

**CHAPTER 3  
USE AND OCCUPANCY CLASSIFICATION**

**310.1 Residential Group R.** *(no change to portions not shown)*

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

Group R-4 occupancies shall meet the requirements for construction as defined for Group R-3, except as otherwise provided for in this code or shall comply with the *International Residential Code* provided the building is protected by an *automatic sprinkler system* installed in accordance with Section ~~903.2.7~~ 903.2.8.

**CHAPTER 4  
SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY**

**[F] 412.6 Aircraft paint hangars.** Aircraft painting operations where flammable liquids are used in excess of the maximum allowable quantities per *control area* listed in Table ~~307.7(1)~~ 307.1(1) shall be conducted in an aircraft paint hangar that complies with the provisions of Sections 412.6.1 through 412.6.6.

**Table 415.3.2  
DETACHED BUILDING REQUIRED**

*(No change to table)*

*(No change to note a)*

b. "Maximum Allowable Quantity" means the maximum allowable quantity per control area set forth in Table ~~307.7(1)~~ 307.1(1).

*(No change to note c)*

**CHAPTER 7  
FIRE AND SMOKE PROTECTION FEATURES**

**FIGURE 721.5.1(4)  
FIRE RESISTANCE OF STRUCTURAL STEEL COLUMNS PROTECTED WITH VARIOUS THICKNESSES OF TYPE X  
GYPSUM WALLBOARD**

a. The  $W/D$  ratios for typical wide flange columns are listed in Table 721.5.1(1). For other column shapes, the  $W/D$  ratios shall be determined in accordance with Section ~~720.5.1.1~~ 721.5.1.1.  
(No change to figure)

**FIGURE 721.5.1(6)  
CONCRETE PROTECTED STRUCTURAL STEEL COLUMNS<sup>a,b</sup>**

a. When the inside perimeter of the concrete protection is not square,  $L$  shall be taken as the average of  $L_1$  and  $L_2$ . When the thickness of concrete cover is not constant,  $h$  shall be taken as the average of  $h_1$  and  $h_2$ .  
b. Joints shall be protected with a minimum 1 inch thickness of ceramic fiber blanket but in no case less than one-half the thickness of the column cover (see Section ~~720.2.1.3~~ 721.2.1.3).  
(No change to figure)

**CHAPTER 9  
FIRE PROTECTION SYSTEMS**

**[F] 907.2.9 Group R-2.** Fire alarm systems and smoke alarms shall be installed in Group R-2 occupancies as required in Sections 907.2.9.1 and ~~907.9.2~~ 907.2.9.2.

**CHAPTER 10  
MEANS OF EGRESS**

**1008.1.1 Size of doors.** *(no change to main text)*

**Exceptions:**

*(no change to exceptions 1 through 7).*

8. Door openings required to be accessible within Type B units shall have a minimum clear width of 31.75 inches (806 mm).

**1014.2.6 Travel distance.** The travel distance between any point in a Group I-2 occupancy patient sleeping room and an exit access door in that room shall not ~~e~~ exceed 50 feet (15 240 mm).

**1027.3 Exit discharge location.** Exterior balconies, *stairways* and *ramps* shall be located at least 10 feet (3048 mm) from adjacent *lot lines* and from other buildings on the same lot unless the adjacent building *exterior walls* and openings are protected in accordance with Section ~~704~~ 705 based on *fire separation distance*.

**CHAPTER 11  
ACCESSIBILITY**

**1109.12.1 Operable window.** Where operable windows are provided in rooms that are required to be *accessible* in accordance with Sections 1107.5.1.1, 1107.5.2.1, 1107.5.3.1, 1107.5.4, 1107.6.1.1, 1107.6.2.1.1, 1107.6.2.2.1 and ~~1107.7.6.4.1~~ 1107.6.4.1, at least one window in each room shall be *accessible* and each required operable window shall be *accessible*.

**Exception:** *Accessible* windows are not required in bathrooms and kitchens.

CHAPTER 16  
STRUCTURAL DESIGN

TABLE 1604.5  
OCCUPANCY CATEGORY OF BUILDINGS AND OTHER STRUCTURES

OCCUPANCY CATEGORY	NATURE OF OCCUPANCY
III	<ul style="list-style-type: none"> <li>Buildings and other structures containing adult education facilities, such as college and university, with an occupant load greater than 500.</li> </ul>

(Portions on table not shown remain unchanged. Added comma in the bulleted item above.)

**1605.1 General.** Buildings and other structures and portions thereof shall be designed to resist:

1. The load combinations specified in Section 1605.2, 1605.3.1 or 1605.3.2,
2. The load combinations specified in Chapters 18 through 23, and
3. The load combinations with overstrength factor specified in Section 12.4.3.2 of ASCE 7 where required by Section 12.2.5.2, 12.3.3.3 or 12.10.2.1 of ASCE 7. With the simplified procedure of ASCE 7 Section 12.14, the load combinations with overstrength factor of Section 12.14.3.2 ~~or~~ of ASCE 7 shall be used.

Applicable loads shall be considered, including both earthquake and wind, in accordance with the specified load combinations.

Each load combination shall also be investigated with one or more of the variable loads set to zero.

Where the load combinations with overstrength factor in Section 12.4.3.2 of ASCE 7 apply, they shall be used as follows:

1. The basic combinations for strength design with overstrength factor in lieu of Equations 16-5 and 16-7 in Section 1605.2.1.
2. The basic combinations for *allowable stress design* with overstrength factor in lieu of Equations 16-12, 16-13 and 16-15 in Section 1605.3.1.
3. The basic combinations for *allowable stress design* with overstrength factor in lieu of Equations 16-20 and 16-21 in Section 1605.3.2.

**1610.1 General.** Foundation walls and retaining walls shall be designed to resist lateral soil loads. Soil loads specified in Table 1610.1 shall be used as the minimum design lateral soil loads unless determined otherwise by a geotechnical investigation in accordance with Section 1803. Foundation walls and other walls in which horizontal movement is restricted at the top shall be designed for at-rest pressure. Retaining walls free to move and rotate at the top shall be permitted to be designed for active pressure. Design lateral pressure from surcharge loads shall be added to the lateral earth pressure load. Design lateral pressure shall be increased if soils at the site are expansive. Foundation walls shall be designed to support the weight of the full hydrostatic pressure of undrained backfill unless a drainage system is installed in accordance with Sections 1805.4.2 and 1805.4.3.

**Exception:** Foundation walls extending not more than 8 feet (2438 mm) below grade and laterally supported by at the top by flexible diaphragms shall be permitted to be designed for active pressure.

**1614.4.2.4 1614.4.3.4 Vertical ties.** Vertical ties shall consist of continuous or spliced reinforcing, continuous or spliced members, wall sheathing or other engineered systems. Vertical tension ties shall be provided in bearing walls and shall be continuous over the height of the building. The minimum nominal tensile strength for vertical ties within a bearing wall shall be equal to the weight of the wall within that *story* plus the weight of the the diaphragm tributary to the wall in the *story* below. No fewer than two ties shall be provided for each wall. The strength of each tie need not exceed 3,000 pounds per foot (450 kN/m) of wall tributary to the tie for walls of masonry construction or 750 pounds per foot (140 kN/m) of wall tributary to the tie for walls of cold-formed steel light-frame construction.

**CHAPTER 19  
CONCRETE**

**TABLE 1904.3  
MINIMUM SPECIFIED COMPRESSIVE STRENGTH ( f'c)**

*(No change in table)*

a. Concrete in these locations that can be subjected to freezing and thawing during construction shall be of air-entrained concrete in accordance with Section ~~1904.2.4~~ 1904.4.1.

*(No change to notes b through d)*

**CHAPTER 22**  
**STEEL**

**2209.2.3 Steel roof deck.** Steel roof decks shall be permitted to be designed and constructed in accordance with ~~ANSI/SI-RD 1.0~~ ANSI/SDI-RD 1.0.

CHAPTER 23  
WOOD

TABLE 2306.2.1(1)  
ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL DIAPHRAGMS WITH FRAMING OF DOUGLAS FIR-LARCH, OR SOUTHERN PINE<sup>a</sup> FOR WIND OR SEISMIC LOADING<sup>h</sup>

PANEL GRADE	COMMON NAIL SIZE OR STAPLE LENGTH AND GAGE	MINIMUM FASTENER PENETRATION IN FRAMING (inches)	MINIMAL NOMINAL PANEL THICKNESS (inch)
Sheathing, single floor and other grades covered in DOC PS 1 and PS 2	6d <sup>e</sup> (2" x 0.113")	1 1/4	3/8
	<u>8d (2 1/2" x 0.131")</u>	<u>1 3/8</u>	
	1 1/2 16 Gage	1	

(Portions of table not shown are unchanged)

**CHAPTER 25  
GYPSUM BOARD AND PLASTER**

**2503.1 Inspection.** Lath and gypsum board shall be inspected in accordance with Section ~~409.3.5~~ 110.3.5.

**CHAPTER 34  
EXISTING STRUCTURES**

**3405.3.1 Lateral force-resisting elements.** Regardless of the level of damage to vertical elements of the lateral force-resisting system, if substantial structural damage to gravity load-carrying components was caused primarily by wind or earthquake effects, then the building shall be evaluated in accordance with Section 3404.2.1 and, if noncompliant, rehabilitated in accordance with Section ~~3404.2.3~~ 3405.2.3.

**3412.6.9.1 Categories.** The categories for fire alarm systems are:

1. Category a—None.
2. Category b—Fire alarm system with manual fire alarm boxes in accordance with Section 907.3 and alarm notification appliances in accordance with Section ~~907.9~~ 907.5.
3. Category c—Fire alarm system in accordance with Section 907.
4. Category d—Category c plus a required emergency voice/alarm communications system and a fire command center that conforms to Section 403.8 and contains the emergency voice/alarm communications system controls, fire department communication system controls and any other controls specified in Section 911 where those systems are provided.

**TABLE 3412.6.15  
MEANS OF EGRESS EMERGENCY LIGHTING VALUES**

NUMBER OF EXITS REQUIRED BY SECTION <del>1010</del> <u>1015</u>	CATEGORIES		
	a	b	c

*(Portions of table not shown do not change)*

**3412.6.16 Mixed occupancies.** Where a building has two or more occupancies that are not in the same occupancy classification, the separation between the mixed occupancies shall be evaluated in accordance with this section. Where there is no separation between the mixed occupancies or the separation between mixed occupancies does not qualify for any of the categories indicated in Section 3412.6.16.1, the building shall be evaluated as indicated in Section 3412.6 and the value for mixed occupancies shall be zero. Under the categories and occupancies in Table ~~3412.6.16~~ 3410.6.16, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter ~~3412.6.16~~, Mixed Occupancies, for fire safety and general safety. For buildings without mixed occupancies, the value shall be zero.

**APPENDIX G  
FLOOD-RESISTANT CONSTRUCTION**

**G401.3 Sewer facilities.** All new or replaced sanitary sewer facilities, private sewage treatment plants (including all pumping stations and collector systems) and on-site waste disposal systems shall be designed in accordance with Chapter 7 8, ASCE 24, to minimize or eliminate infiltration of floodwaters into the facilities and discharge from the facilities into floodwaters, or impairment of the facilities and systems.

**G401.4 Water facilities.** All new replacement water facilities shall be designed in accordance with the provisions of Chapter 7 8, ASCE 24, to minimize or eliminate infiltration of floodwaters into the systems.