45-DAY EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
CALIFORNIA BUILDING STANDARDS COMMISSION

REGARDING PROPOSED CHANGES TO
2016 CALIFORNIA EXISTING BUILDING CODE
CALIFORNIA CODE OF REGULATIONS, TITLE 24, Part 10

(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. (PART 1 – ADMINISTRATIVE CODE)

LEGEND FOR DRAFT EXPRESS TERMS

1. Existing California amendments or code language being modified are in italics when they appear in the model code text: All such language appears in *italics*, modified language is underlined.
2. New California amendments: All such language appears *underlined and in italics*.
3. Repealed text: All such language appears in ~~strikeout~~.
4. *[Information for the reader: All such language is bracketed and in italics]*

INITIAL EXPRESS TERMS

ITEM 1. CHAPTER 1 – SECTION 1.1 GENERAL - SECTIONS 1.1.1 - 1.1.7.3

Sections 1.1.1 – 1.1.7.3 provide the general application of this code.

CHAPTER 1
SCOPE AND ADMINISTRATION
DIVISION I
CALIFORNIA ADMINISTRATION

PROPOSED ADOPTION	BSC			Comments
Adopt entire chapter				
Adopt entire chapter with amendments listed below				
Adopt only those sections listed below	X			
Division I -California Administration				
1.1	X			
1.2	X			

SECTION 1.1
GENERAL

1.1.1 Title. *These regulations shall be known as the California Existing Building Code, may be cited as such and will be referred to herein as "this code." The California Existing Building Code is Part 10 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 2015 International Existing Building Code of the International Code Council with necessary California amendments.*

1.1.2 Purpose. *The purpose of this code is to establish the minimum requirements to safeguard the public health, safety and general welfare through structural strength, means of egress facilities, stability, access to persons with disabilities, sanitation, adequate lighting and ventilation and energy conservation; safety to life and property from fire and other hazards attributed to the built environment; and to provide safety to fire fighters and emergency responders during emergency operations.*

1.1.3 Scope. *The provisions of this code shall apply to the construction, alteration, movement, enlargement, replacement, repair, equipment, use and occupancy, location, maintenance, removal and demolition of every building or structure or any appurtenances connected or attached to such buildings or structures throughout the State of California.*

1.1.3.1 Nonstate-regulated buildings, structures and applications. *Except as modified by local ordinance pursuant to Section 1.1.8, the following standards in the California Code of Regulations, Title 24, Parts 2, 2.5, 3, 4, 5, 6, 9, 10 and 11 shall apply to all occupancies and applications not regulated by a state agency.*

1.1.3.2 State-regulated buildings, structures and applications. *The model code, state amendments to the model code, and/or state amendments where there are no relevant model code provisions shall apply to the following buildings, structures, and applications regulated by state agencies as specified in Sections 1.2 through 1.14, except where modified by local ordinance pursuant to Section 1.1.8. When adopted by a state agency, the provisions of this code shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the state legislature.*

Note: *See "How to Distinguish Between Model Code Language and California Amendments" in the front of the code.*

1. *State-owned buildings, including buildings constructed by the Trustees of the California State University, and to the extent permitted by California laws, buildings designed and constructed by the Regents of the University of California, and regulated by the Building Standards Commission. See Section 1.2 for additional scope provisions.*

2. *Section 1.3 is reserved for the Board of State Community Corrections.*

3. *Section 1.4 is reserved for the Department of Consumer Affairs.*

4. *Section 1.5 is reserved for the California Energy Commission.*

5. *Section 1.6 is reserved for the Department of Food and Agriculture*

6. *Section 1.7 is reserved for the Department of Public Health.*

7. *Hotels, motels, lodging houses, apartments, dwellings, dormitories, condominiums, shelters for homeless persons, congregate residences, employee housing, factory-built housing and other types of dwellings containing sleeping accommodations with or without common toilets or cooking facilities. See Section 1.8.2.1.1 for additional scope provisions.*

8. *Accommodations for persons with disabilities in buildings containing newly constructed covered multifamily dwellings, new common use spaces serving existing covered multifamily dwellings, additions to existing buildings where the addition alone meets the definition of "COVERED*

MULTIFAMILY DWELLING," and new common- use areas serving new covered multifamily dwellings, which are regulated by the Department of Housing and Community Development. See Section 1.8.2.1.2 for additional scope provisions.

9. *Permanent buildings and permanent accessory buildings or structures constructed within mobilehome parks and special occupancy parks regulated by the Department of Housing and Community Development. See Section 1.8.2.1.3 for additional scope provisions.*

10. *Accommodations for persons with disabilities regulated by the Division of the State Architect. See Section 1.9.1 for additional scope provisions.*

11. *Public elementary and secondary schools, community college buildings and state-owned or state-leased essential service buildings regulated by the Division of the State Architect. See Section 1.9.2 for additional scope provisions.*

12. *Qualified historical buildings and structures and their associated sites regulated by the State Historical Building Safety Board with the Division of the State Architect. See Section 1.9.3 for additional scope provisions.*

13. *General acute care hospitals, acute psychiatric hospitals, skilled nursing and/or intermediate care facilities, clinics licensed by the Department of Public Health and correctional treatment centers regulated by the Office of Statewide Health Planning and Development. See Section 1.10 for additional scope provisions.*

14. *Applications regulated by the Office of the State Fire Marshal include, but are not limited to, the following in accordance with Section 1.11:*

    14.1 Buildings or structures used or intended for use as an:

    1. *Asylum, jail, prison*

    2. *Mental hospital, hospital, home for the elderly, children's nursery, children's home or institution, school or any similar occupancy of any capacity*

    3. *Theater, dancehall, skating rink, auditorium, assembly hall, meeting hall, nightclub, fair building or similar place of assemblage where 50 or more persons may gather together in a building, room or structure for the purpose of amusement, entertainment, instruction, deliberation, worship, drinking or dining, awaiting transportation, or education*

    4. *Small family day-care homes, large family day-care homes, residential facilities and residential facilities for the elderly, residential care facilities*

    5. *State institutions or other state- owned or state-occupied buildings*

    6. *High rise structures*

    7. *Motion picture production studios*

    8. *Organized camps*

    9. *Residential structures*

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

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

    14.4. Hazardous materials, flammable and combustible liquids

14.5. Public school automatic fire detection, alarm and sprinkler systems

14. 6. Wildland-urban interface fire areas

15. *Section 1.12 is reserved for the State Librarian.*

16. *Section 1.13 is reserved for the Department of Water Resources.*

17. *For applications listed in Section 1.9.1 regulated by the Division of the State Architect-Access Compliance, outdoor environments and uses shall be classified according to accessibility uses described in Chapter 11B contained in the California Building Code.*

18. *Section 1.14 is reserved for the California State Lands Commission.*

1.1.4 Appendices. *Provisions contained in the appendices of this code shall not apply unless specifically adopted by a state agency or adopted by a local enforcing agency in compliance with Health and Safety Code Section 18901 et. seq. for Building Standards Law, Health and Safety Code Section 17950 for State Housing Law and Health and Safety Code Section 13869.7 for Fire Protection Districts. See Section 1.1.8 of this code.*

1.1.5 Referenced codes. *The codes, standards and publications adopted and set forth in this code, including other codes, standards and publications referred to therein are, by title and date of publication, hereby adopted as standard reference documents of this code. When this code does not specifically cover any subject related to building design and construction, recognized architectural or engineering practices shall be employed. The National Fire Codes, standards, and the Fire Protection Handbook of the National Fire Protection Association are permitted to be used as authoritative guides in determining recognized fire prevention engineering practices.*

1.1.6 Nonbuilding standards, orders and regulations. *Requirements contained in the California Existing Building Code, or in any other referenced standard, code or document, which are not building standards as defined in Health and Safety Code Section 18909, shall not be construed as part of the provisions of this code. For nonbuilding standards, orders and regulations, see other titles of the California Code of Regulations.*

1.1.7 Order of precedence and use.

1.1.7.1 Differences. *In the event of any differences between these building standards and the standard reference documents, the text of these building standards shall govern.*

1.1.7.2 Specific provisions. *Where a specific provision varies from a general provision, the specific provision shall apply.*

1.1.7.3 Conflicts. *When the requirements of this code conflict with the requirements of any other part of the California Building Standards Code, Title 24 the most restrictive requirements shall prevail.*

1.1.7.3.1 Detached one-and two-family dwellings. *Detached one-and two-family dwellings, efficiency dwelling units, lodging houses, live/work units, townhouses not more than three stories above grade plane in height with a separate means of egress, and their accessory structures, may be designed and constructed in accordance with the California Residential Code or the California Building Code, but not both, unless the proposed structure(s) or element(s) exceed the design limitations established in the California Residential Code, and the code user is specifically directed by the California Residential Code to use the California Building Code.*

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 2. CHAPTER 1 – SECTION 1.1 GENERAL - SECTIONS 1.1.8 - 1.1.8.2

Sections 1.1.8 – 1.1.8.2 provide the regulations local jurisdictions must follow to amend the codes.

1.1.8 City, county, or city and county amendments, additions or deletions. *The provisions of this code do not limit the authority of city, county, or city and county governments to establish more restrictive and reasonably necessary differences to the provisions contained in this code pursuant to complying with Section 1.1.8.1. The effective date of amendments, additions or deletions to this code by a city, county, or city and county filed pursuant to Section 1.1.8.1 shall be the date filed. However, in no case shall the amendments, additions or deletions to this code be effective any sooner than the effective date of this code.*

Local modifications shall comply with Health and Safety Code Section 18941.5 for Building Standards Law, Health and Safety Code Section 17958 for State Housing Law or Health and Safety Code Section 13869.7 for Fire Protection Districts.

1.1.8.1 Findings and filings.

1. *The city, county, or city and county shall make express findings for each amendment, addition or deletion based upon climatic, topographical or geological conditions.*

   Exception: *Hazardous building ordinances and programs mitigating unreinforced masonry buildings.*

2. *The city, county, or city and county shall file the amendments, additions or deletions expressly marked and identified as to the applicable findings. Cities, counties, cities and counties, and fire departments shall file the amendments, additions or deletions, and the findings with the California Building Standards Commission at 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833.*

3. *Findings prepared by fire protection districts shall be ratified by the local city, county or city and county and filed with the California Department of Housing and Community Development, Division of Codes and Standards, P. 0. Box 1407, Sacramento, CA 95812-1407 or 2020 West El Camino Avenue, Suite 250 Sacramento, CA 95833-1829.*

1.1.8.2 Locally adopted energy standards – California Energy Code, Part 6

In addition to the provisions of Section 1.1.8.1 of this Part, the provisions of this section shall apply to a city, county, and city and county adopting local energy standards applicable to buildings and structures subject to the California Energy Code, Part 6.

Applicable provisions of Public Resources Code Section 25402.1(h)(2) and applicable provisions of Section 10-106, Chapter 10 of the California Administrative Code, Part 1 apply to locally adopted energy standards amending the California Energy Code, Part 6.

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 3. CHAPTER 1 – SECTION 1.1 GENERAL - SECTIONS 1.1.9 - 1.1.12

Sections 1.1.9 – 1.1.12 provide the regulations regarding the effective date and availability of the codes.

1.1.9 Effective date of this code. *Only those standards approved by the California Building Standards Commission that are effective at the time an application for building permit is submitted shall apply to the plans and specifications for, and to the construction performed under, that permit. For the effective dates of the provisions contained in this code, see the History Note page of this code.*

1.1.10 Availability of codes. *At least one complete copy each of Titles 8, 19, 20, 24 and 25 with all revisions shall*

be maintained in the office of the building official responsible for the administration and enforcement of this code. Each state department concerned and each city, county, or city and county shall have an up-to-date copy of the code available for public inspection. See Health and Safety Code Section 18942(e)(1) and (2).

1.1.11 Format. *This part fundamentally adopts the International Existing Building Code by reference on a chapter by-chapter basis. When a specific chapter of the International Existing Building Code is not printed in the code and is marked "Reserved", such chapter of the International Existing Building Code is not adopted as a portion of this code. When a specific chapter of the International Existing Building Code is marked "Not adopted by the State of California" but appears in the code, it may be available for adoption by local ordinance.*

Those provisions of the model code used as the basis for this part of the California Building Standards Code in Title 24, California Code of Regulations, that are not printed herein and are marked "Not adopted by the State of California," may be available for adoption by local ordinance, provided such ordinance and related model code provisions do not conflict with Title 24 provisions applicable to the subject occupancy or building feature. Such a local ordinance is not subject to the Express Finding and document filing requirements of Health and Safety Code Sections 13869.7, 17958, and 18941.5.

> ***Note:*** *Matrix Adoption Tables at the front of each chapter may aid the code user in determining which chapter or sections within a chapter are applicable to buildings under the authority of a specific state agency, but they are not to be considered regulatory.*

1.1.12 Validity. *If any chapter, section, subsection, sentence, clause or phrase of this code is for any reason held to be unconstitutional, contrary to statute, exceeding the authority of the state as stipulated by statutes or otherwise inoperative such decision shall not affect the validity of the remaining portion of this code.*

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 4. CHAPTER 1 – SECTION 1.2 GENERAL - SECTIONS 1.2.1 – 1.2.3.1

Section 1.2 provides the specific scope for the application of this code to the occupancies for which CBSC has authority.

SECTION 1.2
BUILDING STANDARDS COMMISSION

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

1. State buildings for all occupancies.

Application-*State buildings (all occupancies), including buildings constructed by the Trustees of the California State University (CSU) and the Regents of the University of California (UC) where no state agency has the authority to adopt building standards applicable to such buildings.*

Enforcing agency-*State or local agency specified by the applicable provisions of law.*

Authority cited-*Health and Safety Code Section 18934.5.*

Reference-*Health and Safety Code, Division 13, Part 2.5, commencing with Section 18901.*

2. University of California, California State Universities and California Community Colleges.

Application-*Standards for lighting for parking lots and primary campus walkways at the University of California, California State Universities and California Community Colleges.*

Enforcing agency-*State or local agency specified by the applicable provisions of law.*

Authority cited-*Government Code Section 14617.*

Reference-*Government Code Section 14617.*

3. Existing state-owned buildings, including those owned by the University of California and by the California State University.

Application-*Building seismic retrofit standards including abating falling hazards of structural and nonstructural components and strengthening of building structures. See also Division of the State Architect.*

Enforcing agency*-State or local agency specified by the applicable provisions of law. Authority cited-Health and Safety Code Section 16600.*

Reference-*Health and Safety Code Sections 16600 through 16604.*

4. Unreinforced masonry-bearing wall buildings*.*

Application-*Minimum seismic strengthening standards for buildings specified in Appendix Chapter A1 of the California Existing Building Code, except for buildings subject to building standards pursuant to Health and Safety Code (commencing) with Section 17910.*
Enforcing agency-*State or local agency specified the applicable provisions of law.*

Authority cited-*Health and Safety Code Section 18934.7.*

Reference-*Health and Safety Code, Division 13, Part 2.5, commencing with Section 18901.*

1.2.1.1 State building. *For purposes of this code, a "state building" is a structure for which a state agency or state entity has authority to construct, alter, enlarge, replace, repair or demolish.*

1.2.1.2 Enforcement. *[CSU, UC, Judicial Council and California Department of Corrections and Rehabilitation] State agencies or state entities authorized to construct state buildings may appoint a building official who is responsible to the agency for enforcement of the provisions of the California Building Standards Code.*

Exception: *State buildings regulated by other sections of this code remain the enforcement responsibility of the designated entities.*

1.2.1.3 Enforcement. Reserved for DGS.

1.2.1.4 Adopting agency identification. *The provisions of this code applicable to buildings identified in this section will be identified in the Matrix Adoption Tables under the acronym* ***BSC****.*

1.2.2 BSC-CG. *Specific scope of application of the agency responsible for enforcement, the enforcement agency and the specific authority to adopt and enforce such provisions of this code, unless otherwise stated.*

Application*-All occupancies where no state agency has the authority to adopt green building standards applicable to those occupancies.*

Enforcing agency*-State or local agency specified by the applicable provisions of law.*

Authority cited*-Health and Safety Code Sections 18930.5(a), 18938 and 18940.5.*

Reference*-Health and Safety Code, Division 13, Part 2.5, commencing with Section 18901.*

1.2.2.1 Adopting agency identification. *The provisions of this code applicable to buildings identified in*

*this section will be identified in the Matrix Adoption Tables under the acronym **BSC-CG**.*

1.2.3 Alternative materials, design and methods of construction and equipment. *The provisions this code are not intended to prevent the installation of any material or to prohibit any design or method of construction not specifically prescribed by this code, provided that any such alternative has been approved. An alternative material, design or method of construction shall be approved where the building official finds that the proposed design is satisfactory and complies with the intent of the provisions of this code, and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in this code in quality, strength, effectiveness, fire resistance, durability and safety.*

1.2.3.1 Research reports. *Supporting data, where necessary to assist in the approval of materials or assemblies not specifically provided for in this code, shall consist of valid research reports from approved sources.*

1.2.3.2 Tests. *Whenever there is insufficient evidence of compliance with the provisions of this code, or evidence that a material or method does not conform to the requirements of this code, or in order to substantiate claims for alternative materials or methods, the building official shall have the authority to require tests as evidence of compliance to be made at no expense to the jurisdiction. Test methods shall be as specified in this code or by other recognized test standards. In the absence of recognized and accepted test methods, the building official shall approve the testing procedures. Tests shall be performed by an approved agency. Reports of such tests shall be retained by the building official for the period required for retention of public records.*

SECTION 1.3
BOARD OF STATE AND COMMUNITY CORRECTIONS
Reserved

SECTION 1.4
DEPARTMENT OF CONSUMER AFFAIRS
Reserved

SECTION 1.5
CALIFORNIA ENERGY COMMISSION
Reserved

SECTION 1.6
DEPARTMENT OF FOOD AND AGRICULTURE
Reserved

SECTION 1.7
DEPARTMENT OF PUBLIC HEALTH
Reserved

SECTION 1.8
DEPARTMENT OF HOUSING AND COMMUNITY DEVELOPMENT
[To be proposed by HCD]

SECTION 1.9
DIVISION OF THE STATE ARCHITECT
[To be proposed by DSA]

SECTION 1.10
OFFICE OF STATEWIDE HEALTH PLANNING AND DEVELOPMENT
[To be proposed by OSHPD]

SECTION 1.11
OFFICE OF THE STATE FIRE MARSHAL
[To be proposed by SFM]

SECTION 1.12
STATE LIBRARIAN
Reserved

SECTION 1.13
DEPARTMENT OF WATER RESOURCES
Reserved

SECTION 1.14
CALIFORNIA STATE LANDS COMMISSION
Reserved

. . .

~~CHAPTER 1~~
DIVISION II
SCOPE AND ADMINISTRATION

Note: *Sections adopted or amended by state agencies are specifically indicated by an agency banner.*

Notation:
Authority: Government Code §14617; Health and Safety Code § 16600, 18928, 18930.5, 18934.5, 18934.6, 18938 & 18940.5
References: Government Code §14617; Health and Safety Code §§16600 & 18901-18949

ITEM 5. CHAPTER 2 – DEFINITIONS

CBSC proposes to adopt Chapter 2 and amend **Section 201.3** of the 2015 International Existing Building Code (IEBC) for inclusion in the 2016 California Existing Building Code (CEBC).

CHAPTER 2
DEFINITIONS

PROPOSED ADOPTION	BSC			Comments
Adopt entire chapter				
Adopt entire chapter with amendments listed below	X			
Adopt only those sections listed below				
201.3	X			

SECTION 201
GENERAL

201.3 Terms defined in other codes. Where terms are not defined in this code and are defined in the other ~~International~~ *California* Codes, such terms shall have the meanings ascribed to them in those codes.

Notation:
Authority: Health and Safety Code §18928 & 18934.5

References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 6. CHAPTER 3 - PROVISIONS FOR ALL COMPLIANCE METHODS

CBSC proposes to adopt and amend **Section 301.1, Exception 2** only of the 2015 International Existing Building Code (IEBC) for inclusion in the 2016 California Existing Building Code (CEBC).

CHAPTER 3
PROVISIONS FOR ALL COMPLIANCE METHODS

Adopt specific sections amended below:

PROPOSED ADOPTION	BSC			Comments
Adopt entire chapter				
Adopt entire chapter with amendments listed below				
Adopt only those sections listed below	X			
301.1 Exception 2	X			
317	X			
318	X			
319	X			
320	X			
321	X			
322	X			

SECTION 301
ADMINISTRATION

301.1 General. The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with one of the methods listed in Sections 301.1.1 through 301.1.3 as selected by the applicant. Sections 301.1.1 through 301.1.3 shall not be applied in combination with each other. Where this code requires consideration of the seismic force resisting system of an existing building subject to repair, alteration, change of occupancy, addition or relocation of existing buildings, the seismic evaluation and design shall be based on Section 301.1.4 regardless of which compliance method is used.

Exceptions:

1. Subject to the approval of the code official, alterations complying with the laws in existence at the time the building or the affected portion of the building was built shall be considered in compliance with the provisions of this code unless the building is undergoing more than a limited structural alteration as defined in Section 907.4.4. New structural members added as part of the alteration shall comply with the ~~International Building Code~~ *California Building Code*. Alterations of existing buildings in flood hazard areas shall comply with Section 701.3.

2. ***Existing state-owned structures. [BSC]*** *The repair, alteration, change of occupancy, addition or relocation of all existing buildings shall comply with the provisions of Sections 317 through 322 as the minimum standards for earthquake evaluation and design for retrofit of existing state-owned*

structures, including buildings owned by the University of California, the California State University, or the Judicial Council.

The provisions of Sections 317 through 322 may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings.

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 7. SECTION 317 - EARTHQUAKE EVALUATION AND DESIGN FOR RETROFIT OF EXISTING BUILDINGS

CBSC proposes to carry forward CBC Chapter 34, Section 3417 and relocate and renumber it to the 2016 CEBC Chapter 3 Section 317 with minor amendments. See the ISOR for additional rationale.

SECTION 317 ~~3417~~
EARTHQUAKE EVALUATION AND DESIGN
FOR RETROFIT OF EXISTING BUILDINGS

317.1 ~~3417.1~~ Purpose.

317.1.1 ~~3417.1.1~~ Existing state-owned structures. [BSC] *The provisions of Sections 317 ~~3417~~ through 322 ~~3423~~ establish minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California and the California State University.*

The provisions of Sections 317 ~~3417~~ through 323 ~~3423~~ may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings.

317.1.2 ~~3417.1.2~~ *(Reserved for DSA).*

317.1.3 ~~3417.1.3~~ *(Reserved for DSA).*

317.2 ~~3417.2~~ Scope. *All modifications, structurally connected additions and/or repairs to existing structures or portions thereof shall, at a minimum, be designed and constructed to resist the effects of seismic ground motions as provided in this section. The structural system shall be evaluated by a registered design professional and, if not meeting or exceeding the minimum seismic design performance requirements of this section, shall be retrofitted in compliance with these requirements.*

Exception: *Those structures for which Section 317.3 ~~3417.3~~ determines that assessment is not required, or for which Section 317.4 ~~3417.4~~ determines that retrofit is not needed, then only the requirements of Section 317.11 ~~3417.11~~ apply.*

317.3 ~~3417.3~~ Applicability.

317.3.1 ~~3417.3.1~~ Existing state-owned buildings. [BSC] *For existing state-owned structures including all buildings owned by the University of California and the California State University, the requirements of Section 317 ~~3417~~ apply whenever the structure is to be retrofitted, repaired or modified and any of the following apply:*

1. *Total construction cost, not including cost of furnishings, fixtures and equipment, or normal maintenance, for the building exceeds 25 percent of the construction cost for the replacement of the existing building.*
   The changes are cumulative for past modifications to the building that occurred after adoption of the 1995 California Building Code and did not require seismic retrofit.
2. *There are changes in risk category.*
3. *The modification to the structural components increases the seismic forces in or strength requirements of any structural component of the existing structure by more than 10 percent cumulative since the original construction, unless the component has the capacity to resist the increased forces determined in accordance with Section 319 ~~3419~~. If the building's seismic base shear capacity has been increased since the original construction, the percent change in base shear may be calculated relative to the increased value.*
4. *Structural elements need repair where the damage has reduced the lateral-load-resisting capacity of the structural system by more than 10 percent.*
5. *Changes in live or dead load increase story shear by more than 10 percent.*

317.3.2 ***~~3417.3.2~~*** *(Reserved for DSA).*

317.3.3 ***~~3417.3.3~~*** *(Reserved for DSA).*

317.4 ***~~3417.4~~*** **Evaluation required.** *If the criteria in Section 317.3 ~~3417.3~~ apply to the project under consideration, the design professional of record shall provide an evaluation in accordance with Section 317 ~~3417~~ to determine the seismic performance of the building in its current configuration and condition. If the structure's seismic performance as required by Section 317.5 ~~3417.5~~ is evaluated as satisfactory and the peer reviewer(s), when Method B of Section 321 ~~3421~~ is used, concur, then no structural retrofit is required.*

317.5 ***~~3417.5~~*** **Minimum seismic design performance levels for structural and nonstructural components.** *Following the notations of ASCE 41, the seismic requirements for design and assessment are based upon a prescribed Earthquake Hazard Level (BSE-1N, BSE-2N, BSE-1E, BSE-R or BSE-C), a specified structural performance level (S-1 through S-5) and a non-structural performance level (N-A through N-D~~E~~). The minimum seismic performance criteria are given in Table 317.5 ~~3417.5~~ according to the Building Regulatory Authority and the Risk Category as determined in Chapter 16 of the California Building Code or by the regulatory authority. The building shall be evaluated in accordance with a Tier 3 Systematic Evaluation and Retrofit per ASCE 41 Chapter 6 ~~at~~ for both the Level 1 and Level 2 performance levels, and the more restrictive requirements shall apply.*

~~*Basic Safety Earthquake 2 (BSE-2) in ASCE 41 shall be same as Risk-Targeted Maximum Considered Earthquake (MCE_R) in ASCE 7. Probabilistic response spectra defining other Earthquake Hazard Levels shall be developed using site-specific ground motions in accordance with ASCE 7 Section 21.2 utilizing the Next Generation Attenuation (NGA) relations used for the 2008 USGS seismic hazards maps for Western United States (WUS). When supported by data and analysis, other NGA relations, that were not used for the 2008 USGS maps, shall be permitted as additions or substitutions. No fewer than three NGA relations shall be utilized. Response spectra shall incorporate the risk coefficient C_R per ASCE 7 Section 21.2.1.1*~~

~~*Ground-motion response history analysis shall be as set forth in ASCE 7 Chapter 16, Section 17.3 or Section 18.2.3.*~~

Exception: *If the floor area of an addition is greater than the larger of 50 percent of the floor area of the original building or 1,000 square feet (93 m^2), then the Table ~~3417.5~~ 317.5 entries for BSE-R (or BSE-1E)and BSE-C are replaced by BSE-1N and BSE-2N, respectively.*

TABLE 317.5 ~~3417.5~~ SEISMIC PERFORMANCE REQUIREMENTS BY BUILDING REGULATORY AUTHORITY AND RISK CATEGORY. ~~ALL BUILDINGS NOT REGULATED BY DSA ARE ASSIGNED AS "STATE-OWNED."~~

		PERFORMANCE CRITERIA	
Building Regulatory Authority	***Risk Category***	***Level 1***	***Level 2***
State-Owned [BSC]	*I, II, III*	*BSE-R, S-3, N-CD~~D~~*	*BSE-C, S-5, N-D~~E~~*
State-Owned [BSC]	*IV*	*BSE-R, S-2, N-B*	*BSE-C, S-4, N-~~C~~D*
(Reserved for DSA-SS)			
(Reserved for DSA-SS)			
(Reserved for DSA-SS)			
(Reserved for DSA-SS)			
(Reserved for DSA-SS)			

1. *ASCE 41 provides acceptance criteria (e.g. m, rotation) for Immediate Occupancy (S1), Life Safety (S3), and Collapse Prevention (S5), and specifies in Section 2.3.1.2.1 and 2.3.1.4.1 the method to interpolate ~~that~~ values for S-2 and S-4, respectively. ~~are to be determined by interpolation between the adjacent performance level values.~~*

   ~~*The required method of interpolation is as follows:*~~

   ~~*For level S-2, the acceptance value is $^1/_3$ of the sum of the tabulated value for Immediate Occupancy (IO level) and twice the tabulated value for the Life Safety (LS level).*~~

   ~~*For level S-4, the acceptance value is one-half the sum of the value for the LS level and the value for the Collapse Prevention (CP) level.*~~

   For nonstructural components, N-A corresponds to the Operational ~~IO~~ level, N-B to the Position Retention, and N-C to the Life Safety ~~LS~~ level, and N-D to the Not Considered ~~Hazards Reduced (HR level)~~.

   ~~*For evaluation procedures, N-B shall be the same as for N-A. Where numerical values are used, the values for N-B are one half the sum of the appropriate IO and LS values. Where IO or CP values are not given by ASCE 41, then the LS values are permitted to be substituted*~~

2. *Buildings evaluated and retrofitted to meet the requirements for a new building, Chapter 16 of the California Building Code ~~Part 2, Title 24~~, in accordance with the exception in Section 319.1 ~~3419.1~~, are deemed to meet the seismic performance requirements of this section.*

[45-day ET removed proposed new Section 317.5.1]

317.6 ~~3417.6~~ Retrofit required. *Where the evaluation indicates the building does not meet the required performance objectives of this section, the owner shall take appropriate steps to ensure that the building's structural system is retrofitted in accordance with the provisions of Section 317 ~~3417~~. Appropriate steps are either: 1) undertake the seismic retrofit as part of the additions, modifications and/or repairs of the structure; or 2) provide a plan, acceptable to the building official, to complete the seismic retrofit in a timely manner. The relocation or moving of an existing building is considered to be an alteration requiring filing of the plans and specifications approved by the building official.*

317.7 ~~3417.7~~ *The additions, modification or repair to any existing building are permitted to be prepared in accordance with the requirements for a new building, Chapter 16, of the California Building Code, ~~Part 2, Title 24, C.C.R., 2007 edition,~~ applied to the entire building.*

317.8 ~~3417.8~~ *The requirements of ASCE 41 Chapter 14 ~~9~~ are to apply to the use of seismic isolation or passive energy systems for the repair, modification or retrofit of an existing structure. When seismic isolation or passive energy dissipation is used, the project must have project peer review as prescribed in Section 322 ~~3422~~.*

317.9 ~~3417.9~~ *Any construction required by this chapter shall include structural observation by the registered design professional who is responsible for the structural design in accordance with Section 319.10 ~~3419.10~~.*

317.10 ~~3417.10~~ *Where Method B of Section 321 ~~3421~~ is used or is required by Section 319.7 ~~3419.7~~, the proposed method of building evaluation and design procedures must be accepted by the building official prior to the commencement of the work.*

317.11 ~~3417.11~~ Voluntary lateral-force-resisting system modifications. *Where the exception of Section 317.2 ~~3417.2~~ applies, modifications of existing structural components and additions of new structural components that are initiated for the purpose of improving the seismic performance of an existing structure and that are not required by other portions of this chapter are permitted under the requirements of Section 319.12 ~~3419.12~~.*

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 8. SECTION 318 - DEFINITIONS

CBSC proposes to carry forward CBC Chapter 34, Section 3418 and relocate and renumber it to the 2016 CEBC Chapter 3, Section 318 with minor amendments See the ISOR for additional rationale.

SECTION 318 ~~3418~~
DEFINITIONS

318.1 ~~3418.1~~ *In addition to the definitions given in Section 202 ~~3402~~, for the purposes of Sections 317 ~~3417~~ through 323 ~~3423~~, certain terms are defined as follows:*

ADDITION *means any work that increases the floor or roof area or the volume of enclosed space of an existing building, and is structurally attached to the existing building by connections that are required for transmitting vertical or horizontal loads between the addition and the existing structure.*

ALTERATION *means any change within or to an existing building, which does not increase and may decrease the floor or roof area or the volume of enclosed space.*

BSE-C RESPONSE ACCELERATION PARAMETERS [BSC] *are the parameters (S_{XS} and S_{X1} taken from 5-percent /50-year maximum direction spectral response acceleration curves or by a Site Specific Response Spectrum developed in accordance with ASCE 41, Section 2.4.2.1 ~~Section 3417.5. Values for BSE-C need not be greater than those for BSE-2.~~*

BSE-R RESPONSE ACCELERATION PARAMETERS [BSC] *are the parameters (S_{XS} and S_{X1}) taken from 20-percent /50-year maximum direction spectral response acceleration curves or by a Site Specific Response*

Spectrum developed in accordance with ASCE 41, Section 2.4.2.1 ~~Section 3417.5.~~ ~~Values for BSE-R need not be greater than those for BSE-1.~~

BUILDING OFFICIAL *is that individual within the agency or organization charged with responsibility for compliance with the requirements of this code. For some agencies this person is termed the "enforcement agent."*

DESIGN *is the procedure that includes both the evaluation and retrofit design of an existing component, element or structural system, and design of a new component, element or structural system.*

ENFORCEMENT AGENCY (Authority Having Jurisdiction in ASCE 41) *is the agency or organization charged with responsibility for agency or organization compliance with the requirements of this code.*

METHOD A *refers to the procedures prescribed in Section 320 ~~3420~~.*

METHOD B *refers to the procedures allowed in Section 321 ~~3421~~.*

MODIFICATIONS *For this chapter, modification is taken to include repairs to structures that have been damaged.*

N-A, N-B, N-C, N-D~~, N-E~~ *are seismic nonstructural component performance measures as defined in ASCE 41. N-A corresponds to the highest performance level, and N-C~~D~~ the lowest, while N-D~~E~~ is not considered.*

PEER REVIEW *refers to the procedures contained in Section 322 ~~3422~~.*

REPAIR *as used in this chapter means the design and construction work undertaken to restore or enhance the structural and nonstructural load-resisting system participating in the lateral response and stability of a structure that has experienced damage from earthquakes or other destructive events.*

S-1, S-2, S-3, S-4, S-5, S-6 *are seismic structural performance measures as defined in ASCE 41. S-1 corresponds to the highest performance level, and S-5 the lowest, while S-6 is not considered.*

SPECIFIC PROCEDURES *are the procedures listed in Section 319.1.1 ~~3419.1.1~~.*

STRUCTURAL REPAIRS *are any changes affecting existing or requiring new structural components primarily intended to correct the effects of damage, deterioration or impending or actual failure, regardless of cause.*

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 9. SECTION 319 - SEISMIC CRITERIA SELECTION FOR EXISTING BUILDINGS

CBSC proposes to carry forward CBC Chapter 34, Section 3419 and relocate and renumber it to the 2016 CEBC Chapter 3, Section 319. See the ISOR for additional rationale.

SECTION 319 ~~3419~~
SEISMIC CRITERIA SELECTION FOR EXISTING BUILDINGS

319.1 ~~3419.1~~ Basis for evaluation and design. *This section determines what technical approach is to be used for the seismic evaluation and design for existing buildings. For those buildings or portions of buildings for which Section 317 ~~3417~~ requires action, the procedures and limitations for the evaluation of existing buildings and design of retrofit systems and/or repair thereof shall be implemented in accordance with this section.*

One of the following approaches must be used:

1. *Method A of Section 320 ~~3420~~;*

2. Method B of Section 321 ~~3421~~, with independent review of a peer reviewer as required in Section 322 ~~3422~~; or

3. For state-owned buildings only, the use of one of the specific procedures listed in Section 319.1.1 ~~3419.1.1~~.

When Method B is chosen it must be approved by the building official, and, where applicable, by the peer reviewer. All referenced standards in ASCE 41 shall be replaced by referenced standards listed in Chapter 35 of the California Building Code ~~of this code~~.

Exceptions:

1. ***[BSC]*** *For buildings constructed to the requirements of California Building Code, ~~1998~~ 2007 or later edition as adopted by the governing jurisdiction, that code is permitted to be used in place of those specified in Section 319.1 ~~3419.1~~.*
2. *(Reserved for DSA).*

319.1.1 ~~3419.1.1~~ Specific procedures. [BSC] *For state-owned buildings, the following specific procedures located in ~~taken from the International Existing Building Code (IEBC)~~ Appendix A may be used, without peer review, for their respective types of construction to comply with the seismic performance requirements for Risk Category I, II or III buildings:*

1. Seismic Strengthening Provisions for Unreinforced Masonry Bearing Wall Buildings (Chapter A1 ~~of the IEBC~~).

2. Prescriptive Provisions for Seismic Strengthening of Cripple Walls and Sill Plate Anchorage of Light Wood-Frame, Residential Buildings (Chapter A3 ~~of the IEBC~~).

3. Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms (Chapter A2 ~~of the IEBC~~).

319.1.2 ~~3419.1.2~~ *When a design project is begun under Method B the selection of the peer reviewer is subject to the approval of the building official. Following approval by the peer reviewer, the seismic criteria for the project and the planned evaluation provisions must be approved by the building official. The approved seismic criteria and evaluation provisions shall apply. Upon approval of the building official these are permitted to be modified.*

319.1.3 ~~3419.1.3~~ *For state-owned and community college buildings, where unreinforced masonry is not bearing, it may be used only to resist applied lateral loads. Where unreinforced masonry walls are part of the structure they must be assessed for stability under the applicable nonstructural evaluation procedure.*

319.1.4 ~~3419.1.4~~ *(Reserved for DSA).*

319.1.5 ~~3419.1.5~~ *(Reserved for DSA).*

319.2 ~~3419.2~~ Existing conditions. *The existing condition and properties of the entire structure must be determined and documented by thorough inspection of the structure and site, review of all available related construction documents, review of geotechnical and engineering geologic reports, and performance of necessary testing and investigation. Where samples from the existing structure are taken or in situ tests are performed, they shall be selected and interpreted in a statistically appropriate manner to ensure that the properties determined and used in the evaluation or design are representative of the conditions and structural circumstances likely to be encountered in the structure as a whole. Adjacent structures or site features that may affect the retrofit design shall be identified.*

The entire load path of the seismic-force-resisting system shall be determined, documented and evaluated. The load path includes all the horizontal and vertical elements participating in the structural response: such as diaphragms, diaphragm chords, diaphragm collectors, vertical elements such as walls frames, braces; foundations and the connections between the components and elements of the load path. Repaired or retrofitted elements and the standards under which the work was constructed shall be identified.

1. ***[BSC]*** *For state-owned buildings, the requirements shall be met following the data collection requirements of ASCE 41 Section 6.2 ~~2.2~~.*

2. *(Reserved for DSA).*

3. *(Reserved for DSA).*

Concrete material requirements and testing for public school and community college buildings shall also comply with Sections 1911A ~~1914A~~ and 1909.5 ~~1913.5~~, of the California Building Code, respectively.

Qualified test data from the original construction may be accepted, in part or in whole, by the enforcement agency to fulfill the data collection requirements.

Exceptions:

1. *The number of samples for data collection may be adjusted with approval of the enforcement agency when it has been determined that adequate information has been obtained or additional information is required.*

2. *Welded steel moment frame connections of buildings that may have experienced potentially damaging ground motions shall be inspected in accordance with Chapters 3 and 4, FEMA 352, Recommended Post Earthquake Evaluation and Repair Criteria for Welded Moment-Frame Construction for Seismic Applications (July 2000).*

Where original building plans and specifications are not available, "as-built" plans shall be prepared that depict the existing vertical and lateral structural systems, exterior elements, foundations and nonstructural systems in sufficient detail to complete the design.

Data collection shall be directed and observed by the project structural engineer or design professional in charge of the design.

319.3 ~~3419.3~~ Site geology and soil characteristics. *Soil profile shall be assigned in accordance with the requirements of Chapter 18 of the California Building Code.*

319.4 ~~3419.4~~ Risk categories. *For purposes of earthquake-resistant design, each structure shall be placed in one of the risk categories in accordance with the requirements of ~~this code~~ the California Building Code.*

319.5 ~~3419.5~~ Configuration requirements. *Each structure shall be designated structurally regular or irregular in accordance with the requirements of ASCE 41, Sections 7.3.1.1.1 ~~2.4.1.1.1~~. to 7.3.1.1.4 ~~2.4.1.1.4~~.*

319.6 ~~3419.6~~ General selection of the design method. *The requirements of Method B (Section 321 ~~3421~~) may be used for any existing building.*

319.7 ~~3419.7~~ Prescriptive selection of the design method. *The requirements of Method A (Section 320 ~~3420~~) or the specific procedures for applicable building types given in Section 319.1.1 ~~3419.1.1~~ are permitted to be used except under the following conditions, where the requirements of Method B (Section 321 ~~3421~~) must be used.*

319.7.1 ~~3419.7.1~~ *When the building contains prestressed or post- tensioned structural components (beams, columns, walls or slabs) or contains precast structural components (beams, columns, walls or flooring systems).*

319.7.2 ~~3419.7.2~~ *When the building is classified as irregular in vertical or horizontal plan by application of ASCE/~~SEI~~ 7 Section 12.3 and/or ASCE 41, Sections 7.3.1.1.1 ~~2.4.1.1.1~~. to 7.3.1.1.4 ~~2.4.1.1.4~~, unless the irregularity is demonstrated not to affect the seismic performance of the building.*

Exception: *If the retrofit design removes the configurational attributes that caused the building to be classified as irregular, then Section 319.7.2 ~~3419.7.2~~ does not apply and Method A may be used.*

319.7.3 ~~3419.7.3~~ *For any building that is assigned to Risk Category IV.*

319.7.4 ~~3419.7.4~~ *For any building using undefined or hybrid structural systems.*

319.7.5 ~~3419.7.5~~ *When seismic isolation or energy dissipation systems are used in the retrofit or repair, either as part of the existing structure or as part of the modifications.*

319.7.6 ~~***3419.7.6***~~ *When the height of the structure exceeds 240 feet (73,152 mm).*

319.7.7 *When ASCE 41 is the evaluation standard and its application requires the use of nonlinear procedures.*

319.8 ~~***3419.8***~~ ***Strength requirements.*** *All components of the lateral-force-resisting system must have the strength to meet the acceptance criteria prescribed in ASCE 41, Chapter 7* ~~*3*~~*, or as prescribed in the applicable Appendix A chapter of this code* ~~*the IEBC*~~ *if a specific procedure in Section 319.1.1* ~~*3419.1.1*~~ *is used. Any component not having this strength shall have its capacity increased by modifying or supplementing its strength so that it exceeds the demand, or the demand is reduced to less than the existing strength by making other modifications to the structural system.*

Exception: *A component's strength is permitted to be less than that required by the specified seismic load combinations if it can be demonstrated that the associated reduction in seismic performance of the component or its removal due to the failure does not result in a structural system that does not comply with the required performance objectives of Section 317* ~~*3417*~~*. If this exception is taken for a component, then it cannot be considered part of the primary lateral-load- resisting system.*

319.9 ~~***3419.9***~~ ***Nonstructural component requirements.*** *Where the nonstructural performance levels required by Section 317* ~~*3417*~~*, Table 317.5* ~~*3417.5*~~ *are N-C*~~*D*~~ *or higher, mechanical, electrical and plumbing components shall comply with the provisions of ASCE 41, Chapter 13* ~~*11*~~*, Section 13.2* ~~*11.2*~~*.*

Exception: *Modifications to the procedures and criteria may be made subject to approval by the building official, and concurrence of the peer reviewer if applicable. All reports and correspondence shall also be forwarded to the building official.*

319.10 ~~***3419.10***~~ ***Structural observation, testing and inspection.*** *Structural, geotechnical and construction observation, testing and inspection as used in this section shall mean meeting the requirements of Chapter 17 of the California Building Code, with a minimum allowable level of investigation corresponding to seismic design category (SDC) D. At a minimum the project site will be visited by the responsible design professional to observe existing conditions and to review the construction work for general compliance with approved plans, specifications and applicable structural regulations. Such visits shall occur at significant construction stages and at the completion of the structural retrofit. Structural observation shall be provided for all structures. The plan for testing and inspection shall be submitted to the building official for review and approval with the application for permit.*

Additional requirements: *For public schools and community colleges, construction material testing, inspection and observation during construction shall also comply with Section 4-333 of the California Administrative Code,* ~~*Part 1, Title 24*~~*.*

319.10.1 ~~***3419.10.1***~~ *The registered design professional, or their designee, responsible for the structural design shall be retained to perform structural observation and independently report to the owner of observations and findings as they relate to adherence to the permitted plans and good workmanship.*

319.10.2 ~~***3419.10.2***~~ *At the conclusion of construction, the structural observer shall submit to the enforcement agency and the owner a final written statement that the required site visits have been made, that the work, to the best of the structural observers knowledge and belief, is or is not in general conformity to the approved plans and that the observed structural deficiencies have been resolved and/or listing those that, to the best of the structural observers knowledge and belief, have not been satisfactorily corrected.*

319.10.2.1 ~~***3419.10.2.1***~~ *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.*

319.10.2.2 ~~***3419.10.2.2***~~ ***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.

319.11 ~~***3419.11***~~ ***Temporary actions.*** *When compatible with the building use, and the time phasing for both use and the retrofit program, temporary shoring or other structural support is permitted to be considered. Temporary bracing, shoring and prevention of falling hazards are permitted to be used to qualify for Exception 1 in Section 319.12* ~~*3419.12*~~ *that allows inadequate capability in some existing components, as long as the required performance levels given in Section* ~~*3417*~~ *317 can be provided by the permanent structure. The consideration for such temporary actions shall be noted in the design documents.*

319.12 ~~***3419.12***~~ ***Voluntary modifications to the lateral-force resisting system.*** *Where modifications of existing structural components and additions of new structural components are initiated for the purpose of improving the lateral-force resisting strength or stiffness of an existing structure and they are not required by other sections of this code, then they are permitted to be designed to meet an approved seismic performance criteria provided that an engineering analysis is submitted that follows:*

1. *The capacity of existing structural components required to resist forces is not reduced, unless it can be demonstrated that reduced capacity meets the requirements of Section 319.8* ~~*3419.8*~~*.*
2. *The lateral loading to or strength requirement of existing structural components is not increased beyond their capacity.*
3. *New structural components are detailed and connected to the existing structural components as required by the California Building Code* ~~*this code for new construction*~~*.*
4. *New or relocated nonstructural components are detailed and connected to existing or new structural components as required by the California Building Code* ~~*this code for new construction*~~*.*
5. *A dangerous condition is not created.*

Use of ASCE 41 Tier 1 and Tier 2 deficiency only retrofit procedures are pre-approved for use where Section 317.3 does not require an assessment.

319.12.1 ~~***3419.12.1***~~ ***State-owned buildings. [BSC]*** *Voluntary modifications to lateral-force-resisting systems conducted in accordance with Appendix A of this code* ~~*the IEBC*~~ *and the referenced standards of the California Building Code* ~~*this code*~~ *shall be permitted.*

319.12.1.1 ~~***3419.12.1.1***~~ ***Design documents.*** *When Section 319.12* ~~*3419.12*~~ *is the basis for structural modifications, the approved design documents must clearly state the scope of the seismic modifications and the accepted criteria for the design. The approved design documents must clearly have the phrase "The seismic requirements of the California Existing Building Code,* ~~*Chapter 34 for existing buildings*~~ *have not been checked to determine if these structural modifications meet the full seismic evaluation and strengthening requirements of Sections 317-322: the modifications proposed are to a different seismic performance standard than would be required in Section 319* ~~*3419*~~ *if they were not voluntary as allowed in Section 319.12* ~~*3419.12*~~*."*

319.12.2 ~~***3419.12.2***~~ *(Reserved for DSA).*

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 10. SECTION 320 – METHOD A

CBSC proposes to carry forward CBC Chapter 34, Section 3420 and relocate and renumber it to the 2016 CEBC Chapter 3, Section 320. See the ISOR for additional rationale.

SECTION 320 ~~3420~~
METHOD A

320.1 ~~3420.1~~ General. *The retrofit design shall employ the Linear Static or Linear Dynamic Procedures of ASCE 41, Section 7.4.1 ~~3.3.1~~ or 7.4.2 ~~3.3.2~~, and comply with the applicable general requirements of ASCE 41, Chapters 6 ~~2~~ and 7 ~~3~~. The earthquake hazard level and performance level given specified in Section 317.5 ~~3417.5~~ for the building's risk category shall be used. Structures shall be designed for seismic forces coming from any horizontal direction.*

> ~~***Exception:*** *The ASCE 41 Simplified Rehabilitation Method of Chapter 10 may be used if the Level 1 seismic performance level is S-3 or lower, the building's structural system is one of the primary building types described in ASCE 41, Table 10-2, and ASCE 41, Table 10-1 permits it use for the building height.*~~

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 11. SECTION 321 – METHOD B

CBSC proposes to carry forward CBC Chapter 34, Section 3421 and relocate and renumber it to the 2016 CEBC Chapter 3, Section 321. See the ISOR for additional rationale.

SECTION 321 ~~3421~~
METHOD B

321.1 ~~3421.1~~ *The existing or retrofitted structure shall be demonstrated to have the capability to sustain the deformation response due to the specified earthquake ground motions and meet the seismic performance requirements of Section 317 ~~3417~~. The registered design professional shall provide an evaluation of the response of the existing structure in its modified configuration and condition to the ground motions specified. If the building's seismic performance is evaluated as satisfactory and the peer reviewer(s,) and the enforcement agency concurs, then no further structural modifications of the lateral-load-resisting system are required.*

When the evaluation indicates the building does not meet the required performance levels given in Table 317.5 ~~3417.5~~ for the risk category, then a retrofit and/or repair design shall be prepared that provides a structure that meets these performance objectives and reflects the appropriate consideration of existing conditions. Any approach to analysis and design is permitted to be used, provided that the approach shall be rational, shall be consistent with the established principals of mechanics and shall use the known performance characteristics of materials and assemblages under reversing loads typical of severe earthquake ground motions.

> ***Exception:*** *Further consideration of the structure's seismic performance may be waived by the enforcement agency if both the registered design professional and peer reviewer(s) conclude that the structural system can be expected to perform at least as well as required by the provisions of this section without completing an analysis of the structure's compliance with these requirements. A detailed report shall be submitted to the responsible building official that presents the reasons and basis for this conclusion. This report shall be prepared by the registered design professional. The peer reviewer(s) shall concur in this conclusion and affirm to it in writing. The building official shall either approve this decision or require completion of the indicated work specified in this section prior to approval.*

321.2 ~~3421.2~~ *The approach, models, analysis procedures, assumptions on material and system behavior and conclusions shall be peer reviewed in accordance with the requirements of Section 322 ~~3422~~ and accepted by the peer reviewer(s).*

> ***Exceptions:***
>
> 1. *The enforcement agency may perform the work of peer review when qualified staff is available within the jurisdiction.*

2. The enforcement agency may modify or waive the requirements for peer review when appropriate.

321.2.1 ~~***3421.2.1***~~ *The approach used in the development of the design shall be acceptable to the peer reviewer and the enforcement agency and shall be the same method as used in the evaluation of the building. Approaches that are specifically tailored to the type of building, construction materials and specific building characteristics may be used, if they are acceptable to the independent peer reviewer. The use of Method A allowed procedures may also be used under Method B.*

321.2.2 ~~***3421.2.2***~~ *Any method of analysis may be used, subject to acceptance by the peer reviewer(s) and the building official. The general requirements given in ASCE 41, Chapters 6 and 7* ~~*2*~~*, shall be complied with unless exceptions are accepted by the peer reviewer(s) and building official. Use of other than ASCE 41 procedures in Method B requires building official concurrence before implementation.*

321.2.3 ~~***3421.2.3***~~ *Prior to implementation, the procedures, methods, material assumptions and acceptance/rejection criteria proposed by the registered design professional will be peer reviewed as provided in Section 322* ~~*3422*~~*. Where nonlinear procedures are used, prior to any analysis, the representation of the seismic ground motion shall be reviewed and approved by the peer reviewer(s) and the building official.*

321.2.4 ~~***3421.2.4***~~ *The conclusions and design decisions shall be reviewed and accepted by the peer reviewer(s) and the building official.*

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 12. SECTION 322 – PEER REVIEW REQUIREMENTS

CBSC proposes to carry forward CBC Chapter 34, Section 3422 and relocate and renumber it to the 2016 CEBC Chapter 3, Section 322. See the ISOR for additional rationale.

SECTION 322 ~~***3422***~~
PEER REVIEW REQUIREMENTS

322.1 ~~***3422.1***~~ ***General.*** *Independent peer review is an objective, technical review by knowledgeable reviewer(s) experienced in the structural design, analysis and performance issues involved. The reviewer(s) shall examine the available information on the condition of the building, the basic engineering concepts employed and the recommendations for action.*

322.2 ~~***3422.2***~~ ***Timing of independent review.*** *The independent reviewer(s) shall be selected prior to initiation of substantial portions of the design and/or analysis work that is to be reviewed, and review shall start as soon as practical after Method B is adopted and sufficient information defining the project is available.*

322.3 ~~***3422.3***~~ ***Qualifications and terms of employment.*** *The reviewer(s) shall be independent from the design and construction team.*

322.3.1 ~~***3422.3.1***~~ *The reviewer(s) shall have no other involvement in the project before, during or after the review, except in a review capacity.*

322.3.2 ~~***3422.3.2***~~ *The reviewer(s) shall be selected and paid by the owner and shall have technical expertise in the evaluation and retrofit of buildings similar to the one being reviewed, as determined by the enforcement agency.*

322.3.3 ~~***3422.3.3***~~ *The reviewer (or in the case of review teams, the chair) shall be a California-licensed structural engineer who is familiar with the technical issues and regulations governing the work to be reviewed.*

Exception: *Other individuals with acceptable qualifications and experience may be a peer reviewer(s) with the approval of the building official.*

322.3.4 ~~***3422.3.4***~~ *The reviewer shall serve through completion of the project and shall not be terminated except for failure to perform the duties specified herein. Such termination shall be in writing with copies to the enforcement agency, owner and the registered design professional. When a reviewer is terminated or resigns,*

a qualified replacement shall be appointed within 10 working days, and the reviewer shall submit copies of all reports, notes and correspondence to the responsible building official, the owner and the registered design professional within 10 working days of such termination.

322.3.5 ~~***3422.3.5***~~ *The peer reviewer shall have access in a timely manner to all documents, materials and information deemed necessary by the peer reviewer to complete the peer review.*

322.4 ~~***3422.4***~~ ***Scope of review.*** *Review activities shall include, where appropriate, available construction documents, design criteria and representative observations of the condition of the structure, all inspection and testing reports, including methods of sampling, analytical models and analyses prepared by the registered design professional and consultants, and the retrofit or repair design. Review shall include consideration of the proposed design approach, methods, materials, details and constructability. Changes observed during construction that affect the seismic-resisting system shall be reported to the reviewer in writing for review and recommendation.*

322.5 ~~***3422.5***~~ ***Reports.*** *The reviewer(s) shall prepare a written report to the owner and building official that covers all aspects of the review performed, including conclusions reached by the reviewer(s). Reports shall be issued after the schematic phase, during design development, and at the completion of construction documents but prior to submittal of the project plans to the enforcement agency for plan review. When acceptable to the building official, the requirement for a report during a specific phase of the project development may be waived.*

Such reports should include, at the minimum, statements of the following:

1. *Scope of engineering design peer review with limitations defined.*
2. *The status of the project documents at each review stage.*
3. *Ability of selected materials and framing systems to meet performance criteria with given loads and configuration.*
4. *Degree of structural system redundancy and the deformation compatibility among structural and nonstructural components.*
5. *Basic constructability of the retrofit or repair system.*
6. *Other recommendations that would be appropriate to the specific project.*
7. *Presentation of the conclusions of the reviewer identifying any areas that need further review, investigation and/or clarification.*
8. *Recommendations.*

The last report prepared prior to submittal of permit documents to the enforcement agency shall include a statement indicating that the design is in conformance with the approved evaluation and design criteria

322.6 ~~***3422.6***~~ ***Response and resolutions.*** *The registered design professional shall review the report from the reviewer(s) and shall develop corrective actions and responses as appropriate. Changes observed during construction that affect the seismic-resisting system shall be reported to the reviewer in writing for review and recommendations. All reports, responses and resolutions prepared pursuant to this section shall be submitted to the responsible enforcement agency and the owner along with other plans, specifications and calculations required. If the reviewer resigns or is terminated prior to completion of the project, then the reviewer shall submit copies of all reports, notes and correspondence to the responsible building official, the owner and the registered design professional within 10 working days of such termination.*

322.7 ~~***3422.7***~~ ***Resolution of conflicts.*** *When the conclusions and recommendations of the peer reviewer conflict with the registered design professional's proposed design, the enforcement agency shall make the final determination of the requirement for the design.*

SECTION 323 ~~3423~~
ADDITIONAL REQUIREMENTS FOR PUBLIC SCHOOLS AND COMMUNITY COLLEGES

[Reserved for DSA-SS and DSA-SS/CC]

SECTION 325 ~~3424~~
ADDITIONAL REQUIREMENTS FOR SKILLED NURSING FACILITIES AND INTERMEDIATE CARE FACILITIES [OSHPD 2]
[Reserved for OSHPD 2]

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 13. CHAPTER 4 – PRESCRIPTIVE COMPLIANCE METHOD, SECTION 401-GENERAL

CBSC proposes to adopt specific sections of Chapter 4 of the 2015 IEBC for inclusion in the 2016 California Existing Building Code.

CHAPTER 4
PRESCRIPTIVE COMPLIANCE METHOD

Statement of specific purpose, problem, rationale and benefits:
Chapter 34 Existing Structures of the 2015 International Building Code (IBC) was deleted in its entirety. The Existing Structures provisions are now located in the 2015 International Existing Building Code (IEBC). Similar provisions are now located in Chapter 4 of the 2015 International Existing Building Code (IEBC). CBSC proposes to adopt specific sections carry forward existing amends from the CBC, Chapter 34 to **Sections 401.1, 401.1.1, 401.4, 402.1, 402.2, 402.3 402.3.1 403.1, 403.2, 403.3, 403.3.1, 404.1, 404.5 and 407.**

Adopt specific sections as amended below:

PROPOSED ADOPTION	BSC	Comments
Adopt entire chapter		
Adopt entire chapter with amendments listed below		
Adopt only those sections listed below	X	
401.1	X	
401.1.1	X	
401.4 DANGEROUS CONDITIONS	X	
402.1 GENERAL	X	
402.1 *EXCEPTION*	X	
402.2 FLOOD HAZARD AREAS	X	
402.3 EXISTING STRUCTURAL ELEMENTS CARRYING GRAVITY LOADS	X	
402.3.1 DESIGN LIVE LOAD	X	
403.1 GENERAL	X	
403.1 *EXCEPTION 3*	X	
403.2 FLOOD HAZARD AREAS	X	
403.3 EXISTING STRUCTURAL ELEMENTS CARRYING GRAVITY LOADS	X	
403.3.1 DESIGN LIVE LOAD	X	

404.1 GENERAL	X	
404.1 GENERAL *EXCEPTION*	X	
404.5 FLOOD HAZARD AREAS.	X	
407 CHANGE OF OCCUPANCY	X	

CBSC proposes to adopt specific sections and carry forward existing amendments from the CBC, Chapter 34 to Sections **401.1, 401.1.1, and 401.4.** Sections **401.2.3 and 401.3** are not adopted by CBSC but contain editorial amendments that correct section numbers and replace references to the International Building Code with references to the California Building Code.

SECTION 401
GENERAL

401.1 Scope. *(Formerly CBC 3401.1)* The provisions of this chapter shall control the alteration, repair, addition and change of occupancy or relocation of existing buildings and structures, ~~including historic buildings and structures as referenced in Section 301.1.1.~~ *including state-regulated structures in accordance with Section 401.1.1.*

Exception: Existing bleachers, grandstands and folding and telescopic seating shall comply with ICC 300.

401.1.1 *(Formerly CBC 3401.1.1)* ***Existing state-owned structures. [BSC]*** *The provisions of Sections ~~3417~~ 317 through ~~3422~~ 322 establish minimum standards for earthquake evaluation and design for retrofit of existing state-owned structures, including buildings owned by the University of California, ~~and~~ the California State University and the Judicial Council.*

The provisions of Sections 317 through 322 may be adopted by a local jurisdiction for earthquake evaluation and design for retrofit of existing buildings.

. . .

401.4 *(Formerly CBC 3401.5)* ***Dangerous conditions. [BSC]*** *Regardless of the extent of structural or nonstructural damage, the building official shall have the authority to require the elimination of conditions deemed dangerous.*

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 14. CHAPTER 4, SECTION 402 - ADDITIONS

CBSC proposes to adopt specific sections and carry forward existing amends from the CBC, Chapter 34 to **Sections 402.1, 402.2, 402.3, and 402.3.1.** Section **402.4** is not adopted by CBSC but contains editorial amendments that correct section numbers and replace references to the International Building Code with references to the California Building Code.

SECTION 402
ADDITIONS

402.1 General. *(Formerly CBC 3403.1)* Additions to any building or structure shall comply with the requirements of the ~~International Building Code~~ *California Building Code* for new construction. Alterations to the existing building or structure shall be made to ensure that the existing building or structure together with the addition are no less conforming to the provisions of the ~~International Building Code~~ *California Building Code* than the existing building or structure was prior to the addition. An existing building together with its additions shall comply with the height and area provisions of Chapter 5 of the ~~International Building Code~~ *California Building Code.*

Exception: [BSC] *For state-owned buildings, including those owned by the University of California and*

the California State University and the Judicial Council, the requirements of Sections ~~3403.3~~ 402.3 and ~~3403.4~~ 402.4 are replaced by the requirements of Sections ~~3417~~ 317 through ~~3422~~ 322.

402.2 Flood hazard areas. *(Formerly CBC 3403.2)* For buildings and structures in flood hazard areas established in Section 1612.3 of the ~~International Building Code~~ *California Building Code*, or Section R322 of the ~~International Residential Code~~ *California Residential Code,* as applicable, any addition that constitutes substantial improvement of the existing structure shall comply with the flood design requirements for new construction, and all aspects of the existing structure shall be brought into compliance with the requirements for new construction for flood design. For buildings and structures in flood hazard areas established in Section 1612.3 of the ~~International Building Code~~ *California Building Code*, or Section R322 of the ~~International Residential Code~~ *California Residential Code*, as applicable, any additions that do not constitute substantial improvement of the existing structure are not required to comply with the flood design requirements for new construction.

402.3 Existing structural elements carrying gravity load. *(Formerly CBC 3403.3)* Any existing gravity load-carrying structural element for which an addition and its related alterations cause an increase in design gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the ~~International Building Code~~ *California Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load carrying capacity is decreased shall be considered an altered element subject to the requirements of Section 403.3. Any existing element that will form part of the lateral load path for any part of the addition shall be considered an existing lateral load-carrying structural element subject to the requirements of Section 402.4.

402.3.1 Design live load. *(Formerly CBC 3403.3.1)* Where the addition does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads approved prior to the addition. If the approved live load is less than that required by Section 1607 of the ~~International Building Code~~ *California Building Code*, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the addition does result in increased design live load, the live load required by Section 1607 of the ~~International Building Code~~ *California Building Code* shall be used.

. . .

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 15. CHAPTER 4 – SECTION 403 - ALTERATIONS

CBSC proposes to adopt specific sections and carry forward existing amendments from the CBC, Chapter 34 to **Sections 403.1, 403.2, 403.3, and 403.3.1.** Sections **403.4, 403.4.1, 403.5, 403.6, 403.7, 403.8, 403.9, 403.10, 403.11 and their exceptions** are not adopted by CBSC but contain editorial amendments that correct section numbers replace references to the International Building Code with references to the California Building Code.

SECTION 403
ALTERATIONS

403.1 General. *(Formerly CBC 3404.1)* Except as provided by Section 401.2 or this section, alterations to any building or structure shall comply with the requirements of the ~~International Building Code~~ *California Building Code* for new construction. Alterations shall be such that the existing building or structure is no less conforming to the provisions of the ~~International Building Code~~ *California Building Code* than the existing building or structure was prior to the alteration.

Exceptions:

1. An existing stairway shall not be required to comply with the requirements of Section 1011 of the ~~International Building Code~~ *California Building Code* where the existing space and construction does not allow a reduction in pitch or slope.

2. Handrails otherwise required to comply with Section 1011.11 of the ~~International Building Code~~ *California Building Code* shall not be required to comply with the requirements of Section 1014.6 of the ~~International Building Code~~ *California Building Code* regarding full extension of the handrails where such extensions would be hazardous due to plan configuration.

3. ***[BSC]*** *For state-owned buildings, including those owned by the University of California and the California State University and the judicial council, the requirements of Sections ~~3404.3~~ 403.3 through ~~3404.5~~ 403.4 are replaced by the requirements of Sections ~~3417~~ 317 through ~~3422~~ 322.*

403.2 Flood hazard areas. *(Formerly CBC 3404.2)* For buildings and structures in flood hazard areas established in Section 1612.3 of the ~~International Building Code~~ *California Building Code*, or Section R322 of the ~~International Residential Code~~ *California Residential Code*, as applicable, any alteration that constitutes substantial improvement of the existing structure shall comply with the flood design requirements for new construction, and all aspects of the existing structure shall be brought into compliance with the requirements for new construction for flood design. For buildings and structures in flood hazard areas established in Section 1612.3 of the ~~International Building Code~~ *California Building Code*, or Section R322 of the ~~International Residential Code~~ *California Residential Code*, as applicable, any alterations that do not constitute substantial improvement of the existing structure are not required to comply with the flood design requirements for new construction.

403.3 Existing structural elements carrying gravity load. *(Formerly CBC 3404.3)* Any existing gravity load-carrying structural element for which an alteration causes an increase in design gravity load of more than 5 percent shall be strengthened, supplemented, replaced or otherwise altered as needed to carry the increased gravity load required by the ~~International Building Code~~ *California Building Code* for new structures. Any existing gravity load-carrying structural element whose gravity load-carrying capacity is decreased as part of the alteration shall be shown to have the capacity to resist the applicable design gravity loads required by the ~~International Building Code~~ *California Building Code* for new structures.

403.3.1 Design live load. *(Formerly CBC 3404.3.1)* Where the alteration does not result in increased design live load, existing gravity load-carrying structural elements shall be permitted to be evaluated and designed for live loads approved prior to the alteration. If the approved live load is less than that required by Section 1607 of the ~~International Building Code~~ *California Building Code*, the area designed for the nonconforming live load shall be posted with placards of approved design indicating the approved live load. Where the alteration does result in increased design live load, the live load required by Section 1607 of the ~~International Building Code~~ *California Building Code* shall be used.

. . .

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 16. CHAPTER 4 – SECTION 404 REPAIRS

CBSC proposes to adopt specific sections and carry forward existing amends from the CBC, Chapter 34 to Sections **404.1** and **404.5.** Sections **404.2, 404.2.1, 404.2.2, 404.2.3, 404.3, 404.3.1, and 404.4** are not adopted by CBSC but contain editorial amendments that correct section numbers and replace references to the International Building Code with references to the California Building Code.

SECTION 404
REPAIRS

404.1 General. *(Formerly CBC 3405.1)* Buildings and structures, and parts thereof, shall be repaired in compliance with Sections 401.2 and 404. Work on nondamaged components that is necessary for the required repair of damaged components shall be considered part of the repair and shall not be subject to the requirements for alterations in this chapter. Routine maintenance required by Section 401.2, ordinary repairs exempt from permit in accordance with Section 105.2, and abatement of wear due to normal service conditions shall not be subject to the requirements for repairs in this section.

Exception: [BSC] *For state-owned buildings, including those owned by the University of California and the California State University and the Judicial Council, the requirements of Sections ~~3403.3~~ 404.2 and ~~3403.4~~ 404.4 are replaced by the requirements of Sections ~~3417~~ 317 through ~~3422~~ 322.*

. . .

404.5 Flood hazard areas. *(Formerly CBC 3405.5)* For buildings and structures in flood hazard areas established in Section 1612.3 of the ~~International Building Code~~ *California Building Code*, or Section R322 of the ~~International Residential Code~~ *California Residential Code*, as applicable, any repair that constitutes substantial improvement or repair of substantial damage of the existing structure shall comply with the flood design requirements for new construction, and all aspects of the existing structure shall be brought into compliance with the requirements for new construction for flood design. For buildings and structures in flood hazard areas established in Section 1612.3 of the ~~International Building Code~~ *California Building Code,* or Section R322 of the ~~International Residential Code~~ *California Residential Code*, as applicable, any repairs that do not constitute substantial improvement or repair of substantial damage of the existing structure are not required to comply with the flood design requirements for new construction.

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 17. CHAPTER 4 – SECTIONS 405 FIRE ESCAPES & 406 GLASS REPLACEMENT AND REPLACEMENT WINDOWS.

CBSC does not adopt **Sections 405 and 406.** *(Formerly CBC 3406 and 3407)* These Sections contain editorial amendments that correct section numbers and replace references to the International Building Code with references to the California Building Code.

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 18. CHAPTER 4 – SECTIONS 407 – CHANGE OF OCCUPANCY

CBSC proposes to adopt this section and provide editorial revisions to correct section numbers and code references. This section was previously adopted in the 2013 CBC, Chapter 34, Section 3408.

SECTION 407
CHANGE OF OCCUPANCY

407.1 Conformance. *(Formerly CBC 3408.1)* No change shall be made in the use or occupancy of any building unless such building is made to comply with the requirements of the ~~International Building Code~~ *California Building Code* for the use or occupancy. Changes in use or occupancy in a building or portion thereof shall be such that the existing building is no less complying with the provisions of this code than the existing building or structure was prior to the change. Subject to the approval of the building official, the use or occupancy of existing buildings shall be permitted to be changed and the building is allowed to be occupied for purposes in other groups without conforming to all of the requirements of this code for those groups, provided the new or proposed use is less hazardous, based on life and fire risk, than the existing use.

Exception: The building need not be made to comply with the seismic requirements for a new structure unless required by Section 407.4.

407.1.1 Change in the character of use. A change in occupancy with no change of occupancy classification shall not be made to any structure that will subject the structure to any special provisions of the applicable ~~International~~ *California* Codes, without approval of the building official. Compliance shall be only as necessary to meet the specific provisions and is not intended to require the entire building be brought into compliance.

407.2 Certificate of occupancy. *(Formerly CBC 3408.2)* A certificate of occupancy shall be issued where it has been determined that the requirements for the new occupancy classification have been met.

407.3 Stairways. *(Formerly CBC 3408.3)* An existing stairway shall not be required to comply with the requirements of Section 1011 of the ~~International Building Code~~ *California Building Code* where the existing space and construction does not allow a reduction in pitch or slope.

407.4 Structural. *(Formerly CBC 3408.4 Seismic)* When a change of occupancy results in a structure being reclassified to a higher risk category, the structure shall conform to the seismic requirements for a new structure of the higher risk category. For purposes of this section, compliance with ASCE 41, using a Tier 3 procedure and the two-level performance objective in Table 301.1.4.1 for the applicable risk category, shall be deemed to meet the requirements of Section 1613 of the ~~International Building Code~~ *California Building Code*.

Exceptions:

1. Specific seismic detailing requirements of Section 1613 of the ~~International Building Code~~ *California Building Code* for a new structure shall not be required to be met where the seismic performance is shown to be equivalent to that of a new structure. A demonstration of equivalence shall consider the regularity, overstrength, redundancy and ductility of the structure.

2. When a change of use results in a structure being reclassified from Risk Category I or II to Risk Category III and the structure is located where the seismic coefficient, SDS, is less than 0.33, compliance with the seismic requirements of Section 1613 of the ~~International Building Code~~ *California Building Code* is not required.

3. ***[BSC]*** *For state-owned buildings, including those owned by the University of California and the California State University and the Judicial Council, the performance level requirements of Section 407.4 are replaced with the performance level requirements of Section 317.5.*

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 19. CHAPTER 4 – SECTIONS 408 - 410.

CBSC does not adopt **Sections 408, 409, and 410.** *(Formerly 3409, 3410, 3411)* These sections contain editorial amendments that correct section numbers and replace references to International Building and Residential Codes with references to the California Building and Residential Codes, respectively.

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 20. CHAPTERS 5 – 15

CBSC does not adopt Chapters 5-15.

CHAPTER 5
CLASSIFICATION OF WORK
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 6
REPAIRS
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 7
ALTERATIONS—LEVEL 1
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 8
ALTERATIONS—LEVEL 2
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 9
ALTERATIONS—LEVEL 3
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 10
CHANGE OF OCCUPANCY
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 11
ADDITIONS
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 12
HISTORIC BUILDINGS
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 13
RELOCATED OR MOVED BUILDINGS
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 14
PERFORMANCE COMPLIANCE METHODS
Not adopted by the State of California
(May be available for adoption by local ordinance. See Section 1.1.11)

CHAPTER 15
CONSTRUCTION SAFEGUARDS
[HCD is adopting and amending Chapter 15; therefore no note is included under the chapter title]

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 21. CHAPTER 16 REFERENCED STANDARDS

CHAPTER 16
REFERENCED STANDARDS

This chapter lists the standards that are referenced in various sections of this document. The standards are listed herein by the promulgating agency of the standard, the standard identification, the effective date and title, and the section or sections of this document that reference the standard. The application of the referenced standards shall be as specified in Section 102.4, *or California Administration Division I, as applicable*.

ASCE/SEI	American Society of Civil Engineers Structural Engineers Institute 1801 Alexander Bell Drive Reston, VA 20191-4400	
Standard Reference Number	Title	Referenced in code section number
7-10	Minimum Design Loads for Buildings and Other Structures with Supplement No. 1…….	301.1.4.1, 403.4, 403.9, 807.5
41-13	Seismic Evaluation and Retrofit of Existing Buildings…….	301.1.4, 301.1.4.1, Table 301.1.4.1, 301.1.4.2, Table 301.1.4.2, 402.4, Table 402.4, 403.4, 404.2.1, Table 404.2.1, 404.2.3, 407.4
ASHRAE	American Society of Heating, Refrigerating and Air Conditioning Engineers 1791 Tullie Circle, NE Atlanta, GA 30329	
Standard Reference Number	Title	Referenced in code section number
62.1-2013	Ventilation for Acceptable Indoor Air Quality……	809.2
ASME	American Society of Mechanical Engineers 3 Park Avenue New York, NY 10016	
Standard Reference Number	Title	Referenced in code section number
ASME A17.1/ CSA B44-2013 A17.3-2008 A18.1-2008	Safety Code for Elevators and Escalators…… Safety Code for Existing Elevators and Escalators…. Safety Standards for Platform Lifts and Stairway Chair Lifts……	410.8.2, 705.1.2,902.1.2 902.1.2 410.8.3, 705.1.3
ASTM	ASTM International 100 Barr Harbor Drive West Conshohocken, PA 19428-2959	

Standard Reference Number	Title	Referenced in code section number
C 94/C94M—13	Specification for Ready-mixed Concrete . ……	109.3.1
E 84—13A	Test Method for Surface Burning Characteristics of Building Materials……	1205.9
E 108—11	Standard Test Methods for Fire Tests of Roof Coverings…… …	1205.5
E 136—2012	Test Method for Behavior of Materials in a Vertical Tube Furnace at 750°C ……...	202
F 2006—10	Standard Safety Specification for Window Fall Prevention Devices for Non Emergency Escape (Egress) and Rescue (Ingress) Windows ……	406.2, 702.4
F 2090—10	Standard Specification for Window Fall Prevention Devices with Emergency (Egress) Release Mechanisms……	406.2, 702.4, 705.5
ICC	International Code Council, Inc. 500 New Jersey Avenue, NW, 6th Floor Washington, DC 20001	
Standard Reference Number	Title	Referenced in code section number
IBC—15	International Building Code®.....	101.4.1, 106.2.2, 109.3.3, 109.3.8, 110.2, 202, 301.1, 301.1.4 301.1.4.1, 301.1.4.2 401.2.3, 402.1, 402.2, 402.3, 402.3.1, 402.4, 403.1, 403.2, 403.3, 403.3.1, 403.4, 403.4.1, 403.8, 403.9, 404.2.1, 404.2.3, 404.3, 404.4, 404.5, 406.3, 407.1, 407.3,407.4, 408.3, 410.4, 410.4.2, 410.6, 410.8.1, 410.8.4, 410.8.6, 410.8.5, 410.8.7, 410.8.8, 410.8.10, 410.8.14, 410.9, 410.9.3, 410.9.4, 501.3, 601.3, 602.3, 606.1, 606.2.2.1, 606.2.2.3, 606.2.3, 606.2.4 701.2, 701.3, 702.1, 702.2, 702.3, 702.4, 702.5, 702.6, 705.1, 705.1.1, 705.1.4, 705.1.7, 705.1.8, 705.1.9,706.1, 706.3, 706.3.2, 707.2, 707.3.1, 707.3.2 801.3, 802.1, 803.2.1, 803.2.3, 803.3, 803.4, 803.5.2, 803.6, 804.1.1, 804.2, 804.2.2, 804.2.3, 804.2.4, 804.3, 805.3.1, 805.3.1.2.1, 805.4.3, 805.5, 805.6, 805.7.1, 805.8.1, 805.9.2, 805.10.1.1, 805.10.1.2, 805.10.1.3, 805.10.2, 805.11.2, 806.2, 806.3, 806.4, 806.5, 807.2, 807.4, 807.5, 807.6 904.1.2,

		904.1.3, 904.2, 904.2.1, 904.2.2, 905.2, 905.3, 906.2, 907.4, 907.4.2 1001.3, 1002.1, 1002.2, 1007.1, 1007.2, 1007.3.1, 1011.1, 1012.1.1.1, 1012.1.1.2, 1012.2.1, 1012.2.2, 1012.3, 1012.4.1, 1012.4.2, 1012.4.3, 1012.5.1, 1012.5.1.1, 1012.5.3, 1012.6.1, 1012.6.3, 1012.7.1, 1012.7.2, 1012.7.3, 1012.8, 1012.8.2 1102.1, 1102.2, 1102.3, 1103.1, 1103.2, 1103.3, 1103.3.1, 1103.3.2, 1103.4, 1103.5, 1201.4, 1202.3, 1202.4, 1203.12, 1204.1, 1204.1.4, 1205.2, 1205.9, 1205.15, 1301.2, 1302.1, 1302.2, 1302.2.1, 1302.3, 1302.4, 1302.5, 1302.6, 1401.2.2, 1401.2.3, 1401.2.4, 1401.3.3, 1401.4.1, 1401.6.1, 1401.6.1.1, 1401.6.2, 1401.6.2.1, 1401.6.3.1, 1401.6.3.2, 1401.6.4.1, 1401.6.5, 1401.6.5.1, 1401.6.6, 1401.6.7.1, 1401.6.8, 1401.6.9, 1401.6.9.1, 1401.6.10, 1401.6.10.1, 1401.6.11, 1401.6.11.1, 1401.6.12.1, 1401.6.13, 1401.6.15.1, 1401.6.16.1, 1401.6.17, 1401.6.17.1, 1401.6.18, 1401.6.18.1, 1401.6.19, Table 1401.6.19, 1501.5, 1501.6.1, 1501.6.4.1, 1501.6.7, 1506.1, 1506.3
ICC A117.1—09	Accessible and Usable Buildings and Facilities…….	
ICC 300—12	ICC Standard on Bleachers, Folding and Telescopic Seating and Grandstands……	
IECC—15	International Energy Conservation Code®.....	410.8.2, 410.8.3, 410.8.10, 705.1.2, 705.1.3
IFC—15	International Fire Code® ……	
IFGC—15	International Fuel Gas Code® ……	401.1
IMC—15	International Mechanical Code® . . ……	301.2, 702.6, 708.1, 811.1, 908.1
IPC—15	International Plumbing Code® ……	101.4.2, 301.1.1, 301.2, 402.5, 403.10, 803.2.1, 803.2.3, 804.4.1.1, 804.4.1.2, 804.4.1.3, 804.4.1.4, 804.4.1.5, 804.4.1.6, 804.4.1.7, 804.4.3, 1012.5.1.1, 1104.1, 1301.2, 1401.3.2, 1401.6.8.1, 1401.6.14, 1401.6.14.1, 1501.5, 1504.1, 1504.2
IPMC—15	International Property Maintenance Code®.....	
IRC—15	International Residential Code® ……	301.2, 702.6.1
		301.2, 702.6, 809.1, 902.1.1, 902.2.1, 1009.1,

		1401.6.7.1401.6.8, 1401.6.8.1 301.2, 609.1, 702.6, 810.1, 1010.1, 1010.2, 1010.3, 1010.5, 1501.7 101.4.2, 301.2, 1301.2, 1401.3.2 101.4.1, 301.2, 402.2, 403.2, 404.5, 408.3, 602.3,701.3, 702.5, 706.2, 707.2, 707.4, 707.5, 708.1 807.4, 808.3, 811.1, 907.4, 908.1, 1103.2, 1103.3, 1103.4, 1104.1, 1106.1, 1201.4, 1301.2, 1302.1, 1302.2, 1302.2.1, 1302.3, 1302.4, 1302.6, 1302.5, 1401.2.2, 1401.2.3, 1401.3.3
NFPA	National Fire Protection Agency 1 Batterymarch Park Quincy, MA 02269-9101	
Standard Reference Number	Title	Referenced in code section number
NFPA 13R—13 NFPA 70—14 NFPA 72—13 NFPA 99—15 NFPA 101—15	Standard for the Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height……. National Electrical Code…… National Fire Alarm and Signaling Code…… Health Care Facilities Code…… Life Safety Code……	804.2.5 107.3, 301.2, 607.1.1, 607.1.2, 607.1.3, 607.1.4, 607.1.5, 808.1, 808.3.4, 808.3.7, 1008.1, 1008.2, 1008.3, 1008.4 804.2.5, 804.4 607.1.4 805.2
UL	UL LLC 333 Pfingsten Road Northbrook, IL 60062	
Standard Reference Number	Title	Referenced in code section number
723—08 790—04	Standard for Test for Surface Burning Characteristics of Building Materials with Revisions Through September 2010 ……. Standard Test Methods for Fire Tests of Roof Coverings with Revisions through October 2008…..	 1205.9 1205.5

Notation:
Authority: Health and Safety Code §18928 & 18934.5
References: Health and Safety Code §§18928, 18928.1, & 18934.5

ITEM 22. APPENDIX A, CHAPTER A1 - SEISMIC STRENGTHENING PROVISIONS FOR UNREINFORCED MASONRY BEARING WALL BUILDINGS

CBSC proposes to carry forward the adoption of Appendix Chapter A1. See the ISOR for additional rationale.

Appendix A: Guidelines for the Seismic Retrofit of Existing Buildings

CHAPTER A1
SEISMIC STRENGTHENING PROVISIONS FOR
UNREINFORCED MASONRY BEARING WALL BUILDINGS

PROPOSED ADOPTION	BSC	DSA-SS	DSA-SS/CC	Comments
Adopt entire chapter				
Adopt entire chapter with amendments listed below				
Adopt only those sections listed below				
A100	x			
A103-BUILDING CODE	x			

NOTES:
1. For essential services buildings, refer to Part 1, Chapter 4, Articles 1, 2 and 3, Title 24, ~~C.C.R.,~~ for administrative regulation of the Division of the State Architect-Structural Safety Section.
2. For private schools, refer to Education Code section 39160-76 and Health and Safety Code section 18941.5.
3. For historical buildings, refer to Part 8, Title 24, ~~C.C.R.~~
4. For application and enforcement authority, refer to Part 2, Chapter 1, Div. 1, Sections 1.1, 1.2 and 1.8, title 24, ~~C.C.R~~.
5. For local jurisdiction exemption program, refer to Health and Safety Code section 18941.6.

SECTION A100
APPLICATION

Al00.l Vesting authority. *When adopted by a state agency, the provisions of these regulations shall be enforced by the appropriate enforcing agency, but only to the extent of authority granted to such agency by the state legislature.*

Following is a list of the state agencies that adopt building standards, the specific scope of application of the agency responsible for enforcement, and the specific statutory authority of each agency to adopt and enforce such provisions of building standards of this code, unless otherwise stated.

1. BSC-California Building Standards Commission.

Application-Existing buildings as specified in Section A102 having at least one unreinforced masonry bearing wall, with the exception of buildings subject to building standards pursuant to Health and Safety Code, commencing with Section 17910.

Enforcing Agency-State or local agency specified by the applicable provisions of the law.

Authority Cited-Health and Safety Code Section 18934.7.

Reference- Health and Safety Code Sections 18901 through 18949.

2. HCD 1-The Department of Housing and Community Development. *[Reserved for HCD-1]*

3. HCD 2-The Department of Housing and Community Development. *[Reserved for HCD-2]*

SECTION A101
PURPOSE

A101.1 The purpose of this chapter is to promote **. . .**

. . .

SECTION A102
SCOPE

A102.1 General. The provisions of this chapter shall apply **. . .**

A102.2 Essential and hazardous facilities. The provisions of this chapter shall not apply to the strengthening of building in Risk Category III or IV. Such building shall be strengthened to meet the requirements of the ~~*International Building Code*~~ *California Building Code* for new buildings of the same risk category or other such criteria approved by the code official.

SECTION A103
DEFINITIONS

For the purposes of this chapter, the applicable definitions in the *California Building Code as adopted by the California Building Standards Commission (BSC)* shall also apply:

BUILDING CODE. ***[BSC]*** *"Building Code" shall mean the most current edition of the California Building Code, Title 24, Part 2 as adopted by the California Building Standards Commission (BSC).*

. . .

SECTION A104
SYMBOLS AND NOTATIONS

. . .

SECTION A105
MATERIALS REQUIREMENTS

. . .

A105.4 Structural observation, testing and inspection. Structural observation, in accordance with Section 1708 of the ~~*International Building Code*~~ *California Building Code*, shall be required for all structures in which seismic retrofit is being performed in accordance with this chapter. Structural observation shall include visual observation of work for conformance with the approved construction documents and confirmation of existing conditions assumed during design.

Structural testing and inspection for new construction material shall be in accordance with the building code, except as modified by this chapter.

. . .

SECTION A108
DESIGN STRENGTHS

. . .

A108.2 Masonry shear strength. The unreinforced masonry shear strength, v_m, shall be determined for each masonry class from one of the following equations:

1. **. . .**
2. **. . .**
3. When f'_m has been estimated by categorization of the units and mortar in accordance with Section 2105.1 of the ~~*International Building Code*~~ *California Building Code*, the unreinforced masonry shear strength, v_m, shall not exceed 200 pounds per square inch(1380 kPa) or the lesser of the following:

. . .

[Include reprint of Uniform Building Code Standards 21-4, 21-6, 21-8, 21-13]

REFERENCED STANDARDS

UNIFORM BUILDING CODE STANDARD 21–4
HOLLOW AND SOLID LOAD-BEARING CONCRETE MASONRY UNITS

Based on Standard Specification C 90–95 of the ASTM International. Extracted, with permission, from the *Annual Book of ASTM Standards,* copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428

Note: See Appendix Chapter 1, Section A106, California Existing Building Code

Section 21.401 — Scope

This standard covers solid (units with 75 percent or more net area) and hollow load-bearing concrete masonry units made from portland cement, water and mineral aggregates with or without the inclusion of other materials.

Section 21.402 — Classification

21.402.1 Types. Two types of concrete masonry units in each of two grades are covered as follows:

21.402.1.1 Type I, moisture-controlled units. Units designated as Type I shall conform to all requirements of this standard including the moisture content requirements of Table 21–4-A.

21.402.1.2 Type II, nonmoisture-controlled units. Units designated as Type II shall conform to all requirements of this standard except the moisture content requirements of Table 21–4-A.

21.402.2 Grades. Concrete masonry units manufactured in accordance with this standard shall conform to two grades as follows:

21.402.2.1 Grade N. Units having a weight classification of 85 pcf (1360 kg/m^3) or greater, for general use such as in exterior walls below and above grade that may or may not be exposed to moisture penetration or the weather and for interior walls and backup.

21.402.2.2 Grade S. Units having a weight classification of less than 85 pcf (1360 kg/m^3), for uses limited to above-grade installation in exterior walls with weather-protective coatings and in walls not exposed to the weather.

Section 21.403 — Materials

21.403.1 Cementitious materials. Materials shall conform to the following applicable standards:

1. Portland Cement—ASTM C 150 modified as follows:

   Limitation on insoluble residue—1.5 percent maximum.
   Limitation on air content of mortar,
   Volume percent—22 percent maximum.
   Limitation on loss on ignition—7 percent maximum.
   Limestone with a minimum 85 percent calcium carbonate (C_aCO_3) content may be added to the cement, provided the requirements of ASTM C 150 as modified above are met.
2. Blended Cements—ASTM C 595.
3. Hydrated Lime, Type S—UBC Standard 21-13.

21.403.2 Other constituents and aggregates. Air-entraining agents, coloring pigments, integral water repellents, finely ground silica, aggregates, and other constituents, shall be previously established as suitable for use in concrete or shall be shown by test or experience to not be detrimental to the durability of the concrete.

Section 21.404 — Physical Requirements

At the time of delivery to the work site, the units shall conform to the physical requirements prescribed in Table 21–4–B. The moisture content of Type I concrete masonry units at time of delivery shall conform to the requirements prescribed in Table 21–4-A.

At the time of delivery to the purchaser, the linear shrinkage of Type II units shall not exceed 0.065 percent.

Section 21.405 — Minimum Face-shell and Web Thicknesses

Face-shell (FST) and web (WT) thicknesses shall conform to the requirements listed in Table 21–4-C.

Section 21.406 — Permissible Variations in Dimensions

21.406.1 Precision units. For precision units, no overall dimension (width, height and length) shall differ by more than $^1/_8$ inch (3.2 mm) from the specified standard dimensions.

21.406.2 Particular feature units. For particular feature units, dimensions shall be in accordance with the following:

1. For molded face units, no overall dimension (width, height and length) shall differ by more than $^1/_8$ inch (3.2 mm) from the specified standard dimension. Dimensions of molded features (ribs, scores, hex-shapes, patterns, etc.) shall be within $^1/_{16}$ inch (1.6 mm) of the specified standard dimensions and shall be within $^1/_{16}$ inch (1.6 mm) of the specified placement of the unit.
2. For split-faced units, all non-split overall dimensions (width, height and length) shall differ by no more than $^1/_8$

inch (3.2 mm) from the specified standard dimensions. On faces that are split, overall dimensions will vary. Local suppliers should be consulted to determine dimensional tolerances achievable.

3. For slumped units, no overall height dimension shall differ by more than $^1/_8$ inch (3.2 mm) from the specified standard dimension. On faces that are slumped, overall dimensions will vary. Local suppliers should be consulted to determine dimension tolerances achievable.

Note: Standard dimensions of units are the manufacturer's designated dimensions. Nominal dimensions of modular size units, except slumped units, are equal to the standard dimensions plus $^3/_8$ inch (9.5 mm), the thickness of one standard mortar joint. Slumped units are equal to the standard dimensions plus $^1/_2$ inch (13 mm), the thickness of one standard mortar joint. Nominal dimensions of nonmodular size units usually exceed the standard dimensions by $^1/_8$ inch to $^1/_4$ inch (3.2 mm to 6.4 mm).

Section 21.407 — Visual Inspection

All units shall be sound and free of cracks or other defects that would interfere with the proper placing of the unit or impair the strength or permanence of the construction. Units may have minor cracks incidental to the usual method of manufacture, or minor chipping resulting from customary methods of handling in shipment and delivery.

Units that are intended to serve as a base for plaster or stucco shall have a sufficiently rough surface to afford a good bond.

Where units are to be used in exposed wall construction, the face or faces that are to be exposed shall be free of chips, cracks or other imperfections when viewed from 20 feet (6100 mm), except that not more than 5 percent of a shipment may have slight cracks or small chips not larger than 1 inch (25.4 mm).

Section 21.408 — Methods of Sampling and Testing

The purchaser or authorized representative shall be accorded proper facilities to inspect and sample the units at the place of manufacture from the lots ready for delivery.

Sample and test units in accordance with ASTM C 140.

Total linear drying shrinkage shall be based on tests of concrete masonry units made with the same materials, concrete mix design, manufacturing process and curing method, conducted in accordance with ASTM C 426 and not more than 24 months prior to delivery.

Section 21.409 — Rejection

If the samples tested from a shipment fail to conform to the specified requirements, the manufacturer may sort it, and new specimens shall be selected by the purchaser from the retained lot and tested at the expense of the0 manufacturer. If the second set of specimens fails to conform to the specified requirements, the entire lot shall be rejected.

TABLE 21–4-A
MOISTURE CONTENT REQUIREMENTS FOR TYPE I UNITS

LINEAR SHRINKAGE, PERCENT	MOISTURE CONTENT, MAX. PERCENT OF TOTAL ABSORPTION (Average of 3 Units)		
	Humidity Conditions at Job site or Point of Use		
	Humid[1]	Intermediate[2]	Arid[3]
0.03 or less	45	40	35
From 0.03 to 0.045	40	35	30
0.045 to 0.065, max.	35	30	25

[1]Average annual relative humidity above 75 percent.

[2]Average annual relative humidity 50 to 75 percent.

[3]Average annual relative humidity less than 50 percent.

TABLE 21–4-B
STRENGTH AND ABSORPTION REQUIREMENTS

COMPRESSIVE STRENGTH, MIN, psi (MPa)		WATER ABSORPTION, MAX, lb./ft. (kg/m) (Average of 3 Units)		
Average Net Area		Weight Classification—Oven–dry Weight of Concrete, lb./ft. (kg/m)		
Average of 3 Units	Individual Unit	Lightweight, Less than 105 (1680)	Medium Weight, 105 to less than 125 (1680–2000)	Normal Weight, 125 (2000) or more
1900 (13.1)	1700 (11.7)	18 (288)	15 (240)	13 (208)

TABLE 21–4-C
MINIMUM THICKNESS OF FACE-SHELLS AND WEBS

NOMINAL WIDTH (W) OF UNIT (inches)	FACE–SHELL THICKNESS (FST) MIN., (inches)[1, 4]	WEB THICKNESS (WT)	
		Webs[1] Min., (inches)	Equivalent Web Thickness, Min., In./Lin. Ft.[2]
× 25.4 for mm			× 83 for mm/lin. m
3 and 4	$^3/_4$	$^3/_4$	$1^5/_8$
6	1	1	$2^1/_4$
8	$1^1/_4$	1	$2^1/_4$
10	$1^3/_8$ $1^1/_4$[3]	$1^1/_8$	$2^1/_2$
12	$1^1/_2$ $1^1/_4$[3]	$1^1/_8$	$2^1/_2$

[1]Average of measurements on three units taken at the thinnest point.

[2]Sum of the measured thickness of all webs in the unit, multiplied by 12 (305 when using metric), and divided by the length of the unit. In the case of open-ended units where the open-ended portion is solid grouted, the length of that open-ended portion shall be deducted from the overall length of the unit.

[3]This face-shell thickness (FST) is applicable where allowable design load is reduced in proportion to the reduction in thicknesses shown, except that allowable design load on solid-grouted units shall not be reduced.

[4]For split-faced units, a maximum of 10 percent of a shipment may have face-shell thicknesses less than those shown, but in no case less than $^3/_4$ inch (19 mm).

UNIFORM BUILDING CODE STANDARD 21-6
IN-PLACE MASONRY SHEAR TESTS

See Appendix Chapter 1, Sections A1 06.3.3 and A1 07.2, *Uniform Code for Building Conservation*
Note: See Appendix Chapter A1, Section A104, California Existing Building Code.

Section 21.601 — Scope

This standard applies when the *Uniform Code for Building Conservation (California Existing Building Code)* requires in-place testing of the quality of masonry mortar.

Section 21.602 — Preparation of Sample

The bed joints of the outer wythe of the masonry shall be tested in shear by laterally displacing a single brick relative to the adjacent bricks in the same wythe. The head joint opposite the loaded end of the test brick shall be carefully excavated and cleared. The brick adjacent to the loaded end of the test brick shall be carefully removed by sawing or drilling and excavating to provide space for a hydraulic ram and steel loading blocks.

Section 21.603 — Application of Load and Determination of Results

Steel blocks, the size of the end of the brick, shall be used on each end of the ram to distribute the load to the brick. The blocks shall not contact the mortar joints. The load shall be applied horizontally, in the plane of the wythe, until either a crack can be seen or slip occurs. The strength of the mortar shall be calculated by dividing the load at the first cracking or movement of the test brick by the nominal gross area of the sum of the two bed joints.

UNIFORM BUILDING CODE STANDARD 21-7
TESTS OF ANCHORS IN UNREINFORCED MASONRY WALLS

See Appendix Chapter 1, Section A1 07.3 and A1 07.4, *Uniform Code for Building Conservation*
Note: See Appendix Chapter A1, Section A105, A107.3, A107.4 and Table A1-E, California Existing Building Code.

Section 21.701 — Scope

Shear and tension anchors in existing masonry construction shall be tested in accordance with this standard when required by the *Uniform Code for Building Conservation (California Existing Building Code)*.

Section 21.702 — Direct Tension Testing of Existing Anchors and New Bolts

The test apparatus shall be supported by the masonry wall. The distance between the anchor and the test apparatus support shall not be less than one half the wall thickness for existing anchors and 75 percent of the embedment for new embedded bolts. Existing wall anchors shall be given a preload of 300 pounds (1335 N) prior to establishing a datum for recording elongation. The tension test load reported shall be recorded at $^1/_8$ inch (3.2 mm) relative movement of the existing anchor and the adjacent masonry surface. New embedded tension bolts shall be subject to a direct tension load of not less than 2.5 times the design load but not less than 1,500 pounds (6672 N) for five minutes (10 percent deviation).

Section 21.703 — Torque Testing of New Bolts

Bolts embedded in unreinforced masonry walls shall be tested using a torque-calibrated wrench to the following minimum torques:

$^1/_2$-inch-diameter (13 mm) bolts—40 foot pounds (54.2 N · m)
$^5/_8$-inch-diameter (16 mm) bolts—50 foot pounds (67.8 N · m)
$^3/_4$-inch-diameter (19 mm) bolts—60 foot pounds (81.3 N · m)

Section 21.704 — Prequalification Test for Bolts and Other Types of Anchors

This section is applicable when it is desired to use tension or shear values for anchors greater than those permitted by Table A-1-E of the *Uniform Code for Building Conservation (California Existing Building Code)*. The direct-tension test procedure set forth in Section 2 1.702 for existing anchors may be used to determine the allowable tension values for new embedded or through bolts, except that no preload is required. Bolts shall be installed in the same manner and using the same materials as will be used in the actual construction. A minimum of five tests for each bolt size and type shall be performed for each class of masonry in which they are proposed to be used. The allowable tension values for such anchors shall be the lesser of the average ultimate load divided by a factor of safety of 5.0 or the average load of which $^1/_8$ inch (3.2 mm) elongation occurs for each size and type of bolt and class of masonry.

Shear bolts may be similarly prequalified. The test procedure shall comply with ASTM E 488-90 or another approved procedure.

The allowable values determined in this manner may exceed those set forth in Table A-1-E of the *Uniform Code for Building Conservation (California Existing Building Code)*.

Section 21.705 — Reports

Results of all tests shall be reported. The report shall include the test results as related to anchor size and type, orientation of loading, details of the anchor installation and embedment, wall thickness, and joist orientation.

UNIFORM BUILDING CODE STANDARD 21-8
POINTING OF UNREINFORCED MASONRY WALLS

See Appendix Chapter 1, Section A1 06.3.3.2, *Uniform Code for Building Conservation*
Note: See Appendix Chapter A1, Section A103 and A106.3.3.9, California Existing Building Code.

Section 21.801 — Scope

Pointing of deteriorated mortar joints when required by the *Uniform Code for Building Conservation (California Existing Building Code)* shall be in accordance with this standard.

Section 21.802 — Joint Preparation

The old or deteriorated mortar joint shall be cut out, by means of a toothing chisel or nonimpact power tool, to a uniform depth of $^3/_4$ inch (19 mm) until sound mortar is reached. Care shall be taken not to damage the brick edges. After cutting is complete, all loose material shall be removed with a brush, air or water stream.

Section 21.803 — Mortar Preparation

The mortar mix shall be Type N or Type S proportioned as required by the construction specifications. The pointing mortar shall be pre-hydrated by first thoroughly mixing all ingredients dry and then mixing again, adding only enough water to produce a damp unworkable mix which will retain its form when pressed into a ball. The mortar shall be kept in a damp condition for one and one-half hours; then sufficient water shall be added to bring it to a consistency that is somewhat drier than conventional masonry mortar.

Section 21.804 — Packing

The joint into which the mortar is to be packed shall be damp but without freestanding water. The mortar shall be tightly packed into the joint in layers not exceeding $^1/_4$ inch (6.4 mm) in depth until it is filled; then it shall be tooled to a smooth surface to match the original profile.

UNIFORM BUILDING CODE STANDARD 21–13
HYDRATED LIME FOR MASONRY PURPOSES

Based on Standard Specification C 207–91 (Reapproved 1992) of the ASTM International. Extracted, with permission, from the *Annual Book of ASTM Standards,* copyright ASTM International, 100 Barr Harbor Drive, West Conshohocken, PA 19428

See Section 2102.2, Item 3, *Uniform Building Code*
Note: See Referenced Standard UBC 21-4

Section 21.1301 — Scope

This standard covers four types of hydrated lime. Types N and S are suitable for use in mortar, in the scratch and brown coats of cement plaster, for stucco, and for addition to portland-cement concrete. Types NA and SA are air-entrained hydrated limes that are suitable for use in any of the above uses where the inherent properties of lime and air entrainment are desired. The four types of lime sold under this specification shall be designated as follows:

Type N—Normal hydrated lime for masonry purposes.

Type S—Special hydrated lime for masonry purposes.

Type NA—Normal air-entraining hydrated lime for masonry purposes.

Type SA—Special air-entraining hydrated lime for masonry purposes.

Note: Type S, special hydrated lime, and Type SA, special air-entraining hydrated lime, are differentiated from Type N, normal hydrated lime, and Type NA, normal air-entraining hydrated lime, principally by their ability to develop high, early plasticity and higher water retentivity and by a limitation on their unhydrated oxide content.

Section 21.1302 — Definition

HYDRATED LIME. The hydrated lime covered by Type N or S in this standard shall contain no additives for the purpose of entraining air. The air content of cement-lime mortars made with Type N or S shall not exceed 7 percent. Types NA and SA shall contain an air-entraining additive as specified by Section 21.1305. The air content of cement-lime mortars made with Type NA or SA shall have a minimum of 7 percent and a maximum of 14 percent.

Section 21.1303 — Additions

Types NA and SA hydrated lime covered by this standard shall contain additives for the purpose of entraining air.

Section 21.1304 — Manufacturer's Statement

Where required, the nature, amount and identity of the air-entraining agent used and of any processing addition that may have been used shall be provided, as well as test data showing compliance of such air-entraining addition.

Section 21.1305 — Chemical Requirements Composition

Hydrated lime for masonry purposes shall conform to the requirements as to chemical composition set forth in Table 21–13–A.

Section 21.1306 — Residue, Popping and Pitting

The four types of hydrated lime for masonry purposes shall conform to one of the following requirements:

1. The residue retained on a No. 30 (600 μm) sieve shall not be more than 0.5 percent, or
2. If the residue retained on a No. 30 (600 μm) sieve is over 0.5 percent, the lime shall show no pops and pits when tested.

Section 21.1307 — Plasticity

The putty made from Type S, special hydrate, or Type SA, special air-entraining hydrate, shall have a plasticity figure of not less than 200 within 30 minutes after mixing with water, when tested.

Section 21.1308 — Water Retention

Hydrated lime mortar made with Type N, normal hydrated lime, or Type NA, normal air-entraining hydrated lime, after suction for 60 seconds, shall have a water-retention value of not less than 75 percent when tested in a standard mortar made from the dry hydrate or from putty made from the hydrate which has been soaked for a period of 16 to 24 hours.

Hydrated lime mortar made with Type S, special hydrated lime, or Type SA, special air-entraining hydrated lime, after suction for 60 seconds, shall have a water-retention value of not less than 85 percent when tested in a standard mortar made from the dry hydrate.

Section 21.1309 — Special Marking

When Type NA or SA air-entraining hydrated lime is delivered in packages, the type under this standard and the words "air-entraining" shall be plainly indicated thereon or, in case of bulk shipments, so indicated on shipping notices.

Section 21.1310 — Quality Control

Every 90 days, each lime producer shall retain an approved agency to obtain a random sample from a local point of supply in the market area served by the producer.

The agency shall test the lime for compliance with the physical requirements of Sections 21.1306, 21.1307 and 21.1308.

Upon request of the building official, the producer shall furnish (at no cost) test results to the building official, architect, structural engineer, general contractor and masonry contractor.

ASTM 653/A & 653M-08 [HCD]

Standard specifications for steel sheet, zinc-coated (galvanized) or zinc-iron alloy-coated (galvannealed) by the hot-dip process.

TABLE 21–13–A—CHEMICAL REQUIREMENTS

	HYDRATE TYPES			
	N	NA	S	SA
Calcium and magnesium oxides (nonvolatile basis), min. percent	95	95	95	95
Carbon dioxide (as-received basis), max. percent				
If sample is taken at place of manufacture	5	5	5	5
If sample is taken at any other place	7	7	7	7
Unhydrated oxides (as-received basis), max. percent	—	—	8	8

Notation:

Authority: Health and Safety Code Sections 18928, 18928.1, and 18934.7

Reference(s): Health and Safety Code Sections 18916, 18928, 18928.1, 18934.7, and 18938

ITEM 23a. APPENDIX A - CHAPTERS A2 – A5

CBSC does not adopt Appendix A, Chapters A2 – A5.

CHAPTER A2
EARTHQUAKE HAZARD REDUCTION IN EXISTING REINFORCED CONCRETE AND REINFORCED MASONRY WALL BUILDINGS WITH FLEXIBLE DIAPHRAGMS

CHAPTER A3
PRESCRIPTIVE PROVISIONS FOR SEISMIC STRENGTHENING OF CRIPPLE WALLS AND SILL PLATE ANCHORAGE OF LIGHT, WOOD-FRAME RESIDENTIAL BUILDINGS

CHAPTER A4
EARTHQUAKE RISK REDUCTION IN WOOD-FRAME RESIDENTIAL BUILDINGS WITH SOFT, WEAK OR OPEN FRONT WALLS

CHAPTER A5
EARTHQUAKE HAZARD REDUCTION IN EXISTING CONCRETE BUILDINGS

ITEM 23b. APPENDIX A - CHAPTERS A6

CBSC adopts Appendix A, Chapters A6 Reference Standards.

CHAPTER A6
REFERENCED STANDARDS

Notation:
Authority: Health and Safety Code Sections 18928, 18928.1, and 18934.7
Reference(s): Health and Safety Code Sections 18916, 18928, 18928.1, 18934.7, and 18938

ITEM 24. APPENDIX B

CBSC does not adopt Appendix B.

APPENDIX B
SUPPLEMENTARY ACCESSIBILITY REQUIREMENTS FOR EXISTING BUILDINGS AND FACILITIES

Notation:
Authority: Health and Safety Code Sections 18928, 18928.1, and 18934.7
Reference(s): Health and Safety Code Sections 18916, 18928, 18928.1, 18934.7, and 18938

ITEM 25. APPENDIX C

CBSC does not adopt Appendix C.

APPENDIX C
GUIDELINES FOR THE WIND RETROFIT OF EXISTING BUILDINGS

Notation:
Authority: Health and Safety Code Sections 18928, 18928.1, and 18934.7
Reference(s): Health and Safety Code Sections 18916, 18928, 18928.1, 18934.7, and 18938

ITEM 26. RESOURCE A

CBSC does not adopt Resource A.

RESOURCE A
GUIDELINES ON FIRE RATINGS OF ARCHAIC MATERIALS AND ASSEMBLIES

Notation:
Authority: Health and Safety Code Sections 18928, 18928.1, and 18934.7
Reference(s): Health and Safety Code Sections 18916, 18928, 18928.1, 18934.7, and 18938