# INITIAL EXPRESS TERMSFOR PROPOSED BUILDING STANDARDSOF THE CALIFORNIA BUILDING STANDARDS COMMISSIONREGARDING THE 2022 CALIFORNIA BUILDING CODE,

# CALIFORNIA CODE OF REGULATIONS, TITLE 24, PART **2**

# (BSC 05/21)

The State agency shall draft the regulations in plain, straightforward language, avoiding technical terms as much as possible and using a coherent and easily readable style. The agency shall draft the regulation in plain English. A notation shall follow the express terms of each regulation listing the specific statutes authorizing the adoption and listing specific statutes being implemented, interpreted, or made specific (Government Code Section 11346.2(a)(1)).

If using assistive technology, please adjust your settings to recognize underline, strikeout, italic and ellipsis.

## LEGEND for EXPRESS TERMS (Based on model codes - Parts 2, 2.5, 3, 4, 5, 9, 10)

* Model Code language appears upright
* Existing California amendments appear in *italic*
* Amended model code or new California amendments appear *underlined and italic*
* Repealed model code language appears ~~upright and in strikeout~~
* Repealed California amendments appear in *~~italic and strikeout~~*
* Ellipsis ( ...) indicate existing text remains unchanged

# INITIAL EXPRESS TERMS

# 2022 CALIFORNIA BUILDING CODECALIFORNIA CODE OF REGULATIONS | TITLE 24, PART 2, VOLUME 1 OF 2

# ITEM 1Chapter *1 – Division 1 SCOPE AND ADMINISTRATION* Section *1.1 GENERAL* and Section *1.2 BUILDING STANDARDS COMMISSION*

BSC proposes to bring forward existing California amendments in *Chapter 1, Division I, Section 1.1*, and *Section 1.2* from the 2019 California Building Code for adoption into the 2022 California Building Code with additional amendments shown below.

***1.1 GENERAL***

***1.1.1 Title.*** *These regulations shall be known as the California Building Code, may be*

*cited as such and will be referred to herein as "this code." The California Building*

*Code is Part 2 of thirteen parts of the official compilation and publication of the*

*adoption, amendment and repeal of building regulations to the California Code of*

*Regulations, Title 24, also referred to as the California Building Standards Code.*

*This part incorporates by adoption the ~~2018~~ 2021 International Building Code of*

*the International Code Council with necessary California amendments.*

***1.1.2 Purpose.*** *[No change to existing California amendment]*

***1.1.3 Scope.*** *[No change to existing California amendment]*

***…***

***1.2 BUILDING STANDARDS COMMISSION***

***1.2.1 BSC*** *[No change to existing California amendment]*

***1.2.2 BSC-CG*** *[No change to existing California amendment]*

***1.2.3 Alternative materials, design and methods of construction and equipment.*** *[No change to existing California amendment**]*

***…***

**Notation:**

Authority: Government Code Section 14617; Health and Safety Code Sections 16600, 18928, 18930.5, 18934.5, 18938, 18940.5 and 18941.8

Reference(s): Government Code Section 14617; Health and Safety Code Sections 16600 and 18901-18949

# ITEM 2Chapter 1 - *Division II* SCOPE AND ADMINISTRATIONSection *105.5 Expiration*

BSC proposes to add a new amendment for Section *105.5.1* *Expiration.*

**105.5 Expiration**. Every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 180 days after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 180 days after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated.

***105.5.1 Expiration****.* ***[BSC]*** *On or after January 1, 2019, every permit issued shall become invalid unless the work on the site authorized by such permit is commenced within 12 months after its issuance, or if the work authorized on the site by such permit is suspended or abandoned for a period of 12 months after the time the work is commenced. The building official is authorized to grant, in writing, one or more extensions of time, for periods not more than 180 days each. The extension shall be requested in writing and justifiable cause demonstrated*. *(See Health and Safety Code Section 18938.5 and 18938.6.).*

**Notation:**

Authority: Health and Safety Code Sections 18331, 18932(c) and 18938.5(b)(2)(B)

Reference(s): Health and Safety Code Sections 18938.5(b)(2)(B) and 18938.6

# ITEM 3Chapter 1 *-* *Division II* SCOPE AND ADMINISTRATIONSection 110.3.12 Type IV-A. IV-B. and IV-C connection protection Inspection

BSC proposes to repeal California amended Section *110.3.12* and adopt Section 110.3.5 of the 2021 IBC language.

***~~110.3.12 Type IV-A. IV-B. and IV-C connection protection Inspection.~~****~~In buildings of Type IV-A, IV-B and IV-C Construction, where connection fire resistance ratings are provided by wood cover calculated to meet the requirements of Section 2304.10.1 inspection of the wood cover shall be made after the cover is installed, but before any other coverings or finishes are installed.~~*

**110.3.5 Types IV-A, IV-B and IV-C connection protection inspection.**

In buildings of Types IV-A, IV-B and IV-C construction, where connection *fire- resistance* *ratings* are provided by wood cover calculated to meet the requirements of Section 2304.10.2, inspection of the wood cover shall be made after the cover is installed, but before any other coverings or finishes are installed.

**Notation:**

Authority: Health and Safety Code Sections 18928, 18928.1, 18934.5, 18938.3 and 18942.
Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 4Chapter 2 – DEFINITIONSSection 202 DEFINITIONS (MASS TIMBER and WALL, LOAD-BEARING )

BSC proposes to adopt Chapter 2 DEFINITIONS of the 2021 IBC without change, and repeal California amendments to *MASS TIMBER* and WALL, LOAD BREARING definitions and adopt the 2021 IBC model code definitions**.** *[Repealed amendment and associated adopted model code def. shown for clarity]*

***~~MASS TIMBER.~~*** *~~Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross section dimensions of Type IV construction.~~*

**MASS TIMBER.** Structural elements of Type IV construction primarily of solid, built-up, panelized or engineered wood products that meet minimum cross-section dimensions of Type IV construction.

**…**

**WALL, LOAD-BEARING.** Any wall meeting either of the following classifications:

1. Any metal or wood stud wall that supports more than 100 pounds per linear foot (1459 N/m) of vertical load in addition to its own weight.
2. Any masonry or concrete *~~or mass timber~~* wall that supports more than 200 pounds per linear foot (2919 N/m) of vertical load in addition to its own weight.

**WALL, LOAD-BEARING.** Any wall meeting either of the following classifications:

1. Any metal or wood stud wall that supports more than 100 pounds per linear foot (1459 N/m) of vertical load in addition to its own weight.
2. Any masonry or concreteor mass timber wall that supports more than 200 pounds per linear foot (2919 N/m) of vertical load in addition to its own weight.

**…**

**Notation:**

Authority: Health and Safety Code Sections 18928, 18928.1, 18934.5, 18938.3 and 18942.
Reference(s): Health and Safety Code Sections 18928, 18928.1 and 18934.5

# ITEM 5

# Chapter 3 - OCCUPANCY CLASSIFICATION AND USEChapter 4 - SPECIAL DETAILED REQUIREMENTS BASED ON OCCUPANCY AND USEChapter 5 - GENERAL BUILDING HEIGHTS AND AREASChapter 6 - TYPES OF CONSTRUCTIONChapter 7 - FIRE AND SMOKE PROTECTION FEATURES

BSC proposes to adopt Chapters 3, 4, 5, 6, 7 of the 2021 IBC without change.

**Notation:**Authority: Health and Safety Code Sections 18928, 18928.1, 18934.5, 18938.3 and 18942
Reference(s): Health and Safety Code Sections 18928, 18928.1, 18934.5, 18938.3 and 18942

# ITEM 6Chapter 8 - INTERIOR FINISHESSection 801 SCOPE

BSC proposes to adopt Chapter 8 INTERIOR FINISHES of the 2021 IBC, bring forward existing amendment without change**.**

**801.1 Scope.** The provisions of this chapter shall govern the use of materials used as interior finishes, trim and decorative materials. ***[BSC-CG]*** *See California Green Building Standards Code, Chapter 5, Division 5.5 for additional finish material pollutant control requirements. [No change to existing California amendment]*

**. . .**

**Notation:**

Authority: Health and Safety Code Sections 18928, 18934.5 and 18940.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, 18934.5, 18938(b) and 18940.5

# ITEM 7Chapter 9 - FIRE PROTECTION AND LIFE SAFETY SYSTEMS

**Chapter** **10 - MEANS OF EGRESS**

BSC proposes to adopt Chapters 9 and 10 of the 2021 IBC without change**.**

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 8Chapter 11 - ACCESSIBILITY

BSC does not adopt Chapter 11 of the 2021 IBC

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 9Chapter 12 - INTERIOR ENVIRONMENT Section *1204.6 Light pollution reduction* and *1204.7 Campus lighting…*

BSC proposes to adopt Chapter 12 of the 2021 IBC, bring forward existing amendments without change**.**

***1204.6 Light pollution reduction. [BSC-CG]*** *See California Green Building Standards Code, Chapter 5, Division 5.1 for additional light pollution reduction requirements. [No change to existing California amendment]*

***1204.7 Campus lighting for parking facilities and primary walkways as at California state universities, colleges and community colleges. [BSC]*** *Artificial light shall be provided for parking facilities and primary walkways at California State Universities, colleges and community colleges in accordance with provisions of this subsection. This subsection shall not apply to the University of California unless the Regents of the University of California, by resolution, make it applicable.*

***1204.7.1 Lighting requirements****. Based on the recommendations* *… [No change to existing California amendment]*

**Notation:**

Authority: Government Code Section 14617, Health and Safety Code Sections 18928, 18934.5 and 18940.5

Reference(s): Government Code Section 14617, Health and Safety Code Sections 18928, 18928.1, 18934.5 and 18940.5

# ITEM 10Chapter 13 - ENERGY EFFICIENCY

BSC does not adopt Chapter 13 ENERGY EFFICIENCY of the 2021 IBC

**Notation:**Authority: Health and Safety Code Section 18928, 18930 and 18934.5
Reference(s): Health and Safety Code Sections 18928, 18928.1 and 18934.5

# ITEM 11Chapter 14 - EXTERIOR WALLS Section *1402.2.1*

**Express Terms:**BSC proposes to adopt Chapter 14 EXTERIOR WALLS of the 2021 IBC, bring forward existing amendment without change.

***1402.2.1 [BSC-CG]*** *See California Green Building Standards Code, Chapter 5, Division 5.4 for additional weather protection requirements. [No change to existing California amendment]*

**Notation:**

Authority: Health and Safety Code Sections 18928, 18934.5 and 18940.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, 18934.5 and 18940.5

# ITEM 12Chapter 15 - ROOF ASSEMBLIES AND ROOFTOP STRUCTURESSection ~~1510.7.2~~ *1511.9* *Photovoltaic* ~~panels and modules~~ *(PV) panel systems*

BSC proposes to adopt Chapter 15, ROOF ASSEMBLIES AND ROOFTOP STRUCTURES of the 2021 IBC, repeal our existing *Exception* amendment, and co-adopt DSA’s Section 1511.9 Photovoltaic (PV) panel systems (formerly 1510.7.2) .

**. . .**

**~~1510.7.2~~** ***1511.9*** ***[BSC]* ~~Photovoltaic panels and modules~~. *Photovoltaic (PV) panel systems.*** *Rooftop-mounted photovoltaic panels and modules shall be listed and labeled in accordance with UL 7103 or with both UL 61730-1 and UL 61730-2 and shall be installed in accordance with the manufacturer’s instructions.*

***~~Exception: [BSC]~~*** *~~The effective wind area shall be in accordance with Chapter 16 and ASCE 7 Section 26.2~~*

***~~1510.7.2.1~~ 1511.9.1 Installation.*** *Supports and attachments of photovoltaic panels to the roof structure, the panels, modules and components shall be designed for applied loads per this code and shall comply with industry standards determined applicable by the enforcement agency. Seismic design requirements shall be determined from ASCE 7 Section 13.6.12. Wind design pressures shall be determined from ASCE 7 Section 29.4.3 or 29.4.4 using effective wind area per ASCE 7 Section 26.2. Calculations and drawings of the supports and attachments shall be submitted to the enforcement agency for review.*

**. . .**

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

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# ITEM 13Chapter 16 - STRUCTURAL DESIGN Section *1613.1.2 State-owned buildings* and *1613.1.3 Existing state buildings*

BSC adopts Chapter 16 STRUCTURAL DESIGN of the 2021 IBC, bring forward existing amendments to Sections *1613.1.2 State-owned buildings* and *1613.1.3 Existing state buildings*, without change**.**

***1613.1.2 State-owned buildings. [BSC]*** *State-owned buildings, including those of the University of California, CSU and Judicial Council, shall not be constructed where any portion of the foundation would be within a mapped area of earthquake-induced liquefaction or landsliding or within 50 feet of a mapped fault rupture hazard as established by Section 1803.7. [No change to existing California amendment]*

***1613.1.3 Existing state buildings. [BSC]*** *Additions, alterations, repairs or change of occupancy category of existing buildings shall be in accordance with the California Existing Building Code, Part 10.* *[No change to existing California amendment]*

**Notation:**Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 14Chapter 17 - SPECIAL INSPECTIONS AND TESTSSection 1704.2.3 Statement of special inspectionsSection 1704.6.1 Item *6*Section *1704.6.2*Section 1705.5.3, *1705.5.7*, 1705.11.1, 1705.11.2, 1705.12.2, 1705.12.3, 1705.20Section 1707.1 General

BSC proposes to adopt Chapter 17 SPECIAL INSPECTIONS AND TESTS of the 2021 IBC, repeal California amendments to Sections *1705.5.7*, *1705.11.1*, *1705.11.2*, *1705.12.2*, *1705.12.3*, *1705.20*. and add Sections 1704.6.1 Item 6 and Section *1704.6.2*, relocated from California Existing Building Code, Part 10. *[Repealed amendment and associated adopted model code def. shown for clarity]*

**. . .**

**1704.2.3 Statement of special inspections.**

**…**

**1704.6.1 Structural observations for structures.**

**…**

*6****.***(previously Section 319.10.2.1, Part 10) *The requirement for structural observation shall be noted and prominently displayed on the front sheet of the approved plans and incorporated into the general notes on the approved plans.*

***1704.6.2 (previously Section 319.10.2.2, Part 10) Preconstruction meeting.*** *A preconstruction meeting is mandatory for all projects which require structural observation. The meeting shall include, but is not limited to, the registered design professional, structural observer, general constructor, affected subcontractors, the project inspector and a representative of the enforcement agency (designated alternates may attend if approved by the structural observer). The structural observer shall schedule and coordinate this meeting. The purpose of the meeting is to identify and clarify all essential structural components and connections that affect the lateral and vertical load systems and to review scheduling of the required observations for the project’s structural system retrofit.*

***…***

***~~1705.5.7 Mass timber construction.~~*** *~~Special inspections of Mass Timber elements in Types IV-A, IV-B and IV-C construction shall be in accordance with Table 1705.5.3.~~*

***…***

***~~TABLE 1705.5.7~~***

***~~REQUIRED SPECIAL INSPECTIONS OF MASS TIMBER CONSTRUCTION~~***

| ***~~Type~~*** | ***~~Continuous Special Inspection~~*** | ***~~Periodic Special Inspection~~*** |
| --- | --- | --- |
| 1. *~~Inspection of anchorage and connections of mass timber construction to timber deep foundation systems.~~*
 |  | *~~X~~* |
| 1. *~~Inspect erection of mass timber construction~~*
 |  | *~~X~~* |
| 1. *~~Inspection of connections where installation methods are required to meet design loads~~*
 |  |  |
| * 1. *~~Threaded fasteners~~*
 |  |  |
| * + 1. *~~Verify use of proper installation equipment~~*
 |  | *~~X~~* |
| * + 1. *~~Verify use of pre-drilled holes where required~~*
 |  | *~~X~~* |
| * + 1. *~~Inspect screws, including diameter, length, head type, spacing, installation angle, and depth~~*
 |  | *~~X~~* |
| * 1. *~~Adhesive anchors installed in horizontal or upwardly inclined orientation to resist sustained tension loads~~*
 | *~~X~~* |  |
| * 1. *~~Adhesive anchors not defined in 3.2~~*
 |  | *~~X~~* |
| * 1. *~~Bolted connections~~*
 |  | *~~X~~* |
| * 1. *~~Concealed connections~~*
 |  | *~~X~~* |

**1705.5.3 (previously 1705.5.7) Mass timber construction.**

Special inspections of mass timber elements in Types IV-A, IV-B and IV-C construction shall be in accordance with Table 1705.5.3.

**…**

**TABLE 1705.5.3 (previously 1705.5.7)**

**REQUIRED SPECIAL INSPECTIONS OF MASS TIMBER CONSTRUCTION**

| ***Type*** | ***Continuous Special Inspection*** | ***Periodic Special Inspection*** |
| --- | --- | --- |
| 1. *Inspection of anchorage and connections of mass timber construction to timber deep foundation systems.*
 |  | *X* |
| 1. *Inspect erection of mass timber construction*
 |  | *X* |
| 1. *Inspection of connections where installation methods are required to meet design loads*
 |  |  |
| * 1. *Threaded fasteners*
 |  |  |
| * + 1. *Verify use of proper installation equipment*
 |  | *X* |
| * + 1. *Verify use of pre-drilled holes where required*
 |  | *X* |
| * + 1. *Inspect screws, including diameter, length, head type, spacing, installation angle, and depth*
 |  | *X* |
| * 1. *Adhesive anchors installed in horizontal or upwardly inclined orientation to resist sustained tension loads*
 | *X* |  |
| * 1. *Adhesive anchors not defined in 3.2*
 |  | *X* |
| * 1. *Bolted connections*
 |  | *X* |
| * 1. *Concealed connections*
 |  | *X* |

**…**

**1705.11.****1 Structural wood.** Continuous special inspection is required during field gluing operations of elements of the main wind force-resisting system. Periodic special inspection is required for nailing, bolting, anchoring and other fastening of elements of the main wind force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces and hold-downs.

**Exception:** Special inspections are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the main wind force-resisting system, where the *~~lateral resistance is provided by the structural sheathing and the~~* specified fastener spacing at panel edges is more than 4 inches (102 mm) on center.

**1705.12.1 (previously 1705.11.1) Structural wood**. Continuous special inspection is required during field gluing operations of elements of the main wind force-resisting system. Periodic special inspection is required for nailing, bolting, anchoring and other fastening of elements of the main wind force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces and hold-downs.

**Exception**: Special inspections are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the main wind force-resisting system, where the lateral resistance is provided by the structural sheathing and the specified fastener spacing at panel edges is more than 4 inches (102 mm) on center

**1705.11.2 Cold-formed steel light-frame construction.** Periodic special inspection is required for welding operationsof elements of the main wind force-resisting system.Periodic special inspection is required for screw attachment,bolting, anchoring and other fastening of elementsof the main wind force-resisting system, including shear

walls, braces, diaphragms, collectors (drag struts) and hold-downs.

**Exception:** Special inspections are not required for cold-formed steel light-frame shear walls and diaphragms, including screwing, bolting, anchoring and other fastening to components of the wind force resisting system, where either of the following applies:

* 1. The sheathing is gypsum board or fiberboard.
	2. The sheathing is wood structural panel or steel sheets on only one side of the shear wall, shear panel or diaphragm assembly and the *~~specified~~*fastener spacing *~~at~~* the *~~panel or sheet edges~~* is more than 4 inches (102 mm) on center (o.c.).

**1705.12.2 (previously 1705.11.2) Cold-formed steel light-frame construction.** Periodic special inspection is required for welding operationsof elements of the main wind force-resisting system.Periodic special inspection is required for screw attachment,bolting, anchoring and other fastening of elementsof the main wind force-resisting system, including shear

walls, braces, diaphragms, collectors (drag struts) and hold-downs.

**Exception:** Special inspections are not required for cold-formed steel light-frame shear walls and diaphragms, including screwing, bolting, anchoring and other fastening to components of the wind force resisting system, where either of the following applies:

1. The sheathing is gypsum board or fiberboard.
2. The sheathing is wood structural panel or steel sheets on only one side of the shear wall, shear panel or diaphragm assembly and the specified fastener spacing atthe panel or sheet edgesis more than 4 inches (102 mm) on center (o.c.).

**1705.13 (previously 1705.12) Special inspections for seismic resistance.** Special inspections for seismic resistance shall be required as specified in Sections 1705.12.1 through 1705.12.9, unless exempted by the exceptions of Section 1704.2.

Exception: The special inspections specified in Sections 1705.12.1 through 1705.12.9 are not required for structures designed and constructed in accordance with one of the following:

1. The structure consists of light-frame construction; the design spectral response acceleration at short periods, SDS, as determined in Section 1613.2.4, does not exceed 0.5; and the building height of the structure does not exceed 35 feet (10 668 mm).
2. The seismic force-resisting system of the structure consists of reinforced masonry or reinforced concrete; the design spectral response acceleration at short periods, SDS, as determined in Section 1613.2.4, does not exceed 0.5; and the building height of the structure does not exceed 25 feet (7620 mm).
3. The structure is a detached one- or two-family dwelling not exceeding two stories above grade plane and does not have any of the following horizontal or vertical irregularities in accordance with Section 12.3 of ASCE 7:
	1. Torsional or extreme torsional irregularity.
	2. Nonparallel systems irregularity.
	3. Stiffness-soft story or stiffness-extreme soft story irregularity.
	4. Discontinuity in lateral strength-weak story irregularity.

**1705.13.1 (previously 1705.12.1) Structural steel.** Special inspections for seismic resistance shall be in accordance with Section 1705.12.1.1 or 1705.12.1.2, as applicable.

**1705.12.2 Structural wood.** For the seismic force-resisting systems of structures assigned to Seismic Design Category C, D, E or F:

1. Continuous special inspection shall be required during field gluing operations of elements of the seismic force-resisting system.
2. Periodic special inspection shall be required for nailing, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels and hold-downs.

**Exception:** Special inspections are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the seismic force-resisting system, where the *~~lateral resistance is provided by structural sheathing, and the specified~~* fastener spacing *~~at~~* the *~~panel edges~~* is more than 4 inches (102 mm) on center.

**1705.13.2 (previously 1705.12.2) Structural wood.** For the seismic force-resisting systems of structures assigned to Seismic Design Category C, D, E or F:

1. Continuous special inspection shall be required during field gluing operations of elements of the seismic force-resisting system.
2. Periodic special inspection shall be required for nailing, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including wood shear walls, wood diaphragms, drag struts, braces, shear panels and hold-downs.

**Exception:** Special inspections are not required for wood shear walls, shear panels and diaphragms, including nailing, bolting, anchoring and other fastening to other elements of the seismic force-resisting system, where the lateral resistance is provided by structural sheathing, and the specified fastener spacing at the panel edges is more than 4 inches (102 mm) on center.

**1705.12.3 Cold-formed steel light-frame construction.** For the seismic force-resisting systems of structuresassigned to Seismic Design Category C, D, E or F, periodicspecial inspection shall be required for both:

1. Welding operations of elements of the seismic force-resisting system.
2. Screw attachment, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.

**Exception:** Special inspections are not required for cold-formed steel light-frame shear walls and diaphragms, including screw installation, bolting, anchoring and other fastening to components of the seismic force-resisting system, where either of the following applies:

1. The sheathing is gypsum board or fiberboard.
2. The sheathing is wood structural panel or steel sheets on only one side of the shear wall, shear panel or diaphragm assembly and the *~~specified~~* fastener spacing *~~at~~* the *~~panel or sheet edge~~* is more than 4 inches (102 mm) on center.

**1705.13.3 (previously 1705.12.3) Cold-formed steel light-frame construction.** For the seismic force-resisting systems of structuresassigned to Seismic Design Category C, D, E or F, periodicspecial inspection shall be required for both:

1. Welding operations of elements of the seismic force-resisting system.
2. Screw attachment, bolting, anchoring and other fastening of elements of the seismic force-resisting system, including shear walls, braces, diaphragms, collectors (drag struts) and hold-downs.

**Exception:** Special inspections are not required for cold-formed steel light-frame shear walls and diaphragms, including screw installation, bolting, anchoring and other fastening to components of the seismic force-resisting system, where either of the following applies:

1. The sheathing is gypsum board or fiberboard.
2. The sheathing is wood structural panel or steel sheets on only one side of the shear wall, shear panel or diaphragm assembly and the specified fastener spacing at the panel or sheet edge is more than 4 inches (102 mm) on center.

**. . .**

***~~1705.20 Sealing of mass timber.~~*** *~~Period special inspections of sealants or adhesives shall be conducted where sealant or adhesive required by Section 703.9 is applied to mass timber building elements as designated in the approved construction documents.~~*

**1705.20 Sealing of mass timber.**

Periodic special inspections of sealants or adhesives shall be conducted where sealant or adhesive required by Section 703.7 is applied to mass timber building elements as designated in the approved construction documents.

**. . .**

**1707.1 General. *[BSC]*** *In the absence of approved rules or other approved standards, the building official shall make, or cause to be made, the necessary tests and investigations***. . .** *[No change to existing California amendment]*

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 15Chapter 18 - SOILS AND FOUNDATIONS

BSC proposes to adopt Chapter 18 SOILS AND FOUNDATION of the 2021 IBC and carry forward existing amendments in Section 1810.3.10.4, without further change.

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 16Chapter 19 – CONCRETESection 1905.1.2 ACI 318, 1905.1.3 ACI 318, and 1905.1.8

BSC proposes to adopt Chapter 19 CONCRETE of the 2021 IBC, bring forward existing amendments and revise the 2013 AISI S100 reference to align with the 2018 AISI S100 in Section 1905.1.8 ACI 318.

**. . .**

**1905.1.2 ACI 318, Section 18.2.1** **. . *.*** *[No change to existing California amendment]*

**1905.1.3 ACI 318, Section 18.5 . . *.*** *[No change to existing California amendment]*

**. . .**

**1905.1.8 ACI 318, Section 17.2.3.5.2 (previously 1905.9)**

**. . .**

*Exceptions:*

*…*

 *2.5. The track is 33 to 68 mil (0.84 mm to 1.73 mm) 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 ~~E~~J3.3.1.*

**. . .**

**Notation:**

Authority: Health and Safety Code Sections 16600, 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, 18934.5 and 18938(b)

# ITEM 17Chapter 20 - ALUMINUM

BSC proposes to adopt Chapter 20 ALUMINUM of the 2021 IBC without change.

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 18Chapter 21 – MASONRY

BSC proposes to adopt Chapter 21 MASONRY of the 2021 IBC without change.

**Notation:**

Authority: Health and Safety Code Section 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 19Chapter 22 – STEEL

BSC proposes to adopt Chapter 22 STEEL of the 2021 IBC without change.

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 20Chapter 23 – WOODSection 2304.10.1.2 Connection fire resistance ratingSection 2304.11.3 FloorsSection 2304.11.4 Roof decks

BSC proposes to adopt Chapter 23 WOOD of the 2021 IBC, and repeal California amendment of Section *2304.10.1.2* and State amended language in Sections 2304.11.3 and 2304.11.4

***~~2304.10.1.2 Connection fire resistance rating.~~*** *~~Fire resistance ratings for connections in Type IV-A IV-B, or IV-C construction shall be determined by one of the following:~~*

1. *~~Testing in accordance with Section 703.2 where the connection is part of the fire resistance test.~~*
2. *~~Engineering analysis that demonstrates that the temperature rise at any portion of the connection is limited to an average temperature rise of~~*

*~~250°F (139°C) and a maximum temperature rise of 325° F (181 °C) for a time corresponding to the required fire resistance rating of the structural element being connected. For the purposes of this analysis the connection includes connectors fasteners and portions of wood members included in the structural design of the connection.~~*

**2304.10.1 Connection fire-resistance rating.**

*Fire-resistance* ratings for connections in Type IV-A, IV-B or IV-C construction shall be determined by one of the following:

1. Testing in accordance with Section 703.2 where the connection is part of the

fire-resistance test.

1. Engineering analysis that demonstrates that the temperature rise at any portion of the connection is limited to an average temperature rise of 250°F (139°C), and a maximum temperature rise of 325°F (181°C), for a time corresponding to the required *fire-resistance* rating of the structural element being connected. For the purposes of this analysis, the connection includes connectors, fasteners and portions of wood members included in the structural design of the connection.

***…***

**2304.11.3 Floors.** Floors shall be without concealed spaces~~.~~ *~~or with concealed spaces complying with Section 602.4.4.4.~~* Wood floors shall be constructed in accordance with Section 2304.11.3.1 or 2304.11.3.2.

**2304.11.3 Floors**. Floors shall be without concealed spaces or with concealed spaces complying with Section 602.4.4.3. Wood floors shall be constructed in accordance with Section 2304.11.3.1 or 2304.11.3.2.

**2304.11.4 Roof decks.** Roofs shall be without concealed spaces *~~or with concealed spaces complying with Section 602.4.4.4.~~* *~~Roof~~*decks shall be constructed in accordance with Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be an alternative that provides equivalent fire resistance and structural properties. Where supported by a wall, roof decks shall be anchored to walls to resist forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or approved hardware of sufficient strength to resist prescribed forces.

**…**

**2304.11.4 Roof decks.** Roofs shall be without concealed spaces or with concealed spaces complying with Section 602.4.4.3. Roof decks shall be constructed in accordance with Section 2304.11.4.1 or 2304.11.4.2. Other types of decking shall be an alternative that provides equivalent fire resistance and structural properties. Where supported by a wall, roof decks shall be anchored to walls to resist forces determined in accordance with Chapter 16. Such anchors shall consist of steel bolts, lags, screws or approved hardware of sufficient strength to resist prescribed forces.

**…**

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 21Chapter 24 - GLASS AND GLAZING

BSC proposes to adopt Chapter 24 GLASS AND GLAZING of the 2021 IBC without change.

**Notation:**

Authority: Health and Safety Code Section 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 22Chapter 25 - GYPSUM BOARD, GYPSUM PANEL PRODUCTS AND PLASTER

BSC proposes to adopt Chapter 25 GYPSUM BOARD, GYPSUM PANEL PRODUCTS AND PLASTER of the 2021 IBC without change.

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 23Chapter 26 - PLASTIC

BSC proposes to adopt Chapter 26 PLASTIC of the 2021 IBC without change.

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 24Chapter 27 – ELECTRICALChapter 28 - MECHANICAL SYSTEMSChapter 29 - PLUMBING SYSTEMS

BSC does not adopt Chapters 27, 28, and 29 of the 2021 IBC.

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 25Chapter 30 - ELEVATORS AND CONVEYING SYSTEMS

BSC proposes to adopt Chapter 30 Elevators and Conveying Systems of the 2021 IBC, without change**.**

**Notation:**Authority: Health and Safety Code Sections 18928 and 18934.5
Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 26Chapter 31 - SPECIAL CONSTRUCTIONSection 3102.3 Type of construction.Section 3102.6.1.1 Membrane.Section 3109.2 California swimming pool safety act (statewide)

BSC proposes to repeal an amendment within Section 3102.3, and Section 3102.6.1.1 and bring forward existing amendments with additional changes below.

**...**

**3102.3 Type of construction.** Noncombustible membrane structures shall be classified as Type IIB construction. Noncombustible frame or cable-supported structures covered by an approved membrane in accordance with Section 3102.3.1 shall be classified as Type IIB construction. Heavy timber frame-supported structures covered by an approved membrane in accordance with Section 3102.3.1 shall be classified as Type IV*~~-HT~~* construction. Other membrane structures shall be classified as Type V construction.

**Exception:** Plastic less than 30 feet (9144 mm) above any floor used in greenhouses, where occupancy by the general public is not authorized, and for aquaculture pond covers is not required to meet the fire propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701.

**…**

**3102.6.1.1 Membrane.** A membrane meeting the fire propagation performance criteria of Test Method 1 or Test Method 2, as appropriate, of NFPA 701 shall be permitted to be used as the roof or as a skylight on buildings of Type IIB, III, IV*~~-HT~~* and V construction, provided that the membrane is not less than 20 feet (6096 mm) above any floor, balcony, or gallery.

**…**

**3109.1 General.** The design and construction of swimming pools, spas and hot tubs shall comply with the *International Swimming Pool and Spa Code*. . .[No change to existing California amendment]

***3109.2 California swimming pool safety act (statewide).***

*The following text in this section contains the statutory language in the Swimming Pool Safety Act (HS Code, Sections 115920 through 115929.) that is required to be duplicated and published in California Code of Regulations, Title 24. As such, the section numbers reflect those within the Health and Safety Code.*

***NOTE****: These regulations are subject to local government modification. You should verify the applicable local government requirements at the time of application for a building permit.*.[No change to existing California amendment]

***115920****. This act shall be known and may be cited as the Swimming Pool Safety Act.*

 *(Added by Stats. 1996, Ch. 925, Sec. 3.5. Effective January 1, 1997.)*

***115921****. As used in this article the following terms have the following meanings:*

1. *“Swimming pool” or “pool” means any structure intended for swimming or recreational bathing that contains water over 18 inches deep. “Swimming pool” includes in-ground and aboveground structures and includes, but is not limited to, hot tubs, spas, portable spas, and nonportable wading pools.*
2. *“Public swimming pool” means a swimming pool operated for the use of the general public with or without charge, or for the use of the members and guests of a private club. Public swimming pool does not include a swimming pool located on the grounds of a private single-family home.*
3. *“Enclosure” means a fence, wall, or other barrier that isolates a swimming pool from access to the home.*
4. *“Approved safety pool cover” means a manually or power-operated safety pool cover that meets all of the performance standards of the American Society for Testing and Materials (ASTM), in compliance with standard F1346-91.*
5. *“Exit alarms” means devices that make audible, continuous alarm sounds when any door or window, that permits access from the residence to the pool area that is without any intervening enclosure, is opened or is left ajar. Exit alarms may be battery operated or may be connected to the electrical wiring of the building.*
6. *“ANSI/APSP performance standard” means a standard that is accredited by the American National Standards Institute (ANSI) and published by the Association of Pool and Spa Professionals (APSP).*
7. *“Suction outlet” means a fitting or fixture typically located at the bottom or on the sides of a swimming pool that conducts water to a recirculating pump.*

*(Amended by Stats. 2012, Ch. 679, Sec. 1. (AB 2114) Effective January 1, 2013.)*

***115922***

1. *Except as provided in Section 115925, when a building permit is issued for the construction of a new swimming pool or spa or the remodeling of an existing swimming pool or spa at a private single-family home, the respective swimming pool or spa shall be equipped with at least two of the following seven drowning prevention safety features:*
2. *An enclosure that meets the requirements of Section 115923 and isolates the swimming pool or spa from the private single-family home.*
3. *Removable mesh fencing that meets American Society for Testing and Materials (ASTM) Specifications F2286 standards in conjunction with a gate that is self-closing and self-latching and can accommodate a key lockable device.*
4. *An approved safety pool cover, as defined in subdivision (d) of Section 115921.*
5. *Exit alarms on the private single-family home’s doors that provide direct access to the swimming pool or spa. The exit alarm may cause either an alarm noise or a verbal warning, such as a repeating notification that “the door to the pool is open.”*
6. *A self-closing, self-latching device with a release mechanism placed no lower than 54 inches above the floor on the private single-family home’s doors providing direct access to the swimming pool or spa.*
7. *An alarm that, when placed in a swimming pool or spa, will sound upon detection of accidental or unauthorized entrance into the water. The alarm shall meet and be independently certified to the ASTM Standard F2208 “Standard Safety Specification for Residential Pool Alarms,” which includes surface motion, pressure, sonar, laser, and infrared type alarms. A swimming protection alarm feature designed for individual use, including an alarm attached to a child that sounds when the child exceeds a certain distance or becomes submerged in water, is not a qualifying drowning prevention safety feature.*
8. *Other means of protection, if the degree of protection afforded is equal to or greater than that afforded by any of the features set forth above and has been independently verified by an approved testing laboratory as meeting standards for those features established by the ASTM or the American Society of Mechanical Engineers (ASME).*
9. *Before the issuance of a final approval for the completion of permitted construction or remodeling work, the local building code official shall inspect the drowning safety prevention features required by this section and, if no violations are found, shall give final approval.*

*(Amended by Stats. 2017, Ch. 670, Sec. 4. (SB 442) Effective January 1, 2018.)*

***115923****. An enclosure shall have all of the following characteristics:*

1. *Any access gates through the enclosure open away from the swimming pool, and are self-closing with a self-latching device placed no lower than 60 inches above the ground.*
2. *A minimum height of 60 inches.*
3. *A maximum vertical clearance from the ground to the bottom of the enclosure of two inches.*
4. *Gaps or voids, if any, do not allow passage of a sphere equal to or greater than four inches in diameter.*
5. *An outside surface free of protrusions, cavities, or other physical characteristics that would serve as handholds or footholds that could enable a child below the age of five years to climb over.*

*(Added by Stats. 1996, Ch. 925, Sec. 3.5. Effective January 1, 1997.)*

***115924****.*

1. *Any person entering into an agreement to build a swimming pool or spa, or to engage in permitted work on a pool or spa covered by this article, shall give the consumer notice of the requirements of this article.*
2. *Pursuant to existing law, the Department of Health Services shall have available on the department’s Web site, commencing January 1, 2007, approved pool safety information available for consumers to download. Pool contractors are encouraged to share this information with consumers regarding the potential dangers a pool or spa poses to toddlers. Additionally, pool contractors may provide the consumer with swimming pool safety materials produced from organizations such as the United States Consumer Product Safety Commission, Drowning Prevention Foundation, California Coalition for Children’s Safety and Health, Safe Kids Worldwide, Association of Pool and Spa Professionals, or the American Academy of Pediatrics.*

*(Amended by Stats. 2006, Ch. 478, Sec. 3. Effective January 1, 2007.)*

***115925****. The requirements of this article do not apply to any of the following:*

1. *Public swimming pools.*
2. *Hot tubs or spas with locking safety covers that comply with the American Society for Testing and Materials (ASTM F1346).*
3. *An apartment complex, or any residential setting other than a single-family home.*

*(Amended by Stats. 2017, Ch. 670, Sec. 5. (SB 442) Effective January 1, 2018.)*

***115926****. This article does not apply to any facility regulated by the State Department of Social Services even if the facility is also used as the private residence of the operator. Pool safety in those facilities shall be regulated pursuant to regulations adopted therefor by the State Department of Social Services.*

*(Added by Stats. 1996, Ch. 925, Sec. 3.5. Effective January 1, 1997.)*

***115927****. Notwithstanding any other provision of law, this article shall not be subject to further modification or interpretation by any regulatory agency of the state, this authority being reserved exclusively to local jurisdictions, as provided for in paragraph (7) of subdivision ~~(e)~~(a) of Section 115922 and subdivision (c) of Section 11592~~4~~ 5.*

*~~(Added by Stats. 1996, Ch. 925, Sec. 3.5. Effective January 1, 1997.)~~* *(Amended by Stats. 2018, Ch. 957, Sec. 13. (SB 1078) Effective January 1, 2019.)*

***115928****. Whenever a building permit is issued for the construction of a new swimming pool or spa, the pool or spa shall meet all of the following requirements:*

1. *(1) The suction outlets of the pool or spa for which the permit is issued shall be equipped to provide circulation throughout the pool or spa as prescribed in paragraphs (2) and (3).*

*(2) The swimming pool or spa shall either have at least two circulation suction outlets per pump that shall be hydraulically balanced and symmetrically plumbed through one or more “T” fittings, and that are separated by a distance of at least three feet in any dimension between the suction outlets, or be designed to use alternatives to suction outlets, including, but not limited to, skimmers or perimeter overflow systems to conduct water to the recirculation pump.*

*(3) The circulation system shall have the capacity to provide a complete turnover of pool water, as specified in Section 3124B of Chapter 31B of the California Building Standards Code (Title 24 of the California Code of Regulations).*

1. *Suction outlets shall be covered with antientrapment grates, as specified in the ANSI/APSP-16 performance standard or successor standard designated by the federal Consumer Product Safety Commission, that cannot be removed except with the use of tools. Slots or openings in the grates or similar protective devices shall be of a shape, area, and arrangement that would prevent physical entrapment and would not pose any suction hazard to bathers.*
2. *Any backup safety system that an owner of a new swimming pool or spa may choose to install in addition to the requirements set forth in subdivisions (a) and (b) shall meet the standards as published in the document, “Guidelines for Entrapment Hazards: Making Pools and Spas Safer,” Publication Number 363, March 2005, United States Consumer Product Safety Commission.*

*(Amended by Stats. 2012, Ch. 679, Sec. 2. (AB 2114) Effective January 1, 2013.)*

***115928.5****. Whenever a building permit is issued for the remodel or modification of an existing swimming pool, toddler pool, or spa, the permit shall require that the suction outlet or suction outlets of the existing swimming pool, toddler pool, or spa be upgraded so as to be equipped with antientrapment grates, as specified in the ANSI/APSP-16 performance standard or a successor standard designated by the federal Consumer Product Safety Commission.*

*(Amended by Stats. 2012, Ch. 679, Sec. 3. (AB 2114) Effective January 1, 2013.)*

***115929****.*

1. *The Legislature encourages a private entity, in consultation with the Epidemiology and Prevention for Injury Control Branch of the department, to produce an informative brochure or booklet, for consumer use, explaining the child drowning hazards of, possible safety measures for, and appropriate drowning hazard prevention measures for, home swimming pools and spas, and to donate the document to the department.*
2. *The Legislature encourages the private entity to use existing documents from the United States Consumer Product Safety Commission on pool safety.*
3. *If a private entity produces the document described in subdivisions (a) and (b) and donates it to the department, the department shall review and approve the brochure or booklet.*
4. *Upon approval of the document by the department, the document shall become the property of the state and a part of the public domain. The department shall place the document on its Web site in a format that is readily available for downloading and for publication. The department shall review the document in a timely and prudent fashion and shall complete the review within 18 months of receipt of the document from a private entity.*

*(Added by Stats. 2003, Ch. 422, Sec. 3. Effective January 1, 2004.)*

**Notation:**

Authority: Health and Safety Code Sections 18934.5 and 18942(a) and (b)

Reference(s): Health and Safety Code Sections 18934.5 and 18942(a) and (b)

# ITEM 27Chapter 32 - ENCROACHMENT INTO THE PUBLIC RIGHT-OF-WAY

BSC proposes to adopt Chapter 32 ENCROACHMENTS INTO THE PUBLIC RIGHT-OF-WAY of the 2021 IBC without change**.**

**Notation:**

Authority: Health and Safety Code Section 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 28Chapter 33 - SAFEGUARDS DURING CONSTRUCTION

BSC proposes to adopt Chapter 33 SAFEGUARDS DURING CONSTRUCTION of the 2021 IBC without change

**Notation:**

Authority: Health and Safety Code Section 18928 and 18934.5
Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5

# ITEM 29Chapter 35 - REFERENCED STANDARDSSection ASTM, APA

BSC proposes to repeal California amendments and adopt Chapter 35 REFERENCED STANDARDS of the 2021 IBC without change.

**APA**

**…**

***~~ANSI/APA PRG 320-18:~~*** *~~Standard for Performance-rated Cross Laminated Timber 2303.1.4~~*

**ANSI/APA PRG 320-18:** Standard for Performance-rated Cross Laminated Timber 620.4, 2303.1.4

**…**

**ASTM**

**…**

***~~D3498-03(2011):~~*** *~~Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems~~*

**…**

**D3498-03(2011):** Standard Specification for Adhesives for Field-Gluing Plywood to Lumber Framing for Floor Systems 703.7

**Notation:**

Authority: Health and Safety Code Sections 18928.1 and 18934.5

Reference(s): Health and Safety Code Sections 18928.1 and 18934.5

# ITEM 30Appendix Chapters A, B, C, D, E, F, G, H, I, J, K, L, M, N and O

BSC proposes to not adopt Appendix Chapters A, B, C, D, E, F, G, H, I, J, K, L, M, N and O of the 2021 IBC**.**

**Notation:**

Authority: Health and Safety Code Sections 18928 and 18934.5

Reference(s): Health and Safety Code Sections 18928, 18928.1, and 18934.5