

## ORDINANCE NO.

### AN ORDINANCE OF THE CITY OF SAN JOSE AMENDING TITLE 24 OF THE SAN JOSE MUNICIPAL CODE TO ADOPT THE 2010 CALIFORNIA BUILDING, RESIDENTIAL, PLUMBING, MECHANICAL, ELECTRICAL CODES, CALIFORNIA EXISTING BUILDING CODE, CALIFORNIA HISTORICAL BUILDING CODE, CALIFORNIA GREEN BUILDING STANDARDS CODE AND ~~2006~~ 2009 INTERNATIONAL EXISTING BUILDING CODE WITH CERTAIN EXCEPTIONS, MODIFICATIONS AND ADDITIONS

**WHEREAS**, pursuant to Sections 17922, 17958, 17958.5 and 17958.7 of the California Health and Safety Code, the City may adopt the provisions of the California Building, Residential, Plumbing, Mechanical, Electrical, Existing Building, Historical Building Codes, Green Building Standards Code, and International Existing Building Code, with certain amendments to those provisions which are reasonably necessary to protect the health, welfare and safety of the citizens of San Jose because of local climatic, geological and topographical conditions; and

**WHEREAS**, on November, 2010, the City Council made factual findings set forth in respective sections of Title 24 of the San José Municipal Code relating to the amendments made to the California codes; and

**WHEREAS**, the factual findings made then continue to be valid and relate to the amendments made to the California codes in this adoption; and

**WHEREAS**, this Ordinance was found to be categorically exempt from environmental review, per the provisions of Section 15061(b)(3) of the California Environmental Quality Act of 1970, as amended, and Section 21.08.500 of the San Jose Municipal Code, on October 5, 2010, under File No. PP10-168.

NOW, THEREFORE, BE IT ORDAINED BY THE COUNCIL OF THE CITY OF SAN JOSE:

Section 1. The Title of Title 24 of the San Jose Municipal Code is amended to read as follows:

### TITLE 24 TECHNICAL CODES

Section 2. Section 24.01.100 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

#### **24.01.100 Purpose.**

The purpose of this Title is to provide for the administration and enforcement of the building, residential, plumbing, mechanical, electrical, the existing building, Green Building Standards Code, and historical codes adopted by the City of San Jose.

Section 3. Section 24.01.120 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is

amended to read as follows:

**24.01.120 Exemption for Pending Applications**

- A. The provisions of the 2010 California Building, Residential, Plumbing, Mechanical, Electrical Codes, California Existing Building Code, California Historical Building Code, California Green Building Standards Code and 2009 International Existing Building Code as adopted and amended herein, shall not apply to any building or structure for which application for a building permit was made prior to January 1, 2011. Such buildings or structure shall be erected, constructed, enlarged, altered or repaired in accordance with the provisions of this Chapter in effect at the date of said application.
- B. All other applications shall be processed in accordance with the provisions of the 2010 edition of the California Building Code, the California Residential Code, the California Plumbing Code, the California Mechanical Code, the California Existing Building Code, the California Electrical Code, the California Historical Building Code, the California Green Building Standards Code, and 2009 the International Existing Building Code as adopted and amended herein.

Section 4. Section 24.01.208 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.208 Alter or Alteration**

“Alter” or “Alteration” means any construction or renovation to an existing structure other than repair or addition.

Section 5. Section 24.01.224 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.224 Building Code**

“Building Code” means the California Building Code, or CBC, 2010 edition, based on 2009 International Building Code promulgated by the International Code Council, including the appendix thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations and in this Title.

Section 6. Section 24.01.233 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.233 Electrical Code**

“Electrical Code” means the California Electric Code or CEC, 2010 edition, based on 2008 National Electric Code promulgated by the National Fire Protection Association, as amended and set forth in the California Building Standards Code, Title 24, Part 3 and in this Title.

Section 7. Section 24.01.236 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.236 Existing Building**

“Existing Building” means a building legally erected prior to January 1, 2011 or one for which a legal building permit has been issued.

Section 8. Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended by adding a new section to be numbered and entitled and to read as follows:

**24.01.237 Existing Building Code**

“Existing Building Code” means the California Existing Building Code, or CEBC, 2010 edition, based on 2009 International Existing Building Code promulgated by the International Code Council, including the appendix thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations and in this Title.

Section 9. Section 24.01.239 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is renumbered and amended to read as follows:

**24.01.238 Fire Code**

“Fire Code” is the California Fire Code or CFC, 2010 edition, based on 2009 International Fire Code promulgated by the International Code Council, including the Appendix thereto, together with those omissions, amendments, exceptions and additions there to as amended in the California Code of regulations and in the San Jose Municipal Code.

Section 10. Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended by adding a new section to be numbered and entitled and to read as follows:

**24.01.239 Green Building Standards Code**

“Green Building Standards Code” means the California Green Building Standards Code, or CAL Green, 2010 edition, including the appendix thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations and in this Title.

Section 11. Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended by adding a new section to be numbered and entitled and to read as follows:

**24.01.240 Historical Building Code**

“Historical Building Code” means the California Historical Building Code, or CHBC, 2010 edition, including the appendix thereto in Title 24 of the California Code of Regulations, together with those omissions, amendments, exceptions and additions thereto as amended in this Title.

Section 12. Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended by adding a new section to be numbered and entitled and to read as follows:

**24.01.241 International Existing Building Code**

“International Existing Building Code” means the International Existing Building Code or IEBC, 2009 edition, promulgated by the International Code Council, including the appendix thereto, together with those omissions, amendments, exceptions and additions thereto as amended in this Title.

Section 13. Section 24.01.245 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.245 Mechanical Code**

“Mechanical Code” is the California Mechanical Code or CMC, 2010 edition, based on 2009 Uniform Mechanical Code promulgated by the International Association of Plumbing and Mechanical Officials, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations and in this Title.

Section 14. Section 24.01.260 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.260 Plumbing Code**

“Plumbing Code” is the California Plumbing Code, or CPC, 2010 edition, based on 2009 Uniform Plumbing Code promulgated by the International Association of Plumbing and Mechanical Officials, including the appendix thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations and in this Title.

Section 15. Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended by adding a new section to be numbered and entitled and to read as follows:

**24.01.265 Residential Code**

“Residential Code” means the California Residential Code, or CRC, 2010 edition, based on 2009 International Residential Code promulgated by the International Code Council, including the appendix thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations and in this Title.

Section 16. Section 24.01.266 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.266 Structural Observation**

“Structural Observation” means the visual observation of the structural system by a registered design professional for general conformance to the approved construction documents. Structural observation does not include or waive the responsibility for the inspections required by Part 5 of this Ordinance, CBC Section 1704, and other sections of the Building Code.

Section 17. Section 24.01.272 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.272 Technical Codes**

“Technical Codes” refer to those codes adopted by this Chapter containing the provisions for design, construction, alteration, addition, repair, removal, demolition, use, location, occupancy and maintenance of buildings and structures and building service equipment as herein defined which include but are not limited to California Building Code, California Residential Code, California Plumbing Code, California Mechanical Code, California Electrical Code, California Existing Building Code, California Historical Building Code, California Green Building Standards Code, and International Existing Building Code.

Section 18. Section 24.01.350 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.350 Existing Occupancy**

- A. Buildings in existence on December 31, 2010 may have their existing use or occupancy continued if the use or occupancy was legal at the time of the adoption of the Building Code, and provided continued use is not dangerous to life, health and safety.
- B. A change in the use or occupancy of any existing building or structure shall comply with the provisions of Part 6 of Chapter 24.02 and Chapter 34 of the Building Code.

Section 19. Section 24.01.420 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.420 Alternate materials, methods of design and methods of construction**

- A. The provisions of the technical codes are not intended to prevent the use of any material, appliance, installation, device, arrangement, design or method of construction not specifically prescribed by the technical codes, provided an alternate has been approved and its use authorized by the Building Official.
- B. The Building Official may approve an alternate, provided the Building Official finds that the proposed design is satisfactory and complies with the provisions of the technical codes and that the material, method or work offered is, for the purpose intended, at least the equivalent of that prescribed in the technical codes in suitability, strength, effectiveness, fire resistance, durability, safety and sanitation.
- C. The Building Official shall require that sufficient evidence or proof be submitted to substantiate claims that may be made regarding its use.
- D. The details of an action granting approval of an alternate shall be recorded and entered in the Department’s files.

- E. The Building Official may require the applicant to arrange for the proposed alternate materials, methods of design and methods of construction be reviewed and evaluated by an outside agency designated by the Building Official at the applicant's expense.

Section 20. Section 24.01.500 of Chapter 24.01 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.01.500 Building Official powers and duties**

- A. The Building Official is authorized and directed to enforce all of the provisions of this Title, and the Technical Codes, excepting that the provisions of Chapter 9 of Building Code shall be enforced jointly with the Chief of the Fire Department. For such purposes, the Building Official and the Chief of the Fire Department, respectively, and their respective authorized representatives, shall each have the powers of a peace officer.
- B. The Building Official shall have all of the following powers and authority subject to the direction and supervisory authority of the Director with regard to:
  - 1. The authority granted to the "building official" by this Title and the CBC.
  - 2. The authority granted to the "Administrative Authority" by this Title, the CPC and CMC.
  - 3. The authority required to enforce the CEC.
  - 4. The authority required to enforce the CRC.
  - 5. The authority required to enforce the Cal Green.
  - 6. The authority required to enforce the CHBC.
  - 7. The authority required to enforce the IEBC.
  - 8. The authority required to enforce the CEBC.

Section 21. Section 24.02.120 of Chapter 24.02 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.02.120 Building permit exemptions**

- A. A building permit shall not be required for the following:
  - 1. One-story detached accessory buildings used as tool and storage sheds, playhouses and similar uses, provided the floor area does not exceed 120 square feet (11.15 m<sup>2</sup>).
  - 2. Fences not over six (6) feet (1829 mm) high.
  - 3. Oil derricks.

4. Nonfixed and Movable fixtures cases, racks, counters and partitions not over five (5) feet nine (9) inches (1753 mm) high.
  5. Retaining walls which are not over four (4) feet (1219 mm) in height measured from the bottom of the footing to the top of the wall, unless supporting a surcharge or impounding Class I, II or III-A Liquids.
  6. Water tanks supported directly upon grade if the capacity does not exceed five thousand (5,000) gallons (18925 liters) and the ratio of height to diameter or width does not exceed two to one.
  7. Platforms, walks and driveways not more than thirty (30) inches (762 mm) above grade and not over any basement or story below and are not part of an accessible route.
  8. Painting, papering, tiling, carpeting, cabinets, counter tops and similar finish work.
  9. Temporary motion picture, television and theater stage sets and scenery.
  10. Window awnings, in Group R-3 and U Occupancies, supported by an exterior wall that do not project more than 54" from the exterior wall and do not require additional support.
  11. Prefabricated swimming pools accessory to a Group R, Division 3 Occupancy in which the pool walls are entirely above the adjacent grade and if the capacity does not exceed five thousand (5,000) gallons (18925 liters).
  12. Replacement, repair or overlay of less than twenty-five percent (25%) of an existing roof within any twelve (12) month period.
  13. Swings and other playground equipment accessory to detached one- and two-family dwellings.
- B. Unless otherwise exempted by this Title, separate plumbing, electrical and mechanical permits will be required for the above exempted items.

Section 22. Section 24.02.230 of Chapter 24.02 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.02.230 Information on Plans and Specifications**

- A. Plans and specifications shall be drawn to scale on substantial paper and shall be of sufficient clarity to indicate the location, nature and extent of the work proposed and show in detail that it will conform to the provisions of this Title and all relevant laws, ordinances, rules and regulations.
- B. Plans for buildings of other than Group R, Division 3 and Group U Occupancies shall indicate how required structural and fire-resistive integrity will be maintained when a penetration will be made for electrical, mechanical, plumbing and communication conduits, pipes and similar systems.

Section 23. Section 24.02.355 of Chapter 24.02 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.02.355 Plan Check Renewals and Extensions**

- A. All plan check submittals and approvals must be updated to meet this Title when the permit is issued one year or more after January 1, 2012.
- B. When a plan check submittal or approval has expired, then it must be resubmitted and appropriate fees paid for review for conformance with the current codes
- C. Plan Check Time Extensions for one-building projects must comply with the following.
  - 1. A plan check submittal or approval may be extended one time for an additional 180 days by applicant making a written request to Building Official and paying appropriate fee.
  - 2. Plan check submittal or approval for one-building projects shall not be extended more than once, except that, the Building Official may approve an extension of not more than Three Hundred Sixty (360) days when the applicant demonstrates that circumstances beyond the control of applicant have prevented action from being taken. In this case, the Chief Building Official may require that additional fees be paid and plans be revised to partially or fully comply with the current codes.
- D. Plan Check Time Extensions for ongoing multi-building projects must comply with all of the following:
  - 1. A plan check submittal or approval may be extended one time for an additional 180 days by applicant making written request to Building Official and paying appropriate fees.
  - 2. If a permit for at least one building has been issued, then the plan check approval is valid for 180 days from the latest permit issuance date, subject to the above limitations. The plan check approval may be extended for an additional Three Hundred Sixty (360) day period by applicant making a written request to Building Official and paying appropriate fees, subject to the above limitations.
  - 3. Plan check submittal or approval for multi-building projects shall not be extended more than once, except that, the Building Official may approve an extension of not more than Three Hundred Sixty (360) days when the applicant demonstrates that circumstances beyond the control of applicant have prevented action from being taken. In this case, the Building Official may require that additional fees be paid.

Section 24. Section 24.02.500 of Chapter 24.02 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.02.500 General provisions**

- A. Construction or work for which a permit is required shall be subject to inspection by the Building Official and the construction or work shall remain accessible and exposed for inspection purposes until approved by the Building Official. In addition, certain types of construction shall have continuous inspection and structural observation as specified in Chapter 17 of Building Code.
- B. Approval as a result of an inspection shall not be construed to be an approval of a violation of the provisions of this Title or of other ordinances of the jurisdiction. Inspections presuming to give authority to violate or cancel the provisions of this Title or of other ordinances of the jurisdiction shall not be valid.
- C. It shall be the duty of the permit applicant to cause the work to remain accessible and exposed for inspection purposes. Neither the Building Official nor the City shall be liable for expense entailed in the removal or replacement of any material required to allow inspection.
- D. A survey of the lot may be required by the Building Official to verify that the structure is located in accordance with the approved plans.
- E. All inspections specified herein shall be at the discretion of the Building Official and nothing in the Technical Codes or in this Chapter shall be construed as requiring the City to conduct such inspection nor shall any actual inspection made imply a duty to conduct any other inspection. Furthermore, neither the Technical Codes nor this section shall be construed to hold the City or any officer, employee or representative of the City, responsible for any damage to persons or property by reason of making inadequate or negligent inspection or by reason of any failure to make an inspection or reinspection.

Section 25. Section 24.02.245 of Chapter 24.02 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**24.02.545 Structural Observation**

Structural observation shall be provided in accordance with Section 1710 of Building Code. Additional structural observation may be required when deemed necessary by the Building Official.

Section 26. Chapter 24.03 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**Chapter 24.03  
BUILDING CODE**

**Part 1  
Adoption of CBC Provisions**

**24.03.100 Adoption of Technical Provisions of California Building Code**

- A. Except as otherwise provided for in this Chapter, the California Building Code, 2010 edition

(CBC) are hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

- B. One copy of the CBC has been filed for use and examination of the public in the Office of the City Clerk of the City of San Jose.

**24.03.110 Portions of California Building Code which are not approved, adopted or incorporated by reference**

- A. The following portions of the "California Building Code, 2010 edition," or of the appendix thereto, are **not** approved or adopted or incorporated in this Chapter by reference, and shall not be deemed to be a part of this Chapter nor a part of the building code of the City of San Jose:

1. Section 1.8.4
2. Section 1.8.5
3. Section 1.8.7
4. Section 1.8.8
5. Section 1.8.9
6. Section 903.3.1.2
7. Section 903.3.5.1.2
8. Section 2306.7
9. Section 2505
10. Section Table 2306.7

- B. The following appendices **are** adopted:

1. CBC Appendix C, Agricultural Buildings.
2. CBC Appendix J, Grading

**24.03.120 Cross - References to California Building Code**

The provisions of this Chapter contain cross-references to the provisions of the CBC, 2010 edition, in order to facilitate reference and comparison to those provisions.

### **24.03.130 Local Amendments**

The provisions of this Chapter shall constitute local amendments to the cross-referenced provisions of the CBC and shall be deemed to replace the cross-referenced section of the CBC with the respective provisions set forth in this Chapter.

**Part 2**  
**Special Detailed Requirements Based on Use and Occupancy**  
**(CBC Chapter 4)**

**24.03.210 Findings**

The amendments set forth in this Part are reasonably necessary because of the following local geological, topographical and climatic conditions:

- A. San Jose is within a very active seismic area. Severe seismic action could disrupt communications, damage gas mains, cause extensive electrical hazards, and place extreme demands on the limited and widely dispersed resources of the Fire Department resulting in failure to meet the fire and life safety needs of the community.
- B. The local geographic, topographic and climatic conditions pose an increased hazard in the acceleration, spread, magnitude, and severity of potential fires in the City of San Jose, and may cause a delayed fire response time, allowing further growth of the fire.
- C. If not amended, section 402.9, 403.3, 404.3, 410.6 of the CBC would allow omission of fire sprinkler coverage in certain areas of covered malls, high-rise buildings, building with atriums, stages and platforms.
- D. The requirement for total fire sprinkler coverage set forth in the amendment is a more restrictive standard which will better prevent fire damage which can result from local conditions.

**24.03.220 Covered Mall Buildings (CBC 402)**

Subsection 402.9 of CBC Section 402 is deleted and replaced with the following:

**402.9 Automatic sprinkler system.** The covered mall building and buildings connected shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1, which shall comply with the following:

- 1. The automatic sprinkler system shall be complete and operative throughout occupied space in the covered mall building prior to occupancy of any of the tenant spaces. Unoccupied tenant spaces shall be similarly protected unless provided with approved alternative protection.
- 2. Sprinkler protection for the mall shall be independent from that provided for tenant spaces or anchors. Where tenant spaces are supplied by the same system, they shall be independently controlled.

**402.9.1 Standpipe system.** The covered mall building shall be equipped throughout with a standpipe system as required by Section 905.3.3.

**24.03.230 High-Rise Buildings (CBC 403)**

Subsection 403.3 of CBC Section 403 is deleted and replaced with the following:

**403.3 Automatic sprinkler system.** Buildings and structures shall be equipped throughout with an automatic sprinkler system in accordance with Section 903.3.1.1 and a secondary water supply where required by Section 903.3.5.2. A sprinkler water-flow alarm-initiating device and a control valve with a supervisory signal-initiating device shall be provided at the lateral connection to the riser for each floor.

**403.3.1 Number of sprinkler risers and system design.** Each sprinkler system zone in buildings that are more than 420 feet in building height shall be supplied by a minimum of two risers. Each riser shall supply sprinklers on alternate floors. If more than two risers are provided for a zone, sprinklers on adjacent floors shall not be supplied from the same riser.

**403.3.1.1 Riser location.** Sprinkler risers shall be placed in exit enclosures that are remotely located in accordance with Section 1015.2.

**403.3.2 Water supply to required fire pumps.** Required fire pumps shall be supplied by connections to a minimum of two water mains located in different streets. Separate supply piping shall be provided between each connection to the water main and pumps. Each connection and the supply piping between the connection and the pumps shall be sized to supply the flow and pressure required for the pumps to operate.

**Exception:** Two connections to the same main shall be permitted provided the main is valved such that an interruption can be isolated so that the water supply will continue without interruption through at least one of the connections.

#### **24.03.240 Atriums (CBC 404)**

Subsection 404.3 of CBC Section 404 is deleted and replaced with the following:

**404.3 Automatic sprinkler system.** An approved automatic sprinkler system shall be installed throughout the entire building.

#### **24.03.250 Stages and Platforms (CBC 410)**

Subsection 410.6 of CBC Section 410 to be deleted and replaced with the following:

**410.6 Automatic sprinkler system.** Stages shall be equipped with an automatic sprinkler system in accordance with Chapter 9. Sprinklers shall be installed under the roof and gridiron and under all catwalks and galleries over the stage. Sprinklers shall be installed in dressing rooms, performer lounges, shops, and storerooms accessory to such stages.

**Exceptions:**

1. Sprinklers are not required within portable orchestra enclosures on stages.

### **Part 3 Fire Resistance-Rated Construction (CBC Chapter 7)**

#### **24.03.310 Findings**

The amendment set forth in this Part is necessary because California Mechanical Code does not address dampers in hazardous exhaust ducts. Hazardous exhaust systems are designed to capture and control hazardous emission generated from product handling or process, and convey those emissions to the outdoors.

#### **24.03.311 Section 716.2.2**

CBC Section 716.2.2 is deleted and replaced with the following:

**716.2.2 Hazardous exhaust ducts.** Penetrations of structural elements by a hazardous exhaust system shall conform to Sections 716.2.2.1 through 716.2.2.4.

**716.2.2.1 Fire Dampers.** Fire dampers are prohibited in hazardous exhaust ducts.

**716.2.2.2 Floors.** Hazardous exhaust systems that penetrate a floor/ceiling assembly shall be enclosed in a fire-resistance-rated shaft constructed in accordance with Section 708.

**716.2.2.3 Wall assemblies.** Hazardous exhaust duct systems that penetrate fire-resistance-rated construction shall be enclosed in a fire-resistance-rated shaft from the point of penetration to the outlet terminal, except where the interior of the duct is equipped with an approved automatic fire suppression system. Ducts shall be enclosed in accordance with Section 708 requirements for shaft construction and such enclosure shall have a minimum fire-resistance-rating of not less than the highest fire-resistance-rated wall assembly penetrated.

**716.2.2.4 Fire Walls.** Ducts shall not penetrate a fire wall

### **Part 4 Automatic Fire Sprinkler Systems (CBC Chapter 9)**

#### **24.03.410 Findings**

The amendments set forth in Parts 1 and 4 of this Chapter are reasonably necessary because of the following local geological, topographical and climatic conditions:

- A. San Jose is within a very active seismic area. Severe seismic action could disrupt communications, damage gas mains, cause extensive electrical hazards, and place extreme demands on the limited and widely dispersed resources of the Fire Department resulting in failure to meet the fire and life safety needs of the community.

- B. The local geographic, topographic and climatic conditions pose an increased hazard in the acceleration, spread, magnitude, and severity of potential fires in the City of San Jose, and may cause a delayed fire response time, allowing further growth of the fire.
- C. This section adopts the latest standards currently listed by the State of California Fire Marshals Office for automatic fire protection systems and includes references to the amendments to the standards made in the California Fire Code.
- D. The type of automatic fire sprinkler systems set forth in the amendment is a more restrictive standard which will better prevent fire damage which can result from local conditions.

**24.03.415 Cross-References to California Fire Code**

The provisions of this Part contain cross-references to the provisions of the California Fire Code or CFC, 2010 edition, in order to facilitate reference and comparison to those provisions.

**24.03.425 Automatic Sprinkler Systems (CBC 903)**

- A. Subsection 903.2 of CBC Section 903 is deleted and replaced with the following:

**903.2 Where required.** Approved automatic sprinkler systems shall be provided in the following:

- A. Throughout existing buildings and structures where an increase is made to the floor area that results in the building exceeding 10,000 square feet.
- B. Throughout existing buildings that are greater than 10,000 square feet wherein a change of occupancy that is more hazardous per the table below.

**OCCUPANCY HAZARD CATEGORIES**

<b>RELATIVE HAZARD</b>	<b>OCCUPANCY CLASSIFICATIONS</b>
1 (Highest Hazard)	H
2	I-2, I-3, I-4
3	A, E, M, R-1, R-2, R-4
4	B, F-1, R-3, S-1
5 (Lowest Hazard)	F-2, S-2, U

- C. Throughout new one- and two-family dwellings and townhouses.
- D. Throughout existing one- and two-family dwellings where an increase of over 500 square feet is made to the floor area that results in the building exceeding 3600 square feet.
- E. Throughout buildings and structures that are four or more stories in height, regardless of floor area.

- F. Throughout new buildings and structures that exceed 6,200 square feet.
- G. In new buildings and structures described in sections 903.2.1 through 903.2.12.  
(Sections 903.2.1.2 through 903.2.18 remain unchanged).

**B.** Add the following subsection to CBC 903.2.8:

**903.2.8.1 Balconies and decks.** Sprinkler protection shall be provided for exterior balconies, decks and ground floor patios of dwelling units where the building is of Type V construction, provided there is a roof deck above. Sidewall sprinklers that are used to protect such areas shall be permitted to be located such that their deflectors are within 1 inch (25 mm) to 6 inches (152 mm) below the structural members and a maximum distance of 14 inches (356 mm) below the deck of the exterior balconies and decks that are constructed of open wood joist construction.

**C.** Subsection 903.3.1 of CBC Section 903 to be deleted and replaced with following:

**903.3.1 Standards.** Sprinkler systems shall be designed and installed in accordance with Section 903.3.1.1 or 903.3.1.3

**903.3.1.1 NFPA 13 sprinkler systems.** Where the provisions of this code require that a building or portion thereof be equipped throughout with an automatic sprinkler system in accordance with this section, sprinklers shall be installed throughout in accordance with NFPA 13 as amended in the San Jose Fire Code.

**903.3.1.3 NFPA 13D sprinkler systems.** Where allowed, automatic sprinkler systems in one- and two-family dwellings and townhouses shall be installed throughout in accordance with NFPA 13D as amended in the San Jose Fire Code.

**D.** Subsection 903.3.5.1.1 of CBC Section 903 is deleted and replaced with the following:

**903.3.5.1.1 Limited area sprinkler systems.** Limited area sprinkler systems fewer than 20 sprinklers on any single connection are permitted to be connected to the domestic service where a wet automatic standpipe is not available. Limited area sprinkler systems connected to domestic water supplies shall comply with each of the following requirements:

1. Valves shall not be installed between the domestic water riser control valve and the sprinklers.

**Exceptions:** An approved indicating control valve supervised in the open position in accordance with Section 903.4.

2. The domestic service shall be capable of supplying the simultaneous domestic demand and the sprinkler demand required to be hydraulically calculated by NFPA 13 or NFPA 13D.

E. Subsection 903.4 of CBC Section 903 is deleted and replaced with the following:

**903.4 Sprinkler system supervision and alarms.** All valves controlling the water supply for automatic sprinkler systems, pumps, tanks, water levels and temperatures, critical air pressures water-flow switches on all sprinkler systems and kitchen hood and duct fixed extinguishing systems shall be electrically supervised by a listed fire alarm control unit.

**Exceptions:**

1. Automatic sprinkler systems protecting one- and two-family dwellings.
2. Limited area system serving fewer than 20 sprinklers.
3. Jockey pumps control valves that are sealed or locked in the open position.
4. Control valves to paint spray booths or dip tanks that are sealed or locked in the open position.
5. Valves controlling the fuel supply to fire pump engines that are sealed or locked in the open position.
6. Trim valves to pressure switches in dry, preaction and deluge sprinkler systems that are sealed or locked in the open position.
7. Kitchen hood & duct fixed extinguishing systems located in monitored buildings.

**Part 5**

**Single Room Occupancy Units (CBC Section 1208.4)**

**24.03.510 Authority**

Pursuant to the authority set forth in California Health and Safety Code Section 17958.1, CBC Section 1208.4 is amended as set forth in this part.

**24.03.520 Single Room Occupancies (CBC Section 1208.4)**

CBC Section 1208.4 is deleted and replaced with the following:

**1208.4 Single Room Occupancies.** Single room occupancies shall otherwise conform to the requirements of the CBC except as provided below:

- A. The Single Room Occupancy (SRO) unit shall have a living room of not less than 150 square feet (13.9 m<sup>2</sup>) of superficial floor area. An additional 100 square feet (9.3m<sup>2</sup>) of superficial floor area shall be provided for each occupant of such SRO unit in excess of two.

- B. The SRO unit shall be provided with a separate closet.
- C. The SRO unit may be provided with a kitchen sink, cooking appliance and refrigeration facilities, each having a clear working space of not less than 30 inches (762 mm) in front. Light, ventilation and emergency egress conforming to this Title shall be provided.
- D. Every building shall be provided with at least one water closet. Every hotel or subdivision thereof where both sexes are accommodated shall contain at least two separate toilet facilities which are conspicuously identified for male and female use, each of which contains at least one water closet.

EXCEPTION: SRO Hotel guest rooms may have one unidentified toilet facility.

- E. Additional water closets shall be provided on each floor for each sex at the rate of one for every additional ten guests, or fractional thereof, in excess of ten.
- F. Every SRO unit shall be provided with a kitchen equipped with a kitchen sink; however, that single room occupancy living unit facilities and single room occupancy residential hotels may contain partial kitchen facilities so long as a sink is provided and laundry facilities and kitchen facilities are provided on each floor accessible from a public hallway.
- G. Every SRO unit shall be provided with a bathroom equipped with facilities consisting of a water closet, lavatory and either a bathtub or shower; however, that single room occupancy residential hotels may contain partial bathroom facilities. If individual bath facilities are not provided, common bath facilities must be provided as follows:
  - 1. Where private water closets, lavatories and baths are not provided, there shall be provided on each floor, for each sex, at least one water closet and lavatory and one bath, accessible from a public hallway.
  - 2. Additional water closets, lavatories and baths shall be provided on each floor for each sex at the rate of one for every additional ten guests or fractional number thereof in excess of ten.
  - 3. Such facilities shall be clearly marked for "men" or "women". As an alternative, adequate unisex facilities may be provided.
  - 4. Each sink lavatory and either a bathtub or shower shall be equipped with hot and cold running water necessary for its normal operation.
- H. All SRO units shall comply with all applicable accessibility and adaptability requirements.

**Part 6  
Structural Design  
(Chapter 16)**

**24.03.610 Findings**

The amendments set forth in this Part are reasonably necessary because of the following local geological, topographical and climatic conditions:

- A. Local Geological Conditions – The San Francisco/Bay Area region is densely populated and/or located in area of high seismic activities. San Jose is bound by two major faults such as Hayward and San Andreas faults capable of producing major earthquakes.
- B. Clarification on the design parameters for the Buckling Restrained Braced Frame (BRBF) system need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the California Building Code.
- C. Considering that certain important and critical buildings and structures must be operational in the event of an emergency, the need to incorporate this modification into the code will help to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the California Building Code.
- D. The seismic separation is necessary to permit adjacent buildings, or parts thereof, to respond to earthquake ground motion independently and preclude possible structural damage due to pounding between buildings and other structures. The need to incorporate this modification into the code will help to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the California Building Code.

**24.03.630 Modification to ASCE 7-05, Table 12.8-2**

ASCE 7-05 Table 12.8-2 is amended by adding the following:

**TABLE 12.8-2 VALUES OF APPROXIMATE PERIOD  
PARAMETERS  $C_t$  AND  $x$**

Structure Type	$C_t$	$x$
Moment-resisting frame systems in which the frames resist 100% of the required seismic force and are not enclosed or adjoined by components that are more rigid and will prevent frames from deflecting where subjected to seismic forces: Steel moment-resisting frame	0.028 (0.0724) <sup>a</sup>	0.8
Concrete moment-resisting frames	0.016 (0.0466) <sup>a</sup>	0.9
Eccentrically braced steel frames and buckling-restrained braced frames	0.03 (0.0731) <sup>a</sup>	0.75

All other structural systems	0.02 (0.0488) <sup>a</sup>	0.75
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a – Metric equivalents are shown in parenthesis

#### **24.03.640 Modification to ASCE 7-05, Section 12.8.7**

Equation 12.8-16 of ASCE 7-05 Section 12.8.7 is amended to read as follows:

$$\theta = ( P_x \Delta \underline{I} ) / ( V_x h_{sx} C_d ) \quad (12.8-16)$$

#### **24.03.650 Modification to CBC Section 1613.6.7**

Equation 16-44 of Section 1613.6.7 of the 2010 Edition of the California Building Code is amended to read as follows:

$$\Delta_M = C_d \bar{\delta}_{max} \quad ( \text{Equation 16-444} )$$

where:

$C_d$  = Deflection amplification factor in Table 12.2-1 of ASCE 7.

$\bar{\delta}_{max}$  = Maximum displacement defined in Section 12.8.4.3 of ASCE 7.

### **Part 7 Structural Test and Special Inspections (Chapter 17)**

#### **24.03.710 Findings**

Local Geological Conditions – The San Francisco/Bay Area region is densely populated and located in area of high seismic activities. San Jose is bound by two major faults, the Hayward and San Andreas faults, that are capable of producing major earthquakes. Results from studies after the Northridge Earthquake indicated that a lot of the damages were attributed to lack of quality control during construction resulting in low construction quality. The proposed modification to improve quality control during construction need to be incorporated into the code to assure that new buildings and additions to existing buildings are designed and constructed in accordance with the scope and objectives of the California Building Code.

#### **24.03.720 Modification to CBC Section 1704.4**

Section 1704.4 of CBC is amended to read as follows:

1704.4 Concrete Construction. The special inspections and verifications for concrete construction shall be as required by this section and Table 1704.4.

EXCEPTIONS: Special inspection shall not be required for:

1. Isolated spread concrete footings of buildings three stories or less above grade plane that are fully supported on earth or rock, where the structural design of the footing is based on a specified MPa strength,  $f'_c$ , no greater than 2,500 pounds per square inch (psi) (17.2 MPa).
2. Continuous concrete footings supporting walls of buildings three stories or less above grade plane that are fully supported on earth or rock where:
  - 2.1. The footings support walls of light-frame construction;
  - 2.2. The footings are designed in accordance with Table 1809.7; or
  - 2.3. The structural design of the footing is based on a specified compressive strength,  $f'_c$ , no greater than 2,500 pounds per square inch (psi) (17.2 Mpa), regardless of the compressive strength specified in the construction documents or used in the footing construction.
3. Nonstructural concrete slabs supported directly on the ground, including prestressed slabs on grade, where the effective prestress in the concrete is less than 150 psi (1.03 Mpa).
4. Concrete foundation walls constructed in accordance with table 1807.1.6.2.
5. Concrete patios, driveways and sidewalks, on grade.

**Part 8**  
**Gypsum Board, Gypsum Lath, & Cement Plaster**  
**(CBC Chapters 23 & 25)**

**24.03.810 Findings**

The amendment set forth in Parts 1 and 8 of this Chapter is reasonably necessary because of the following local geological and topographical conditions:

- A. San Jose is within a very active seismic area.
- B. Gypsum wallboard and exterior Portland cement plaster have performed poorly during recent California seismic events.
- C. The shear values for gypsum wallboard and Portland cement stucco contained in the code are based on monodirectional testing.
- D. The limitation on the use of these systems as set forth in the amendment until cyclic loading testing are performed and evaluated is a more restrictive standard which will better prevent damage which can result from local conditions.

### **24.03.820 General Design Requirements (CBC Section 2301.2)**

CBC Section 2301.2, method 3 is amended to read as follows:

3. Conventional light-frame construction in accordance with Section 2304 and 2308.

### **24.03.830 General (CBC Section 2308.1)**

CBC Section 2308.1 is amended to read as follows:

**2308.1 General.** The requirements of this section are intended for conventional light-frame construction. Other methods are permitted to be used, provided a satisfactory design is submitted showing compliance with other provisions of this code. Interior nonload-bearing partitions, ceilings and curtain walls of conventional light-frame construction are not subject to the limitations of this section. Detached one-and two-family dwellings and multiple single-family dwellings (townhouses) not more than three *stories above grade plane* in height with a separate *means of egress* and their accessory structures shall comply with the California *Residential Code*.

### **24.03.835 Bracing (CBC Section 2308.9.3)**

CBC Section 2308.9.3 is amended to read as follows:

#### **2308.9.3 Bracing**

- A. Braced wall lines shall consist of braced wall panels which meet the requirements for location, type and amount of bracing as shown in Figure 2308.9.3, specified in Table 2308.9.3(1) and are in line or offset from each other by not more than 4 feet (1219 mm). Braced wall panels shall start not more than 12.5 feet (3810 mm) from each end of a braced wall line. Braced wall panels shall be clearly indicated on the plans. Construction of braced wall panels shall be by one of the following methods:
  1. Wood boards of 5/8-inch (16 mm) net minimum thickness applied diagonally on studs spaced not over 24 inches (610 mm) on center.
  2. Wood structural panel sheathing with a thickness not less than 5/16-inch (7.9 mm) for 16-inch (406 mm) stud spacing and not less than 3/8-inch (9.5 mm) for 24-inch (610 mm) stud spacing in accordance with Tables 2308.9.3(2) and 2308.9.3(3).
  3. Fiberboard sheathing not less than 4-foot by 8-foot (1219 mm by 2438 mm) panels, except at boundaries and changes in framing, and not less than 1/2-inch (13 mm) thick applied vertically or horizontally on studs spaced not over 16-inches (406 mm) on center, with all edges blocked, when installed in accordance with Section 2306.4.4 and Table 2306.4.4.

4. Particleboard wall sheathing panels where installed in accordance with Table 2308.9.3(4).
5. Portland cement plaster on studs spaced 16-inches (406 mm) on center installed in accordance with Section 2510. Limited to one story structures of U-1 occupancies. The maximum height-to-width ratio of the braced panels to be 1.5: 1 and 2:1 for unblocked and blocked construction, respectively.
6. Hardboard panel siding when installed in accordance with Section 2303.1.6 and Table 2309.9.3(5).

For cripple wall bracing see Section 2308.9.4.1

For methods, 1, 2, 3, 4, 5 and 6, each braced wall panel must be at least 48-inches (1219 mm) in length, covering three stud spaces where studs are 16-inches (406 mm) apart and covering two stud spaces where studs are spaced 24-inches (610 mm) apart.

- B. All vertical joints of panel sheathing shall occur over studs. Horizontal joints shall occur over blocking equal in size to the studding except where waived by the installation requirements for the specific sheathing materials.
- C. Braced wall panel sole plates shall be nailed to the floor framing and top plates shall be connected to the framing above in accordance with Table 2304.9.1. Sills shall be bolted to the foundation or slab in accordance with Chapter 23. Where joists are perpendicular to braced wall lines above, blocking shall be provided under and in line with the braced wall panels.

#### **24.03.850 Section 2308.3.4**

CBC Section 2308.3.4 is amended to read as follows:

2308.3.4 Braced wall line support. Braced wall lines shall be supported by continuous foundations.

Exceptions:

1. One-story buildings with maximum plan dimension not exceeding 50 feet (15240 mm), may have continuous foundations located at exterior braced wall lines only.
2. Two-story buildings with a maximum plan dimension not exceeding 50 feet (5240 mm) may have braced wall lines supported on continuous foundations at the exterior walls only, provided:
  - a. Cripple walls do not exceed 4 feet (1219 mm) in height.
  - b. Where the first story is supported on a raised wood framed floor, the interior braced wall panels are directly supported by doubled joists, continuous 4x blocking or minimum 4x floor beams.

**24.03.858 Section 2308.12.4**

CBC Section 2308.12.4 is amended to read as follows:

**2308.12.4 Braced wall line sheathing.** Braced wall lines shall be braced by one of the types of sheathing prescribed by Table 2308.12.4 as shown in Figure 2308.9.3. The sum of lengths of braced wall panels at each braced wall line shall conform to Table 2308.12.4. Braced wall panels shall be distributed along the length of the braced wall line and start at not more than 8 feet (2438 mm) from each end of the braced wall line. Sheathing shall be fastened to studs, top and bottom plates and at panel edges occurring over blocking. Wall framing to which sheathing used for bracing is applied shall be nominal 2 inch wide [actual 1.5 inch (38 mm)] or larger members, spaced a maximum of 16 inches on center. Nailing shall be minimum 8d common placed 3/8 inches from panel edges and spaced not more than 6 inches on center, and 12 inches on center along intermediate framing members.

**24.03.860 Table 2308.12.4**

CBC Table 2308.12.4 to be deleted and replaced with the following:

**TABLE 2308.12.4  
WALL BRACING IN SEISMIC DESIGN CATEGORIES D AND E  
(Minimum Length of Wall Bracing per each 25 Linear Feet of Braced Wall Line<sup>a</sup>)**

CONDITION	SHEATHING TYPE <sup>b</sup>	$S_{DS} < 0.50$	$0.50 \leq S_{DS} < 0.75$	$0.75 \leq S_{DS} \leq 1.00$	$S_{DS} > 1.00$
One Story	G-P <sup>c</sup>	10 feet 8 inches	14 feet 8 inches	18 feet 8 inches	25 feet 0 inches
	S-W	5 feet 4 inches	8 feet 0 inches	9 feet 4 inches	

For SI: 1 inch = 25.4 mm, 1 foot = 304.8 mm.

- a. Minimum length of panel bracing of one face of the wall for S-W sheathing or both faces of the wall for G-P sheathing; h/w ratio shall not exceed 2:1. For S-W panel bracing of the same material on two faces of the wall, the minimum length is permitted to be one-half the tabulated value but the h/w ratio shall not exceed 2:1 and design for uplift is required.
- b. G-P= fiberboard, particleboard, Portland cement plaster; S-W = wood structural panels and diagonal wood sheathing. *NP = not permitted.*
- c. Nailing as specified below shall occur at all panel edges at studs, at top and bottom plates and, where occurring, at blocking:  
For fiberboard and particleboard, No. 11 gage (0.120 inch) by 1½ inches long, 7/16-inch head, galvanized nails at 3 inches on center.  
For Portland cement plaster, No. 11 gage (0.120 inch) by 1½ inches long, 7/16-inch head at 6 inches on center.

**24.03.870 Section 2308.12.5**

CBC Section 2308.12.5, is amended to read as follows:

**2308.12.5 Attachment of sheathing.** Fastening of braced wall panel sheathing shall not be less than that prescribed in Table 2308.12.4 or 2304.9.1. Wall sheathing shall not be attached to framing members by adhesives.

All braced wall panels shall extend to the roof sheathing and shall be attached to parallel roof rafters or blocking above with framing clips (18 gauge minimum) spaced at maximum 24 inches (6096 mm) on center with four 8d nails per leg (total eight 8d nails per clip). Braced wall panels shall

be laterally braced at each top corner and at maximum 24 inch (6096 mm) intervals along the top plate of discontinuous vertical framing.

## **Part 9 Existing Structures (CBC Chapter 34)**

### **24.03.910 Findings**

The amendment set forth in this Part is reasonably necessary because of the following local geological and topographical conditions:

- A. San Jose is within a very active seismic area. Severe seismic action could disrupt communications, damage gas mains, cause extensive electrical hazards, and place extreme demands on the limited and widely dispersed resources of the Fire Department resulting in failure to meet the fire and life safety needs of the community.
- B. The local geographic, topographic and climatic conditions pose an increased hazard in the acceleration, spread, magnitude, and severity of potential fires in the City of San Jose, and may cause a delayed fire response time, allowing further growth of the fire.
- C. The adoption of the following amendments will allow for the more ready availability of FEMA assistance in compliance with the Robert T. Stafford Disaster Relief and Emergency Assistance Act.

### **24.03.920 Repairs (CBC Section 3405)**

Subsection 3405.2.1 shall be deleted and replaced with the following:

**3405.2.1** Evaluation and design procedures. The building shall be evaluated by a registered design professional, and the evaluation findings shall be submitted to the code official. The evaluation shall establish whether the damaged building, if repaired to its predamage state, would comply with the provisions of this code for wind and earthquake loads. Evaluation for earthquake loads shall be required if the substantial structural damage was caused by or related to earthquake effects or if the building is in Seismic Design Category C, D, E or F. The seismic evaluation and design shall be based on the procedures specified in the building code, ASCE 31 *Seismic Evaluation of Existing Buildings* (for evaluation only) or ASCE 41 *Seismic Rehabilitation of Existing Buildings*. The procedures contained in Appendix A of the *International Existing Building Code* shall be permitted to be used as specified in Section **3405.2.1.2**

Wind loads for this evaluation shall be those prescribed in Section 1609.

**3405.2.1.1 CBC level seismic forces.** When seismic forces are required to meet the building code level, they shall be one of the following:

1. 100 percent of the values in the building code. The R factor used for analysis in accordance with Chapter 16 of the building code shall be the R factor specified for structural systems classified as “Ordinary” unless it can be demonstrated that the structural system satisfies the proportioning and detailing requirements for systems classified as “Intermediate” or “Special”.
2. Forces corresponding to BSE-1 and BSE-2 Earthquake Hazard Levels defined in ASCE 41. Where ASCE 41 is used, the corresponding performance levels shall be those shown in Table 3405.2.1.1.

**TABLE 3405.2.1.1  
ASCE 41 and ASCE 31 PERFORMANCE LEVELS**

<b>OCCUPANCY CATEGORY (BASED ON CBC TABLE 1604.5)</b>	<b>PERFORMANCE LEVEL FOR USE WITH ASCE 31 AND WITH ASCE 41 BSE-1 EARTHQUAKE HAZARD LEVEL</b>	<b>PERFORMANCE LEVEL FOR USE WITH ASCE 41 BSE-2 EARTHQUAKE HAZARD LEVEL</b>
I	Life Safety (LS)	Collapse Prevention (CP)
II	Life Safety (LS)	Collapse Prevention (CP)
III	Note (a)	Note (a)
IV	Immediate Occupancy (IO)	Life Safety (LS)

- a. Performance Levels for Occupancy Category III shall be taken as halfway between the performance levels specified for Occupancy Category II and Occupancy Category IV.

**3405.2.1.2 Reduced CBC level seismic forces.** When seismic forces are permitted to meet reduced building code levels, they shall be one of the following:

1. 75 percent of the forces prescribed in the building code. The R factor used for analysis in accordance with Chapter 16 of the building code shall be the R factor as specified in Section 3405.2.1.1.
2. In accordance with the California Existing Building Code and applicable chapters in Appendix A of the International Existing Building Code, as specified in Items (a) through (e) below. Structures or portions of structures that comply with the requirements of the applicable chapter in Appendix A shall be deemed to comply with the requirements for reduced building code force levels.
  - (a) The seismic evaluation and design of unreinforced masonry bearing wall buildings in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A1 of CEBC.
  - (b) Seismic evaluation and design of the wall anchorage system in reinforced concrete and reinforced masonry wall buildings with flexible diaphragms in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A2 of IEBC.
  - (c) Seismic evaluation and design of cripple walls and sill plate anchorage in residential buildings of light-frame wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A3 of IEBC.

- (d) Seismic evaluation and design of soft, weak, or open-front wall conditions in multiunit residential buildings of wood construction in Occupancy Category I or II are permitted to be based on the procedures specified in Appendix Chapter A4 of IEBC.
  - (e) Seismic evaluation and design of concrete buildings and concrete with masonry infill buildings in all Occupancy Categories are permitted to be based on the procedures specified in Appendix Chapter A5 of IEBC.
3. In accordance with ASCE 31 based on the applicable performance level as shown in Table 3405.2.1.1.
  4. Those associated with the BSE-1 Earthquake Hazard Level defined in ASCE 41 and the performance level as shown in Table 3405.2.1.1. Where ASCE 41 is used, the design spectral response acceleration parameters  $S_{xs}$  and  $S_{x1}$  shall not be taken less than 75 percent of the respective design spectral response acceleration parameters  $S_{DS}$  and  $S_{D1}$  defined by the California Building Code and its reference standards.

**Part 10  
Reference Standards  
(CBC Chapter 35)**

**24.03.1010** Chapter 35 is amended by adding the following:

Standard Referenced Number	TITLE	Reference In Code Section Number
ASCE 31-03	Seismic Evaluation of Existing Buildings	3405.2.1, TABLE 3405.2.1.1, 3405.2.1.2
ASCE 41-06	Seismic Rehabilitation of Existing Buildings	3405.2.1, TABLE 3405.2.1.1, 3405.2.1.2

Section 27. Chapter 24.04 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**Chapter 24.04  
PLUMBING CODE**

**Part 1  
Adoption of CPC (Provisions)**

**24.04.100 Adoption of Technical Provisions of California Plumbing Code**

- A. Except as otherwise provided for in this Chapter, the California Plumbing Code, 2010 edition, including the appendices thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations are approved and adopted, and are hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.
- B. One copy of the CPC has been filed for use and examination of the public in the Office of the City Clerk of the City of San Jose.

**24.04.110 Portions of California Plumbing Code which are not approved, adopted or incorporated by reference**

The following portions of the California Plumbing Code or CPC, 2010 edition, or of the appendix thereto, are not approved or adopted or incorporated in this Chapter by reference, and shall not be deemed to be a part of this Chapter nor a part of the plumbing code of the City of San Jose: Chapter 1 with the exception of Section 1.1.0, and all of the Appendix with the exception of the following Appendix Chapters or portion thereof:

- A. CPC Appendix A, Recommended Rules for Sizing Water Supply Systems
- B. CPC Appendix B, Notes on Combination Waste and Vent Systems
- C. CPC Appendix D, Sizing Stormwater Drainage Systems
- D. CPC Appendix I, Installation Standards
- E. CPC Appendix K, Private Sewage Disposal Systems

Section 28. Chapter 24.05 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**Chapter 24.05  
MECHANICAL CODE**

**Part 1  
Adoption of CMC Provisions**

**24.05.100 Adoption of Technical Provisions of California Mechanical Code**

- A. Except as otherwise provided for in this Chapter, the California Mechanical Code, 2007 2010 edition, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations are approved and adopted, and are hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.
- B. One copy of the CMC has been filed for use and examination of the public in the Office of the City Clerk of the City of San Jose.

**24.05.110 Portions of California Mechanical Code which are not approved, adopted or incorporated by reference**

The following portions of the California Mechanical Code or CMC, 2010 edition, or of the appendix thereto, are not approved or adopted or incorporated in this Chapter by reference, and shall not be deemed to be a part of this Chapter nor a part of the mechanical code of the City of San Jose: Chapter 1 with the exception of Sections 1.1.0, 1.2.0, 1.3.0 and 1.4.0, and all of the Appendix Chapters or portions thereof.

Section 29. Chapter 24.06 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**Chapter 24.06  
ELECTRICAL CODE**

**Part 1  
Adoption of CEC Provisions**

**24.06.100 Adoption of Technical Provisions of California Electrical Code**

- A. Except as otherwise provided for in this Chapter, the California Electrical Code, 2007 2010 edition, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations are approved and adopted, and are hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.

- B. One copy of the CEC has been filed for use and examination of the public in the Office of the City Clerk of the City of San Jose.

Section 30. Chapter 24.07 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**Chapter 24.07  
CALIFORNIA EXISTING BUILDING CODE Part 1  
Adoption of CEBC Provisions**

**24.07.100 Adoption of Technical Provisions of the CALIFORNIA EXISTING BUILDING CODE**

- A. Except as otherwise provided for in this chapter, the California Existing Building Code 2010 edition, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations are approved and adopted, and are hereby incorporated in this chapter by reference and made a part hereof the same as if fully set forth herein.
- B. One copy of the CEBC has been filed for use and examination of the public in the office of the City Clerk of the City of San Jose.

Section 31. Chapter 24.08 of Title 24 of the San Jose Municipal Code is amended to read as follows:

**Chapter 24.08  
INTERNATIONAL EXISTING BUILDING CODE**

**Part 1  
Adoption of IEBC**

**24.08.100 Adoption of Technical Provisions of the INTERNATIONAL EXISTING BUILDING CODE**

- A. Except as otherwise provided for in this chapter, the International Existing Building Code 2009 edition, including the appendices thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations are approved and adopted, and are hereby incorporated in this chapter by reference and made a part hereof the same as if fully set forth herein.
- B. One copy of the IEBC has been filed for use and examination of the public in the office of the City Clerk of the City of San Jose.

**24.08.110 Portions of International Existing Building Code which are approved, or adopted or incorporated by reference**

The following portions of the "International Existing Building Code, 2009 edition," or of the appendix thereto, are approved or adopted or incorporated in this Chapter by reference, and shall be

deemed to be a part of this Chapter:

- A. Appendix Chapter A2, Earthquake Hazard Reduction in Existing Reinforced Concrete and Reinforced Masonry Wall Buildings with Flexible Diaphragms.
- B. Appendix Chapter A3, Prescriptive Provisions for Seismic Strengthening of Cripple Walls and Sill Plate Anchorage of Light, Wood-Frame Residential Buildings.
- C. Appendix Chapter A4, Earthquake Hazard Reduction in Existing Wood-Frame Residential Buildings with Soft, Weak or Open-Front Walls.

Section 32. Title 24 of the San Jose Municipal Code is amended by adding a new chapter to be numbered and entitled and to read as follows:

**Chapter 24.09  
RESIDENTIAL CODE**

**Part 1  
Adoption of CRC (Provisions)**

**24.09.100 Adoption of Technical Provisions of California Residential Code**

- A. Except as otherwise provided for in this Chapter, the California Residential Code, 2010 edition, including the appendices thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations are approved and adopted, and are hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.
- B. One copy of the CRC has been filed for use and examination of the public in the Office of the City Clerk of the City of San Jose.

#### **24.09.110 Portions of California Residential Code which are not approved, adopted or incorporated by reference**

A. The following portions of the "California Residential Code, 2010 edition," are **not** approved or adopted or incorporated in this Chapter by reference, and shall not be deemed to be a part of this Chapter nor a part of the residential code of the City of San Jose:

1. Section 1.8.3
2. Section 1.8.4
3. Section 1.8.5
4. Section 1.8.6
5. Section 1.8.7
6. Section 1.8.8
7. Chapter 1, Division II

B. The following appendices **are** adopted:

1. Appendix E; Manufactured Housing Used as Dwelling (excluding Sections AE101 through AE 307)
2. Appendix G; Swimming Pools, Spas and Hot Tubs
3. Appendix H; Patio Covers
4. Appendix K; Sound Transmission

#### **24.09.111 Cross – References to California Residential Code**

The provisions of this Chapter contain cross-references to the provisions of the California Residential Code ("CRC") in order to facilitate reference and comparison to those provisions.

### **Part 2 Building Planning (CRC Chapter 3)**

#### **24.09.210 Findings**

The amendment set forth in this Part is reasonably necessary because of the following local geological and topographical conditions:

- A. San Jose is within a very active seismic area. Severe seismic action could disrupt communications, damage gas mains, cause extensive electrical hazards, and place extreme demands on the limited and widely dispersed resources of the Fire Department resulting in failure to meet the fire and life safety needs of the community.
- B. The local geographic, topographic and climatic conditions pose an increased hazard in the acceleration, spread, magnitude, and severity of potential fires in the City of San Jose, and may cause a delayed fire response time, allowing further growth of the fire.

**24.09.220 Alternative provisions (CRC Section R301.1.1)**

CRC Section R301.1.1 is amended to read as follows:

**R301.1.1 Alternative provisions.** As an alternative to the requirements in Section R310.1 the following standards are permitted subject to the limitations of this code and the limitations therein. Where engineered design is used in conjunction with these standards, the design shall comply with the *California Building Code*.

- 1. American Iron and Steel Institute (AISI) *Standard for Cold-Formed Steel Framing- Prescriptive Method for One-and Two-Family Dwellings* (AISI S230).
- 2. ICC-400 *Standard on the Design and Construction of Log Structures*.

**24.09.230 Design criteria (CRC Section R301.2.1.1)**

CRC Section R301.2.1.1 is amended to read as follows:

**R301.2.1.1 Design criteria.** In regions where the basic wind speeds from Figure R301.2(4) equal or exceed 100 miles per hour (45 m/s) in hurricane-prone regions, or 110 miles per hour (49 m/s) elsewhere, the design of buildings shall be in accordance with one of the following methods. The elements of design not addressed by those documents in Items 1 through 4 3 shall be in accordance with this code.

- 1. International code Council (ICC) *Standard for Residential Construction in High Wind Regions* (ICC-600); or
- 2. *Minimum Design Loads for Buildings and Other Structures* (ASCE-7); or
- 3. American Iron and Steel Institute (AISI) *Standard for Cold-Formed Steel Framing- Prescriptive Method for One-and Two-Family Dwellings* (AISI S230).
- 4. Concrete construction shall be designed in accordance with the provisions of this code.
- 5. Structural insulated panel (SIP) walls shall be designed in accordance with the provisions of this code.

## **24.09.240 Automatic Fire Sprinkler Systems (CRC Section R313)**

CRC Section R313 is amended to read as follows

**R313.1 Townhouse automatic fire sprinkler systems.** An automatic residential fire sprinkler system shall be installed in townhouses.

**Exception:** An automatic residential fire sprinkler system shall not be required when additions or alterations are made to existing townhouses that do not have an automatic residential fire sprinkler system installed.

**R313.1.1 Design and installation.** Automatic residential fire sprinkler systems for townhouses shall be designed and installed in accordance with NFPA 13D as amended by San Jose Fire.

**R313.2 One- and two-family dwellings automatic fire sprinkler systems.** An automatic residential fire sprinkler system shall be installed in one- and two-family dwellings. An automatic residential sprinkler system shall be installed to existing one- and two- family dwellings where an increase of over 500 square-feet is made to the floor area that results in the building exceeding 3,600 square-feet.

**R313.2.1 Design and installation.** Automatic residential fire sprinkler systems shall be designed and installed in accordance with NFPA 13D as amended in Section 17.12.1030 of the San Jose Municipal Code.

### **Part 3 Gypsum Board, Gypsum Lath, & Cement Plaster (CRC Chapter 6)**

## **24.09.310 Findings**

The amendment set forth in Parts 1 and 2 of this Chapter is reasonably necessary because of the following local geological and topographical conditions:

- A. San Jose is within a very active seismic area.
- B. Gypsum wallboard and exterior Portland cement plaster have performed poorly during recent California seismic events.
- C. The shear values for gypsum wallboard and Portland cement stucco contained on the code are based on monodirectional testing.
- D. The limitation on the use of these systems as set forth in the amendment until cyclic loading testing are performed and evaluated is a more restrictive standard which will better prevent damage which can result from local conditions.

## **24.09.320 Seismic Reinforcing (CRC Section R403.1.3)**

CRC Section 403.1.3 is amended to read as follows:

**R403.1.3 Seismic reinforcing.** Concrete footings located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, D<sub>2</sub>, as established in Table R301.2 (1), shall have minimum reinforcement. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> where a construction joint is created between a concrete footing and a stem wall, a minimum of one No.4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (76mm) clear of the bottom of the footing, have a standard hook and extend a minimum of 14 inches (357 mm) into the stem wall.

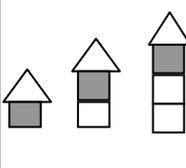
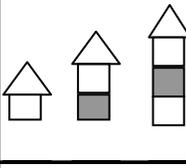
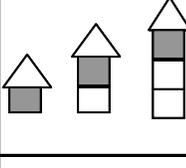
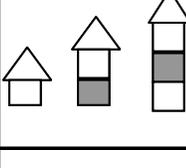
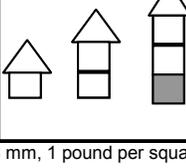
In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> where a grouted masonry stem wall is supported on a concrete footing and stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219mm) on center. The vertical bar shall extend to 3 inches (76 mm) clear of the bottom of the footing and have a standard hook.

In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> masonry stem walls without solid grout and vertical reinforcing are not permitted.

**24.09.330 Wall Bracing (CRC Section R602.10 Table R602.10.1.2(2))**

CRC Section R602.10 Table R602.10.1.2(2) is amended to read as follows:

**Table R602.10.1.2(2)a,b,c  
BRACING REQUIREMENTS BASED ON SEISMIC DESIGN CATEGORY  
(AS A FUNCTION OF BRACED WALL LINE LENGTH)**

SOIL CLASS Da WALL HEIGHT = 10FT 10 PSF FLOOR DEAD LOAD 15 PSF ROOF/CEILING DEAD LOAD BRACED WALL LINE SPACING ≤ 25 FT			MINIMUM TOTAL LENGTH (feet) OF BRACED WALL PANELS REQUIRED ALONG EACH BRACED WALL LINE			
Seismic Design Category (SDC)	Story Location	Braced Wall Line Length	Method LIB	Methods DWB, SFB, PBS, PCP, HPS	Method WSP	Continuous Sheathing
SDC D <sub>0</sub> or D <sub>1</sub>		10	NP	6.0	2.0	1.7
		20	NP	12.0	4.0	3.4
		30	NP	18.0	6.0	5.1
		40	NP	24.0	8.0	6.8
		50	NP	30.0	10.0	8.5
		10	NP	NP	4.5	3.8
		20	NP	NP	9.0	7.7
		30	NP	NP	13.5	11.5
		40	NP	NP	18.0	15.3
		50	NP	NP	22.5	19.1
SDC D <sub>2</sub>		10	NP	8.0	2.5	2.1
		20	NP	16.0	5.0	4.3
		30	NP	24.0	7.5	6.4
		40	NP	32.0	10.0	8.5
		50	NP	40.0	12.5	10.6
		10	NP	NP	5.5	4.7
		20	NP	NP	11.0	9.4
		30	NP	NP	16.5	14.0
		40	NP	NP	22.0	18.7
		50	NP	NP	27.5	23.4
		10	NP	NP	NP	NP
		20	NP	NP	NP	NP
		30	NP	NP	NP	NP
		40	NP	NP	NP	NP
		50	NP	NP	NP	NP

For SI: 1 foot = 304.8 mm, 1 pound per square foot = 47.89 Pa.

- a. Wall bracing lengths are based on a soil site class "D." Interpolation of bracing length between the S<sub>d</sub>s values associated with the seismic design categories shall be when a site - specific S<sub>d</sub>s value is determined in accordance with Section 1613.5 of the California Building Code.
- b. Foundation cripple wall panels shall be braced in accordance with Section R602.10.9.
- c. Methods of bracing shall be as described in Sections R602.10.2, R602.10.4 and R602.10.5.

Section 33. Title 24 of the San Jose Municipal Code is amended by adding a new chapter to be numbered and entitled and to read as follows:

**Chapter 24.10  
CALIFORNIA GREEN BUILDING STANDARDS CODE**

**Part 1  
Adoption of CALGreen Provisions**

**24.10.100 Adoption of Technical Provisions of the CALIFORNIA GREEN BUILDING STANDARD CODE**

- A. Except as otherwise provided for in this chapter, the residential mandatory measures and non-residential mandatory measures of the California Green Building Standards (CALGreen) 2010 edition, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations are approved and adopted, and are hereby incorporated in this chapter by reference and made a part hereof the same as if fully set forth herein.
- B. One copy of the CALGreen Code has been filed for use and examination of the public in the office of the City Clerk of the City of San Jose.

Section 34. Title 24 of the San Jose Municipal Code is amended by adding a new chapter to be numbered and entitled and to read as follows:

**Chapter 24.11  
CALIFORNIA HISTORICAL BUILDING CODE**

**Part 1  
Adoption of CHBC Provisions**

**24.11.100 Adoption of Technical Provisions of the CALIFORNIA HISTORICAL BUILDING CODE**

- A. Except as otherwise provided for in this Chapter, the California Historical Building Code, 2010 edition, including the appendices thereto, together with those omissions, amendments, exceptions and additions thereto as amended in Title 24 of the California Code of Regulations are approved and adopted, and are hereby incorporated in this Chapter by reference and made a part hereof the same as if fully set forth herein.
- B. One copy of the CHBC has been filed for use and examination of the public in the Office of the City Clerk of the City of San Jose.

PASSED FOR PUBLICATION of title this \_\_\_\_\_ day of \_\_\_\_\_, 2010, by the following vote:

AYES:

NOES:

ABSENT:

DISQUALIFIED:

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CHUCK REED  
Mayor

ATTEST:

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LEE PRICE, MMC  
City Clerk