 1404.10.1.4.1 Lathing. Lathing shall comply with the requirements of Section 2510.

1504.4.3 Metal roof shingles. Metal roof shingles applied to a solid or closely fitted deck shall be tested in accordance with ASTM D3161, FM 4474, UL 580 or UL 1897. Metal roof shingles tested in accordance with ASTM D3161 shall meet the classification requirements of Table 1504.2 for the appropriate maximum basic wind speed and the metal shingle packaging shall bear a label to indicate compliance with ASTM D3161 and the required classification in Table 1504.2.

1504.5 Ballasted low-slope single-ply roof systems. Ballasted low-slope (roof slope < 2:12) single-ply roof system coverings installed in accordance with Section 1507.12 shall be designed in accordance with ANSI/SPRI RP-4.

1504.6 Edge systems for low-slope roofs. Metal edge systems, except gutters and counterflashing, installed on built-up, modified bitumen and single-ply roof systems having a slope less than 2 units vertical in 12 units horizontal (2:12) shall be designed and installed for wind loads in accordance with Chapter 16 and tested for resistance in accordance with Test Methods RE-1, RE-2 and RE-3 of ANSI/SPRI ES-1, except basic design wind speed, V , shall be determined from Figures 1609.3(1) through 1609.3(12) as applicable.

1504.6.1 Gutter securement for low-slope roofs. Gutters that are used to secure the perimeter edge of the roof membrane on low-slope (less than 2:12 slope) built-up, modified bitumen, and single-ply roofs, shall be designed, constructed and installed to resist wind loads in accordance with Section 1609 and shall be tested in accordance with Test Methods G-1 and G-2 of SPRI GT-1.

1504.7 Physical properties. Roof coverings installed on low-slope roofs (roof slope < 2:12) in accordance with Section 1507 shall demonstrate physical integrity over the working life of the roof based on 2,000 hours of exposure to accelerated weathering tests conducted in accordance with ASTM G152, ASTM G154 or ASTM G155. Those roof coverings that are subject to cyclical flexural response due to wind loads shall not demonstrate any significant loss of tensile strength for unreinforced membranes or breaking strength for reinforced membranes when tested as herein required.

1504.8 Impact resistance. Roof coverings installed on low-slope roofs (roof slope < 2:12) in accordance with Section 1507 shall resist impact damage based on the results of tests conducted in accordance with ASTM D3746, ASTM D4272 or the "Resistance to Foot Traffic Test" in FM 4470.

1504.9 Wind resistance of aggregate-surfaced roofs. Parapets shall be provided for aggregate surfaced roofs and shall comply with Table 1504.9.

SECTION 1505 FIRE CLASSIFICATION

[BF] 1505.1 General. Roof assemblies shall be divided into the classes defined in this section. Class A, B and C roof assemblies and roof coverings required to be listed by this section shall be tested in accordance with ASTM E108 or UL 790. In addition, fire-retardant-treated wood roof coverings shall be tested in accordance with ASTM D2898, *fire-retardant-treated shingles and shakes shall comply with Section*

**TABLE 1504.9
MINIMUM REQUIRED PARAPET HEIGHT (INCHES) FOR AGGREGATE SURFACED ROOFS^{a, b, c}**

AGGREGATE SIZE	MEAN ROOF HEIGHT (ft)	WIND EXPOSURE AND BASIC DESIGN WIND SPEED (MPH)																	
		Exposure B									Exposure C ^d								
		≤ 95	100	105	110	115	120	130	140	150	≤ 95	100	105	110	115	120	130	140	150
ASTMD1863 (No. 7 or No. 67)	15	2	2	2	2	12	12	16	20	24	2	13	15	18	20	23	27	32	37
	20	2	2	2	2	12	14	18	22	26	12	15	17	19	22	24	29	34	39
	30	2	2	2	13	15	17	21	25	30	14	17	19	22	24	27	32	37	42
	50	12	12	14	16	18	21	25	30	35	17	19	22	25	28	30	36	41	47
	100	14	16	19	21	24	27	32	37	42	21	24	26	29	32	35	41	47	53
	150	17	19	22	25	27	30	36	41	46	23	26	29	32	35	38	44	50	56
ASTMD1863 (No. 6)	15	2	2	2	2	12	12	12	15	18	2	2	2	13	15	17	22	26	30
	20	2	2	2	2	12	12	13	17	21	2	2	12	15	17	19	23	28	32
	30	2	2	2	2	12	12	16	20	24	2	12	14	17	19	21	26	31	35
	50	12	12	12	12	14	16	20	24	28	12	15	17	19	22	24	29	34	39
	100	12	12	14	16	19	21	26	30	35	16	18	21	24	26	29	34	39	45
	150	12	14	17	19	22	24	29	34	39	18	21	23	26	29	32	37	43	48

For SI: 1 inch = 25.4 mm; 1 foot = 304.8 mm; 1 mile per hour = 0.447 m/s.

a. Interpolation shall be permitted for mean roof height and parapet height.

b. Basic design wind speed, V , and wind exposure shall be determined in accordance with Section 1609.

c. Where the minimum required parapet height is indicated to be 2 inches (51 mm), a gravel stop shall be permitted and shall extend not less than 2 inches (51 mm) from the roof surface and not less than the height of the aggregate.

d. For Exposure D, add 8 inches (203 mm) to the parapet height required for Exposure C and the parapet height shall not be less than 12 inches (305 mm).

1505.6. The minimum roof coverings installed on buildings shall comply with Table 1505.1 based on the type of construction of the building.

Exception: Skylights and sloped glazing that comply with Chapter 24 or Section 2610.

**TABLE 1505.1
MINIMUM ROOF COVERING
CLASSIFICATION FOR TYPES OF CONSTRUCTION^a**

IA	IB	IIA	IIB	IIIA	IIIB	IV	VA	VB
B	B	B	C	B	C	B	B	C

For SI: 1 foot = 304.8 mm, 1 square foot = 0.0929 m².

a. Unless otherwise required in accordance with Chapter 7A or due to the location of the building within a fire district in accordance with Appendix D.

1505.1.1 Roofing requirements within Fire Hazard Severity Zones or in the Wildland-Urban Interface (WUI). Roofing requirements for structures located within Fire Hazard Severity Zones or in the Wildland-Urban Interface (WUI) shall also comply with Section 705A.

1505.1.2 Roof coverings within all other areas other than Fire Hazard Severity Zones or a Wildland-Urban Interface (WUI). The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class C fire classification.

[BF] 1505.2 Class A roof assemblies. Class A roof assemblies are those that are effective against severe fire test exposure. Class A roof assemblies and roof coverings shall be listed and identified as Class A by an approved testing agency. Class A roof assemblies shall be permitted for use in buildings or structures of all types of construction.

Exceptions:

1. Class A roof assemblies include those with coverings of brick, masonry or an exposed concrete roof deck.
2. Class A roof assemblies also include ferrous or copper shingles or sheets, metal sheets and shingles, clay or concrete roof tile or slate installed on non-combustible decks or ferrous, copper or metal sheets installed without a roof deck on noncombustible framing.
3. Class A roof assemblies include minimum 16 ounce per square foot (0.0416 kg/m²) copper sheets installed over combustible decks.
4. Class A roof assemblies include slate installed over ASTM D226, Type II underlayment over combustible decks.

[BF] 1505.3 Class B roof assemblies. Class B roof assemblies are those that are effective against moderate fire-test exposure.

Class B roof assemblies and roof coverings shall be listed and identified as Class B by an approved testing agency.

[BF] 1505.4 Class C roof assemblies. Class C roof assemblies are those that are effective against light fire-test exposure. Class C roof assemblies and roof coverings shall be listed and identified as Class C by an approved testing agency.

[BF] 1505.5 Nonclassified roofing. Nonclassified roofing is approved material that is not listed as a Class A, B or C roof covering assembly or roof covering.

[BF] 1505.6 Fire-retardant-treated wood shingles and shakes. Fire-retardant-treated wood shakes and shingles are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 or ASTM E108 or UL 790 for use on Class A, B or C roofs.

Fire-retardant-treated wood shakes and shingles shall comply with ICC-ES EG107 and with the weathering requirements contained in Health and Safety Code Section 13132.7(j). Each bundle shall bear labels from an ICC accredited quality control agency identifying their roof-covering classification and indicating their compliance with ICC-ES EG107 and with the weathering requirements contained in Health and Safety Code Section 13132.7(j).

Health and Safety Code Section 13132.7(j). No wood roof covering materials shall be sold or applied in this state unless both of the following conditions are met:

- (1) The materials have been approved and listed by the State Fire Marshal as complying with the requirements of this section.
- (2) The materials have passed at least five years of the 10-year natural weathering test. The 10-year natural weathering test required by this subdivision shall be conducted in accordance with standard 15-2 of the 1994 edition of the Uniform Building Code at a testing facility recognized by the State Fire Marshal.

[BF] 1505.7 Special purpose roofs. Special purpose wood shingle or wood shake roofing shall conform to the grading and application requirements of Section 1507.8 or 1507.9. In addition, an underlayment of 5/8-inch (15.9 mm) Type X water-resistant gypsum backing board or gypsum sheathing shall be placed under minimum nominal 1/2-inch-thick (12.7 mm) wood structural panel solid sheathing or 1-inch (25 mm) nominal spaced sheathing.

[BF] 1505.8 Building-integrated photovoltaic (BIPV) products. BIPV products installed as the roof covering shall be tested, listed and labeled for fire classification in accordance with Section 1505.1.

[BF] 1505.9 Rooftop mounted photovoltaic (PV) panel systems. Rooftop mounted photovoltaic (PV) panel systems shall be tested, listed and identified with a fire classification in accordance with UL 2703. Listed systems shall be installed in accordance with the manufacturer's installation instructions and their listing. The fire classification shall comply with Table 1505.1 based on the type of construction of the building.

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HISTORY NOTE APPENDIX

2022 California Building Code California Code of Regulations, Title 24, Part 2 Volume 1

HISTORY:

For prior code history, see the History Note Appendix to the *California Building Code* 2019 Triennial Edition, effective January 1, 2020.

1. BSC 05/21, CEC 03/21, HCD 05/21, DSA/AC 01/21, DSA-SS/CC 05/21, SFM 04/21, OSHPD 04/21, 06/21—Adoption by reference of the 2021 *International Building Code* with necessary amendments to become the 2022 *California Building Code*, and repeal of the 2018 edition of the *International Building Code*; effective on January 1, 2023.
2. Erratum to correct editorial errors in Matrix Adoption Tables and miscellaneous corrections throughout chapters 1, 2, 4, 5, 7, 7A, 9, 10, 12, 14, 16, 17, 18A, 19, 19A, 21A, 27, and 35, effective January 1, 2023.
3. 2022 Intervening Cycle update (BSCC 01/22, DSA-AC 01/22, DSA-SS/CC 03/22, HCD-1 AC 01/22, HCD 03/22, OSHPD 02/22, SFM 02/22)—Adoption of amendments to the 2022 *California Building Code*. Effective on July 1, 2024.

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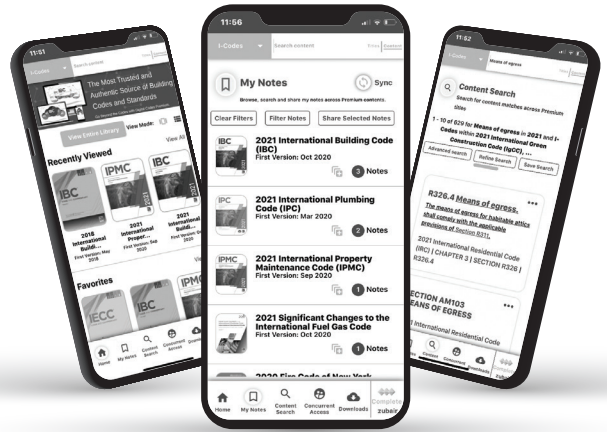


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