(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Posted: 2-27-13)

TABLE OF CONTENTS

APPENDIX M TSUMANI TSUNAMI-GENERATED FLOOD HAZARD

(Portions of text and tables not shown are unaffected by the errata)

ELEVENTH PRINTING (Updated November 28, 2016)

CHAPTER 2
DEFINITIONS

SECTION 202 DEFINITIONS

START OF CONSTRUCTION. The date of <u>permit</u> issuance for new construction and *substantial improvements* to *existing structures*, provided the actual start of construction, *repair*, reconstruction, rehabilitation, *addition*, placement or other improvement is within 180 days after the date of issuance. The actual start of construction means the first placement of permanent construction of a building (including a manufactured home) on a site, such as the pouring of a slab or footings, installation of pilings or construction of columns.

Permanent construction does not include land preparation (such as clearing, excavation, grading or filling), the installation of streets or walkways, excavation for a *basement*, footings, piers or foundations, the erection of temporary forms or the installation of accessory buildings such as garages or sheds not occupied as *dwelling units* or not part of the main building. For a *substantial improvement*, the actual "start of construction" means the first *alteration* of any wall, ceiling, floor or other structural part of a building, whether or not that *alteration* affects the external dimensions of the building.

(Portions of text and tables not shown are unaffected by the errata)

TENTH PRINTING (Updated July 18, 2015)

CHAPTER 2 DEFINITIONS

SECTION 202 DEFINITIONS

GRADE FLOOR OPENING. A window or other opening located such that the sill height of the opening is not more than 44 inches (1118 mm) above or below the finished ground level adjacent to the opening.

(Portions of text and tables not shown are unaffected by the errata)

SEVENTH PRINTING (Updated January 23, 2015)

CHAPTER 2 DEFINITIONS

COMPRESSIVE STRENGTH OF MASONRY. Maximum compressive force resisted per unit of net cross-sectional area of masonry, determined by the testing of masonry prisms or a function of individual masonry units, mortar and grout.

[BS] PORCELAIN TILE. Tile that conforms to the requirements of ANSI 137.1.3 A137.1 Section 3.0 for ceramic tile having an absorption of 0.5 percent or less in accordance with ANSI 137.4.1 A137.1 Section 4.1 Class Table and ANSI 137.1.6.1 Allowable Properties by Tile Type—Section 6.1 Table 10.

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated June 20, 2013)

CHAPTER 2 DEFINITIONS

VAPOR-PERMEABLE MEMBRANE. The property of having a moisture vapor permeance rating of <u>5</u> <u>10</u> perms (<u>2.9</u> <u>5.7</u> x 10-10 kg/Pa●s●m2) or greater, when tested in accordance with the desiccant method using Procedure A of ASTM E 96. A vapor-permeable material permits the passage of moisture vapor.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 2 DEFINITIONS

FIRE PROTECTION RATING. The period of time that an opening protective will maintain the ability to confine a fire as determined by tests prescribed in Section 715. Ratings are stated in hours or minutes.

HURRICANE-PRONE REGIONS. Areas vulnerable to hurricanes defined as:

- 1. The U. S. Atlantic Ocean and Gulf of Mexico coasts where the ultimate design wind speed, V_{ult}, for Risk Category II buildings is greater than 115 mph (51.4 m/s) and
- 2. Hawaii, Puerto Rico, Guam, Virgin Islands and American Samoa.

SPECIAL INSPECTION. Inspection of construction requiring the expertise of an *approved* special inspector in order to ensure compliance with this code and the *approved construction* documents.

Continuous special inspection. Special inspection by the *special inspector* who is <u>continuously</u> present when and where the work to be inspected is being performed. **Periodic special inspection.** Special inspection by the *special inspector* who is intermittently present where the work to be inspected has been or is being performed.

VEHICLE BARRIER. A component or a system of components, near open sides <u>or walls</u> of a garage <u>floors</u> or <u>ramp</u> <u>ramps</u> <u>or building walls</u> that <u>act</u> <u>acts</u> as <u>a restraints</u> <u>restraint</u> for vehicles.

WIND-BORNE DEBRIS REGION. Areas within hurricane-prone regions located:

- 1. [no change]
- In areas where the ultimate design wind speed is 140 mph or greater; or Hawaii.

[no change to remainder of definition]

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 3 USE AND OCCUPANCY CLASSIFICATION

[F] TABLE 307.1(1) MAXIMUM ALLOWANCE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIALS POSING A PHYSICAL HAZARD.

Pyrophoric Material, in the GAS column under USE-CLOSED SYSTEMS, change to read: 10 ^e

[F] TABLE 307.1(2) MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA OF HAZARDOUS MATERIAL POSING A HEALTH HAZARD ^{a, b, c, i}

MATERIAL	5	STORAGE d		USE-CL	OSED SYS	TEMS ^d	USE-OPEN SYSTEMS ^d		
	Solid	Liquid	Gas	Solid	Liquid	Gas	Solid	Liquid	
	pounds	gallons	(cubic	pounds	gallons	(cubic	pounds	gallons	
	(cubic	(pounds)	feet at	е	(pounds)	feet at	е	(pounds)	
	feet) ^{e, f}	e, f	NTP) ^e		е	NTP) ^e		е	

(Add footnotes e and f to 2nd column heading as indicated. Remainder of table remains unchanged.)

[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.
- Articles, including articles packaged for shipment, that are not regulated as a Division 1.4 explosive under Bureau of Alcohol, Tobacco, Firearms and <u>Explosives Exoplosives</u> regulations, or unpackaged articles used in process operations that do not propagate a detonation or deflagration between articles shall be allowed in H-3 occupancies.

(Portions of text and tables not shown are unaffected by the errata)

ELEVENTH PRINTING (Updated January 10, 2017)

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

406.4 Public parking garages. Parking garages other than private parking garages, shall be classified as public parking garages and shall comply with the provisions of Sections <u>406.4.2</u> <u>406.4.1</u> 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.

(Portions of text and tables not shown are unaffected by the errata)

SEVENTH PRINTING (Updated July 22, 2014)

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY]

[F] TABLE 414.2.5(2) MAXIMUM ALLOWABLE QUANTITY OF FLAMMABLE AND COMBUSTIBLE LIQUIDS IN WHOLESALE AND RETAIL SALES OCCUPANCIES PER CONTROL AREA^a

	MAXIMUM ALLOWABLE QUANTITY PER CONTROL AREA (gallons)					
		Sprinklered in accordance				
	Sprinklered in accordance	with Table <mark>34<u>57</u>04.3.6.3(4)</mark>				
TYPE OF LIQUID	with note b densities and	through <mark>34<u>57</u>04.3.6.3(8)</mark>	Nonsprinklered			
	arrangements	and Table 34 <u>57</u> 04.3.7.5.1	Nonsprinklered			
	arrangements	of the International Fire				
		Code				

(Note: Portions of table and footnotes not shown remain unchanged)

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

410.3 Stages. Stage construction shall comply with Sections 410.3.1 through 410.3.8 410.3.7.

[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 1605.4 1607.6.

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated April 1, 2013)

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

408.6 Smoke barrier. Occupancies in Group I-3 shall have *smoke barriers* complying with Sections 408.8 408.7 and 709 to divide every *story* occupied by residents for sleeping, or any other *story* having an *occupant load* of 50 or more persons, into no fewer than two *smoke compartments*.

Exception: Spaces having a direct *exit* to one of the following, provided that the locking arrangement of the doors involved complies with the requirements for doors at the *smoke barrier* for the use condition involved:

- 1. A public way.
- 2. A building separated from the resident housing area by a 2-hour fire-resistance-rated assembly or 50 feet (15 240 mm) of open space.
- 3. A secured yard or court having a holding space 50 feet (15 240 mm) from the housing area that provides 6 square feet (0.56 m2) or more of refuge area per occupant, including residents, staff and visitors.

[F] 414.7.3 Supervision and monitoring. Emergency alarm, detection and automatic fire-extinguishing systems required by Section 414.7.1 and 414.7.2 shall be electrically supervised and monitored by an approved central, proprietary or remote supervising station service or, when approved, shall initiate an audible and visual signal at a constantly attended on-site location.

[F] 415.5.1.3 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 415.3.2 415.5.2).

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 4 SPECIAL DETAILED REQUIREMENTS BASED ON USE AND OCCUPANCY

404.6 Enclosure of atriums. *Atrium* spaces shall be separated from adjacent spaces by a 1-hour *fire barrier* constructed in accordance with Section 707 or a *horizontal assembly* constructed in accordance with Section 711, or both.

Exceptions:

- 1. A fire barrier is not required where a glass wall forming a smoke partition is provided. The glass wall shall comply with all of the following:
 - 1. 1. Automatic sprinklers are provided along both sides of the separation wall and doors, or on the room side only if there is not a walkway on the atrium side. The sprinklers shall be located between 4 inches and 12 inches (102 mm and 305 mm) away from the glass and at intervals along the glass not greater than 6 feet (1829 mm). The sprinkler system shall be designed so that the entire surface of the glass is wet upon activation of the sprinkler system without obstruction;
 - 1.1.1.2. The glass wall shall be installed in a gasketed frame in a manner that the framing system deflects without breaking (loading) the glass before the sprinkler system operates; and
 - 1.2.1.3. Where glass doors are provided in the glass wall, they shall be either *self-closing* or automatic-closing.
- 2. A *fire barrier* is not required where a glass-block wall assembly complying with Section 2110 and having a 3/4-hour *fire protection rating* is provided.
- 3. A *fire barrier* is not required between the *atrium* and the adjoining spaces of any three floors of the *atrium* provided such spaces are accounted for in the design of the smoke control system.

[F]Table 415.5.2 DETACHED BUILDINGS REQUIRED

(No changes to table and notes not shown.)

- a. For materials that are detonable, the distance to other buildings or lot lines shall be in accordance with Chapter 33 56 of the *International Fire Code* based on trinitrotoluene (TNT) equivalence of the material. For materials classified as explosives, see Chapter 56 of the *International Fire Code*.
- **[F] 415.7.3 Separation of incompatible materials.** Hazardous materials other than those listed in Table 415.3.2 415.5.2 shall be allowed in manufacturing, processing, dispensing, use or storage areas when separated from incompatible materials in accordance with the provisions of the *International Fire Code*.
- **419.3.1 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 1004.1.1 1004.1.2.

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

CHAPTER 5 GENERAL BUILDING AND HEIGHTS AND AREAS

509.4.2 Protection. Where Table 509 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 716.5.9.3. 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.

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated June 6, 2013)

CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

510.7.1 Fire separation. Fire barriers constructed in accordance with Section 707 or horizontal assemblies constructed in accordance with Section 711 between the parking occupancy and the upper occupancy shall correspond to the required fire-resistance rating prescribed in Table 508.4 for the uses involved. The type of construction shall apply to each occupancy individually, except that structural members, including main bracing within the open parking structure, which is necessary to support the upper occupancy, shall be protected with the more restrictive fire-resistance-rated assemblies of the groups involved as shown in Table 601. Means of egress for the upper occupancy shall conform to Chapter 10 and shall be separated from the parking occupancy by fire barriers having not less than a 2-hour fire-resistance rating as required by Section 706 707 with self-closing doors complying with Section 716 or horizontal assemblies having not less than a 2-hour fire-resistance rating as required by Section 711, with self-closing doors complying with Section 716. Means of egress from the open parking garage shall comply with Section 406.5.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 5 GENERAL BUILDING HEIGHTS AND AREAS

TABLE 508.4 REQUIRED SEPARATION OF OCCUPANCIES (HOURS)

OCCUPAN	Α,	E		^a , I- I-4	Į.	-2	ı	Rª	F-2	2, S- ² , U	1,	F- M, 5-1	Н	-1	Н	-2		, H- \$	Н	-5
CY	S	NS	s	N S	S	N S	s	N S	s	NS	s	N S	s	NS	S	NS	S	N S	S	NS
A, E	N	N	1	2	2	N P	1	2	N	1	1	2	NP	NP	3	4	2	3	2	NP
I-1ª, I-3, I-4			N	N	2	N P	1	N P	1	2	1	2	NP	NP	3	NP	2	N P	2	NP
I-2			_	_	Ν	N	2	N P	2	NP	2	N P	NP	NP	3	NP	2	N P	2	NP
Rª				_	_		N	N	1 c	2 ^c	1	2	NP	NP	3	NP	2	N P	2	NP
F-2, S-2 ^b , U			_	_	_	_		_	N	N	1	2	NP	NP	3	4	2	3	2	NP
B, F-1, M, S-1	_	_	_			_		_	_	_	Ζ	N	NP	NP	2	3	1	2	1	NP
H-1		_	_	_		_		_	_	_		_	N	NP	NP	NP	N P	N P	NP	NP
H-2			_		_		_	_		_					Z	NP	1	N P	1	NP
H-3, H-4				_	_	_		_				_					1 ^d	N P	1	NP
H-5	_	_		_	_	_	_	_		_	_	_	_	_	_			_	NP	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 to not less than 1 hour.
- c. See Section 406.3.4.
- d. Separation is not required between occupancies of the same classification.

510.8 Group B or M with Group S-2 open parking garage. Group B or M occupancies located not higher than the first *story above grade plane* shall be considered as a separate and distinct building for the purpose of determining the type of construction where all of the following conditions are met:

- 1. The buildings are separated with a *horizontal assembly* having a *fire-resistance rating* of not less than 2 hours.
- 2. The occupancies in the building below the horizontal assembly are limited to Groups B and M.
- 3. The occupancy above the *horizontal assembly* is limited to a Group S-2 *open parking garage*.

(Portions of text and tables not shown are unaffected by the errata)

- 4. The building below the *horizontal assembly* is of Type I or II construction but not less than the type of construction required for the Group S-2 *open parking garage* above.
- 5. The height and area of the building below the *horizontal assembly* does not exceed the limits set forth in Section 503.
- 6. The height and area of the Group S-2 *open parking garage* does not exceed the limits set forth in Section 405.5 406.5. The height, in both feet and *stories*, of the Group S-2 *open parking garage* shall be measured from *grade plane* and shall include the building below the *horizontal assembly*.
- 7. Exits serving the Group S-2 open parking garage discharge directly to a street or public way and are separated from the building below the horizontal assembly by 2-hour fire barriers constructed in accordance with Section 707 or 2-hour horizontal assemblies constructed in accordance with Section 711, or both.

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

CHAPTER 6 TYPES OF CONSTRUCTION

602.4 Type IV. Type IV construction (Heavy Timber, HT) is that type of construction in which the exterior walls are of noncombustible materials and the interior building elements are of solid or laminated wood without concealed spaces. The details of Type IV construction shall comply with the provisions of this section and Section 2304.10. Fire-retardant-treated wood framing complying with Section 2303.2 shall be permitted within exterior wall assemblies with a 2-hour rating or less. Minimum solid sawn nominal dimensions are required for structures built using Type IV construction (HT). For glued laminated members the equivalent net finished width and depths corresponding to the minimum nominal width and depths of solid sawn lumber are required as specified in Table 602.4.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 6 TYPES OF CONSTRUCTION

602.4.1 Columns. Wood columns shall be sawn or glued laminated and shall not be less than 8 inches nominal, in any dimension where supporting floor loads and not less than 6 inches nominal in width and not less than 8 inches nominal in depth where supporting roof and ceiling loads only. Columns shall be continuous or superimposed and connected in an approved manner. Protection in accordance with Section 704.2 is not required.

Note: This is a format change. Items 3 through 25 are items to this section, not additional exceptions to Item 2.

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

- 1. Fire-retardant-treated wood shall be permitted in:
 - 1.1. Nonbearing partitions where the required *fireresistance rating* is 2 hours or less.
 - 1.2. Nonbearing exterior walls where fire-resistance rated construction is not required.
 - 1.3. Roof construction, including girders, trusses, framing and decking.

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

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

Exceptions:

- 1. Insulation placed between two layers of noncombustible materials without an intervening airspace shall be allowed to have a *flame spread index* of not more than 100.
- 2. Insulation installed between a finished floor and solid decking without intervening airspace shall be allowed to have a *flame spread index* of not more than 200.
- 3. Foam plastics in accordance with Chapter 26.
- 4. through 17. (no change)
- 18. Nailing or furring strips as permitted by Section 803.4 803.11.
- 19. through 25. (no change)

(Portions of text and tables not shown are unaffected by the errata)

ELEVENTH PRINTING (Updated April 6, 2017)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

Note: Italicize term

714.4.1.2 Through-penetration firestop system. Through penetrations shall be protected by an approved through-penetration firestop system installed and tested in accordance with ASTM E 814 or UL 1479, with a minimum positive pressure differential of 0.01 inch of water (2.49 Pa). The system shall have an Frating/Trating of not less than 1 hour but not less than the required rating of the floor penetrated.

Exceptions

- 1. Floor penetrations contained and located within the cavity of a wall above the floor or below the floor do not require a T rating.
- 2. Floor penetrations by floor drains, tubdrains or shower drains contained and located within the concealed space of a *horizontal assembly* do not require a T rating.

716.6.7.1 Where 3/4-hour fire protection window assemblies permitted. Fire-protection-rated glazing requiring 45-minute opening protection in accordance with Table 716.6 shall be limited to *fire partitions* designed in accordance with Section 708 and *fire barriers* utilized in the applications set forth in Sections 707.3.6 707.3.7 and 707.3.8 707.3.9 where the *fire-resistance rating* does not exceed 1 hour. Fire-resistance-rated glazing assemblies tested in accordance with ASTM E 119 or UL 263 shall not be subject to the limitations of this section.

Note for 722.5.1.2: Move 0.75 from inside to outside the brackets.

722.5.1.2 Gypsum wallboard protection. The *fire resistance* of structural steel columns with weight-to-heated- perimeter ratios (*W/D*) less than or equal to 3.65 and that are protected with Type X gypsum wallboard shall be permitted to be determined from the following expression:

R = 130 $[h(W'/D)^{0.75}/2]^{0.75}$ (Equation 7-12)

where:

R = Fire resistance (minutes).

h =Total thickness of gypsum wallboard (inches).

D =Heated perimeter of the structural steel column (inches).

W' = Total weight of the structural steel column and gypsum wallboard protection (pounds per linear foot).

W' = W + 50hD/144.

(Portions of text and tables not shown are unaffected by the errata)

TENTH PRINTING (Updated Oct. 20, 2015)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

716.6.7.1 Where 3/4-hour fire protection window assemblies permitted. Fire-protection-rated glazing requiring 45-minute opening protection in accordance with Table 716.6 shall be limited to *fire partitions* designed in accordance with Section 708 and *fire barriers* utilized in the applications set forth in Sections 707.3.6 707.3.7 and 707.3.8 707.3.9 where the *fire-resistance rating* does not exceed 1 hour. Fire-resistance-rated glazing assemblies tested in accordance with ASTM E 119 or UL 263 shall not be subject to the limitations of this section.

Note for 722.5.1.2: Move 0.75 from inside to outside the brackets.

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R = 130 $[h(W'/D)^{0.75}/2]^{0.75}$ (Equation 7-12)

where:

R = Fire resistance (minutes).

h =Total thickness of gypsum wallboard (inches).

D =Heated perimeter of the structural steel column (inches).

W' = Total weight of the structural steel column and gypsum wallboard protection (pounds per linear foot).

W' = W + 50hD/144.

(Portions of text and tables not shown are unaffected by the errata)

EIGHTH PRINTING (Updated April 13, 2015)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

706.1.1 Party walls. Any wall located on a *lot line* between adjacent buildings, which is used or adapted for joint service between the two buildings, shall be constructed as a *fire wall* in accordance with Section 706. Party walls shall be constructed without openings and shall create separate buildings.

Exception: Openings in a party wall separating an *anchor building* and a mall shall be in accordance with Section 402.7.3.1 402.4.2.2.1.

(Portions of text and tables not shown are unaffected by the errata)

FOURTH PRINTING (Updated September 13, 2013)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

714.4.1 Fire-resistance-rated assemblies. Penetrations of the fire-resistance-rated floor, floor/ceiling assembly or the ceiling membrane of a roof/ceiling assembly shall comply with Sections 714.4.1.1 through 714.4.1.4 714.4.1.3. Penetrations in horizontal *smoke barriers* shall also comply with 714.5.

(No change to figure or text)
FIGURE 721.5.1(5) 722.5.1(5)
WIDE FLANGE STRUCTURE STEEL COLUMNS WITH
SPRAYED FIRE-RESISTANT MATERIALS

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated June 20, 2013)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

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 1022.3 1022.4 and 1023.5, 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, *exit access* ramps, interior exit stairways and interior *exit* 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 E 119 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 enclosures for *exit access* stairways, *exit access* ramps, interior exit stairways and interior exit ramps from an exit passageway in accordance with Section 1022.2.1 1022.3.1.

709.4 Continuity. Smoke barriers shall form an effective membrane continuous from outside wall to outside wall and 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.

Exceptions:

- 1. Smoke-barrier walls are not required in interstitial spaces where such spaces are designed and constructed with ceilings that provide resistance to the passage of fire and smoke equivalent to that provided by the smoke-barrier walls.
- 2. *Smoke barriers* used for elevator lobbies in accordance with Section 405.4.3, 3007.4.2 3007.7.2 or 3008.11.2 3008.7.2 are not required to extend from outside wall to outside wall.
- 3. Smoke barriers used for areas of refuge in accordance with Section 1007.6.2 are not required to extend from outside wall to outside wall.

717.5.2 Fire barriers. Ducts and air transfer openings of *fire barriers* shall be protected with *approved fire dampers* installed in accordance with their listing. Ducts and air transfer openings shall not penetrate enclosures for stairways, ramps and exit passageways except as permitted by Sections <u>1022.4</u> <u>1022.5</u> and 1023.6, respectively.

Exception: Fire dampers are not required at penetrations of fire barriers where any of the following apply:

(Portions of text and tables not shown are unaffected by the errata)

- 1. Penetrations are tested in accordance with ASTM E 119 or UL 263 as part of the fire-resistance-rated assembly.
- 2. Ducts are used as part of an *approved* smoke control system in accordance with Section 909 and where the use of a *fire damper* would interfere with the operation of a smoke control system.
- 3. Such walls are penetrated by ducted HVAC systems, have a required *fire-resistance rating* of 1 hour or less, are in areas of other than Group H 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.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated February 7, 2013)

CHAPTER 7 FIRE AND SMOKE PROTECTION FEATURES

716.2 Fire-resistance-rated glazing. Fire-resistance-rated glazing tested as part of a fire-resistance-rated wall assembly in accordance with ASTM E 119 or UL 263 and labeled in accordance with Section 703.5 703.6 shall be permitted in *fire doors* and *fire window assemblies* where tested and installed in accordance with their listings and shall not otherwise be required to comply with this section.

Table 716.5 OPENING FIRE PROTECTION ASSEMBLIES, RATINGS AND MARKINGS

(No change to table or footnotes not shown)

b. For testing requirements, see Section 716.6.3 716.5.3.

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated June 20, 2013)

CHAPTER 8 INTERIOR FINISHES

TABLE 803.9 INTERIOR WALL AND CEILING FINISH REQUIREMENTS BY OCCUPANCY^k

(No change to table and footnotes not shown)

b.In other than Group I-2 I-3 occupanicies in buildings less than three stories above grade plane of other than Group I-3, Class B interior finish for nonsprinklered buildings and Class C interior finish for sprinklered buildings shall be permitted in interior exit stairways and ramps.

3.

(Portions of text and tables not shown are unaffected by the errata)

SEVENTH PRINTING (Updated August 12, 2014)

CHAPTER 9 FIRE PROTECTION SYSTEMS

[F]TABLE 903.2.11.6

ADDITIONAL REQUIRED SUPPRESSION SYSTEMS

SECTION	SUBJECT
402.10 <u>402.5</u>	Covered and open mall buildings

(Portions of table not show remain unchanged)

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

CHAPTER 9 FIRE AND SMOKE PROTECTION FEATURES

[F] 903.2.10 Group S-2 enclosed parking garages. An *automatic sprinkler system* shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.4 406.6 as follows:

- 1. Where the fire area of the enclosed parking garage exceeds 12,000 square feet (1115 m2); or
- 2. Where the enclosed parking garage is located beneath other groups.

Exception: Enclosed parking garages located beneath Group R-3 occupancies.

[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.

Exceptions:

- 1. Visible alarm notification appliances shall be allowed in lieu of audible alarm notification appliances in critical care areas of Group I-2 occupancies.
- Where provided, audible notification appliances located in each occupant evacuation elevator lobby in accordance with Section 3008.5.1 3008.10.1 shall be connected to a separate notification zone for manual paging only.

2012 International Building Code

Errata

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated April 1, 2013)

CHAPTER 9 FIRE PROTECTION SYSTEMS

[F] TABLE 906.1

ADDITIONAL REQUIRED PORTABLE FIRE EXTINGUISHERERS IN THE INTERNATIONAL FIRE CODE

ADDITIONAL REGULED FOR AREA LINE EXTINGUIGIBLE TO THE HATERWAY THE GOD					
IFC SECTION	SUBJECT				
<u>2804.3</u> 2804.2	Lumberyards/wood working facilities				

Portions of table not shown remain unchanged.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated September 24, 2012)

CHAPTER 9 FIRE PROTECTION SYSTEMS

[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. Group A occupancies not separated from one another in accordance with Section 707.3.9 707.3.10 shall be considered as a single occupancy for the purposes of applying this section. Portions of Group E occupancies occupied for assembly purposes 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 waterflow.

[F] 907.2.6.2 Group I-2. An automatic smoke detection system shall be installed in *corridors* in nursing homes, long term care facilities, detoxification facilities and spaces permitted to be open to the *corridors* by Section 407.2. The system shall be activated in accordance with Section 907.5 907.4. Hospitals shall be equipped with smoke detection as required in Section 407.

Exceptions:

- Corridor smoke detection is not required in smoke compartments that contain sleeping units where such units are provided with smoke detectors that comply with UL 268. Such detectors shall provide a visual display on the corridor side of each sleeping unit and shall provide an audible and visual alarm at the care provider's station attending each unit.
- Corridor smoke detection is not required in smoke compartments that contain sleeping units where sleeping unit doors are equipped with automatic door-closing devices with integral smoke detectors on the unit sides installed in accordance with their listing, provided that the integral detectors perform the required alerting function.
- **[F] 907.5.2.2.4 Emergency voice/alarm communication captions.** Where stadiums, arenas and grandstands are required to caption audible public announcements in accordance with Section 1108.2.7.2 1108.2.7.3, the emergency/voice alarm communication system shall also be captioned. Prerecorded or live emergency captions shall be from an *approved* location constantly attended by personnel trained to respond to an emergency.
- **[F] 909.5 Smoke barrier construction.** Smoke barriers shall comply with Section 740 709, and shall be constructed and sealed to limit leakage areas exclusive of protected openings. 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:
 - $A = \text{Total leakage area, square feet (m}^2$).
 - $A_{\rm F}$ = Unit floor or roof area of barrier, square feet (m²).
 - $A_{\rm w}$ = Unit wall area of barrier, square feet (m²).

The leakage area ratios shown do not include openings due to doors, operable windows or similar gaps. These shall be included in calculating the total leakage area.

(Portions of text and tables not shown are unaffected by the errata)

909.20.3.2 Vestibule doors. Where access to the *stairway* is by way of a vestibule, the door assembly into the vestibule shall be a *fire door assembly* complying with Section 715.4 716.5. The door assembly from the vestibule to the *stairway* shall have not less than a 20-minute *fire protection rating* complying with Section 716.5.

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

CHAPTER 10 MEANS OF EGRESS

1008.1.9.5 Unlatching. The unlatching of any door or leaf shall not require more than one operation. **Exceptions:**

- 1. Places of detention or restraint.
- 2. Where manually operated bolt locks are permitted by Section 1008.1.9.4.
- 3. Doors with automatic flush bolts as permitted by Section 1008.1.9.3, Exception 3.
- 4. Doors from individual dwelling units and sleeping units of Group R occupancies as permitted by Section 1008.1.9.3, Exception Item 4.

2012 International Building Code

Errata

(Portions of text and tables not shown are unaffected by the errata)

FOURTH PRINTING (Updated August 15, 2013)

CHAPTER 10 MEANS OF EGRESS

TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR ^a
Locker rooms	50 gross

Remainder of table not shown remains unchanged.

2012 International Building Code Frests

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 10 MEANS OF EGRESS

1007.5 Platform lifts. Platform (wheelchair) lifts shall not serve as part of an accessible means of egress, except where allowed as part of a required accessible route in Section 4109.7-1109.8, Items 1 through 9. Standby power shall be provided in accordance with Chapter 27 for platform lifts permitted to serve as part of a means of egress.

Table 1014.3 COMMON PATH OF EGRESS TRAVEL

Occupancy	Without Sprinkl	With Sprinkler System			
	Occupa	(feet)			
	OL <= 30	OL > 30			
All others c,f	75	75	75 ^{a,<u>b</u>}		

(Remainder of table unchanged)

Table 1016.2 EXIT ACCESS TRAVEL DISTANCE ^a

	-	
Occupancy	Without Sprinkler System (feet)	With Sprinkler System (feet)
I-1	Not Permitted	250 ^{∈ <u>b</u>}

(Remainder of table unchanged)

1028.12 Seat stability. In a building, room or space used for assembly purposes, the seats shall be securely fastened to the floor.

Exceptions:

- 1. In a building, room or space used for assembly purposes or portions thereof without ramped or tiered floors for seating and with 200 or fewer seats, the seats shall not be required to be fastened to the floor.
- 2. In a building, room or space used for assembly purposes or portions thereof <u>with seating at tables and</u> without ramped or tiered floors for seating, the seats shall not be required to be fastened to the floor.
- 3. In a building, room or space used for assembly purposes or portions thereof without ramped or tiered floors for seating and with greater than 200 seats, the seats shall be fastened together in groups of not less than three or the seats shall be securely fastened to the floor.
- 4. In a building, room or space used for assembly purposes where flexibility of the seating arrangement is an integral part of the design and function of the space and seating is on tiered levels, a maximum of 200 seats shall not be required to be fastened to the floor. Plans showing seating, tiers and aisles shall be submitted for approval.
- 5. Groups of seats within a building, room or space used for assembly purposes separated from other seating by railings, guards, partial height walls or similar barriers with level floors and having no more than 14 seats per group shall not be required to be fastened to the floor.
- 6. Seats intended for musicians or other performers and separated by railings, guards, partial height walls or similar barriers shall not be required to be fastened to the floor.

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Errata

(Portions of text and tables not shown are unaffected by the errata)

FIRST PRINTING (Updated June 22, 2011)

CHAPTER 10 MEANS OF EGRESS

TABLE 1004.1.2 MAXIMUM FLOOR AREA ALLOWANCES PER OCCUPANT

FUNCTION OF SPACE	OCCUPANT LOAD FACTOR ^a
Industrial areas	<u>100 gross</u>
Institutional areas	
Inpatient treatment areas	240 gross
Outpatient areas	100 gross
Sleeping areas	120 gross

Remainder of table not shown remains unchanged.

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

CHAPTER 11 ACCESSIBILITY

1109.11 Seating at tables, counters and work surfaces. Where seating or standing space at fixed or built-in tables, counters or work surfaces is provided in accessible spaces, at least 5 percent of the seating and standing spaces, but not less than one, shall be accessible. In Group I-3 occupancy visiting areas at least 5 percent, but not less than one, cubicle or counter shall be accessible on both the visitor and detainee sides.

Exceptions:

- 1. Check-writing surfaces at check-out aisles not required to comply with Section 1109.1112.2 are not required to be accessible.
- 2. In Group I-3 occupancies, the counter or cubicle on the detainee side is not required to be accessible at noncontact visiting areas or in areas not serving accessible holding cells or sleeping units.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 11 ACCESSIBILTY

1103.2.3 Employee work areas. Spaces and elements within employee work areas shall only be required to comply with Sections 907.9.1.2 907.5.2.3.2, 1007 and 1104.3.1 and shall be designed and constructed so that individuals with disabilities can approach, enter and exit the work area. Work areas, or portions of work areas, that are less than 300 square feet (30 m2) in area and located 7 inches (178 mm) or more above or below the ground or finish floor where the change in elevation is essential to the function of the space shall be exempt from all requirements.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 12 INTERIOR ENVIRONMENT

1203.1 General. Buildings shall be provided with natural ventilation in accordance with Section 1203.4, or mechanical ventilation in accordance with the *International Mechanical Code*.

Where the air infiltration rate in a *dwelling unit* is less than 5 air changes per hour when tested with a blower door at a pressure 0.2 inch w.c. (50 Pa) in accordance with Section R402.4.1.2 of the *International Energy Conservation Code* – *Residential Provisions*, the *dwelling unit* shall be ventilated by mechanical means in accordance with Section 403 of the *International Mechanical Code*.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated April 27, 2012)

CHAPTER 13 ENERGY EFFICIENCY

SECTION 1301 GENERAL

[E] 1301.1 Scope. This chapter governs the design and construction of buildings for energy efficiency.

[E] 1301.1.1 Criteria. Buildings shall be designed and constructed in accordance with the *International Energy Conservation*Code.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 14 EXTERIOR WALLS

1405.3 Vapor retarders. Class I or II vapor retarders shall be provided on the interior side of frame walls in Zones 5, 6, 7, 8 and Marine 4. The appropriate zone shall be selected in accordance with Chapter 3 of the *International Energy Conservation Code* — *Commercial Provisions*.

Exceptions:

- 1. Basement walls.
- 2. Below-grade portion of any wall.
- 3. Construction where moisture or its freezing will not damage the materials.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated February 6, 2013)

CHAPTER 15 ROOF ASSEMBLIES AND ROOFTOP STRUCTURES

TABLE 1505.1^{a,b} MINIMUM ROOF COVERING CLASSIFICATION FOR TYPES OF CONSTRUCTION

(Table and notes not shown remain unchanged).

c. Buildings that are not more than two stories in height and having not more than 6,000 square feet of projected roof area and where there is a minimum 10-foot fire-separation distance from the leading edge of the roof to a lot line on all sides of the building, except for street fronts or public ways, shall be permitted to have roofs of No. 1 cedar or redwood shakes and No. 1 shingles <u>constructed in accordance with Section 1505.7</u>.

1509.5.1 Noncombustible construction required. Towers, spires, domes and cupolas greater than 60 feet (18 288 mm) in height above the highest point at which such structure contacts the roof as measured to the highest point on such structure, or that exceeds 200 square feet (18.6 m2) in area at any horizontal section, or which is intended to be used for any purpose other than a belfry or architectural embellishment, or is located on the top of a building greater than 50 feet (1524 mm) in building height shall be constructed of and supported by noncombustible materials and shall be separated from the building below by construction having a fire-resistance rating of not less than 1.5 hours with openings protected in accordance with Section 712 711. Such structures located on the top of a building greater than 50 feet (15 240 mm) in building height shall be supported by noncombustible construction.

Note: The Table is the same as in the 2009 IBC. Re-insert into text.

TABLE 1507.9.8 WOOD SHAKE WEATHER EXPOSURE AND ROOF SLOPE

	LENGTH		EXPOSURE (inches)
ROOFING MATERIAL	LENGTH (inches)		4:12 PITCH OR STEEPER
	<u>18</u>	No. 1	
Shakes of naturally durable wood	<u>10</u> 24	No. 1	7.5 10 ^a
	<u>18</u>	<u>No. 1</u>	<u>7.5</u>
Preservative-treated taper sawn shakes of Southern yellow pine	24	<u>No. 1</u>	<u>10</u>
Preservative-treated taper sawn snakes or Southern yellow pine	<u>18</u>	No. 2	<u>5.5</u> 7.5
	<u>24</u>	<u>No. 2</u>	<u>7.5</u>
	<u>18</u>	No. 1	<u>7.5</u>
Taper sawn shakes of naturally durable wood	<u>24</u>	<u>No. 1</u>	<u>10</u>
Taper Sawir Shakes of Haturally durable wood	<u>18</u> 24	No. 2	<u>5.5</u> 7.5
	<u>24</u>	No. 2	<u>7.5</u>

For SI: 1 inch = 25.4 mm.

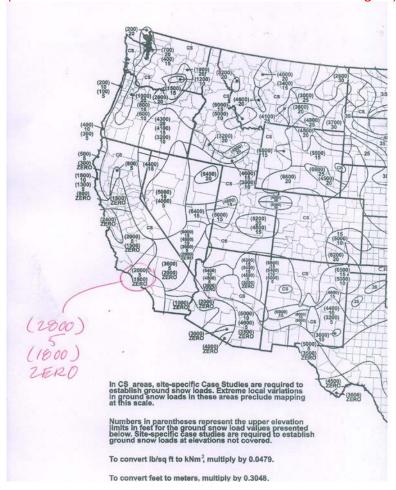
a. For 24-inch by 0.375-inch handsplit shakes, the maximum exposure is 7.5 inches.

(Portions of text and tables not shown are unaffected by the errata)

SEVENTH PRINTING (Updated October 13, 2014)

CHAPTER 16 STRUCTURAL DESIGN

Figure 1608.2 GROUND SNOW LOADS, p_g, FOR THE UNITED STATES (psf) (Revise southern California values as indicated in the figure)



(Portions of text and tables not shown are unaffected by the errata)

SIXTH PRINTING (Updated June 24, 2014)

CHAPTER 16 STRUCTURAL DESIGN

1615.4.2.2 Transverse ties. Transverse ties shall consist of continuous reinforcement in slabs; continuous or spliced decks or sheathing; continuous or spliced members framing to, within or across walls; or connections of continuous framing members to walls. Transverse ties shall be placed no farther apart than the spacing of load-bearing walls. Transverse ties shall have minimum nominal tensile strength *TT*, given by Equation 16-46-41. For ASD the minimum nominal tensile strength shall be permitted to be taken as 1.5 times the allowable tensile stress times the area of the tie.

(Portions of text and tables not shown are unaffected by the errata)

FOURTH PRINTING (Updated Nov. 12, 2013)

CHAPTER 16 STRUCTURAL DESIGN

1613.3.4 Design spectral response acceleration parameters. Five-percent damped design spectral response acceleration at short periods, S_{DS}, and at 1-second period, S_{DS} S_{D1}, shall be determined from Equations 16-39 and 16-40, respectively:

 $S_{DS} = 2/3 S_{MS}$ (Equation 16-39) $S_{D1} = 2/3 S_{M1}$ (Equation 16-40)

where

S_{MS}= The maximum considered earthquake spectral response accelerations for short period as determined in Section 1613.3.3.

S_{M1}= The maximum considered earthquake spectral response accelerations for 1-second period as determined in Section 1613.3.3.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated February 6, 2013)

CHAPTER 16 STRUCTURAL DESIGN

1603.1.3 Roof snow load data. The ground snow load, *Pg*, shall be indicated. In areas where the ground snow load, *Pg*, exceeds 10 pounds per square foot (psf) (0.479 kN/m2), the following additional information shall also be provided, regardless of whether snow loads govern the design of the roof:

- 1. Flat-roof snow load, Pf.
- 2. Snow exposure factor, Ce.
- 3. Snow load importance factor, I_s. (Add subscript 's' to Item 3)
- 4. Thermal factor, Ct.

1603.1.4 Wind design data. The following information related to wind loads shall be shown, regardless of whether wind loads govern the design of the lateral-force resisting system of the structure:

- 1. Ultimate design wind speed, V_{ult}, (3-second gust), miles per hour (km/hr) and nominal design wind speed, V_{asd}, as determined in accordance with Section 1609.3.1.
- 2. Risk category.
- 3. Wind exposure; applicable wind direction if . Where more than one wind exposure is utilized, the wind exposure and applicable wind direction shall be indicated.
- 4. The applicable Applicable internal pressure coefficient.
- Components and cladding. The design <u>Design</u> wind pressures in terms of psf (kN/m2) to be used for the design of exterior component and cladding materials not specifically designed by the registered design professional responsible for the design of the structure, psf (kN/m²).

1604.8.2 Structural walls. Walls that provide vertical load-bearing resistance or lateral shear resistance for a portion of the structure shall be anchored to the roof and to all floors and members that provide lateral support for the wall or that are supported by the wall. The connections shall be capable of resisting the horizontal forces specified in Section 1.4.4 1.4.5 of ASCE 7 for walls of structures assigned to Seismic Design Category A and to Section 12.11 of ASCE 7 for walls of structures assigned to all other seismic design categories. Required anchors in masonry walls of hollow units or cavity walls shall be embedded in a reinforced grouted structural element of the wall. See Sections 1609 for wind design requirements and 1613 for earthquake design requirements.

1606.1 General. Dead loads are those loads defined in Section 1602.1 <u>202</u>. Dead loads shall be considered permanent loads.

TABLE 1607.1 MINIMUM UNIFORMLY DISTRIBUTED LIVE LOADS, L $_{\rm o}$, AND MINIMUM CONCENTRATED LIVE LOADS $_{\rm g}$

Revise item 26 to read as follows:

OCCUPANCY OR USE	UNIFORM (psf)	CONCENTRA TED (lbs.)
26. Roofs		
All roof surfaces subject to maintenance workers Awnings and canopies:		300
Fabric construction supported by a skeleton structure	5	
All other construction	nonreducibl	
Ordinary flat, pitched, and curved roofs (that are not	е	

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(Follows of text and tables not shown are unaffected by the errata)							
occupiable)	20						
Where Primary roof members are exposed to a work floor.	20						
at							
Single panel point of lower chord of roof trusses or any		2,000					
point along primary structural members supporting roofs:		300					
over manufacturing, storage warehouses, and repair							
garages							
All other primary roof members							
Occupiable roofs:	100	Note 1					
Roof gardens	100 ^m						
Assembly areas	Note 1						

(No changes to portions of table not shown or footnotes a-k and m)

- Areas of occupiable roofs, other than roof gardens and assembly areas, shall be designed for appropriate loads as approved by the building official. Unoccupied landscaped areas of roofs shall be designed in accordance with Section 1607.12.3_1607.12.3.1.
- **1607.8.2 Grab bars, shower seats and dressing room bench seats.** Grab bars, shower seats and dressing room bench seat systems seats shall be designed to resist a single concentrated load of 250 pounds (1.11 kN) applied in any direction at any point on the grab bar or seat so as to produce the maximum load effects.

FIGURE 1608.2 GROUND SNOW LOADS, pg, FOR THE UNITED STATES (psf)

Revise map as follows:

All other similar areas

North Dakota by changing ground snow load value from 36 to 35. Pennsylvania, for 30 psf ground snow load change elevation from (700) to (1700) – 2 locations.

1609.1.2.1 Louvers. Louvers protecting intake and exhaust ventilation ducts not assumed to be open that are located within 30 feet (9144 mm) of grade shall meet requirements of AMCA 54 540.

TABLE 1609.6.2 NET PRESSURE COEFFICIENTS

Revise table as follows:

For "3. Components and cladding in areas of discontinuities-roofs and overhangs", under "Gable or hipped configurations at ridges, eaves and rakes", Flat<Slope<6:12, Positive, 100 square feet or more, under "Partially enclosed" revise table entry from 10.72 to 0.72.

For "4.Components and cladding not in areas of discontinuities-walls and parapets", revise first row to read: "Wall Elements: $h \le 60$ feet (Zone 4) ASCE 7 Figure 30.4-1"; revise sixth row to read: "Wall Elements: h > 60 feet (Zone 4) ASCE 7 Figure 30.6-1"

For "5. Components and cladding in areas of discontinuities-walls and parapets", revise sixth row to read: "Wall Elements: h > 60 feet (Zone 4) ASCE 7 Figure 30.6-1"

- **1609.6.4.1 Main wind-force-resisting systems.** The MWFRS shall be investigated for the torsional effects identified in ASCE 7 Figure 27.4.6 27.4-8.
- **1613.3.5 Determination of seismic design category.** Structures classified as *Risk Category* I, II or III that are located where the mapped spectral response acceleration parameter at 1-second period, *S1*, is greater than or

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equal to 0.75 shall be assigned to Seismic Design Category E. Structures classified as Risk Category IV that are located where the mapped spectral response acceleration parameter at 1-second period, S1, is greater

than or equal to 0.75 shall be assigned to *Seismic Design Category* F. All other structures shall be assigned to a *seismic design category* based on their *risk category* and the design spectral response acceleration parameters, SDS and SD1, determined in accordance with Section 1613.3.4 or the site-specific procedures of ASCE 7. Each building and structure shall be assigned to the more severe *seismic design category* in accordance with Table 1613.3.5(1) or 1613.3.5(2) 1613.5.5(2), irrespective of the fundamental period of vibration of the structure, T.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 17 SPECIAL INSPECTIONS AND TESTS

1704.5 Structural observations. Where required by the provisions of Section 1704.5.1 or 1704.5.2, the owner shall employ a *registered design professional* to perform structural observations as defined in Section 1702 202.

Prior to the commencement of observations, the structural observer shall submit to the *building official* a written statement identifying the frequency and extent of structural observations.

At the conclusion of the work included in the permit, the structural observer shall submit to the *building* official a written statement that the site visits have been made and identify any reported deficiencies which, to the best of the structural observer's knowledge, have not been resolved.

TABLE 1705.3 REQUIRED VERIFICATION AND INSPECTION OF CONCRETE CONSTRUCTION

In rows 3 and 4, under "REFERENCED STANDARD" COLUMN change Section reference 21.2.8 21.1.8

1705.7 Driven deep foundations. Special inspections shall be performed during installation and testing of driven deep foundation elements as required by Table 1705.7. The approved instruction geotechnical report and the construction documents prepared by the registered design professionals, shall be used to determine compliance.

1705.11.6 Mechanical and electrical components. *Special inspection* for mechanical and electrical components shall be as follows:

- Periodic special inspection is required during the anchorage of electrical equipment for emergency of and standby power systems in structures assigned to Seismic Design Category C, D, E or F; (No changes to Items 2 through 5)
- **1705.11.7 Storage racks.** Periodic *special inspection* is required during for the anchorage of storage racks 8 feet (2438 mm) or greater in height in structures assigned to *Seismic Design Category* D, E or F.

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

CHAPTER 18 SOILS AND FOUNDATIONS

1807.1.6.3 Masonry foundation walls. Masonry foundation walls shall comply with the following: Item 1 and 2 (no change)

3. The specified location of the reinforcement shall equal or exceed the effective depth distance, *d*, noted in Tables 1807.1.6.3(2),

1807.1.6.3(3) and 1807.1.6.3(4) and shall be measured from the face of the exterior (soil) side of the wall to the center of the vertical reinforcement. The reinforcement shall be placed within the tolerances specified in TMS 602/ACI 530.1/ASCE 6, Article 3.4.B.8 3.4.B.11 of the specified location.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 18 SOILS AND FOUNDATIONS

1810.3.11.2 Seismic Design Categories D through F. (Portion of section not shown remains unchanged. Add hyphen in lateral-force-resistance.)

Where the vertical lateral_force-resisting elements are columns, the pile cap flexural strengths shall exceed the column flexural strength. The connection between batter piles and pile caps shall be designed to resist the nominal strength of the pile acting as a short column. Batter piles and their connection shall be designed to resist forces and moments that result from the application of seismic load effects including over strength factor in accordance with Section 12.4.3 or 12.14.3.2 of ASCE 7.

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SECOND PRINTING (Updated May 23, 2012)

CHAPTER 19 CONCRETE

(Note: The following modification is based on the 2008 edition of ACI 318)

1905.1.9 ACI 318-08, Section D.3.3. Delete Modify ACI 318-08 Sections D3.3.4 through D.3.3.6 and add Section through D3.3.7 and replace with the following to read as follows:

D.3.3.4 – The anchor design strength associated with concrete failure modes shall be taken as 0.75ØN_n and 0.75ØV_n, where Ø is given in D4.3 or D4.4, and N_n and V_n are determined in accordance with D5.2, D5.3, D5.4, D6.2 and D6.3, assuming the concrete is cracked unless it can be demonstrated that the concrete remains uncracked.

D.3.3.5 D3.3.4 – Anchors shall be designed to be governed by the steel strength of a ductile steel element as determined in accordance with D.5.1 and D.6.1, unless either D.3.3.6 D3.3.5 or D.3.3.7 D.3.3.6 is satisfied.

Exceptions:

- 1. Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 need not satisfy Section D.3.3.5 D.3.3.4 need not apply and the design shear strength in accordance with D.6.2.1(c) need not be computed for applying wood sill plates of begging or non-begging wells of light frame wood.
- computed for anchor bolts attaching wood sill plates of bearing or non-bearing walls of light-frame wood structures to foundations or foundation stem walls provided all of the following are satisfied:
 - 2.1. The allowable in-plane shear strength of the anchor is determined in accordance with AF&PA NDS Table 11E for lateral design values parallel to grain.
 - 2.2 The maximum anchor nominal diameter is 5/8 inches (16 mm).
 - 2.3. Anchor bolts are embedded into concrete a minimum of 7 inches (178 mm).
 - 2.4. Anchor bolts are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the wood sill plate.
 - 2.5. Anchor bolts are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the wood sill plate.
 - 2.6. The sill plate is 2-inch or 3-inch nominal thickness.
- 3. Section D.3.3.5 D.3.3.4 need not apply and the design shear strength in accordance with Section D.6.2.1(c) need not be computed for anchor bolts attaching cold-formed steel track of bearing or non-bearing walls of light-frame construction to foundations or foundation stem walls provided all of the following are satisfied:
 - 3.1. The maximum anchor nominal diameter is 5/8 inches (16 mm).
 - 3.2. Anchors are embedded into concrete a minimum of 7 inches (178 mm).
 - 3.3. Anchors are located a minimum of 1-3/4 inches (45 mm) from the edge of the concrete parallel to the length of the track.
 - 3.4. Anchors are located a minimum of 15 anchor diameters from the edge of the concrete perpendicular to the length of the track.
 - 3.5. The track is 33 to 68 mil designation thickness.

Allowable in-plane shear strength of exempt anchors, parallel to the edge of concrete shall be permitted to be determined in accordance with AISI S100 Section E3.3.1.

4. In light-frame construction, design of anchors in concrete shall be permitted to satisfy D.3.3.8.3.7.

(Portions of text and tables not shown are unaffected by the errata)

D.3.3.6 D3.3.5 — Instead of D.3.3.5 D3.3.4, the attachment that the anchor is connecting to the structure shall be designed so that the attachment will undergo ductile yielding at a force level corresponding to anchor forces no greater than the design strength of anchors specified in D.3.3.4 D.3.3.3.

Exceptions:

- 1. Anchors in concrete designed to support nonstructural components in accordance with ASCE 7 Section 13.4.2 need not satisfy Section D.3.3.6 D.3.3.5.
- 2. Anchors designed to resist wall out-of-plane forces with design strengths equal to or greater than the force determined in accordance with ASCE 7 Equation 12.11-1 or 12.14-10 need not satisfy Section D.3.3.6 D.3.3.5.
- D.3.3.7 D.3.3.6 As an alternative to D.3.3.5 D.3.3.4 and D.3.3.6 D.3.3.5, it shall be permitted to take the design strength of the anchors as 0.4 times the design strength determined in accordance with D.3.3.4 D.3.3.3.
- <u>D.3.3.8</u> <u>D.3.3.7</u> In light-frame construction, bearing or non-bearing walls, shear strength of concrete anchors less than or equal to 1 inch [25 mm] in diameter of sill plate or track to foundation or foundation stem wall need not satisfy <u>D.3.3.7</u> <u>D.3.3.6</u> when the design strength of the anchors is determined in accordance with D.6.2.1(c).

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated February 3, 2013)

CHAPTER 21 MASONRY

2107.2 TMS 402/ACI 530/ASCE 5, Section 2.1.8.7.1.1 2.1.7.7.1.1, lap splices. In lieu of Section 2.1.8.7.1.1 2.1.7.7.1.1, it shall be permitted to design lap splices in accordance with Section 2107.2.1.

- **2107.3 TMS 402/ACI 530/ASCE 5, Section 2.1.8.7** <u>2.1.7.7</u>, **splices of reinforcement.** Modify Section <u>2.1.8.7</u> <u>2.1.7.7</u> as follows: <u>2.1.8.7</u> <u>2.1.7.7</u> Splices of reinforcement. Lap splices, welded splices or mechanical splices are permitted in accordance with the provisions of this section. All welding shall conform to AWS D1.4. Welded splices shall be of ASTM A 706 steel reinforcement. Reinforcement larger than No. 9 (M #29) shall be spliced using mechanical connections in accordance with Section <u>2.1.8.7.3</u> <u>2.1.7.7.3</u>.
- **2111.3.1 Vertical reinforcing.** For fireplaces with chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars, anchored in the foundation, shall be placed in the concrete between wythes of solid masonry or within the cells of hollow unit masonry and grouted in accordance with Section 2103.12 2103.13. For fireplaces with chimneys greater than 40 inches (1016 mm) wide, two additional No. 4 vertical bars shall be provided for each additional 40 inches (1016 mm) in width or fraction thereof.
- **2113.3.1 Vertical reinforcing.** For chimneys up to 40 inches (1016 mm) wide, four No. 4 continuous vertical bars anchored in the foundation shall be placed in the concrete between wythes of solid masonry or within the cells of hollow unit masonry and grouted in accordance with Section 2103.12 2103.13. Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys greater than 40 inches (1016 mm) wide, two additional No. 4 vertical bars shall be provided for each additional 40 inches (1016 mm) in width or fraction thereof.

(Portions of text and tables not shown are unaffected by the errata)

NINTH PRINTING (Updated June 1, 2015)

CHAPTER 23 WOOD

Table 2406.3(2)

ALLOWABLE SHEAR VALUES (pif) FOR WIND OR SEISMIC LOADING ON SHEAR WALLS OF FIBERBOARD SHEATHING BOARD CONSTRUCTION UTILIZING STAPLES FOR TYPE V CONSTRUCTION ONLYa, b, c, d, e

FASTENER SIZE
No. 11 <u>16</u> gage galvanized staple, 7/16" crown ^t
No. 44 16 gage galvanized staple, 1" crown ^t

Portions of table not shown remain unchanged.

(Portions of text and tables not shown are unaffected by the errata)

FOURTH PRINTING (Updated Nov. 12, 2013)

CHAPTER 23 WOOD

Correct 3rd printing errata instruction as follows: **2305.2 Diaphragm deflection.** (Portion of section not shown remain unchanged) Revise 3rd term of Equation 23-1 from 0.122Le_n to 0.188Le_n (also in SI equation)

Only applicable to 4th Printing Eq 23-1, ONLY For SI Revise 3rd term in the SI version from 0.188Len to Len/1627

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated June 7, 2013)

CHAPTER 23 WOOD

2305.2 Diaphragm deflection. (Portion of section not shown remain unchanged)

Revise 3rd term of Equation 23-1 from $0.122Le_n$ -to $0.188Le_n$ (also in SI equation)

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated February 6, 2013)

CHAPTER 23 WOOD

2303.2.4 Labeling. Fire-retardant-treated lumber andwood structural panels shall be labeled. The *label* shall contain the following items:

- 1. The identification mark of an approved agency in accordance with Section 1703.5.
- 2. Identification of the treating manufacturer.
- 3. The name of the fire-retardant treatment.
- 4. The species of wood treated.
- 5. Flame spread and smoke-developed index.
- 6. Method of drying after treatment.
- 7. Conformance with appropriate standards in accordance with Sections 2303.2.2 through 2303.2.5 through 2303.2.8.
- 8. For *fire-retardant-treated wood* exposed to weather, damp or wet locations, include the words "No increase in the *listed* classification when subjected to the Standard Rain Test" (ASTM D 2898).

2304.9.3 Joist hangers and framing anchors. Connections depending on joist hangers or framing anchors, ties and other mechanical fastenings not otherwise covered are permitted where *approved*. The vertical load-bearing capacity, torsional moment capacity and deflection characteristics of joist hangers shall be determined in accordance with Section 1716.1 1711.1.

SECTION 2305 GENERAL DESIGN REQUIREMENTS FOR LATERAL-FORCE-RESISTING SYSTEMS

2305.2 Diaphragm deflection. (Portion of section not shown remain unchanged)

Revise denominator in 2nd term of Equation 23-1 from 4Gr to 4Gt (also in SI equation)

Revise nomenclature as follows:

 $b \not B$ = Diaphragm width, in feet (mm).

 \underline{Gt} Gt= Panel rigidity through the thickness, in pounds per inch (N/mm) of panel width or depth [see Table 2305.2(2)].

TABLE 2308.10.1 REQUIRED RATING OF APPROVED UPLIFT CONNECTORS (pounds)^{a, b, c, e, f, g, h}

(Portions of table and footnotes not shown remain unchanged.)

a. The uplift connection requirements are based on a 30-foot mean roof height located in Exposure B. For Exposure C or D and for other mean roof heights, <u>multiply the above loads by the adjustment coefficients</u> below.

2308.12.8 Sill plate anchorage. Sill plates shall be anchored with anchor bolts with steel plate washers between the foundation sill plate and the nut, or *approved* anchor straps load rated in accordance with Section 1716.1 1711.1. Such washers shall be a minimum of 0.229 inch by 3 inches by 3 inches (5.82 mm by 76 mm by 76 mm) in size. The hole in the plate washer is permitted to be diagonally slotted with a width of up to 3/16 inch (4.76 mm) larger than the bolt diameter and a slot length not to exceed 13/4 inches (44 mm), provided a standard cut washer is placed between the plate washer and the nut.

(Portions of text and tables not shown are unaffected by the errata)

FOURTH PRINTING (Updated Nov. 12, 2013)

CHAPTER 26 PLASTIC

2603.10 Special approval. Foam plastic shall not be required to comply with the requirements of Sections 2603.4 through 2603.8 where specifically approved based on large-scale tests such as, but not limited to, NFPA 286 (with the acceptance criteria of Section 803.2 803.1.2.1), FM 4880, UL 1040 or UL 1715. Such testing shall be related to the actual end-use configuration and be performed on the finished manufactured foam plastic assembly in the maximum thickness intended for use. Foam plastics that are used as interior finish on the basis of special tests shall also conform to the flame spread and smoke-developed requirements of Chapter 8. Assemblies tested shall include seams, joints and other typical details used in the installation of the assembly and shall be tested in the manner intended for use.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 27 ELECTRICAL

[F] 2702.2.13 Pyrophoric materials. Emergency power shall be provided for occupancies with silane gas in accordance with the *International Fire Code*.

Renumber remaining sections 2702.2.14 through 2702.2.20 to be 2702.2.13. through 2702.2.19.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 29 PLUMBING SYSTEMS

TABLE 2902.1 MINIMUM NUMBER OF REQUIRED PLUMBING FIXTURES (See Sections 2902.2 2902.1.1 and 2902.3 2902.2)

N o.	CLASSIFICA TIONS	OCCUPA NCY	DESCRIP TION	WATER CLOSETS (URINALS SES SECTION 419.2 OF THE INTERNATI ONAL PLUMBING CODE) MA FEMA LE LE		LAVATORIE S MA FEMA LE LE		BATHT UBS OR SHOWE RS	DRINKING FOUNTAIN S e.f (SEE SECTION 410.1 OF THE INTERNATI ONAL PLUMBING CODE)	OTHE R
7	Residential	R-3	One- and two-family dwellings	1	per ing unit	1 p	er 10 ng unit	1 per dwelling unit	-	1 kitchen sink per dwellin g unit; 1 automa tic clothes washer connec tion per 20 dwellin g units

(Remainder of table is unchanged)

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated June 7, 2013)

CHAPTER 30 ELEVATORS AND CONVEYING STYSTEMS

3007.7 Fire service access elevator lobby. The fire service access elevator shall open into a fire service access elevator lobby in accordance with Sections 3007.7.1 through 3007.7.5.

Exception: Where a fire service access elevator has two entrances onto a floor, the second entrance shall be permitted to open into an elevator lobby in accordance with Section 708.14.1 713.14.1.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 30 ELEVATORS AND CONVEYING SYSTEMS

3001.3 Accessibility. Passenger elevators required to be accessible or serve as part of an *accessible means* of egress shall comply with Section 1107 and 1109.7.

3006.5 Shunt trip. Where elevator hoistways or elevator machine rooms containing elevator control equipment are protected with automatic sprinklers, a means installed in accordance with NFPA 72, Section 21.4 6.16.4, Elevator Shutdown, shall be provided to disconnect automatically the main line power supply to the affected elevator prior to the application of water. This means shall not be self-resetting. The activation of <u>automatic</u> sprinklers outside the hoistway or machine room shall not disconnect the main line power supply.

3008.9.1 Protection of wiring or cables. Wires or cables that are located outside of the elevator hoistway and machine room and that provide normal or standby power, control signals, communication with the car, lighting, heating, air conditioning, *ventilation* and fire-detecting systems to fire service access occupant evacuation elevators shall be protected by construction having a *fire-resistance rating* of not less than 2 hours, or shall be circuit integrity cable having a *fire-resistance rating* of not less than 2 hours.

Exception: Wiring and cables to control signals are not required to be protected provided that wiring and cables do not serve Phase II emergency in-car operations.

3008.10 Emergency voice/alarm communication system. The building shall be provided with an *emergency voice/alarm communication system*. The *emergency voice/alarm communication system* shall be accessible to the fire department. The system shall be provided in accordance with Section 907.2.12.2 907.5.2.2.

(Portions of text and tables not shown are unaffected by the errata)

SEVENTH PRINTING (Updated July 22, 2014)

CHAPTER 33 SAFEGUARDS DURING CONSTRUCTION

3303.7 Fire safety during demolition. Fire safety during demolition shall comply with the applicable requirements of this code and the applicable provisions of Chapter 56 33 of the *International Fire Code*.

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated December 5, 2012)

CHAPTER 33 SAFEGUARDS DURING CONSTRUCTION

3304.1.2 Surcharge. No fill or other surcharge loads shall be placed adjacent to any building or structure unless such building or structure is capable of withstanding the additional loads caused by the fill or surcharge. Existing footings or foundations which can be affected by any excavation shall be underpinned adequately or otherwise protected against settlement and shall be protected against later lateral movement.

(Portions of text and tables not shown are unaffected by the errata)

SEVENTH PRINTING (Updated Oct. 27, 2014)

CHAPTER 34 EXISTING STRUCTURES

3412.6.11 Means of egress capacity and number. Evaluate the *means of egress* capacity and the number of exits available to the building occupants. In applying this section, the *means of egress* are required to conform to the following sections of this code: 1003.7, 1004, 1005, 1014.2, 1014.3, 1015.2, 1021, 1024.1-1025.1, 1027.2, 1027.5, 1028.2, 1028.3, 1028.4 and 1029. The number of exits credited is the number that is available to each occupant of the area being evaluated. Existing fire escapes shall be accepted as a component in the *means of egress* when conforming to Section 3406.

Under the categories and occupancies in Table 3412.6.11, determine the appropriate value and enter that value into Table 3412.7 under Safety Parameter 3412.6.11, Means of Egress Capacity, for means of egress and general safety.

TABLE 3412.6.11 MEANS OF EGRESS VALUES

OCCUPANCY	CATEGORIES				
	aª	b	С	d	е

(Portions of table and footnotes not shown remain unchanged)

(Portions of text and tables not shown are unaffected by the errata)

SIXTH PRINTING (Updated May 12, 2014)

CHAPTER 34 EXISTING STRUCTURES

TABLE 3412.6.19 INCIDENTAL USE AREA VALUES-

(Note: This table was revised in 2nd list errata. The correction to the reference at the bottom was not picked up.)

		PROTECTION PROVIDED								
PROTECTION REQUIRED BY TABLE 509	None	1 Hour	AS	AS with SP	1 Hour and AS	2 Hours	2 Hours and AS			
2 Hours and AS	-4	-3	-2	-2	-1	-2	0			
2 Hours, or 1 Hour and AS	-3	-2	-1	-1	0	0	0			
1 Hour and AS	-3	-2	-1	-1	0	-1	0			
1 Hour	-1	0	-1	0	0	0	0			
1 Hour, or AS with SP	-1	0	-1	0	0	0	0			
AS with SP	-1	-1	-1	0	0	-1	0			
1 Hour or AS	-1	0	0	0	0	0	0			

AS = Automatic sprinkler system; SP = Smoke partitions (See Section 508.2.5 509.4.2).

Note: For Table 3412.7, see next page.

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

CHAPTER 34 EXISTING STRUCTURES

3412.6.6 Vertical openings. Evaluate the *fire-resistance rating* of *exit* enclosures, hoistways, escalator openings and other shaft enclosures within the building, and openings between two or more floors. Table 3412.6.6(1) contains the appropriate protection values. Multiply that value by the construction type factor found in Table 3412.6.6(2). Enter the vertical opening value and its sign (positive or negative) in Table 3412.7 under Safety Parameter 3412.6.6, Vertical Openings, for fire safety, means of egress, and general safety. If the structure is a one-story building or if all the unenclosed vertical openings within the building conform to the requirements of Section 708-712, enter a value of 2. The maximum positive value for this requirement shall be 2.

TABLE 3412.7 SUMMARY SHEET BUILDING CODE

SAFETY PARAMETERS	FIRE SAFETY (FS)	MEANS OF EGRESS (ME)	GENERAL SAFETY (GS)
3412.6.16 Mixed occupancies		***	
3412.6.17 Automatic sprinklers		÷2=	
3412.6.18 Standpipes			
3412.6.19 Incidental Use			

(Portions not shown remain unchanged)

TABLE 3412.9 EVALUATION FORMULAS^a

FORMULA	T. 3410.7 <u>3412.7</u>			T. 3410.8 <u>3412.8</u>	SCORE	PASS	FAIL
FS-MFS = 0		(FS)	_	(MFS) =			
ME-MME = 0		(ME)	_	(MME) =			
GS-MGS = 0		(GS)		(MGS) =			

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated February 11, 2013)

CHAPTER 34 EXISTING BUILDINGS AND STRUCTURES

3412.6.10.1 Categories. The categories for smoke control are:

- 1 through 5 (no change).
- 6. Category f—Each *stairway* shall be one of the following: a smokeproof enclosure in accordance with Section 1022.10 1022.9; pressurized in accordance with Section 909.20.5 or shall have operable exterior windows.

TABLE 3412.6.19 (IEBC [B] Table 1401.6.19) INCIDENTAL USE AREA VALUES^a

PROTECTION	PROTECTION PROVIDED									
REQUIRED BY TABLE 508.2.5 509	None	1 Hour	AS	AS with SP	1 Hour and AS	2 Hours	2 Hours and AS			
2 Hours and AS	-4	-3	-2	-2	-1	-2	0			
2 Hours, or 1 Hour and AS	-3	-2	-1	-1	0	0	0			
1 Hour and AS	-3	-2	-1	-1	0	-1	0			
1 Hour	-1	0	-1	0	0	0	0			
1 Hour, or AS with SP	-1	0	-1	0	0	0	0			
AS with SP	-1	-1	-1	0	0	-1	0			
1 Hour or AS	-1	0	0	0	0	0	0			

a. AS = Automatic sprinkler system; SP = Smoke partitions (See Section 508.2.5 509.4.2).

(Portions of text and tables not shown are unaffected by the errata)

SEVENTH PRINTING (Updated July 22, 2014)

CHAPTER 35 REFERENCED STANDARDS

GA 600-09 Fire Resistance Design Manual, 18th 19th edition.

(Portions of text and tables not shown are unaffected by the errata)

THIRD PRINTING (Updated June 20, 2013)

CHAPTER 35 REFERENCED STANDARDS

NFPA

31- 06 <u>11</u> Installation of Oil-burning Equipment

99 – 10 05 Standard for Health Care Facilities

(The 2nd list errata indicated this should be the 2012 edition. While there is a 2012 edition, it was not completed in time to be included in the 2012 IBC).

2001- 08 11 Clean Agent Fire Extinguishing Systems

(The 2nd list errata indicated this should be the 2012 edition.)

UL

268- 06 <u>09</u>	Smoke Detectors for Fire Protective Signaling Systems—with Revisions through January 1999
2075-04	Standard for Gas and Vapor Detectors and Sensors-with revisions through September 28, 2007

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

CHAPTER 35 REFERENCED STANDARDS

ACI

ACI 318-11	Building Code Requirements for Structural Concrete1905	5.1.8, 1905.1.9, 1905.1.10
ACI 318-08	Building Code Requirements for Structural Concrete	<u> 1905.1.9</u>

AISI

AISI S100—07/SI <u>S2</u>—10 North American Specification for the Design of Cold-formed Steel Structural Members, with Supplement 4 <u>2</u>, dated 2010 AISI S213—07/ SI—10 <u>S1-09</u> North American Standard for Cold-formed Steel Framing-Lateral Design, with Supplement 1, dated 2010 2009

ASCE

19-09 10 - Structural Applications of Steel Cables for Buildings

ASTM

D2892-04 <u>08e01</u> – Test Methods for Accelerated Weathering of Fire-retardant-treated Wood for Fire Testing F2006-00 (2005) 10 – Standard/Safety Specifications for Window Fall Prevention Devices with Emergency Escape (Egress) and Rescue (Ingress) Windows

NFPA

99 – 10 12 Standard for Health Care Facilities

252— 12 03 Standard Methods of Fire Tests of Door Assemblies

257— 12 07 Standard for Fire Test for Window and Glass Block Assemblies

 $285 - 44 \ \underline{06}$ Standard Method of Test for the Evaluation of Flammability Characteristics of Exterior Nonload-bearing Wall Assemblies Containing Combustible Components

409 - 10 11 Aircraft Hangers

 $654 - 41 - \overline{06}$ Prevention of Fire & Dust Explosions from the Manufacturing, Processing and Handling of Combustible Particulate Solids

2001 - 08-12 Clean Agent Fire Extinguishing Systems

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

APPENDIX D FIRE DISTRICT

SECTION D106 REFERENCED STANDARDS

ASTM E 84—04 09 Test Method for Surface Burning Characteristics of Building Materials.....D102.2.8 NFPA 268—01 12 Test Method for Determining Ignitability of Exterior Wall Assemblies Using a Radiant Heat Energy Source...... D105.1

NFPA 701—99 10 Methods of Fire Tests for Flame-Propagation of Textiles and Films...... D102.2.8 UL 723—03 08 Standard for Test for Surface Burning Characteristics of Building Materials, with Revisions through May 2005..... D102.2.8

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

APPENDIX E FIRE DISTRICT

SECTION E111 REFERENCED STANDARDS

IBC-12 International Building Code.....E102.1

ICC A117.1-09 Accessible and Usable Buildings and Facilities E101.2, E104.2, E104.2.1, E104.3, E104.3.4, E105.1, E105.2.1, E105.2.2, E105.3, E105.4, E105.6, E106.2, E106.3, E106.4, E106.4.9, E106.5, E107.2, E107.3, E108.3, E108.4, E109.2.1, E109.2.2.1,

E109.2.2.2, E109.2.2.3, E109.2.3, E109.2.5, E1110.2

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

APPENDIX G FIRE DISTRICT

SECTION G1101 REFERENCED STANDARDS

ASCE 24—05 Flood Resistance Design and ConstructionG103.1, G401.3, G401.4 HUD 24 CFR Part 3280 (1994 2008) Standards Manufactured Home Construction and SafetyG201 IBC—12 International Building CodeG102.2, G201.1, G1001.3 NFPA 70—08 11 National Electrical CodeG1001.6

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

APPENDIX G FLOOD-RESISTANT CONSTRUCTION

G105.1 General. The *board of appeals* established pursuant to Section <u>412</u> <u>113</u> shall hear and decide requests for variances. The *board of appeals* shall base its determination on technical justifications, and has the right to attach such conditions to variances as it deems necessary to further the purposes and objectives of this appendix and Section 1612.

G801.4 Retaining walls, sidewalks and driveways. Retaining walls, sidewalks and driveways shall meet the requirements of Section 1803.4 1804.4.

SECTION G1101
REFERENCED STANDARDS
NFPA 70—08 11 National Electrical Code G1001.6

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

APPENDIX H SIGNS

SECTION H115 REFERENCED STANDARDS

ASTM D 635—03 06 Test Method for Rate of Burning and/or Extent and Time of Burning of Self-Supporting Plastics in a Horizontal Position..... H107.1.1

NFPA 70—08 11 National Electrical CodeH106.1, H106.2

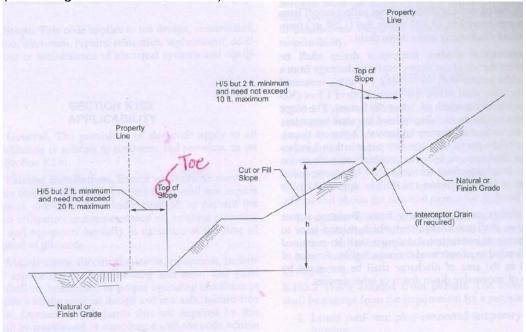
NFPA 701—99 10 Methods of Fire Test for Flame Propagation of Textiles and Films...... H106.1.1

(Portions of text and tables not shown are unaffected by the errata)

APPENDIX J GRADING

Figure J108.1 DRAINAGE DIMENSIONS

(Revise figure as indicated below)



(Portions of text and tables not shown are unaffected by the errata)

FOURTH PRINTING (Updated Nov. 12, 2013)

APPENDIX J GRADING

SECTION J111 REFERENCED STANDARDS

Correct edition of standard and the referenced section as follows:
ASTM D 1557-e01 07 J107.6

(Portions of text and tables not shown are unaffected by the errata)

SECOND PRINTING (Updated May 23, 2012)

APPENDIX J GRADING

J105.2 Special inspections. The special inspection requirements of Section <u>1704.7</u> <u>1705.6</u> shall apply to work performed under a grading permit where required by the *building official*.

(Portions of text and tables not shown are unaffected by the errata)

FIFTH PRINTING (Updated March 28, 2014)

INDEX

HORIZONTAL ASSEMBLIES

Continuity.....<u>508.2.5.1</u> <u>509.4.1</u>, 711.4, 713.11, 713.12