

**REVISED EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
OFFICE OF THE STATE FIRE MARSHAL
REGARDING THE ADOPTION BY REFERENCE OF THE
2012 EDITION OF THE INTERNATIONAL BUILDING CODE
WITH AMENDMENTS INTO THE 2013 CALIFORNIA BUILDING CODE
CALIFORNIA CODE OF REGULATIONS TITLE 24, PART 2**

Legend for Express Terms:

1. **15-day Amended, adopted, or repealed language:** Amended, adopted, or repealed language will appear in double underline and ~~double strikeout~~.
 2. **Rationale:** The justification for the change is shown after each section or series of related changes.
 3. **Notation:** Authority and Reference citations are provided at the end of each chapter.
-

~~442.2 New public school campus~~

~~**442.2.1 Applicability.** Applies to any public school project consisting of one or more buildings on a new school campus and receiving state funds pursuant to Leroy F. Green School Facilities Act of 1998, California Education Code sections 17070.10 through 17070. For purposes of this section, new campus refers to a school site, where an application for construction of original buildings was made to DSA on or after July 1, 2002.~~

~~**Exceptions:**~~

- ~~1. A relocatable building that is sited with the intent that it be at the site for less than three years and is sited upon a temporary foundation in a manner that is designed to permit easy removal. Also see CCR, Title 24, Part 1, California Administrative Code, Section 4 314 for definition of relocatable building.~~
- ~~2. Detached buildings designed and used for non-instructional purposes that meet the applicable requirements for that occupancy. Buildings would include, but not be limited to:~~

~~Concession Stand
Press Box
Restroom Facilities
Shade Structure
Snack Bar
Storage Building
Ticket Booth~~

~~**442.2.2 Automatic sprinkler system.** An automatic sprinkler system shall be provided in all occupancies.~~

~~**442.2.3 Fire alarm system.** An automatic fire alarm system shall be provided in all occupancies.~~

~~442.3 Existing public school campus.~~

~~**442.3.1 Applicability.** Applies to any public school project consisting of one or more buildings on an existing campus and receiving state funds pursuant to Leroy F. Green, School Facilities Act of 1998, California Education Code~~

~~sections 17070.10 through 17070. For purposes of this section, an existing campus refers to a school site, where an application for construction of original buildings was made to DSA prior to July 1, 2002.~~

Exceptions:

- ~~1. A construction project that has an estimated total cost of less than \$200,000.~~
- ~~2. A relocatable building that is sited with the intent that it be at the site for less than three years and is sited upon a temporary foundation in a manner that is designed to permit easy removal. See California Administrative Code, Section 4-314 for definition of relocatable building.~~
- ~~3. Detached buildings designed and used for non-instructional purposes that meet the applicable requirements for that occupancy. Buildings would include, but not be limited to:~~

~~Concession Stand
Press-Box
Restroom Facilities
Shade Structure
Snack Bar
Storage Building
Ticket Booth~~

~~**442.3.2 Fire alarm system.** An automatic fire alarm system shall be provided in all occupancies.~~

~~**442.3.3 Alterations to existing buildings on an existing public school campus.** An automatic fire alarm system meeting provisions is required for all portions within the scope of an alteration project.~~

Exceptions:

- ~~1. A construction project that has an estimated total cost of less than \$200,000.~~
- ~~2. A relocatable building that is sited with the intent that it be at the site for less than three years and is sited upon a temporary foundation in a manner that is designed to permit easy removal. See California Administrative Code, Section 4-314 for definition of relocatable building.~~
- ~~3. Detached buildings designed and used for non-instructional purposes that meet the applicable requirements for that occupancy. Buildings would include, but not be limited to:~~

~~Storage Building
Ticket Booth
Concession Stand
Snack Bar
Restroom Facilities
Shade Structure
Press-Box~~

903.2.3 Group E. An automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 12,000 square feet (1115 m²) in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

- ~~3. In rooms or areas with special hazards such as laboratories, vocational shops and other such areas where hazardous materials in quantities not exceeding the maximum allowable quantity are used or stored.~~
- ~~4. Throughout any Group E structure greater than 12,000 square feet (1115 m²) in area, which contains more than one fire area, and which is separated into two or more buildings by fire walls of less than four hour fire resistance rating without openings.~~
- ~~5. Additional requirements for public school state funded construction projects are contained in 442.2~~
- ~~5. For public school state funded construction projects see Section 903.2.19.~~

903.2.19 Public school state funded construction projects for kindergarten through 12th grade — automatic sprinkler system requirements.

903.2.19.1 New public school campus. *An automatic sprinkler system shall be provided in all occupancies. The provisions of this section shall apply to any public school project consisting of one or more buildings on a new school campus and receiving state funds pursuant to Leroy F. Greene School Facilities Act of 1998, California Education Code sections 17070.10 through 17079. For purposes of this section, new campus refers to a school site, where an application for construction of original buildings was made to DSA on or after July 1, 2002.*

Exceptions:

1. A relocatable building that is sited with the intent that it be at the site for less than three years and is sited upon a temporary foundation in a manner that is designed to permit easy removal. Also see CCR, Title 24, Part 1, California Administrative Code, Section 4-314 for definition of relocatable building.
2. Detached buildings designed and used for non-instructional purposes that meet the applicable requirements for that occupancy. Buildings would include, but not be limited to:

Concession Stand

Press Box

Restroom Facilities

Shade Structure

Snack Bar

Storage Building

Ticket Booth

~~903.2.3.1.1~~ **903.2.19.1.1** *Sprinklers shall be installed in spaces where the ceiling creates a “ceiling-plenum” or space above the ceiling is utilized for environmental air.*

~~903.2.3.1.3~~ **903.2.19.1.2** *Fire-resistive substitution for new campus. A new public school campus as defined in Section 202 shall be entitled to include in the design and construction documents all of the applicable fire-resistive construction substitutions as permitted by this code.*

907.2.3.1 Group E. A manual fire alarm system that activates the occupant notification system signal utilizing an emergency voice/alarm communication system meeting the requirements of Section 907.5.2.2 and installed in accordance with Section 907.6 shall be installed in Group E occupancies. When automatic sprinkler systems or smoke detectors are installed, such systems or detectors shall be connected to the building fire alarm system.

Exceptions:

1. Manual fire alarm boxes are not required in Group E occupancies where all of the following apply:
 - 1.1. Interior corridors are protected by smoke detectors.
 - 1.2. Auditoriums, cafeterias, gymnasiums and similar areas are protected by heat detectors or other approved detection devices.
 - 1.3. Shops and laboratories involving dusts or vapors are protected by heat detectors or other approved detection devices.
 - 1.4. *The capability to activate the evacuation signal from a central point is provided.*
2. Manual fire alarm boxes shall not be required in Group E occupancies where the building is equipped throughout with an approved automatic sprinkler system installed in accordance with Section 903.3.1.1, the emergency voice/alarm communication system will activate on sprinkler water flow and manual activation is provided from a normally occupied location.
3. For public school state funded construction projects see Section 907.2.29.

907.2.29 Public school state funded construction projects for kindergarten through 12th grade — automatic fire alarm system requirements.

907.2.29.1 New public school campus. *An automatic fire alarm system shall be provided in all occupancies. The provisions of this section shall apply to any public school project consisting of one or more buildings on a new school campus and receiving state funds pursuant to Leroy F. Greene School Facilities Act of 1998, California Education Code sections 17070.10 through 17079. For purposes of this section, new campus refers to a school site, where an application for construction of original buildings was made to DSA on or after July 1, 2002.*

Exceptions:

1. A relocatable building that is sited with the intent that it be at the site for less than three years and is sited upon a temporary foundation in a manner that is designed to permit easy removal. Also see CCR, Title 24, Part 1, California Administrative Code, Section 4-314 for definition of relocatable building.
2. Detached buildings designed and used for non-instructional purposes that meet the applicable requirements for that occupancy. Buildings would include, but not be limited to:

Concession Stand
Press Box
Restroom Facilities
Shade Structure
Snack Bar
Storage Building
Ticket Booth

907.2.29.2 New building on an existing public school campus. An automatic fire alarm system shall be provided in all occupancies. The provisions of this section shall apply to any public school project construction of a new building on an existing campus and receiving state funds pursuant to Leroy F. Green, School Facilities Act of 1998, California Education Code sections 17070.10 through 17079. For purposes of this section, an existing campus refers to a school site, where an application for construction of original buildings was made to DSA prior to July 1, 2002.

Exceptions:

1. A construction project that has an estimated total cost of less than \$200,000.
2. A relocatable building that is sited with the intent that it be at the site for less than three years and is sited upon a temporary foundation in a manner that is designed to permit easy removal. See California Administrative Code, Section 4-314 for definition of relocatable building.
3. Detached buildings designed and used for non-instructional purposes that meet the applicable requirements for that occupancy. Buildings would include, but not be limited to:

Concession Stand
Press Box
Restroom Facilities
Shade Structure
Snack Bar
Storage Building
Ticket Booth

907.2.29.3 Alterations to existing buildings on an existing public school campus. An automatic fire alarm system shall be provided for all portions within the scope of an alteration project. The provisions of this section shall apply to any public school project on an existing campus and receiving state funds pursuant to Leroy F. Green, School Facilities Act of 1998, California Education Code sections 17070.10 through 17079. For purposes of this section, an existing campus refers to a school site, where an application for construction of original buildings was made to DSA prior to July 1, 2002.

Exceptions:

1. A construction project that has an estimated total cost of less than \$200,000.
2. A relocatable building that is sited with the intent that it be at the site for less than three years and is sited upon a temporary foundation in a manner that is designed to permit easy removal. See California Administrative Code, Section 4-314 for definition of relocatable building.
3. Detached buildings designed and used for non-instructional purposes that meet the applicable requirements for that occupancy. Buildings would include, but not be limited to:

Storage Building
Ticket Booth
Concession Stand
Snack Bar
Restroom Facilities
Shade Structure
Press Box

Rational for revision:

The SFM is relocating and reformatting the provisions originally proposed to Section 442.2 to Section 903.2.3, 907.2.19 relating to the automatic fire sprinklers and Section 442.3 to Section 907.2.3.1, 907.2.29 relating to fire alarm systems in Group E, public school state funded construction projects for kindergarten through 12th grade. These revisions are necessary to correlate both the California Building Code and the California Fire Code. These revisions have no change in regulatory effect, purpose or scope than originally proposed to Section 442 in the 45-day comment period and do not change it Initial Statement of Reasons (ISOR)

Notation:

Authority: Health and Safety Code Sections 13108, 13108.5, 13114, 13143, 13146, 13210, 13211, 18949.2, Public Education Code 17010, through 17079

References: Health and Safety Code Sections 13143, 13211, 18949.2, Public Education Code 17010, through 17079

1004.1.1.1 Intervening spaces or accessory areas. Where occupants egress from one or more room, area or space through another others, the design occupant load shall be the combined occupant load of interconnected accessory or intervening spaces. Design of egress path capacity shall be based on the cumulative portion of occupant loads of all rooms, areas or spaces to that point along the path of egress travel.

1004.1.1.2 Adjacent levels for mezzanines. ~~The~~ That portion of occupant load of a mezzanine with required egress through a room, area or space on an adjacent level shall be added to the occupant load of that room, area or space.

~~Where a mezzanine is served by a means of egress, independent of the room or space in which it is located, the portion of occupant load accumulated to the room or space shall be added to the occupant load of that room or space.~~

Exception:

~~Mezzanines that conform with the egress requirements for a story.~~

1004.1.1.3 Adjacent stories. ~~Where occupants from an adjacent story require access through a story under consideration, the cumulative occupant load from the adjacent story shall not be added when determining the capacity and number of exits. The required capacity and number of egress paths from the adjacent story through the story under consideration shall not be reduced. Other than for the egress components designed for convergence in accordance with Section 1005.6, the occupant load from separate stories shall not be added.~~

Rational for revision:

The SFM is proposing additional modifications to correct the above sections in line with the most recent national code hearing results. The following is the commenter's reasons that the SFM agrees with and is proposing these additional modifications to correct the 2012 IBC.

Commenter's Reason: Over the past two code cycles there have been numerous changes to the egress provisions. Along the way a number of basic premises of the code have been slightly modified with the result of inconsistent interpretation and application of the code.

The goal of this code change is to state how occupant load is addressed in one place (Section 1004) so that the user can consistently apply the occupant load in other sections utilized to calculate the width (or capacity) and determine the number of exits or exit access paths. During the past two code cycles seemingly straight forward changes have had the effect of making the code more restrictive through interpretation even though they were not advertised as such.

1004.1.1.1 Intervening spaces: The current code as written gives inconsistent interpretations as shown in the 2012 ICC Code and Commentary Figure 1004.1.1 on page 10-10 and Figure 1021.2(1) on page 10-135. In Figure 1004.1.1, if interpreted literally as written, a small lobby with 10 occupant load with one path of exit travel through it would either have all or part of the occupant load from the next room added to it to determine both number and

capacity of exits. If the code is applied literally in this example, then the design occupant load (now much larger) would require two exits or exit access from the lobby on its own even though the large room driving egress already has access to two exits. In the example accompanying Figure 1021.2(1) part of the occupant load is added to the corridor to determine the corridor now needs three exits which is incorrect as the room driving this condition already had access to three exits or exit access and the overall story only needs three exits.

Instead of taking occupant load from one space and adding it to another as implied by the current code for the overall design occupant load, this public comment emphasizes rooms that share an egress path must be looked at for the occupant load in the aggregate to address number of exits, door swing, hardware, etc. and each path of egress travel width (or capacity) must be designed for an accumulation of the portion of occupant load with egress along that path. Each individual room must also have access to the required egress as currently required by code.

1004.1.1.2 Mezzanines: Egress from mezzanines has been treated differently than stories in the IBC code for a number of years. The concept provided here is only the portion of occupant load with required egress through the room, area or space shall be added to the occupant load of the room, area or space below. This accounts for mezzanines where there is considerable independent egress directly off of the mezzanine and also for the conditions where some or all of the required egress from the mezzanine is through the level below.

1004.1.1.3 Stories: Historically in the IBC occupant load has not needed to be accumulated through exits from one story to another as long as both the maximum number and capacity at any story is maintained in the stories below. This has been referred to the “cascading stairway” loading effect. The concern of “conflict with the cascading stairway loading utilized by the code for years” was mentioned by the egress committee in the disapproval of E14, E15 and E17. In past codes, there is one instance where occupant load is added between stories when there is convergence with egress to a central level occurring at the same time from both above and below. This is acknowledged in this public comment.

The loss of the cascading loading for stairways may have occurred, in the minds of some, when unenclosed exit stairways found in section 1020, exceptions 8 and 9, of the 2006 IBC were relocated by E122-06/07 from the exit provisions to the exit access provisions. E122-06/07 stated it did not increase the cost of construction and there was no discussion in the E122-06/07 reason of any effect on cascading stairway loading at that time. Yet by renaming unenclosed exit stairs as unenclosed exit access stairs some practitioners interpreted this as a need to now add the portion of occupant load from an exit access stairway to the story below (as part of the exit access) instead of maintaining both the capacity and number of means of egress from the story as has historically been done for exits. This cascade stairway loading concept was alive and well regarding egress width from a story in section 1004.4 of the 2006 IBC, again in the last sentence of section 1005.1 of the 2006 IBC, and finally addressed for the number of exits from a story in 2006 IBC section 1019.1. The last section of this public comment attempts to address this issue to ensure, even though egress through an adjacent story has been reorganized, the intent of maintaining the cascade stairway loading is maintained as pointed out by the egress committee.

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2

References: Health and Safety Code Sections 13143, 13211, 18949.2

1011.4 Raised character and Braille exit signs. *Tactile exit signs shall be required at the following locations:*

1. *Each grade-level exterior exit door that is required to comply with Section 1011.1, shall be identified by a tactile exit sign with the word, “EXIT.”*

2. *Each exit door that is required to comply with Section 1011.1, and that leads directly to a grade-level exterior exit by means of a stairway or ramp shall be identified by a tactile exit sign with the following words as appropriate:*

2.1. *“EXIT STAIR DOWN”*

2.2. *“EXIT RAMP DOWN”*

2.3. *“EXIT STAIR UP”*

2.4. *“EXIT RAMP UP”*

3. Each exit door that is required to comply with Section 1011.1, and that leads directly to a grade-level exterior exit by means of an exit enclosure or an exit passageway shall be identified by a tactile exit sign with the words, "EXIT ROUTE."
4. Each exit access door from an interior room or area to a corridor or hallway that is required to comply with Section 1011.1, shall be identified by a tactile exit sign with the words "EXIT ROUTE."
5. Each exit door through a horizontal exit that is required to comply with Section 1011.1, shall be identified by a sign with the words, "TO EXIT."

~~For the purposes of this Section "tactile exit signs"~~Raised character and Braille exit signs shall comply with Chapter 11B.

Rational for revision:

The SFM is making editorial revisions to the above section to correlate with those modifications proposed by the Division of the State Architect for consistency. This revision has no change in regulatory effect.

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

1022.9 Stairway identification signs. A sign shall be provided at each floor landing in an interior exit stairway and ramp connecting more than three stories designating the floor level, the terminus of the top and bottom of the interior exit stairway and ramp and the identification of the stair or ramp. The signage shall also state the story of, and the direction to, the exit discharge and the availability of roof access from the interior exit stairway and ramp for the fire department. The sign shall be located 5 feet (1524 mm) above the floor landing in a position that is readily visible when the doors are in the open and closed positions.

~~Tactile~~In addition to the stairway identification sign, raised characters and braille floor identification signs that comply with Chapter 11B shall be located at the landing of each floor level, placed adjacent to the door on the latch side, in all enclosed stairways in buildings two or more stories in height to identify the floor level. At the exit discharge level, the sign shall include a raised five pointed star located to the left of the identifying floor level. The outside diameter of the star shall be the same as the height of the raised characters.

Rational for revision:

The SFM is making editorial revisions to the above section to correlate with those modifications proposed by the Division of the State Architect for consistency. This revision has no change in regulatory effect.

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.65, 13108, 13143, 13143.9, 13146, 13210, 13211, 17921, 18949.2
References: Health and Safety Code Sections 13143, 13211, 18949.2

The SFM proposes to not adopt Chapter 11A and repeal the adoption Section 1118A.1

**CHAPTER 11A
HOUSING ACCESSIBILITY**

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

Rational for revision:

The SFM is repealing the adoption of Section 1118.A.1 for consistency, scope and application with the Department of Housing and Community Development. This repeal has no change in regulatory effect.

Notation:

Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

The SFM proposes to not adopt Chapter 11B and repeal the adoption Section 1114B.2.1

**CHAPTER 11B
ACCESSIBILITY TO PUBLIC BUILDINGS, PUBLIC ACCOMMODATIONS,
COMMERCIAL BUILDINGS AND PUBLICLY FUNDED HOUSING**

~~**1114B.2.1 General.** In buildings or facilities, or portions of buildings or facilities, required to be accessible, accessible means of egress shall be provided as required by Chapter 10.~~

Rational for revision:

The SFM is repealing the adoption of Section 1114.B.2.1 for consistency, scope and application with the Division of State Architect. This repeal has no change in regulatory effect.

Notation:

Authority: Health and Safety Code Sections 13108, 13143, 13143.9, 13146, 17921, 18949.2

References: Health and Safety Code Sections 13143, 18949.2

~~**1505.9 Photovoltaic panels and modules.** Rooftop mounted photovoltaic panels systems and modules shall be tested, listed and identified with a fire classification in accordance with UL 1703. The fire classification shall comply with Table 1505.1 based on the type of construction of the building.~~

~~**1509.7.2 Fire classification.** Rooftop mounted photovoltaic panels and modules shall have the fire classification as required by Section 1505.9.~~

~~**Exceptions:**~~

~~1. Photovoltaic panels and modules having a minimum Class C fire classification are permitted where listed and labeled in accordance with UL 1703 and where installed in direct contact with the roof surface.~~

~~2. Photovoltaic panels having a minimum Class C fire classification are permitted where listed and labeled in accordance with UL 1703 and where installed at least 12 inches (305mm) above the roof surface.~~

~~3. Photovoltaic panels and modules arranged in arrays are permitted where the following conditions are met:~~

~~3.1. Photovoltaic panels and modules have a minimum Class C fire classification where listed and labeled in accordance with UL 1703;~~

~~3.2. The entire perimeter of the array is provided with a 0.0187 inch (0.4712 mm) (No. 26 gage) corrosion resistant steel or equivalent approved barrier extending from the array to the roof and;~~

~~3.3. Where any openings between the individual panels and modules on the upper face are provided with screens, flashing or otherwise protected to prevent entry of vegetative debris.~~

Rational for revision:

The SFM is revising the term used in Section 1505.9 to make specific the UL 1703 test be applied to the panel and module vs. the system for the fire classification.

The SFM is removing the proposed exceptions to Section 1509.7.2 at this time as a result of ongoing testing and analysis of the data and results related to direct flame and ember ignition. The SFM also received comment during the 45-day comment period that in part addresses similar concerns. The SFM intends to bring additional modifications forward during the next rulemaking cycle to address the results of the test and further clarify the fire classification requirements for those proposed in areas subject to California Building Code Chapter 7A. Until the SFM moves forward with those additional modifications the fire classification of panels and modules will be based on the building type of construction and having a minimum Class C classification.

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

References: Health and Safety Code Sections 13143, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178 and 51179, Public Resources Code Sections 4201 through 4204

3111.4 Access and pathways. *Roof access, pathways, and spacing requirements shall be provided in accordance with Sections 3111.4.1 through 3111.4.3.3.*

Exceptions:

1. Residential structures shall be designed so that each photovoltaic array is no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in either axis.

2. Panels/modules shall be permitted to be located up to the roof ridge where an alternative ventilation method approved by the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.

Rational for revision:

The SFM is reinstating this exception as originally proposed during the Code Advisory Committee Review. This exception raised concern that the building would need to be designed to a 150 foot axis, however, the SFM intent is that the array is not to be greater than 150 feet and either axis. The SFM intends to issue a formal code interpretation to clarify the exception. Additionally this exception is correlated with the Fire Code and will not create conflict from the application of the Building Code, Residential Code or the Fire Code.

Notation:

Authority: Health and Safety Code Sections 1250, 1569.72, 1569.78, 1568.02, 1502, 1597.44, 1597.45, 1597.46, 1597.54, 1597.65, 13108, 13108.5, 13114, 13143, 13143.2, 13143.6, 13146, 13210, 13211, 17921, 18949.2, 25500 through 25545, Government Code Section 51189, Public Education Code 17074.50

References: Health and Safety Code Sections 13143, 13211, 18949.2, 25500 through 25545, Government Code Sections 51176, 51177, 51178 and 51179, Public Resources Code Sections 4201 through 4204