

DRAFT INITIAL EXPRESS TERMS

**INITIAL EXPRESS TERMS
FOR
PROPOSED BUILDING STANDARDS
OF THE
DIVISION OF THE STATE ARCHITECT

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 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 Repealed text: All such language appears in ~~strikeout~~.

CHAPTER 1
SCOPE AND ADMINISTRATION
DIVISION I
CALIFORNIA ADMINISTRATION

Adopt and/or codify entire chapter as amended below:

PROPOSED ADOPTION	DSA-SS	DSA-SS/CC		Comments
Adopt entire chapter				
Adopt entire chapter with amendments listed below				
Adopt only those sections listed below	X	X		
<i>Division I -California Administration</i>				

<u>1.1</u>	<u>X</u>	<u>X</u>		
<u>1.9.2</u>	<u>X</u>	<u>X</u>		
<u>1.9.2.1</u>	<u>X</u>			
<u>1.9.2.2</u>		<u>X</u>		

CHAPTER 1
SCOPE AND ADMINISTRATION
DIVISION I
CALIFORNIA ADMINISTRATION

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 Preface to distinguish the model code provisions from the California provisions.

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 stateleased 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 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 Chapters 11 B.
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.

Exception: Detached one-and two-family dwellings, efficiency dwelling units, lodging houses, live/work units, townhouses not more than three stories above grade plane with a separate means of egress, and their accessory structures, shall not be required to comply with the California Residential Code if constructed in accordance with the California Building

Code.

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. O. 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 applies to cities, counties, and city and county amending adopted energy standards affecting buildings and structures subject to the California Energy Code, Part 6.

Applicable provisions of Public Resources Code Section 25402.1 and applicable provisions of Chapter 10 of the California Administrative Code, Part 1 apply to local amendment of energy standards adopted by the California Energy Commission.

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 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.

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.

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SECTION 1.9 **DIVISION OF THE STATE ARCHITECT**

1.9.1 Division of the State Architect – Access Compliance [Reserved]

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1.9.2 Division of the State Architect—Structural Safety.

1.9.2.1 DSA-SS Division of the State Architect-Structural Safety.

Application—Public elementary and secondary schools, community colleges and state-owned or state-leased essential services buildings.

Enforcing agency—The Division of the State Architect— Structural Safety (DSA-SS) has been delegated the responsibility and authority by the Department of General Services to review and approve the design and observe the construction of public elementary and secondary schools, community colleges and state-owned or state-leased essential services buildings.

Authority cited—Education Code Section 17310 and 81142 and Health and Safety Code Section 16022.

Reference—Education Code Sections 17280 through 17317, and 81130 through 81147 and Health and Safety Code Sections 16000 through 16023.

1.9.2.1.1 Applicable administrative standards.

1. Title 24, Part 1, California Code of Regulations:

1.1. Sections 4-301 through 4-355, Group 1, Chapter 4, for public elementary and secondary schools and community colleges.

1.2. Sections 4-201 through 4-249, Chapter 4, for state-owned or state-leased essential services buildings.

2. Title 24, Part 2, California Code of Regulations: [applies to public elementary and secondary schools, community colleges and state-owned or state-leased essential services building(s)]:

2.1. Sections 1.1 and 1.9.2.1 of Chapter 1, Division I.

2.2. Sections 102.1, 102.2, 102.3, 102.4, 102.5, 104.9, 104.10, 104.11, and 106.1 of Chapter 1, Division II.

1.9.2.1.2 Applicable building standards. California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10, 11 and 12, California Code of Regulations, for school buildings, community colleges and state-owned or state-leased essential service buildings.

The provisions of Title 24, Part 10, as adopted and amended by the Division of the State Architect—Structural Safety [DSA-SS], shall apply to the applications listed in Section 1.9.2.1.

The Division of the State Architect—Structural Safety [DSA-SS] adopts the following building standards in Title 24, Part 10:

Chapters 1 and 3.

1.9.2.1.3 Amendments. Division of the State Architect—Structural Safety amendments in this code appear preceded with the acronym [DSA-SS].

Exceptions:

1. Chapter 3, Sections 317-323—DSA-SS adopts these sections without the use of the DSA-SS acronym.

1.9.2.2 DSA-SS/CC Division of the State Architect- Structural Safety/Community Colleges

Application—Community Colleges. The Division of the State Architect has been delegated the authority by the Department of General Services to promulgate alternate building standards for application to community colleges, which a community college may elect to use in lieu of standards promulgated by DSA-SS in accordance with Section 1.9.2.1.

Enforcing agency—*Division of the State Architect- Structural Safety/Community Colleges (DSA-SS/CC)*

The Division of the State Architect has been delegated the authority by the Department of General Services to review and approve the design and oversee construction of community colleges electing to use the alternative building standards as provided in this section.

Authority cited—*Education Code Section 81053.*

Reference—*Education Code Sections 81052, 81053, and 81130 through 81147.*

1.9.2.2.1 Applicable administrative standards.

1. Title 24, Part 1, California Code of Regulations:

1.1. Sections 4-301 through 4-355, Group 1, Chapter 4.

2. Title 24, Part 2, California Code of Regulations:

2.1. Sections 1.1 and 1.9.2.2 of Chapter 1, Division I.

2.2. Sections 102.1, 102.2, 102.3, 102.4, 102.5, 104.9, 104.10, 104.11, and 106.1 of Chapter 1, Division II.

1.9.2.2.2 Applicable building standards. *California Building Standards Code, Title 24, Parts 2, 3, 4, 5, 6, 9, 10, 11 and 12, California Code of Regulations.*

The provisions of Title 24, Part 10, as adopted and amended by the Division of the State Architect—Structural Safety/Community Colleges [DSA-SS/CC], shall apply to the applications listed in Section 1.9.2.2.

The Division of the State Architect-Structural Safety/Community Colleges [DSA-SS/CC] adopts the following building standards in Title 24, Part 10:

Chapters 1 and 3.

1.9.2.2.3 Amendments. *Division of the State Architect—Structural Safety/Community Colleges amendments in this code appear preceded with the acronym [DSA-SS/CC].*

Exceptions:

1. Chapter 3, Sections 317-323—DSA-SS/CC adopts these sections without the use of the DSA-SS/CC acronym.

DSA-SS Authority: Education Code § 17310 and 81142, and H&S Code §16022.

Reference: Education Code §§ 17280 through 17317, and 81130 through 81147, and Health and Safety Code §§16000 through 16023.

DSA-SS/CC Authority: Education Code § 81053.

Reference: Education Code §§ 81052, 81053, and 81130 through 81147.

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**CHAPTER 3
PROVISIONS FOR ALL COMPLIANCE METHODS**

Adopt and/or codify entire chapter as amended below:

PROPOSED ADOPTION	DSA-SS	DSA-SS/CC	Comments
Adopt entire chapter			
Adopt entire chapter with amendments listed below			
Adopt only those sections listed below	x	x	
<u>301.1 exceptions 3</u>	<u>X</u>		
<u>301.1 exceptions 4</u>		<u>X</u>	
<u>317</u>	<u>X</u>	<u>X</u>	
<u>318</u>	<u>X</u>	<u>X</u>	
<u>319</u>	<u>X</u>	<u>X</u>	
<u>320</u>	<u>X</u>	<u>X</u>	
<u>321</u>	<u>X</u>	<u>X</u>	
<u>322</u>	<u>X</u>	<u>X</u>	
<u>323</u>	<u>X</u>	<u>X</u>	

**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. (Reserved for BSC)

3. (Relocated from Section 3401.1.2, Part 2, Title 24, C.C.R.) **3401.1.2 Public school buildings [DSA-SS]** *The provisions of Sections ~~3173417~~ through ~~3233423~~ establish minimum standards for earthquake evaluation and design for the rehabilitation of existing buildings for use as public school buildings under the jurisdiction of the Division of the State Architect-Structural Safety (DSA-SS, refer to Section 1.9.2.1) where required by Sections 4-307 and 4-309(c) of the California Administrative Code.*

The provisions of Sections ~~3173417~~ through ~~3233423~~ also establish minimum standards for earthquake evaluation and design for rehabilitation of existing public school buildings currently under the jurisdiction of DSA-SS.

4. (Relocated from Section 3401.1.3, Part 2, Title 24, C.C.R.) **3401.1.3 Community college buildings. [DSA-SS/CC]** *The provisions of Sections ~~3173417~~ through ~~3233423~~ establish minimum standards for earthquake evaluation and design for the rehabilitation of existing buildings for use as community college buildings under the jurisdiction of the Division of the State Architect-Structural Safety/Community Colleges (DSA-SS/CC, refer to Section 1.9.2.2) where required by Sections 4-307 and 4-309(c) of the California Administrative Code.*

The provisions of Sections ~~3173417~~ through ~~3233423~~ also establish minimum standards for earthquake evaluation and design for rehabilitation of existing community college buildings currently under the jurisdiction of DSA-SS/CC.

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(Relocated from Sections 3417 through 3423, Part 2, Title 24, C.C.R.)

SECTION 3173417
EARTHQUAKE EVALUATION AND DESIGN
FOR RETROFIT OF EXISTING BUILDINGS

317.13417.1 Purpose.

317.1.13417.1.1 Existing state-owned structures. 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 Public school buildings. The provisions of Sections 317 3417 through 323 3423 establish minimum standards for earthquake evaluation and design for the rehabilitation of existing buildings for use as public school buildings under the jurisdiction of the Division of the State Architect-Structural Safety (DSA-SS), refer to Section 1.9.2.1.

The provisions of Section 317 3417 through 323 3423 also establish minimum standards for earthquake evaluation and design for rehabilitation of existing public buildings currently under the jurisdiction of DSA-SS.

317.1.2.1 3417.1.2.1 Reference to other chapters. For public schools, where reference within this chapter is made to sections in Chapters 16, 17, 18, 19, 21 or 22, of the California Building Code, the provisions in Chapters 16A, 17A, 18A, 19A, 21A and 22A, of the California Building Code, respectively shall apply instead.

317.1.3 3417.1.3 Community college buildings. The provisions of Sections 317 3417 through 323 3423 establish minimum standards for earthquake evaluation and design for the rehabilitation of existing buildings for use as community college buildings under the jurisdiction of the Division of the State Architect-Structural Safety/Community Colleges (DSA-SS/CC), refer to Section 1.9.2.2.

The provisions of Section 317 3417 through 323 3423 also establish minimum standards for earthquake evaluation and design for rehabilitation of existing community college buildings currently under the jurisdiction of DSA-SS/CC.

317.1.3.1 3417.1.3.1 Reference to other chapters. For community colleges, where reference within this chapter is made to sections in Chapters 17 or 18, of the California Building Code, the provisions in Chapters 17A and 18A, of the California Building Code respectively shall apply instead.

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. 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~~ Public school buildings. For public schools, the provisions of Section 317 ~~3417~~ apply when required in accordance with Sections 4-307 and 4-309(c) of the California Administrative Code, ~~Title 24, Part 1.~~

317.3.3 ~~3417.3.3~~ Community college buildings. For community colleges, the provisions of Section 317 ~~3417~~ apply when required in accordance with Sections 4-307 and 4-309(c) of the California Administrative Code, ~~Title 24, Part 1.~~

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-2E ~~BSE-C~~), a specified structural performance level (S-1 through S-5) and a non-structural performance level (N-A through N-DE). 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 both the Level 1 and Level 2 performance levels, and the more restrictive requirements shall apply.

~~Basic Safety Earthquake 2N (BSE-2N) 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 When 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 per cent of the floor area of the original building or 1,000 square feet (93 m²), then the Table 3417.5 entries for BSE-1E ~~BSE-R~~ and BSE-2E ~~BSE-C~~ are replaced by BSE-1N and BSE-2N, respectively.

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, 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~~.

SECTION ~~318~~ ~~3418~~ DEFINITIONS

3418.1. In addition to the definitions given in Section 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~~ 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 Section ~~3417.5~~. Values for ~~BSE-C~~ need not be greater than those for ~~BSE-2~~.

~~BSE-R RESPONSE ACCELERATION PARAMETERS~~ 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 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-CD the lowest, while N-DE 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.

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."

Building Regulatory Authority	Risk Category	PERFORMANCE CRITERIA	
		Level 1	Level 2
<u>Building Standards Commission – State-Owned (BSC)</u>	I, II, III	BSE-1 <u>ER</u> , S-3, N- <u>CD</u>	BSE-2 <u>EG</u> , S-5, N- <u>DE</u>
<u>Building Standards Commission – State-Owned (BSC)</u>	IV	BSE-1 <u>ER</u> , S-2, N-B	BSE-2 <u>EG</u> , S-4, N- <u>C</u>
<u>Division of the State Architect - Public schools (DSA-SS)</u>	I	BSE-1 <u>N</u> , S-3, N- <u>BG</u>	BSE-2 <u>N</u> , S-5, N- <u>DE</u>
<u>Division of the State Architect - Public schools (DSA-SS)</u>	II, III	BSE-1 <u>N</u> , S-2, N- <u>BG</u>	BSE-2 <u>N</u> , S-4, N-D
<u>Division of the State Architect - Public schools (DSA-SS)</u>	IV	BSE-1 <u>N</u> , S-2, N- <u>AG</u>	BSE-2 <u>N</u> , S-4, N-D
<u>Division of the State Architect - Community college (DSA-SS/CC)</u>	I, II, III	BSE-1 <u>ER</u> , S-3, N- <u>CD</u>	BSE-2 <u>N</u> , S-5, N- <u>DE</u>
<u>Division of the State Architect - (DSA-SS/CC)</u>	III	BSE-1 <u>ER</u> , S-3, N- <u>BD</u>	BSE-2 <u>N</u> , S-5, N- <u>DE</u>

Division of the State Architect – Community college (DSA-SS/CC)	IV	BSE-1 <u>ER</u> , S-2, N-B	BSE-2 <u>N</u> , S-4, N- <u>DC</u>
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- ASCE 41 provides acceptance criteria (e.g. m , rotation) for Immediate Occupancy (S1), Life Safety (S3), and Collapse Prevention (S5), and specifies in Sections 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 shall be taken halfway between those is $\frac{1}{3}$ 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 shall be taken halfway between those 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.~~

- Buildings evaluated and retrofitted to meet the requirements for a new building, Chapter 16, Part 2, Title 24, C.C.R., in accordance with the exception in Section 319.1 3419.4, are deemed to meet the seismic performance requirements of this section.

SECTION 319 3419 SEISMIC CRITERIA SELECTION FOR EXISTING BUILDINGS

319.1 3419.4 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:

- Method A of Section 320 3420;
- 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 ~~this code~~.

Exceptions: [DSA-SS & DSA-SS/CC] For public schools and community colleges constructed to the requirements of California Building Code, 2007 or later edition, that code is permitted to be used in place of those specified in Section 319.1 ~~3419.1~~ provided the building complies with Seismic Design Category D or higher.

319.1.1 ~~3419.1.1~~ Specific procedures. 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~~ Public schools. For public schools, unreinforced masonry shall not be used to resist in-plane or out-of-plane seismic forces or superimposed gravity loads.

319.1.5 ~~3419.1.5~~ Public schools. For public schools of light-frame construction, horizontal diaphragms and vertical shear walls shall consist of either diagonal lumber sheathing or structural panel sheathing. Braced horizontal diaphragms may be acceptable when approved by DSA. Straight lumber sheathing may be used in combination with diagonal or structural panel sheathing as diaphragms or shear walls. Let-in bracing, plaster (stucco), hollow clay tile, gypsum wallboard and particleboard sheathing shall not be assumed to resist seismic forces.

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.

Data collection in accordance with ASCE 41 Section 6.2 2-2 shall meet the following minimum levels:

- 1. For state-owned buildings, the requirements shall be met following the data collection requirements of ASCE 41 Section 6.2 2-2.*
- 2. For public schools and community college buildings constructed in conformance with the Field Act, the "Usual" level as defined in ASCE 41, Section 6.2.2 2-2-6.2.*
- 3. For public schools and community college buildings not constructed in conformance with the Field Act, the "Comprehensive" level as defined in ASCE 41, Section 6.2.3 2-2-6.3.*

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.

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 ~~3424~~) 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 ~~3424~~) 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).

319.8 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 IBC~~ 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-CD or higher, mechanical, electrical and plumbing components shall comply with the provisions of ASCE 41, Chapter 13 44, Section 13.2 44.2.

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 this code for new construction.
4. New or relocated nonstructural components are detailed and connected to existing or new structural components as required by this code for new construction.
5. A dangerous condition is not created.

319.12.1 ~~3419.12.1~~ State-owned buildings. Voluntary modifications to lateral-force-resisting systems conducted in accordance with Appendix A of ~~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 Chapter 34 for existing buildings have not been checked to determine if these structural modifications meet CBC requirements: 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~~ Public schools and community colleges. When Section 319.12 ~~3419.12~~ is the basis for structural modifications, the approved design documents must

clearly indicate the scope of modifications and the acceptance criteria for the design.

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 Tier 2 Deficiency-Based Evaluation and Retrofit Simplified Rehabilitation Method of Chapter 5-10 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 3-1-10-2, and ASCE 41, Table 3-2-10-1 permits its use for the building height.~~

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.

**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

The requirements of Section ~~323~~ 3423 apply only to public schools under the jurisdiction of the Division of the State Architect-Structural Safety (DSA-SS, refer to Section 1.9.2.1) and community colleges under the jurisdiction of the Division of the State Architect-Structural Safety/Community Colleges (DSA-SS/CC, refer to Section 1.9.2.2). ~~Refer to Section 1.9.2.2.~~

323.1 3423.1 Evaluation and design criteria report. During the schematic phase of the project, the owner or the registered design professional in charge of the design shall prepare and sign an Evaluation and Design Criteria Report in accordance with ~~Part 1, Title 24, C. C. R.,~~ Section 4-306 or 4-307(a) of the California Administrative Code. The report shall be submitted to the DSA for review and approval prior to proceeding with design development of the rehabilitation.

The Evaluation and Design Criteria Report shall:

1. Identify the building(s) structural and nonstructural systems, potential deficiencies in the elements or systems and the proposed method for retrofit.
2. Identify geological and site-related hazards.
3. Propose the methodology for evaluation and retrofit design.
4. Propose the complete program for data collection (Section ~~319.2~~ 3419.2).
5. Include existing or "as-built" building plans, reports and associated documents of the existing construction.

323.2 3423.2 Rehabilitation involving only portions of structures. Where only a portion(s) of a structure is to be rehabilitated, the public school or community college portion of the structure

shall:

1. *Be seismically separated from the unrehabilitated portion in accordance with Chapter 16 of Part 2, Title 24, C.C.R., or the entire structure shall be rehabilitated in accordance with this Section. For structures in which the unrehabilitated portion is above or below the school or community college portion, the entire structure shall be rehabilitated in accordance with this division.*
2. *Be retrofitted as necessary to protect the occupants from falling hazards of the unrehabilitated portion of the building, and;*
3. *Be retrofitted as necessary to protect required exitways being blocked by collapse or falling hazards of the unrehabilitated portion.*

DSA-SS Authority: Education Code § 17310 and 81142, and H&S Code §16022.

Reference: Education Code §§ 17280 through 17317, and 81130 through 81147, and Health and Safety Code §§16000 through 16023.

DSA-SS/CC Authority: Education Code § 81053.

Reference: Education Code §§ 81052, 81053, and 81130 through 81147.