

# ADMINISTRATIVE REPORT

Date: December 1, 2010

Agenda Item No.: 8

Council Action Date: December 6, 2010

**To: MAYOR AND COUNCILMEMBERS**

**From: MABI COVARRUBIAS PLISKY, MMC, CITY CLERK**

**Subject: 2010 CALIFORNIA BUILDING STANDARD CODES**

## **RECOMMENDATION**

Waive the second reading in full and adopt ordinances approving by reference the 2010 Edition of the California Building Code, Electrical Code, Fire Code, Mechanical Code, Plumbing Code, and Residential Code, and amending certain provisions thereof through express findings of local necessity.

## **DISCUSSION**

Attached for your reference is the proposed ordinance introduced by the City Council on November 15, 2010.

*Mabi Covarrubias Plisky*  
Mabi Covarrubias Plisky, MMC  
City Clerk

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**ORDINANCE NO. 2010-\_\_\_**

**AN ORDINANCE OF THE COUNCIL OF THE CITY OF  
SAN BUENAVENTURA ADOPTING BY REFERENCE THE  
2010 EDITION OF THE CALIFORNIA BUILDING CODE  
AND AMENDING CERTAIN PROVISIONS THEREOF  
THROUGH EXPRESS FINDINGS OF LOCAL NECESSITY**

The Council of the City of San Buenaventura does ordain as follows:

SECTION 1: FINDINGS. The City Council finds that certain local climatic, geological, or topographical conditions exist as follows:

A. Climatic. The City experiences periods of high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the fire department may have great difficulty in controlling fires occurring in hillside brush areas as well as structures not having built-in fire protection. The City also experiences periods of intense rainfall, which create the need for special drainage precautions.

B. Geological. The City is located in an area with expansive soils and includes hillsides that are subject to mudflows and unstable conditions. Special foundation considerations and soils analyses requirements must be in place to provide a reasonable degree of structural integrity for buildings constructed in these areas. Several earthquake faults run through the City that, when active, will impose unique lateral loads on structures in the City. Special lateral structural design criteria are needed to resist these lateral loads imposed by active earthquake faults in the City.

C. Topographical. The City has hillside and flat land developments that require special drainage precautions, as well as a system of roadways and highways that generate traffic noise. Structures would be subject to water damage without special requirements addressing site drainage.

D. After due consideration, the City Council finds and determines that these local climatic, geological, and topographical conditions make modifications and changes to the 2010 Edition of the California Building Code reasonably necessary to provide sufficient and effective protection of life, health, and property.

SECTION 2: Chapter 12.115 of Division 12 of the San Buenaventura Municipal Code ("SBMC") is amended in its entirety to read as follows:

**Building Standards**

Section 12.115.010. Adoption of California Building Code, 2010 Edition.

Pursuant to California Government Code sections 50022.1 to 50022.8, inclusive, Part 2 of Title 24 of the California Code of Regulations, known as the California Building Code, 2010 Edition ("CBC"), including all standard printed Chapters and Sections (whether adopted by the State matrix or not), including Appendix Chapter H, is adopted by reference subject to the amendments, additions, and deletions set forth in this chapter. This Chapter is also intended to supersede SBMC sections 12.115 in its entirety. The CBC will apply to all occupancies identified by this code. One true copy of the CBC is on file in the office of the City Clerk and Building Official and is available for public inspection as required by law.

#### Section 12.115.020. Amendments.

A. The city council finds that certain local climatic, geological, and/or topographical conditions exist as follows:

1. Climatic. The City experiences periods of high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the fire department may have great difficulty in controlling fires occurring in hillside brush areas as well as structures not having built-in fire protection. The city also experiences periods of intense rainfall, which create the need for special drainage precautions.
2. Geological. The City is located in an area with expansive soils and includes hillsides that are subject to mudflows and unstable conditions. Special foundation considerations and soils analyses requirements must be in place to provide a reasonable degree of structural integrity for buildings constructed in these areas. Several earthquake faults run through the City that, when active, will impose unique lateral loads on structures in the City. Special lateral structural design criteria are needed to resist these lateral loads imposed by active earthquake faults in the City.
3. Topographical. The City has hillside and flat land developments that require special drainage precautions, as well as a system of roadways and highways that generate traffic noise. Structures would be subject to water damage without special requirements addressing site drainage.

B. After due consideration, the city council finds and determines that these local climatic, geological, and topographical conditions make modifications and changes to the CBC reasonably necessary to provide sufficient and effective protection of life, health, and property. The CBC is therefore modified, amended, added to, and changed as set forth below:

1. Chapter 1, Section 101.4.4, is amended to read as follows:

101.4.4 Property Maintenance. The provisions of the most recently adopted *Ventura City Property Maintenance Code* (Article 6 of Chapter 12.310 of Division 12 of the San Buenaventura Municipal Code, as amended) shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety hazards; responsibilities of owners, operators, and occupants; and occupancy of existing premises and structures.

2. Section 103.3 is amended to read as follows:

103.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the Building Official shall have the authority to appoint a Deputy Building Official, the related technical officers, inspectors, plan examiners and other employees. Such employees shall have powers as delegated by the Building Official. For the maintenance of existing properties, see the *Ventura City Property Maintenance Code* and Chapter 34 of this code.

3. Section 104.5 is amended to read as follows:

104.5 Identification. The Building Official, and his/her representatives, shall carry and display, in a readily visible location, City identification that shows the City, Department, Division, employee name, and employee rank at all times while conducting City business.

4. Section 105.2 Item 1 is amended as follows:

- 1) A one-story detached accessory building used as a tool and/or storage shed, playhouse or similar use, provided it meets the following:
  - a. 120 sq. ft. maximum floor area.
  - b. 8 feet maximum top plate height.
  - c. 4:12 maximum pitch roof.
  - d. Has no regulated plumbing or electrical or mechanical equipment.
  - e. Is located in a residential zone.
  - f. No more than one such structure per lot.

5. Section 105.2 Item 2 is amended as follows:

- 2) Residential fences of wood, chain link or similar materials that are not more than 6 foot in height from grade as defined in this code.

6. *Section 105.2 Item 6* is amended as follows:

1. Residential sidewalks and residential driveways not more than 30 inches above grade and not over any basement or story, and not part of a required Accessible Route of Travel as defined in this code.

7. *Section 105.2 Item 14* is added as follows:

- 14) Outdoor Food and Produce Vendor stands, but only if such stands are limited as follows:
  - a. 120 sq. ft. maximum floor area.
  - b. 8 feet maximum top plate height.
  - c. 4:12 maximum pitch roof.
  - d. Has no regulated plumbing or electrical or mechanical equipment.
  - e. No more than one such structure per parcel.
  - f. Is not used for mobile food processing, vending or sales

8. *Section 105.2 Electrical:* is amended to read as follows:

#### Repairs and Maintenance

The replacement of lamps or the connection of approved portable electrical equipment to approved permanently installed electrical receptacles.

#### Radio and Television Transmission

Equipment used to transmit radio or television signals provided that such equipment does not exceed the structural loads of the structure to support such equipment. Electrical power supply equipment serving such transmission equipment is regulated and requires permits.

9. *Section 105.2 Gas: Item 2* is amended to read as follows:

- 2) Repair of gas powered equipment that does not alter the listed approval of the gas equipment and does not create an unsafe condition.

10. *Section 105.2 Mechanical: Item 5* is amended to read as follows:

- 5) Repair of mechanical equipment that does not alter the listed approval of the equipment and does not create an unsafe condition.

11. *Section 105.2 Mechanical: Item 7* is amended to read as follows:

- 7) Nationally listed plug and cord, self-contained, refrigeration systems of 1 horsepower or less.

12. *Section 105.2.1* is amended to read as follows:

105.2.1 In emergency situations, where emergency equipment replacement or repair must be performed, the person who performs the emergency work shall make permit application for the emergency work within one working business day following the emergency replacement or repair.

13. *Section 105.3 Item 4* is amended to read as follows:

- 4) Be accompanied by construction documents, fees, and other information as required by sections 108 and 109 of this code.

14. *Section 105.3 Item 8* is added to read as follows:

- 8) Have obtained Planning Division approval to make application for building permit.

15. *Section 105.3 Item 9* is added to read as follows:

- 9) Be filed by appropriate state-licensed contractors or their authorized representatives, except for work on 1-2 unit dwellings, including structures accessory thereto, which may be filed by owner builders when approved by the Building Official.

16. *Section 105.5* is amended to read as follows:

105.5 Expiration Of Permit. Every permit issued by the Building Official under the provisions of this Code will expire by limitation and become null and void, if the building or work authorized by such permit is not commenced:

- a. within six (6) months after the date such permit was issued, or
- b. if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of six (6) months, or
- c. if the work authorized by such permit does not receive final inspection approval within three (3) years from the date the permit was issued, or
- d. if the abatement deadline prescribed by the City's Code Enforcement section has passed.

Before such work may be recommenced, a new permit will first be obtained to do so. The fee therefore, will be based upon the extent of work remaining to complete the project, but such fee will not exceed one-half the current permit fee providing no changes have been made or will be made in the original plan and specifications for such work; and provided further that such suspension or abandonment has not exceeded one (1) year. In order to renew action on a permit after expiration exceeds one year, the permittee will pay a new full permit fee. When the permittee is unable to perform work within the time required by this section, for good cause shown, any permittee holding an

unexpired permit may apply for an extension of the time within which the permittee may perform work under that permit. The Building Official may, without requiring payment of an additional permit fee, extend the time for action by the permittee for periods not exceeding six (6) months upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. For purposes of this Section, the time period during which a project is deemed suspended or abandoned will be measured as elapsed time between approved REQUIRED INSPECTIONS as delineated in this code.

17. *Section 109.6* is amended to read as follows:

109.6 Fee Refunds. The Building Official may authorize refunding of a fee paid hereunder which was erroneously paid or collected.

The Building Official may authorize refunding of not more than 80 percent of the permit fee when no work has been done under a permit issued in accordance with this code.

The Building Official may authorize refunding of not more than 80 percent of the Plan Check Deposit fee paid when an application for a permit for which a plan check deposit has been paid is withdrawn or cancelled before any examination time has been expended.

The Building Official shall not authorize the refunding of any fee paid, except upon written application filed by the original permittee not later than 180 days after the date of the fee payment.

18. *Section 109.7* is added and reads as follows:

109.7 Fees. fees will be as established by city council resolution or ordinance. The city council will hold a public hearing upon notice on the resolution or on any proposed amendments thereto. The resolution or any amendment thereto will take effect on the date approved by city council adoption.

19. *Section 113* is amended to read as follows:

1. *Section A112* is amended to read as follows:

A112. Local Appeals Board. A Local Appeals Board (also identified as "Board" or "Board of Appeals") is established to hear and decide appeals of orders, decisions, or determinations made by the Building Official or Fire Marshal relative to the application and interpretation of the building requirements of the city. The Board will consist of seven members who will be appointed by the city council. In addition, the Building Official, or his or her designee, will be an ex-officio member and will act as secretary to the Board. Five of the voting members will constitute a quorum; the ex-officio member will have no vote. Each of the voting members will be

qualified by experience and training to consider matters pertaining to construction regulations and each will be an actual resident of the City during his/her incumbency. Whenever possible, the Board will be composed of members representing the following specialties: General Contractor, Licensed Professional Engineer, Licensed Architect, Handicapped Accessibility Advocate, Planning/Zoning Professional, Licensed Real Estate Professional. If a Board member ceases at any time to be an actual resident of the City, the office held by that member will be deemed vacant. Of the members of the Board first appointed, three will be appointed for initial terms of four years. Their successors will be appointed for terms of four years. Each member will serve until his or her successor is appointed. The Board will adopt reasonable rules and regulations for conducting its business and will render all decisions and findings in writing to the appellant with a copy to the Building Official. The Board may recommend to the city council such new legislation as it may deem appropriate. The Local Appeals Board will serve as the appellate board or body whenever any of the codes adopted by reference provide for same. The Local Appeals Board will also act as the Appeals Board for the Earthquake Hazard Reduction Ordinance. Appeals to the Board will be processed in accordance with administrative policies and on application forms provided by the Building Official. A fee established by city council resolution will accompany an application for a hearing before the Board of Appeals. Copies of any rules and regulations adopted by the Board will be delivered to the Building Official, who will make them freely accessible to the public. The Board of Appeals will have no authority relative to interpretation of the administrative provisions of this code nor will the Board be empowered to waive requirements of this code or the technical codes.

2. Section 114.5 is added to read as follows:

114.5 Notice of Non-Compliance. Whenever the Building Official determines that work has been done on, over, or in any property in the City of San Buenaventura without the required permit, or has otherwise not been completed in accordance with the State Building Standards as adopted by the City of San Buenaventura, the Building Official may record a Notice of Non-Compliance for the subject property with the County Recorder after notifying the subject property owner of record, in writing, at least 30-days prior to recording. The Notice of Non-Compliance shall describe the property, set forth the non-compliance conditions, and shall identify the property owner given notice and that owners mailing address from the currently available County tax roll.

The Building Official shall submit a Release of Non-Compliance to the County Recorder when it is determined that non-compliant conditions have been completely corrected in accordance with the City Municipal Code and all other local, state, and federal regulations. A fee, established by City Council, may be charged to the property owner for the preparation of the Release of Non-Compliance document. Payment of

this fee and all other fees associated with the enforcement case are prerequisites to delivery of the Release of Non-Compliance to the property owner. The Building Official may, at his/her discretion, enter into a written agreement with buyers of a Noticed property such that a Release of Non-Compliance is issued for a specific period of time in order to facilitate the purchase of the property and abatement of the violations. In these situations, payment of all other fees associated with the enforcement case may follow issuance of the Release of Non-Compliance.

3. *Section 116* is amended to read as follows:

*116* Refer to the most recently adopted *Ventura City Property Maintenance Code*.

22. Section 117 is added to read as follows:

117. Conflicts with other City Codes and Ordinances. When a conflict exists between City Planning and Zoning regulations and this section, the City Planning and Zoning regulations will take precedence.

23. *Section 118* is added to the CBC to read as follows:

118. Fire District. Fire-resistive and fire preventative construction requirements specific to development within the urban wildland interface shall be in accordance with the State Fire Code as adopted by the City's Fire Marshal.

24. Table 1505.1 is amended to read as follows:

TABLE 1505.1<sub>a</sub>  
MINIMUM ROOF COVERING CLASSIFICATION  
FOR TYPES OF CONSTRUCTION

|    |    |     |     |      |      |    |    |    |
|----|----|-----|-----|------|------|----|----|----|
| IA | IA | IIA | IIB | IIIA | IIIB | IV | VA | VB |
| B  | B  | B   | B   | B    | B    | B  | B  | B  |

a. Unless otherwise required in accordance with Chapter 7A of the this Code or required by the City Fire Code.

25. Section 1613.8 is added to read as follows:

1613.8 Seismic Design Provisions for Hillside Buildings.

1613.8.1 Purpose. The purpose of this section is to establish minimum regulations for the design and construction of new buildings and additions to existing buildings when constructing such buildings on or into slopes steeper than one unit vertical in three units horizontal (33.3%). These regulations establish minimum standards for seismic force resistance to reduce the risk of injury or loss of life in the event of earthquakes.

1613.8.2 Scope. The provisions of this section shall apply to the design of the lateral-force-resisting system for hillside buildings at and below the base level diaphragm. The design of the lateral-force-resisting system above the base level diaphragm shall be in accordance with the provisions for seismic and wind design as required elsewhere in this division.

EXCEPTION: Non-habitable accessory buildings and decks not supporting or supported from the main building are exempt from these regulations.

1613.8.3 Definitions. For the purposes of this section certain terms are defined as follows:

**BASE LEVEL DIAPHRAGM** is the floor at, or closest to, the top of the highest level of the foundation.

**DIAPHRAGM ANCHORS** are assemblies that connect a diaphragm to the adjacent foundation at the uphill diaphragm edge.

**DOWNHILL DIRECTION** is the descending direction of the slope approximately perpendicular to the slope contours.

**FOUNDATION** is concrete or masonry which supports a building, including footings, stem walls, retaining walls, and grade beams.

**FOUNDATION EXTENDING IN THE DOWNHILL DIRECTION** is a foundation running downhill and approximately perpendicular to the uphill foundation.

**HILLSIDE BUILDING** is any building or portion thereof constructed on or into a slope steeper than one unit vertical in three units horizontal (33.3%). If only a portion of the building is supported on or into the slope, these regulations apply to the entire building.

**PRIMARY ANCHORS** are diaphragm anchors designed for and providing a direct connection as described in Sections 1613.8.5 and 1613.8.7.3 between the diaphragm and the uphill foundation.

**SECONDARY ANCHORS** are diaphragm anchors designed for and providing a redundant diaphragm to foundation connection, as described in Sections 1613.8.6 and 1613.8.7.4.

**UPHILL DIAPHRAGM EDGE** is the edge of the diaphragm adjacent and closest to the highest ground level at the perimeter of the diaphragm.

**UPHILL FOUNDATION** is the foundation parallel and closest to the uphill diaphragm edge.

#### 1613.8.4 Analysis and Design.

1613.8.4.1 General. Every hillside building within the scope of this section shall be analyzed, designed, and constructed in accordance with the provisions of this division. When the code-prescribed wind design produces greater effects, the wind design shall govern, but detailing requirements and limitations prescribed in this and referenced sections shall be followed.

1613.8.4.2 Base Level Diaphragm-Downhill Direction. The following provisions shall apply to the seismic analysis and design of the connections for the base level diaphragm in the downhill direction.

1613.8.4.2.1 Base for Lateral Force Design Defined. For seismic forces acting in the downhill direction, the base of the building shall be the floor at or closest to the top of the highest level of the foundation.

1613.8.4.2.2 Base Shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 4.5 for bearing wall and building frame systems. The total base shear shall include the forces tributary to the base level diaphragm including forces from the base level diaphragm.

#### 1613.8.5 Base Shear Resistance-Primary Anchors.

1613.8.5.1 General. The base shear in the downhill direction shall be resisted through primary anchors from diaphragm struts provided in the base level diaphragm to the foundation.

1613.8.5.2 Location of Primary Anchors. A primary anchor and diaphragm strut shall be provided in line with each foundation extending in the downhill direction. Primary anchors and diaphragm struts shall also be provided where interior vertical lateral-force-resisting elements occur above and in contact with the base level diaphragm. The spacing of primary anchors and diaphragm struts or collectors shall in no case exceed 30 feet (9,144 mm).

1613.8.5.3 Design of Primary Anchors and Diaphragm Struts. Primary anchors and diaphragm struts shall be designed in accordance with the requirements of Section 1613.8.8.

1613.8.5.4 Limitations. The following lateral-force-resisting elements shall not be designed to resist seismic forces below the base level diaphragm in the downhill direction:

1. Wood structural panel wall sheathing,
2. Cement plaster and lath,

3. Gypsum wallboard, and
4. Tension only braced frames.

Braced frames designed in accordance with the requirements of Section 2205.2.2 may be used to transfer forces from the primary anchors and diaphragm struts to the foundation provided lateral forces do not induce flexural stresses in any member of the frame or in the diaphragm struts. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

#### 1613.8.6. Base Shear Resistance-Secondary Anchors.

1613.8.6.1 General. In addition to the primary anchors required by Section 1613.8.5, the base shear in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in the base level diaphragm.

**EXCEPTION:** Secondary anchors are not required where foundations extending in the downhill direction spaced at not more than 30 feet (9,144 mm) on center extend up to and are directly connected to the base level diaphragm for at least 70% of the diaphragm depth.

1613.8.6.2 Secondary Anchor Capacity and Spacing. Secondary anchors at the base level diaphragm shall be designed for a minimum force equal to the base shear, including forces tributary to the base level diaphragm, but not less than 600 pounds per lineal foot (8.76 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1,219 mm) on center.

1613.8.6.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1613.8.8.

1613.8.7 Diaphragms Below the Base Level-Downhill Direction. The following provisions shall apply to the lateral analysis and design of the connections for all diaphragms below the base level diaphragm in the downhill direction.

1613.8.7.1 Diaphragm Defined. Every floor level below the base level diaphragm shall be designed as a diaphragm.

1613.8.7.2 Design Force. Each diaphragm below the base level diaphragm shall be designed for all tributary loads at that level using a minimum seismic force factor not less than the base shear coefficient.

1613.8.7.3 Design Force Resistance-Primary Anchors. The design force described in Section 1613.8.7.2 shall be resisted through primary anchors from diaphragm struts provided in each diaphragm to the foundation. Primary anchors shall be provided and designed in accordance with the requirements and limitations of Section 1613.8.5.

#### 1613.8.7.4 Design Force Resistance-Secondary Anchors.

1613.8.7.4.1 General. In addition to the primary anchors required in Section 1613.8.7.3, the design force in the downhill direction shall be resisted through secondary anchors in the uphill foundation connected to diaphragm struts in each diaphragm below the base level.

EXCEPTION: Secondary anchors are not required where foundations extending in the downhill direction, spaced at not more than 30 feet (9,144 mm) on center, extend up to and are directly connected to each diaphragm below the base level for at least 70% of the diaphragm depth.

1613.8.7.4.2 Secondary Anchor Capacity. Secondary anchors at each diaphragm below the base level diaphragm shall be designed for a minimum force equal to the design force but not less than 300 pounds per lineal foot (4.38 kN/m). The secondary anchors shall be uniformly distributed along the uphill diaphragm edge and shall be spaced a maximum of four feet (1,219 mm) on center.

1613.8.7.4.3 Design. Secondary anchors and diaphragm struts shall be designed in accordance with Section 1613.8.8.

1613.8.8 Primary and Secondary Anchorage and Diaphragm Strut Design. Primary and secondary anchors and diaphragm struts shall be designed in accordance with the following provisions:

1. Fasteners. All bolted fasteners used to develop connections to wood members shall be provided with square plate washers at all bolt heads and nuts. Washers shall be minimum 3/16 inch (4.8 mm) thick and two inch (51 mm) square for 1/2-inch (12.7 mm) diameter bolts, and 1/4-inch (6.4 mm) thick and 2-1/2-inch (64 mm) square for 5/8-inch (15.9 mm) diameter or larger bolts. Nuts shall be wrench tightened prior to covering.
2. Fastening. The diaphragm to foundation anchorage shall not be accomplished by the use of toenailing, nails subject to withdrawal, or wood in cross-grain bending or cross-grain tension.
3. Size of Wood Members. Wood diaphragm struts collectors, and other wood members connected to primary anchors shall not be less than three-inch (76 mm) nominal width. The effects of eccentricity on wood members shall be evaluated as required per Item 9.

4. Design. Primary and secondary anchorage, including diaphragm struts, splices, and collectors shall be designed for 125% of the tributary force.
5. Allowable Stress Increase. The one-third allowable stress increase permitted under Section 1605.3.2 shall not be taken when the working (allowable) stress design method is used.
6. Seismic Load Factor. The seismic load factor shall be 1.7 for steel and concrete anchorage when the strength design method is used.
7. Primary Anchors. The load path for primary anchors and diaphragm struts shall be fully developed into the diaphragm and into the foundation. The foundation must be shown to be adequate to resist the concentrated loads from the primary anchors.
8. Secondary Anchors. The load path for secondary anchors and diaphragm struts shall be fully developed in the diaphragm but need not be developed beyond the connection to the foundation.
9. Symmetry. All lateral force foundation anchorage and diaphragm strut connections shall be symmetrical. Eccentric connections may be permitted when demonstrated by calculation or tests that all components of force have been provided for in the structural analysis or tests.
10. Wood Ledgers. Wood ledgers shall not be used to resist cross-grain bending or cross-grain tension.

#### 1613.8.9 Lateral-Force-Resisting Elements Normal to the Downhill Direction.

1613.8.9.1 General. In the direction normal to the downhill direction, lateral-force-resisting elements shall be designed in accordance with the requirements of this section.

1613.8.9.2 Base Shear. In developing the base shear for seismic design, the response modification coefficient (R) shall not exceed 4.5 for bearing wall and building frame systems.

1613.8.9.3 Vertical Distribution of Seismic Forces. For seismic forces acting normal to the downhill direction the distribution of seismic forces over the height of the building using Section 12.8.3 of ASCE 7 shall be determined using the height measured from the top of the lowest level of the building foundation.

1613.8.9.4 Drift Limitations. The story drift below the base level diaphragm shall not exceed 0.005 times the story height. The total drift from the base level diaphragm to the top of the foundation shall not exceed 3/4 inch (19 mm). Where the story height or

the height from the base level diaphragm to the top of the foundation varies because of a stepped footing or story offset, the height shall be measured from the average height of the top of the foundation. The story drift shall not be reduced by the effect of horizontal diaphragm stiffness.

Where code-prescribed wind forces govern the design of the lateral force resisting system normal to the downhill direction, the drift limitation shall be 0.0025 for the story drift and the total drift from the base level diaphragm to the top of the foundation may exceed 3/4 inch (19 mm) when approved by the Department. In no case, however, shall the drift limitations for seismic forces be exceeded.

#### 1613.8.9.5 Distribution of Lateral Forces.

1613.8.9.5.1 General. The design lateral force shall be distributed to lateral-force-resisting elements of varying heights in accordance with the stiffness of each individual element.

1613.8.9.5.2 Wood Structural Panel Sheathed Walls. The stiffness of a stepped wood structural panel shear wall may be determined by dividing the wall into adjacent rectangular elements, subject to the same top of wall deflection. Deflections of shear walls may be estimated by Section 2305.3.2. Sheathing and fastening requirements for the stiffest section shall be used for the entire wall. Each section of wall shall be anchored for shear and uplift at each step. The minimum horizontal length of a step shall be eight feet (2,438 mm) and the maximum vertical height of a step shall be two feet, eight inches (813 mm).

1613.8.9.5.3 Reinforced Concrete or Masonry Shear Walls. Reinforced concrete or masonry shear walls shall have forces distributed in proportion to the rigidity of each section of the wall.

1613.8.9.6 Limitations. The following lateral force-resisting-elements shall not be designed to resist lateral forces below the base level diaphragm in the direction normal to the downhill direction:

1. Cement plaster and lath,
2. Gypsum wallboard, and
3. Tension-only braced frames.

Braced frames designed in accordance with the requirements of Chapter 22 of this Code may be designed as lateral-force-resisting elements in the direction normal to the downhill direction, provided lateral forces do not induce flexural stresses in any member of the frame. Deflections of frames shall account for the variation in slope of diagonal members when the frame is not rectangular.

### 1613.8.10 Specific Design Provisions.

1613.8.10.1 Footings and Grade Beams. All footings and grade beams shall comply with the following:

1. Grade beams shall extend at least 12 inches (305 mm) below the lowest adjacent grade and provide a minimum 24-inch (610 mm) distance horizontally from the bottom outside face of the grade beam to the face of the descending slope.
2. Continuous footings shall be reinforced with at least two No. 4 reinforcing bars at the top and two No. 4 reinforcing bars at the bottom.
3. All main footing and grade beam reinforcement steel shall be bent into the intersecting footing and fully developed around each corner and intersection.
4. All concrete stem walls shall extend from the foundation and reinforced as required for concrete or masonry walls.

1613.8.10.2 Protection Against Decay and Termites. All wood to earth separation shall comply with the following:

1. Where a footing or grade beam extends across a descending slope, the stem wall, grade beam, or footing shall extend up to a minimum 18 inches (457 mm) above the highest adjacent grade.

EXCEPTION: At paved garage and doorway entrances to the building, the stem wall need only extend to the finished concrete slab, provided the wood framing is protected with a moisture proof barrier.

2. Wood ledgers supporting a vertical load of more than 100 pounds per lineal foot (1.46 kN/m) and located within 48 inches (1,219 mm) of adjacent grade are prohibited. Galvanized steel ledgers and anchor bolts, with or without wood nailers, or treated or decay resistant sill plates supported on a concrete or masonry seat, may be used.

1613.8.10.3 Sill Plates. All sill plates and anchorage shall comply with the following:

1. All wood framed walls, including nonbearing walls, when resting on a footing, foundation, or grade beam stem wall, shall be supported on wood sill plates bearing on a level surface.
2. Power-driven fasteners shall not be used to anchor sill plates except at interior nonbearing walls not designed as shear walls.

1613.8.10.4 Column Base Plate Anchorage. The base of isolated wood posts (not framed into a stud wall) supporting a vertical load of 4,000 pounds (17.8 kN) or more and the base plate for a steel column shall comply with the following:

1. When the post or column is supported on a pedestal extending above the top of a footing or grade beam, the pedestal shall be designed and reinforced as required for concrete or masonry columns. The pedestal shall be reinforced with a minimum of four No. 4 bars extending to the bottom of the footing or grade beam. The top of exterior pedestals shall be sloped for positive drainage.
2. The base plate anchor bolts or the embedded portion of the post base, and the vertical reinforcing bars for the pedestal, shall be confined with two No. 4 or three No. 3 ties within the top five inches (127 mm) of the concrete or masonry pedestal. The base plate anchor bolts shall be embedded a minimum of 20 bolt diameters into the concrete or masonry pedestal. The base plate anchor bolts and post bases shall be galvanized and each anchor bolt shall have at least two galvanized nuts above the base plate.

1613.8.10.5 Steel Beam to Column Supports. All steel beam to column supports shall be positively braced in each direction. Steel beams shall have stiffener plates installed on each side of the beam web at the column. The stiffener plates shall be welded to each beam flange and the beam web. Each brace connection or structural member shall consist of at least two 5/8 inch (15.9 mm) diameter machine bolts.

26. Section 1613.9 is added to read as follows:

1613.9 Post Installed Anchors. Post installed anchors may be used when approved by the Building Official. When used, these anchors shall be sized and installed in accordance with an approval from a recognized approval agency or the manufacturer's design criteria and installation specifications. When required by the Building Official, post installed anchors shall be tested by an independent testing laboratory to a minimum of 1,000 pounds or to twice the allowable design value for the same size bolt, whichever is greater.

Frequency of testing shall be:

1. One to five bolts per site - two bolts, selected at random shall be tested and certified.
2. More than five bolts - 25 percent of such bolts with a minimum of two shall be selected at random to be tested and certified.

Failing bolts shall be reinstalled and retested to the same criteria. The Building Official may require additional bolts to be tested.

27. Section 1704.9 is amended to read as follows:

1704.9 Cast-In-Place Deep Foundations And Connecting Grade Beams. Special inspections shall be performed during installation and testing of cast-in-place deep foundation elements as required by Table 1704.9. Special inspections shall be performed for connections to grade beams in accordance with Section 1704.4 for structures assigned to Seismic Design Category D, E, or F. The approved geotechnical report, and the construction documents prepared by the registered design professionals, shall be used to determine compliance.

28. Section 1803.1 is amended to read as follows:

1803.1. General. The classification of the soil at each building site shall be determined when required by the building official. An investigation, or investigations, shall be conducted for each site by an engineer appropriately licensed in California and reports shall be submitted in accordance with CBC Section 1803.6.

Exceptions: The following may be exempt from this requirement:

1. Sites having natural formations known by the building official to be free of adverse characteristics.
2. Sites for minor buildings and additions less than one thousand (1,000) square feet in area when the building official determines that no special site conditions exist.

29. Section 1803.6 is replaced with the following:

*1803.6. REPORTS.* When the building official requires that a written report of the soils investigation be submitted, that written report of the soils investigation shall include, without limitation, the following information:

1. A plot plan showing the location of all test borings and/or excavations and location of cut to-fill "daylight line."
2. Descriptions and classifications of materials encountered.
3. Elevation of the water table if encountered.
4. Expected total and differential settlement.
5. Location of property or site, including address or lot number and tract.

6. Description of site, including existing use of ground, topographical irregularities, such as barrancas, existing structures, and elevations or ground slopes.
7. Description of proposed structure.
8. Boring logs showing subsurface material to a depth of at least ten (10) feet.
9. Expansive indexes, including location and depth of samples.
10. Any information that may indicate geological or earthquake problems, or the potential for hydro consolidation.
11. Recommendations for foundation type and design criteria, including bearing capacity, provisions to minimize the effects of expansive soils and hydro consolidation, and the effects of adjacent loads.
12. Retaining wall design studies and recommendations (if applicable).
13. Special studies and recommendations concerning the expansion potential, erosion potential, erosion control, and irrigation requirements, and maintenance requirements on slopes steeper than two horizontal to one vertical whenever requested by the building official.
14. Pile and stilt design studies and recommendations (if applicable).
15. Swimming pool design studies and recommendations (if applicable).
16. Special site investigations (if applicable).

30. *Section 1803.3.2* is added to read as follows:

***1803.3.2. SPECIAL SITE INVESTIGATION.*** Whenever, in the Building Official's opinion, test borings or excavations required by the provisions of CBC Section 1803.3 cannot determine the adequacy of a building's overall stability, the Building Official may require a special geologic, hydrologic, seismic, liquefaction, or other investigation. Geologic investigations, such as hillside stability and potential fault activity, shall be conducted by a California Certified Engineering Geologist.

The engineering geologist's work must be based upon a detailed, accurate topographic base map. The map shall be of suitable scale and shall cover the project area as well as any adjacent area which may be affected. The map shall include the existing and

proposed contours, location of streets, pads, slopes, structures, and pertinent elevations.

*1803.3.2.1. HILLSIDE STABILITY.*

- A. Any report required by the Building Official to determine a building's stability, will be based upon an investigation conducted to reveal any subsurface conditions that may lead to landslides, slump, or settlement. It shall include descriptions of topography relief, drainage, earth materials and structure, a detailed geological map, geologic cross sections and recommendations for site development, including consideration for site drainage.
- B. Any such report will also describe the effects of the development on the site and adjacent properties and specific conclusions concerning the feasibility and anticipated future stability of the overall development. Specific recommendations for the correction of all known and/or anticipated geologic hazards on the site must be included.

*1803.3.2.2. FAULT ACTIVITY.* A report required by the Building Official will include information and recommendations concerning:

- A. Surface rupture along faults, including age, type of surface displacement and amount of reasonable anticipated future displacements of any faults within, or immediately adjacent to, the site; definition of any areas of high risk; and recommended building restrictions or use limitations within any designated high risk area.
- B. Secondary ground effects, including estimated magnitude and distance of all relevant earthquakes, lurching and shallow ground rupture, liquefaction of sediments and soils, settlement of soils, and potential for earthquake induced landslides.

31. *Section 1804.7 is added to read as follows:*

*1804.7. Site Drainage.*

*1804.7.1. Drainage Precautions In Hillside Areas.* Where buildings are constructed in hillside areas as defined in the San Buenaventura Municipal Code, they shall be provided with gutters and site drainage as follows:

Eave or ground gutters shall be provided to receive all roof water and deliver it through a non-erosive device to a street or watercourse.

Building pads shall slope to an approved drainage device or to a public street. Where used, the drainage device shall be an adequately designed system of catch basins and drain lines which conducts the water to a street, storm drain or natural watercourse approved by the building official.

On site storm water management systems, that do not discharge storm water directly to an approved community storm water collection and management system, are permitted in hillside areas provided the following documentation is provided to, and approved by, the Building Official prior to system construction and/or use:

1. Storm water management calculations prepared by the State licensed Civil Engineer, and
2. On site storm water system plans and drawings sealed by a State licensed Civil Engineer, and
3. A soils report and proposed storm water system analysis prepared by a State licensed and insured Civil Engineer other than the system design Engineer.

1804.7.2. Drainage Precautions In Expansive Soil. Where buildings are constructed on soils having an expansive index reading exceeding 90, gutters shall be provided to receive all roof water and deliver it through an approved non-erosive device to a street or approved water course, unless alternate means of foundation protection recommended by the geotechnical engineer and approved by the building official is provided.

32. Section 1809.3 is amended to read as follows:

1809.3 Stepped Footings. The top surface of footings shall be level. The bottom surface of footings shall be permitted to have a slope not exceeding one unit vertical in 10 units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footing or where the surface of the ground slopes more than one unit vertical in 10 units horizontal (10-percent slope).

For structures located in Seismic Design Categories D and E, stepped footings shall be reinforced with four ½-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be placed at the top of the footing and two bars shall be placed at the bottom of the footing.

33. Section 1809.4 is amended to read as follows:

1809.4 Depth Of Footings. The minimum depth of footings below the undisturbed ground surface shall be 12 inches (305 mm), but not less than the depth as prescribed by Table 1809.7. Where applicable, the requirements of Section 1809.5 shall also be satisfied. The minimum width of footings shall be 12 inches (305 mm).

34. Section 1809.7 is amended to read as follows:

1809.7. Slab Floor Construction At Or Below Grade. Slab floors on grade for all structures, including carports, shall be of Portland cement concrete and comply with the minimum requirements of CBC Table No. 1809.7. The following requirements for slab floor construction shall be adhered to, except where engineered modifications are approved by the building official and continuous inspection during construction is provided.

1. Loose fill shall be pasted and compacted according to the Building Official's instructions.
2. Except for buildings, or portions thereof, used only for agricultural, storage, industrial, or similar uses, an approved vapor barrier of not less than six (6) mil thickness shall be installed under all slabs. Such vapor barrier shall cover all earth or fill material within the exterior boundaries of the building. At all footings or barriers, such vapor barrier shall be turned up or down at least three (3) inches. In no case shall the vapor barrier penetrate within three (3) inches horizontally of any fastener used to transfer shear or uplift, such as anchor bolts, tiedown bolts and shot pins. Joints shall be lapped a minimum of twelve (12) inches or be fastened together with a suitable compound with three (3) inches of minimum lap.

35. CBC Table 1809.7 is amended to read as follows:

**Table 1809.7—Foundations for stud bearing walls—minimum requirements<sup>1, 10,11,12</sup>**

| Weighted expansion index       | No. of stories  | Foundation for slab and raised floor systems <sup>2,5,7</sup> |                            |                   |                                     |   | Concrete slabs  |  |                         | Pre-moistening of soils under footings, piers and slabs <sup>5,6</sup>                             | Restrictions on piers under raised floors |
|--------------------------------|---|---|----------------------------|-------------------|-------------------------------------|---|---|--|-------------------------|--|---|
|                                |   | Stem thickness <sup>8</sup>                                   | Footing width <sup>9</sup> | Footing thickness | All perimeter footings <sup>6</sup> | Interior footings for slab and raised floors <sup>6</sup> | Reinforcement for continuous foundations <sup>3,8</sup>   | 3-1/2" minimum thickness<br>4" with E.I. over 51 |                         |  |   |
|                                |   |   |                            |                   |                                     |   |   | Reinforcement <sup>4</sup>                       | Total thickness of sand |  |   |
| Inches                         |   |   |                            |                   |                                     |   |   |  |                         |  |   |
| 0-20<br>Very low non expansive | 1<br>2<br>3   | 6<br>6<br>10  | 12<br>15<br>18             | 6<br>7<br>8       | 12<br>18<br>24                      | 12<br>18<br>24  | 1-#4<br>Top and bottom  | #4 @ 48" o.c.<br>each way<br>or                  | 2"                      | Moistening of ground prior to placing concrete is recommended                                      | Piers allowed for single floor loads only |
| 21-50<br>Low                   | 1<br>2<br>3   | 6<br>8<br>10  | 12<br>15<br>18             | 6<br>7<br>8       | 15<br>18<br>24                      | 12<br>18<br>24  | 1-#4<br>Top and bottom  | #3 @ 36" o.c.<br>each way                        | 4"                      | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade. Testing required. | Piers allowed for single floor loads only |
| 51-90<br>Medium                | 1<br>2<br>3   | 6<br>8<br>10  | 12<br>15<br>18             | 8<br>8<br>8       | 21<br>21<br>24                      | 12<br>18<br>24  | 1-#4 top and bottom<br>#3 bars @ 24" o.c. each way<br>12" into footing, 36" into slab <sup>10</sup>   | #3 @ 24" o.c.<br>each way                        | 4"                      | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade. Testing required. | Piers not allowed                         |
| 91-130<br>High                 | 1<br>2<br>3   | 6<br>8<br>10  | 12<br>15<br>18             | 8<br>8<br>8       | 27<br>27<br>27                      | 12<br>18<br>24  | 2- #4<br>Top & bottom<br>#3 bars @ 24" o.c. each way<br>12" into footing, 36" into slab <sup>10</sup> | #3 @ 24" o.c.<br>each way                        | 4"                      | 3% over optimum moisture required to a depth of 18" below lowest adjacent grade. Testing required. | Piers not allowed                         |
| Above 130<br>very high         | Special design by a licensed Architect or Engineer required |   |                            |                   |                                     |   |   |  |                         |  |   |

### *CBC TABLE 1809.7 FOOTNOTES*

1. Premoistening is required where specified in Table 1805.4.2 in order to achieve maximum and uniform expansion of the soil before construction and thus limit structural distress caused by uneven expansions and shrinkage. Other systems which do not include pre-moistening may be approved by the Building Official when such alternatives are shown to provide equivalent safeguards against the adverse effects of expansive soil.
2. Underfloor access crawl holes must be provided with curbs extending not less than six (6) inches above adjacent grade to prevent surface water from entering the foundation area.
3. Reinforcement for continuous foundations shall be placed not less than 3" above the bottom of the footing and not less than 3" below the top of the stem.
4. Slab reinforcement shall be placed at slab mid-depth and continue to within two inches of the exterior face of the exterior footing walls.
5. Moisture content shall be maintained until foundations and piers are poured and a vapor barrier is installed. Tests shall be taken within 24 hours of each slab pour.
6. Crawl spaces under raised floors need not be pre-moistened except under interior footings. Interior footings which are not enclosed by a continuous perimeter foundation system or equivalent concrete or masonry moisture barrier shall be designated and constructed as specified for perimeter footings in Table 1809.7.
7. A grade beam not less than 12" x 12" in cross-sectional area, reinforced as specified for continuous foundations in Table 1805.4.2, shall be provided at garage door openings.
8. Foundation stem walls which exceed a height of 3 times the stem thickness above the lowest adjacent grade shall be reinforced in accordance with CBC Chapters 18 & 19 or as required by engineering design, whichever is more restrictive.
9. Footing widths may be reduced upon submittal of calculations by a registered civil or structural engineer or licensed architect, but shall be a minimum of 12 inches for one and two-story structures and 15 inches for three-story structures.

10. Bent reinforcing bars between exterior footing and slab shall be omitted when the floor is designed as an independent, "floating" slab.
11. Fireplace footings shall be reinforced with a horizontal grid located 3" above the bottom of the footing and consisting of not less than No. 4 bars at 12" on center each way. Vertical chimney reinforcing bars shall be hooked under the grid.

36. Table 2306.3 is amended to read as follows:

TABLE 2306.3(1)  
 ALLOWABLE SHEAR (POUNDS PER FOOT) FOR WOOD STRUCTURAL PANEL SHEAR WALLS WITH  
 FRAMING OF DOUGLAS FIR-LARCH OR SOUTHERN PINE<sup>a</sup> FOR WIND OR SEISMIC LOADING<sup>b, h, i, j, l, m, n</sup>

| PANEL GRADE  | MINIMUM NOMINAL PANEL THICKNESS (inches) | MINIMUM FASTENER PENETRATION IN FRAMING (inches) | ALLOWABLE SHEAR VALUE FOR SEISMIC FORCES PANELS APPLIED DIRECTLY TO FRAMING |  |                  |                  |                  |
|--|--|--|---|--|------------------|------------------|------------------|
|  |  |  | NAIL (common or galvanized box) or staple size <sup>k</sup>                 | Fastener spacing at panel Edges /inches) |                  |                  |                  |
|  |  |  |   | 6  | 4                | 3                | 2 <sup>o</sup>   |
| Structural I Sheathing                                       | 3/8                                      | 1-3/8  | 8d (2½"x0.131" common, 2½"x0.113" galvanized box)                           | 200                                      | 200              | 200              | 200              |
|  |  | 1  | 1-1/2 16 Gage   | 155                                      | 200              | 200              | 200              |
|  | 7/16                                     | 1-3/8  | 8d (2½"x0.131" common, 2½"x0.113" galvanized box)                           | 255 <sup>d</sup>                         | 395 <sup>d</sup> | 505 <sup>d</sup> | 670 <sup>d</sup> |
|  |  | 1  | 1-1/2 16 Gage   | 170                                      | 260              | 345              | 440              |
|  | 15/32                                    | 1-3/8  | 8d (2½"x0.131" common, 2½"x0.113" galvanized box)                           | 280                                      | 430              | 550              | 730              |
|  |  | 1  | 1-1/2 16 Gage   | 185                                      | 280              | 375              | 475              |
|  | 3/8                                      | 1-1/2  | 10d (3"x0.148" common, 3"x0.128" galvanized box)                            | 340                                      | 510              | 665 <sup>f</sup> | 870              |
|  |  | 1-1/4  | 6d (2"x0.113" common, 2"x0.099" galvanized box)                             | 200                                      | 200              | 200              | 200              |
|  |  | 1-3/8  | 8d (2½"x0.131" common, 2½"x0.113" galvanized box)                           | 200 <sup>d</sup>                         | 200 <sup>d</sup> | 200 <sup>d</sup> | 200 <sup>d</sup> |
|  |  | 1  | 1-1/2 16 Gage   | 105                                      | 158              | 200              | 200              |
| Sheathing plywood siding <sup>g</sup> except Group 5 Species | 7/16                                     | 1-3/8  | 8d (2½"x0.131" common, 2½"x0.113" galvanized box)                           | 240 <sup>d</sup>                         | 350 <sup>d</sup> | 450 <sup>d</sup> | 585 <sup>d</sup> |
|  |  | 1  | 1-1/2 16 Gage   | 155                                      | 230              | 310              | 395              |
|  | 15/32                                    | 1-3/8  | 8d (2½"x0.131" common, 2½"x0.113" galvanized box)                           | 260                                      | 380              | 490              | 640              |
|  |  | 1-1/2  | 10d (3"x0.148" common, 3"x0.128" galvanized box)                            | 310                                      | 460              | 600 <sup>f</sup> | 770              |
|  | 19/32                                    | 1  | 1-1/2 16 Gage   | 170                                      | 255              | 335              | 430              |
|  |  | 1-1/2  | 10d (3"x0.148" common, 3"x0.128" galvanized box)                            | 340                                      | 510              | 665 <sup>f</sup> | 870              |
|  |  | 1  | 1-3/4 16 Gage   | 185                                      | 280              | 375              | 475              |
|  |  | Nail Size (galvanized casing)                    |   |  |                  |                  |                  |
|  | 3/8                                      | 1-3/8  | 8d (2½"x0.113")   | 160                                      | 200              | 200              | 200              |

Footnotes to Table 2306.3

For SI: 1 inch = 25.4 mm, 1 pound per foot = 14.5939 N/m.

- a. For framing of other species: (1) Find specific gravity for species of lumber in AF&PA NDS. (2) For staples find shear value from table above for Structural I panels (regardless of actual grade) and multiply value by 0.82 for species with specific gravity of 0.42 or greater, or 0.65 for all other species. (3) For nails find shear value from table above for nail size for actual grade and multiply value by the following adjustment factor: Specific Gravity Adjustment Factor =  $[1-(0.5-SG)]$ , where SG = Specific Gravity of the framing lumber. This adjustment factor shall not be greater than 1.
- b. Panel edges backed with 2-inch nominal or thicker framing. Install panels either horizontally or vertically. Space fasteners maximum 6 inches on center along intermediate framing members for 3/8-inch and 7/16-inch panels installed on studs spaced 24 inches on center. For other conditions and panel thickness, space fasteners maximum 12 inches on center on intermediate supports.
- c. 3/8-inch panel thickness or siding with a span rating of 16 inches on center is the minimum recommended where applied direct to framing as exterior siding.
- d. Except for wood structural panel sheathing used for shear walls that are part of the seismic-force-resisting system, allowable shear values are permitted to be increased to values shown for 15/32-inch sheathing with same nailing provided (a) studs are spaced a maximum of 16 inches on center, or (b) panels are applied with long dimension across studs.
- e. Framing at adjoining panel edges shall be 3 inches nominal or wider, and nails shall be staggered where nails are spaced 2 inches on center.
- f. Framing at adjoining panel edges shall be 3 inches nominal or wider, and nails shall be staggered where both of the following conditions are met: (1) 10d (3"x0.148") nails having penetration into framing of more than 1-1/2 inches and (2) nails are spaced 3 inches on center.
- g. Values apply to all-veneer plywood. Thickness at point of fastening on panel edges governs shear values.
- h. Where panels applied on both faces of a wall and nail spacing is less than 6 inches o.c. on either side, panel joints shall be offset to fall on different framing members, or framing shall be 3-inch nominal or thicker at adjoining panel edges and nails on each side shall be staggered.
- i. In Seismic Design Category D, E or F, where shear design values exceed 350 pounds per linear foot, all framing members receiving edge nailing from abutting panels shall not be less than a single 3-inch nominal member, or two 2-inch nominal members fastened together in accordance with Section 2306.1 to transfer the design shear value between framing members. Wood structural panel joint and sill plate nailing shall be staggered in all cases. See Section 2305.3.11 for sill plate size and anchorage requirements.
- j. Galvanized nails shall be hot dipped or tumbled.
- k. Staples shall have a minimum crown width of 7/16 inch and shall be installed with their crowns parallel to the long dimension of the framing members.
- l. For shear loads of normal or permanent load duration as defined by the AF&PA NDS, the values in the table above shall be multiplied by 0.63 or 0.56, respectively.
- m. [DSA-SS & OSHPD 1, 2 and 4] Refer to Section 2305.2.4.2, which requires any wood structural panel sheathing used for diaphragms and shear walls that are part of the seismic-force-resisting system to be applied directly to framing members.

37. Chapter 31A is amended to read as follows:

*A3109.1 Location*

1. No swimming pool, spa or hot tub will be constructed in a required front yard as defined by this code unless specific approval is granted through a variance.
2. The distance from the inner surface of a swimming pool, spa or hot tub wall to a property line will not be less than three feet. Swimming pool and spa walls adjacent to foundations and slopes will be designed in accordance with this code.

*A3109.2 Definitions.* For the purpose of this section, certain terms are defined as follows:

*Pool* – Any body of water created by artificial means which is designated or used for swimming or immersion purposes and any portion of which is capable of containing water 18 inches deep or deeper also called swimming pool. Plumbing fixtures such as bathtubs are exempt.

*Hillside Areas.* Areas where there is a difference of four feet in original and/or final grade of any two sides of the pool.

*Expansive Soils.* The expansiveness of soils will be classified by the requirements of the California Building Code as adopted by the City Council.

*A3109.3 Pools in Uncertified Fill Soils.* Permits may be issued for the construction of “floating” type pools in fill areas when the following conditions are met.

3. A complete soils investigation of the fill is made by an engineer qualified in soils design and, based on the findings, the engineer establishes the design conditions and extends recommendations that would lead to a stable and safe pool.
4. A structural design is prepared by a Registered Civil Engineer which incorporates the recommendations of the soils investigation as approved by the Building Official.
5. The pool is designed under the assumption that it receives vertical support from the soil lying under the pool bottom. The limits of the supporting soil will be below a line drawn around the perimeter of the pool and located on the bottom where a line sloping at 44 degrees with the horizontal is tangent to the pool bottom.

6. Pool walls will be designed assuming no support from the surrounding soil and in accordance with the minimum requirements as set forth in this Article.
7. The pit for the pool backwash will not be located within the fill material.

**A3109.4 Surface Water.** The pool deck and all portions of the lot will drain to the street or to an approved drainage course. When a pool deck extends to within three feet of an adjacent property, means will be provided to conduct splash water to a satisfactory point of disposal.

**A3109.5 Waste Water.** Disposal of swimming pool wastewater will be in conformance with this code.

**A3109.6 Hydrostatic Uplift.** Any pool to be constructed in an area in which residual groundwater creates hydrostatic head against the pool structure will have a suitable underdrain relief to which a pump can be properly attaches, sufficient mass weight to prevent floatation, or hydrostatic relief valves.

**A3109.7 Diving Boards.** No diving board will be installed in a pool whose greatest depth is less than eight feet. A depth of not less than 8 feet, 6 inches, will be required for a one-meter board. A depth of not less than 10 feet will be required for a three-meter board.

**A3109.8 Materials for Pool Shell.** Swimming pool shells will be of reinforced concrete, or other material equivalent in strength and durability, designed and built to withstand anticipated stresses, of watertight construction with smooth and impervious surfaces. A waterproof interior finish, which will withstand repeated brushing, scrubbing and cleaning procedures, will completely line the pool to the coping or cantilevered decking.

**A3109.9 Construction Changes.** All changes will be approved in writing by the design engineer or architect before they will be reviewed by the Building Official.

**A3109.10 Signature of Design Professional.** Structural plans and calculations will be signed by a Registered Civil Engineer or Architect licensed by the State of California for any pool where the maximum depth is more than three feet.

**A3109.11 Deck.** A concrete deck will be provided around the pool with a minimum width of 4 feet, measured from the pool water line and with a 2% slope away from the pool. Natural soil under deck will slope 2% away from the pool and soil around the deck will slope at 1 % minimum to drain away from the edge of the deck. The deck will have a minimum thickness of 4 inches nominal and will re reinforced with 3/8-inch reinforcement bars at 24 inches on center each way or equivalent reinforcing. The outer edge of the deck will have a cutoff wall not less than 15 inches below grade. A 6-foot deck may be used in lieu of a 4-foot deck and cutoff wall. Decks of lesser width may be utilized when the cutoff wall depth is increased by a proportionate amount of the

reduced deck width. When the soil under decks has an expansive index of 91 or greater, it will be presaturated with water to a depth of 18 inches before the placement of the concrete deck. Approved joints will be provided in the deck at corners, at maximum 10-foot intervals, and wherever necessary in order to control cracking, to allow for differential movements, and to minimize damage to the deck from such movement should it occur. Joints in decks and coping will be made watertight with an approved permanent resilient sealant.

Exception: The deck may be omitted provided that the pool shell is designed to resist normal external forces plus 20 p.c.f. equivalent fluid pressure, and the bond beam has a thickness of not less than 12 inches and is reinforced with a minimum of three (3) 1/2-inch reinforcement bars in each face with 1/4-inch reinforcement ties at 48 inches on center.

A3109.12 Enclosures. Residential pool enclosures shall be designed, installed and maintained in accordance with Section 3109.4 of this code.

A3109.13. Design.

A. *Minimum Standards.* Every swimming pool design will admit to rational analysis according to accepted engineering principles and all criteria hereafter noted are to be considered as minimum standards only.

B. *Expansive Soil Design.* Pools constructed below grade will be designed on the assumption that their construction is to be in an area of moderately expansive soil having an expansion index of 51-91 and an equivalent fluid pressure of not less than 45 pounds per cubic foot (45 p.c.f.)

Exception: Where tests indicate that soils at a pool site are non-expansive or have low expansion characteristics from the ground surface to the full depth of the pool, structural design may be based on an equivalent fluid pressure not less than 30 p.c.f.

In highly expansive soils having an expansion index of 91-130, pools will be designed for not less than 60 p.c.f. equivalent fluid pressure.

In very highly expansive soils having an expansion index over 130, pool design will be subject to special requirements based on a site investigation, soil testing, and engineering analysis by a registered civil engineer to determine appropriate design parameters for the site.

C. *Hydrostatic Pressure.* Hydrostatic pressure will be used in an outward direction as a design criteria where concrete is not deposited against natural undisturbed earth or approved compacted fill.

D. *Reinforcing Steel.* Minimum reinforcing steel will be no less than 3/8-inch reinforcement bars at 12 inches O.C. both ways, with a minimum cover of two

inches, except longitudinal steel in the bottom transition area from the shall to deep end will be 3/8-inch reinforcement bars at six inches O.C. minimum, extending a minimum distance of five feet beyond each side of the transition.

- E. *Empty Pool Condition.* Pools will be designed for both empty and filled conditions.
- F. *Surcharge Loads.* When located adjacent to building foundations, retaining walls and ascending earth slopes, appropriate surcharge loading will be incorporated in the pool design.
- G. *Bond Beams* – A top bond beam will be provided with a minimum width and depth of 12 inches and with a minimum of four ½-inch reinforcement bars (two ½-inch reinforcement bars near each face) with ¼-inch reinforcement ties at 48 inches on center. Vertical steel will be bent at least eight inches horizontally over top longitudinal steel and will be carried around the corner and lapped to form a rigid construction. Special design and plan details will be required for any niches or indentation sin the steel or other special details.
- H. *Pool Walls.* The minimum thickness of pool walls will be five inches.

38. Section 3405.6 is added to read as follows:

#### 3405.6 Post-Damage Assessment.

3405.6.1 Adoption and Intent. This section establishes regulations as amendments to the building code for the expeditious assessment and marking of damaged structures. This section also establishes standard placards to be used to indicate the condition of a structure for continued occupancy. The section further authorizes the Building Official and his or her authorized representatives to post the appropriate placard at each entry point to a building or structure upon completion of a safety assessment.

3405.6.2 Definitions. For the purposes of this section, the following definition applies:

3405.6.3 Safety Assessment. A visual, non-destructive examination of a building or structure for the purpose of determining the condition for continued occupancy.

3405.6.4 Placards.

3405.6.4.1 Descriptions. The following are verbal descriptions of the official jurisdiction placards to be used to designate the condition for continued occupancy of buildings or structures.

(1) INSPECTED - Lawful Occupancy Permitted is to be posted on any building or structure wherein no apparent structural hazard has been found. This placard is not intended to mean that there is no damage to the building or structure.

(2) RESTRICTED USE is to be posted on each building or structure that has been damaged wherein the damage has resulted in some form of restriction to the continued occupancy. The individual who posts this placard will note in general terms the type of damage encountered and will clearly and concisely note the restrictions on continued occupancy.

(3) UNSAFE - Do Not Enter or Occupy is to be posted on each building or structure that has been damaged such that continued occupancy poses a threat to life safety. Buildings or structures posted with this placard shall not be entered under any circumstance except as authorized in writing by the Building Official, or his or her authorized representative. Safety assessment teams shall be authorized to enter these buildings at any time. This placard is not to be used or considered as a demolition order. The individual who posts this placard will note in general terms the type of damage encountered.

3405.6.4.2 Reference. This ordinance number, the name of the jurisdiction, its address, and phone number shall be permanently affixed to each placard.

3405.6.4.3 Removal of Placards. Once it has been attached to a building or structure, a placard is not to be removed, altered or covered until done so by an authorized representative of the Building Official. It shall be unlawful for any person, firm or corporation to alter, remove, cover or deface a placard unless authorized pursuant to this section.

3405.6.5 Repairs. Repairs of structural elements shall comply with section 3405.

**SECTION 3: CALIFORNIA ENVIRONMENTAL QUALITY ACT EXEMPTION.** The city council determines that this ordinance is exempt from review under the California Environmental Quality Act (California Public Resources Code §§ 21000, *et seq.*, "CEQA") and the regulations promulgated thereunder (14 California Code of Regulations §§ 15000, *et seq.*, the "State CEQA Guidelines") because it consists only of minor revisions and clarifications to an existing code of construction-related regulations and specification of procedures related thereto and will not have the effect of deleting or substantially changing any regulatory standards or findings required therefor. This ordinance, therefore, is an action being taken for enhanced protection of the environment and that does not have the potential to cause significant effects on the environment.

**SECTION 4: SAVINGS CLAUSE.** Repeal of any provision of the SBMC or any other city ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, the effective date of this Ordinance. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

SECTION 5: EFFECTIVE DATE. This Ordinance will take effect on the 31<sup>st</sup> day following its final passage and adoption or January 1, 2011, whichever is later.

PASSED AND ADOPTED this \_\_\_ day of \_\_\_\_\_, 2010.

\_\_\_\_\_  
Bill Fulton, Mayor

ATTEST:

Mabi Covarrubias Plisky  
City Clerk

APPROVED AS TO FORM:

By: \_\_\_\_\_

  
Ariel Pierre Calonne  
City Attorney

**ORDINANCE NO. 2010- \_\_\_\_\_**

**AN ORDINANCE OF THE COUNCIL OF THE CITY OF  
SAN BUENAVENTURA ADOPTING BY REFERENCE THE  
2010 EDITION OF THE CALIFORNIA ELECTRICAL CODE  
AND AMENDING CERTAIN PROVISIONS THEREOF  
THROUGH EXPRESS FINDINGS OF LOCAL NECESSITY**

The Council of the City of San Buenaventura does ordain as follows:

**SECTION 1: FINDINGS.** The City Council finds and determines that local climatic, topographic, and geographical conditions exist as follows:

- A. Climatic and Geological. The City has moist coastal air and some corrosive native soil.
- B. After due consideration, the City Council finds and determines that these local climatic and geological conditions make modifications and changes to the 2010 Edition of the California Electrical Code reasonably necessary to provide sufficient and effective protection of life, health and property.

**SECTION 2: AMENDMENTS.** Chapter 12.125 of Division 12 of the San Buenaventura Municipal Code ("SBMC") is amended in its entirety to read as follows:

**Electrical Standards**

**Section 12.125.010. Adoption of the California Electrical Code, 2010 Edition.**

Pursuant to Government Code sections 50022.1 to 50022.8, inclusive, Part 3 of Title 24 of the California Code of Regulations, known as the California Electrical Code, 2010 Edition ("CEC"), is adopted by reference, subject to the amendments, additions and deletions set forth in this chapter. One true copy of the CEC, is on file and in the office of the Building Official and the City Clerk and is available for public inspection as required by law.

**Section 12.125.020. Amendments.**

- A. The City Council finds and determines that local climatic, and geographical conditions exist as follows: The City has moist coastal air and some corrosive native soil.
- B. After due consideration, the City Council finds and determines that these local climatic and geological conditions make modifications and changes to the CEC reasonably necessary to provide sufficient and effective protection of life, health and property. The CEC is therefore modified, amended, added to, and changed as set forth below:

1. Section 90.1 (C) is amended to read as follows:

**90.1 (C) Intention.** For the purposes of establishing fees, administering permits and inspections, processing alternate methods of compliance, hearing appeals, and other local administrative reasons, the 2010 California Building Code as adopted in SBMC Chapter 12.115 will be used.

**FPN:** For administrative purposes, the 2010 California Building Code applies to both residential and non-residential electrical applications.

2. Section 690.4 Item C is appended to read as follows:

**(1) One and Two Family Residential Buildings.** Modules shall be located in a manner that provides two (2) three-foot (3') wide access pathways from the eave to the ridge on each roof slope where modules are located. Modules shall be located no closer than eighteen (18") inches to a hip or a valley if modules are to be placed on both sides of a hip or valley. If the modules are to be located on only one side of a hip or valley that is of equal length then the modules may be placed directly adjacent to the hip or valley. The modules shall be located no higher than three feet (3') below a ridge.

**(2) Commercial Buildings and Residential Housing Comprised of Three or More Units.**

There shall be a minimum six foot (6') wide clear perimeter around the edges of the roof.

**EXCEPTION:** If either axis of the building is 250 feet or less, there shall be a minimum four feet (4') wide clear perimeter around the edges of the roof.

Pathways shall be established in the design of the solar installation. Pathways should meet the following requirements:

- a. Shall be over structural members
- b. Centerline axis pathways shall be provided in both axis of the roof. Centerline axis pathways should run on structural members or over the next closest structural member nearest to the center lines of the roof
- c. Shall be straight line not less than 4 feet (4') clear to skylights and/or ventilation hatches
- d. Shall be straight line not less than 4 feet (4') clear to roof standpipes
- e. Shall provide not less than 4 feet (4') clear around roof access hatch with at least one not less than 4 feet (4') clear pathway to parapet or roof edge

## **Smoke Ventilation**

- a. Arrays shall be no greater than 150 by 150 feet in distance in either axis
- b. Ventilation options between array sections shall be either:

A pathway 8 feet (8') or greater in width 4 feet (4') or greater in width pathway **and** bordering on existing roof skylights or ventilation hatches 4 feet (4') or greater in width pathway **and** bordering four feet (4') x 8 feet 8' "venting cutouts" every 20 feet (20') on alternating sides of the pathway.

**FPN:** This guideline does not apply to non-habitable structures. Examples of non-habitable structures include, but are not limited to, parking shade structures, solar trellises, etc. Exception: If a local fire department determines that the roof configuration is similar to residential (such as in the case of townhouses, condominiums, or single family attached buildings), the local fire department may make a determination to apply the residential access and ventilation requirements.

3. Section 690.4 (E) is added to read as follows:

**(E) Marking or Labeling Required.** Wiring methods and enclosures containing PV source conductors must be marked with the wording "Photovoltaic Power Source" by labels or other approved permanent marking means suitable for the environment and placed with a maximum of 10 ft of spacing on raceways. In addition all junction boxes with DC or AC array output circuits shall be marked in the same manner.

4. Section 690.31(E) is appended to read as follows:

**(1) Beneath Roofs.** Wiring methods for PV system conductors are not permitted within 10 in. of the roof decking, sheathing, or framing members except where located directly below the roof surface that's covered by PV modules and associated equipment. Wiring methods for PV system conductors must be run perpendicular (90°) to the roof penetration point.

**FPN:** The 10 in. from the roof decking/sheathing/framing members requirement is to prevent accidental contact to energized conductors from saws used by firefighters for roof ventilation during a structure fire.

**(2) Flexible Wiring Methods.** FMC smaller than trade size ¾ inch or Type MC cable smaller than 1 inch in diameter installed across ceilings or floor joists must be protected by substantial guard strips that are at least as high as the wiring method. Where run exposed, other than within 6 ft of their connection to equipment, wiring methods must closely follow the building surface or be protected from physical damage by an approved means.

**SECTION 3: CALIFORNIA ENVIRONMENTAL QUALITY ACT EXEMPTION.** The City Council determines that this ordinance is exempt from review under the California Environmental Quality Act (California Public Resources Code §§ 21000, *et seq.*, "CEQA") and the regulations promulgated thereunder (14 California Code of Regulations §§ 15000, *et seq.*, the "State CEQA Guidelines") because it consists only of minor revisions and clarifications to an existing code of construction-related regulations and specification of procedures related thereto and will not have the effect of deleting or

substantially changing any regulatory standards or findings required therefor. This ordinance, therefore, is an action being taken for enhanced protection of the environment and that does not have the potential to cause significant effects on the environment.

SECTION 4: SAVINGS CLAUSE. Repeal of any provision of the SBMC or any other city ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, this Ordinance's effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

SECTION 5: EFFECTIVE DATE. This Ordinance will take effect on the 31<sup>st</sup> day following its final passage and adoption or January 1, 2011, whichever is later.

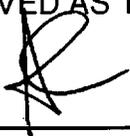
PASSED AND ADOPTED this \_\_\_ day of \_\_\_\_\_, 2010.

Bill Fulton, Mayor

ATTEST:

Mabi Covarrubias Plisky  
City Clerk

APPROVED AS TO FORM:

By:   
\_\_\_\_\_  
Ariel Pierre Calonne  
City Attorney

**ORDINANCE NO. 2010-\_\_\_\_\_**

**AN ORDINANCE OF THE COUNCIL OF THE CITY OF SAN BUENAVENTURA ADOPTING BY REFERENCE THE 2010 EDITION OF THE CALIFORNIA FIRE CODE AND AMENDING CERTAIN PROVISIONS THEREOF THROUGH EXPRESS FINDINGS OF LOCAL NECESSITY**

The Council of the City of San Buenaventura does ordain as follows:

SECTION 1: FINDINGS. The City Council finds that certain local climatic, geological, or topographical conditions exist as follows:

A. Climatic. The City experiences periods of extremely high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the Fire Department may be unable to control fires occurring in vegetation as well as structures not having built in fire protection.

B. Geological. The City is located in a seismically active area. A significant earthquake could render the Fire Department incapable of providing adequate fire protection. In that instance, built-in fire protection would be relied upon for controlling most structural fires.

C. Topographical. The City has developed areas of steep hillsides. These hillsides create Fire Department access problems which can prevent the timely extinguishment of fires in structures not having built-in fire protection. Additionally, many structures in the hillside area are subject to exposure from fires occurring in native vegetation remaining on undeveloped land parcels.

D. After due consideration, the City Council finds and determines that these local climatic, geologic, and topographic conditions make modifications and changes to the 2010 Edition of the California Fire Code reasonably necessary to provide sufficient and effective protection of life, health and property.

E. The City Council, following due consideration, finds and determines that, due to these local climatic, geological, or topographical conditions, amendments, additions, and deletions to the California Fire Code, 2010 Edition, are reasonably necessary to provide sufficient and effective levels of fire safety for the protection of life, health and property. Specifically, the following amendments are made through San Buenaventura Municipal Code section 14.010.020 which:

1. Allows the Fire Chief to apply fire appliance requirements to residential occupancies in order to address the periods of low humidity and high winds, potential seismic activity, or areas of restricted access present in the City.
2. Provides a means of ensuring that fire protection systems are installed and maintained in a manner that will provide adequate protection during periods of low humidity and high winds, potential seismic activity, or in areas of restricted access present in the City.
3. Requires the installation of fire sprinklers in most new buildings/structures, those structures/buildings to which specified additions are made, and structures/buildings in which occupancy use changes are made that increase the fire and life safety hazard of the structures/buildings in order to provide adequate fire protection during periods of low humidity and high winds, potential seismic activity, or in areas of restricted access present in the City.
4. Controls the storage of hazardous materials, including but not limited to flammable liquids in order to reduce the danger from fire during periods of low humidity and high winds, potential seismic activity, or in areas of restricted access present in the City.
5. Limits the use of fireworks and pyrotechnic devices to state-licensed technicians to reduce the danger from fire during periods of low humidity and high winds, or in areas of restricted access present in the City.
6. Limits the growth of hazardous vegetation and maintains defensible space around buildings and structures in order to reduce the danger from fire during periods of low humidity and high winds, or in areas of restricted access present in the City.

**SECTION 2:** Chapter 14.010 of Division 14 of the City of San Buenaventura Municipal Code (“SBMC”) is amended in its entirety to read as follows:

## **FIRE REGULATIONS**

### **Section 14.010.010. Adoption of California Fire Code, 2010 Edition.**

Pursuant to Government Code §§ 50022.1 to 50022.8, inclusive, Part 9 of Title 24 of the California Code of Regulations, known as the California Fire Code, 2010 Edition (“CFC”), is adopted by reference subject to the amendments, additions and deletions set forth in Section 14.010.020 of this chapter. Adoption of the CFC includes CFC Appendix Chapters B, C, D, E, F, G, H, and J. The CFC will apply to all occupancies within the City’s jurisdiction. One (1) true copy

of the CFC is on file in the office of the fire marshal and is available for public inspection as required by law.

**Section 14.010.020. Amendments.**

A. The City Council finds that certain local climatic, geological, or topographical conditions exist as follows:

1. *Climatic* - The City experiences periods of extremely high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the Fire Department may be unable to control fires occurring in vegetation as well as structures not having built in fire protection.
2. *Geological* - The City is located in a seismically active area. A significant earthquake could render the Fire Department incapable of providing adequate fire protection. In that instance, built-in fire protection would be relied upon for controlling most structural fires.
3. *Topographical* - The City has developed areas of steep hillsides. These hillsides create Fire Department access problems which can prevent the timely extinguishment of fires in structures not having built-in fire protection. Additionally, many structures in the hillside area are subject to exposure from fires occurring in native vegetation remaining on undeveloped land parcels.

B. After due consideration, the City Council finds and determines that these local climatic, geological, or topographical conditions make additions, modifications and changes to the CFC reasonably necessary to provide sufficient and effective levels of fire safety for the protection of life, health and property. The CFC is therefore modified, amended, added to, and changed as set forth below:

1. *CFC § 105.6.12.* is amended to read as follows:

*Section 105.6.12. Dry Cleaning Plants.* An operational permit is required to engage in the business of dry cleaning utilizing flammable or combustible liquids as the cleaning solvent or to change to a more hazardous cleaning solvent. Such permits will prescribe the class of system to be used.

2. *CFC § 105.6.20.1* is added to read as follows:

*Section 105.6.20.1 Sale or delivery without permit.* No person shall sell, deliver or cause to be delivered any hazardous commodity to any person

not in possession of a valid permit when such permit is required by the provisions of this code.

3. *CFC § 108.1* is amended to read as follows:

*Section 108.1* Appeals to determine the suitability of alternate materials and types of construction and to provide for reasonable interpretations of the provisions of this code will be heard and determined in the following manner:

1. The appeal will be first directed in writing to the fire code official. The fire code official will render an appeal decision and finding in writing to the appellant.
2. In the event an appellant is not satisfied with an appeal decision and finding rendered by the fire code official, a further appeal may be made in writing to the Local Appeals Board (Board) within thirty (30) days of the decision and finding. This Board, established in Section 113 of the California Building Code as adopted by the City, will also act as the Board of Appeals with respect to the CFC.

4. *CFC § 202* is amended to add the following definition:

"Addition to a building or structure" is an extension or increase in floor area or height of a building or structure.

5. *CFC § 202* is amended to read as follows:

"Person" is a natural person, his or her heirs, executors, administrators or assigns, and also includes a firm, partnership whether general or limited, corporation, unincorporated association, union or organization, cooperative and trust, its or their successors or assigns, or the agent of any of the aforesaid. It shall include the plural as well as the singular number, the male and female gender, and all governmental entities subject in whole or in part to this Code and the codes adopted by reference herein.

6. *CFC § 202* is amended to add the following definition:

"Undetermined Use" means a building/structure if the specific occupancy type is not determined at the time of permit application for the installation of a fire protection system.

7. *CFC § 304.1.2* is amended to read as follows:

*Section 304.1.2* Vegetation. Weeds, grass, vines or other growth that is capable of being ignited and endangering property, shall be cut down and removed by the owner or occupant of the premises. Vegetation clearance requirements in urban-wildland interface areas, hazardous watershed fire areas, hazardous fire areas and parcels declared a public nuisance shall be in accordance with Appendix K.

8. *CFC § 305.5* is added to read as follows:

*Section 305.5.* Chimneys used with fireplaces or heating appliances in which solid or liquid fuel is used will be maintained with a spark arrester as approved by the fire code official.

9. *CFC § 311.1.1* is amended to replace the reference to the *International Property Maintenance Code* with a reference to the *Ventura City Property Maintenance Code*.

10. *CFC § 311.6* is added to read as follows:

*Section 311.6 – Property or Materials Damaged by Fire.*

*Section 311.6.1.* The owner, or other person having under their control any property or materials damaged by fire will secure the property either by boarding up all openings, fencing, barricading or other appropriate measures as directed by the chief.

*Section 311.6.2.* All debris and/or damaged materials will be removed from the property in the manner and within the time frame established by the chief.

11. *CFC § 316* is added to read as follows:

*Section 316 - Combustible Materials Subject to Spontaneous Ignition*

*Section 316.1* General. Combustible materials subject to spontaneous ignition shall be kept in accordance with Section 316.

*Section 316.2* Prevention of Ignition. Materials shall be stored, handled, treated and monitored as necessary and in such a manner as to prevent ignition.

*Section 316.3* Provisions for Extinguishment. The owner or person responsible for materials regulated by Sec 316 shall provide the necessary means to extinguish a fire should ignition occur. Piles shall be arranged in a manner to not exceed the capability of available resources

to extinguish a fire in a single pile. Access for firefighting apparatus shall be approved by the fire code official.

12. *CFC § 503.6 is amended to read as follows:*

*Section 503.6 Security gates.* The installation of security gates across a fire apparatus access road shall be approved by the fire chief. Where security gates are installed, they shall have an approved means of emergency operation. The security gates and the emergency operation shall be maintained operational at all times. Electric gate operators, where provided, shall be listed in accordance with UL 325. Gates intended for automatic operation shall be designed, constructed and installed to comply with the requirements of ASTM F 2200 and be provided with a fire department approved key switch.

13. *CFC § 505.1.1 is added to read as follows:*

*Section 505.1.1 Directories.* When required by the fire code official, complexes with multiple buildings may be required to provide directories, premise maps and directional signs. The scale, design and location of directories shall be approved by the fire code official and may be required to be illuminated.

18. *CFC § 903.3.5.1.1 is deleted.*

19. *CFC § 903.4.2 is amended to read as follows:*

*Section 903.4.2 Alarms.* One exterior approved audible device shall be connected to every automatic sprinkler system in an approved location. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Where a building fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

*Section 903.4.2.1 Buildings with fire sprinkler monitoring systems shall be provided with an approved audio/visual notification device in each occupancy.*

20. *CFC § 907.7.2.1 is added to read as follows:*

*Section 907.7.2.1 Secondary power supply capacity.* The secondary power supply capacity shall be of an approved type and shall provide a minimum of 60 hours of power under non alarm conditions and shall be capable of operating all alarm notification appliances for 5 minutes after 60 hours.

EXCEPTION: Fire alarm and sprinkler monitoring systems meeting the requirements of a central station fire alarm system per NFPA 72.

21. *CFC § 2206.2.3* is amended to read as follows:

*Section 2206.2.3* Above-ground tanks shall not be used for automotive fuel dispensing at any retail sales occupancy. Aboveground tanks shall not be used for the storage of Class I, II or IIIA liquid motor fuels except as provided by this section.

1. Above-ground tanks used for outside, above-grade storage of Class I liquids shall be listed and labeled as protected above-ground tanks and be in accordance with Chapter 34. Such tanks shall be located in accordance with Table 2206.2.3.

2. Above-ground tanks used for above-grade storage of Class II or IIIA liquids are allowed to be protected above-ground tanks or, when approved by the fire code official, other above-ground tanks that comply with Chapter 34. Tank locations shall be in accordance with Table 2206.2.3.

3. Tanks containing fuels shall not exceed 12,000 gallons (45 420 L) in individual capacity or 48,000 gallons (181,680 L) in aggregate capacity. Installations with the maximum allowable aggregate capacity shall be separated from other such installations by not less than 100 feet (30,480 mm).

4. Tanks located at farms, construction projects, or rural areas shall comply with Section 3406.2.

22. *CFC § 3308.1.2* is added to read as follows:

*Section 3308.1.2* Storage. A permit is required to store fireworks in any quantity and will only be issued for storage associated with a display or for the use of pyrotechnic special effects material by state-licensed pyrotechnicians as described in section *3308.1.1*.

23. *CFC § 3308.2* is added to read as follows:

*Section 3308.2* Prohibition. The manufacturing, possession, storage, sale, use and handling of fireworks is prohibited.

EXCEPTIONS:

1. Storage of fireworks in accordance with Section 3308.1.2.
2. Use and handling of fireworks for display in accordance with Section 3308.1.

24. CFC § 3308.3 is added to read as follows:

*Section 3308.3 Firing.* All fireworks displays shall be electrically fired.

25. CFC § 3404.2.9.6.1 is amended to read as follows:

*Section 3404.2.9.6.1.* Storage of Class I and Class II liquids in above-ground tanks outside of buildings is prohibited within the City limits of the City of San Buenaventura.

#### EXCEPTIONS:

(1) Tanks with a maximum capacity of five hundred (500) gallons temporarily installed at construction sites may be permitted by the fire code official if installed in accordance with this code and related local regulations.

(2) Existing facilities in compliance with requirements of this code may have their use continued with approval of the fire code official.

(3) Upon approval of the fire code official, above ground tanks with a maximum capacity of five hundred (500) gallons may be used for the storage of crankcase drainings from internal combustion engines.

(4) Aboveground storage tanks for motor fuel-dispensing stations may be allowed in accordance with section 3404.2.9.6.

26. CFC § 3405.6 is added to read as follows:

*Section 3405.6 Dispensing from Aboveground Tanks.* Class I and II liquids will not be dispensed into the fuel tank of a motor vehicle from above-ground tanks except as provided in section 3404.2.9.6.

27. APPENDIX K is added to read as follows

#### APPENDIX K – FIRE HAZARD ABATEMENT

K101.1 Scope. This appendix provides provisions intended to identify hazard areas and mitigate the risk to life and structures from

intrusion of fire from wildland fire exposures and fire exposures from adjacent structures and to mitigate fires from spreading to wildland fuels that may threaten to destroy life, overwhelm fire suppression capabilities, or result in large property loss.

**K101.2 Purpose.** The purposes of this appendix are to i) establish minimum requirements in wildland-urban interface areas that will increase the ability of buildings to resist the intrusion of flame or burning embers being projected by a vegetation fire including; and ii) identify hazardous fire areas that require applicable defensible space provisions included in this code and enforced by the fire code official and applicable state and local fire-resistive building standards that are required by the local building official.

#### **K102 Definitions.**

**K102.1 Definitions.** For the purpose of this appendix certain terms are defined as follows:

**COMBUSTIBLE MATERIAL** means seasonal and recurrent weeds, stubble, brush, dry leaves, tumbleweeds, rubbish, litter or flammable materials of any kind.

**DEFENSIBLE SPACE** means an area either natural or man-made, where material capable of allowing a fire to spread unchecked has been treated, cleared or modified to slow the rate and intensity of an advancing wildfire and to create an area for fire suppression operations to occur.

**HAZARDOUS FIRE AREA** means land which is covered with grass, grain, brush, or forest, whether publicly or privately owned, which is so situated or is of such inaccessible location that a fire originating upon such land would present an abnormally difficult job of suppression or would potentially result in great and unusual damage through fire or resulting erosion. Such areas are designated by the fire code official. The fire code official is authorized to utilize as reference the definition of Hazardous Watershed Fire Area, Local Agency Fire Hazard Severity Zone Maps designated pursuant to California Government Code, Sections 51175 through 51189 and the International Wildland-Urban Interface Code.

**HAZARDOUS WATERSHED FIRE AREA** means a location within 500 feet of a forest or brush-, grass-, or grain-covered land, exclusive of small individual lots or parcels of land located outside of a forest or brush-, grass-, or grain-covered area.

PARCEL means a portion of land of any size, the area of which is determined by the assessor's maps and records and may be identified by an assessor's parcel number whether or not any buildings are present.

PUBLIC NUISANCE means a declaration by the fire code official that the presence of combustible material on a parcel creates a fire hazard.

WILDLAND-URBAN INTERFACE AREA means that geographical area where structures and other human development meet or intermingle with wildland or vegetative fuels.

K103 Unlawful Disposal. Every person who places, deposits or dumps combustible material on a parcel whether or not he owns such parcel, or whether or not he so places, deposits or dumps on such parcel with the consent of the owner thereof, is subject to civil penalties as set forth in Chapter 1.050 of the San Buenaventura Municipal Code and to criminal penalties as set forth in the California Health and Safety Code Section 13871.

K104 Clearance of Brush, Vegetative Growth and Combustible Material from Parcels. All parcels declared a public nuisance shall be cleared entirely of combustible material. If the fire code official determines this impractical due to hazards posed by the resulting clearance, the provisions of Section I105 may be used.

K105 Clearance of Brush and Vegetative Growth Away from Structures. Any person owning, leasing, controlling, operating or maintaining any building in, upon, or adjoining any hazardous fire area, and any person owning, leasing or controlling any land adjacent to such building, shall at all times maintain around and adjacent to such building an effective firebreak made by removing and clearing away, all combustible material for a distance of not less than 100 feet from all portions of the building.

EXCEPTION: Single specimens or stands of protected species of trees, ornamental shrubbery or similar plants used as ground covers, provided they do not form a means of rapidly transmitting a fire from the native growth to any building.

K106 Prosecution. The fire code official shall serve a written order upon the owner or possessor of a parcel, when in the opinion of the fire code official, a public nuisance exists thereon. The order shall direct such owner or possessor to remove or abate the public nuisance per the procedures and timeframes outlined in Chapter 8.010 of the San Buenaventura Municipal Code.

28 APPENDIX L is added to read as follows

#### APPENDIX L – FIRE PROTECTION SYSTEMS

L101 General. An automatic fire extinguishing system shall be installed in all occupancies and locations as set forth in Appendix L and Chapter 9.

L102 Definitions.

**BUILDING/STRUCTURE, EXISTING** means buildings or structures permitted, constructed and final authorization for occupancy received prior to November 6, 1991 by the authority having jurisdiction.

**BUILDING/STRUCTURE, NEW** means buildings or structures permitted, constructed and final authorization for occupancy received on or after November 6, 1991 by the authority having jurisdiction.

**FLOOR AREA** has the same definition as provided in the California Building Code

**MULTIPLE USE OCCUPANCIES** means buildings or structures that contain more than one occupancy group listed in Section 202 as determined by the fire code official.

L103 Where required. Approved automatic sprinkler systems shall be provided in new and existing buildings/structures in the locations as described in this section.

L103.1 New Buildings/Structures. In all new buildings or structures, to be occupied by Groups A, B, E, F, H, I, L M, R, S, U, or mixed use occupancy classifications when over 500 sq. Ft. in floor area. For all new townhouses and one- and two- family dwellings an automatic fire sprinkler system shall be installed per the California Residential Code.

#### EXCEPTIONS:

(1) Detached U occupancy carports used for motor vehicle storage intended for no other use or storage that are open on sixty percent (60%) of exterior walls. Such carports are limited to three thousand (3,000) square feet or less in floor area and will be constructed entirely of noncombustible materials. Treated lumber is not allowed.

(2) Detached residential U occupancy carports or garages limited to one thousand (1,000) square feet or less in floor area.

(3) Non combustible detached car wash structures, provided the car wash is separated from other structures with an assumed property line.

(4) Public schools shall comply with Section 903.2.2 of this code.

#### L103.2 Existing Buildings/Structures.

L103.2.1 In all existing residential buildings or structures when cumulative additions are made which result in a total floor area 100% or greater than the November 6, 1991 area of the building or structure.

L103.2.2 In all other existing buildings/structures, when cumulative additions are made which results in a total building/structure floor area equal to or greater than five thousand (5000) square feet and the additions exceed the greater of:

- a) Ten percent (10%) of the original floor area, or
- b) Two thousand five hundred (2500) square feet.

EXCEPTION: Occupancy types required to have an automatic fire sprinkler system installed by the California Building Code when the square footage is less than 5,000 square feet will comply with the requirements of the California Building Code.

L103.2.3 In all existing buildings/structures, having a total floor area equal to or greater than five thousand (5,000) square feet when a change in occupancy classification or use occurs that results in a more hazardous use, based on life and fire risk, than the existing occupancy classification or use.

EXCEPTION: Occupancy types required to have an automatic fire sprinkler system installed by the California Building Code when the square footage is less than 5,000 square feet will comply with the requirements of the California Building Code.

L103.2.4 In all existing buildings/structures where renovations occur requiring a building permit and the total area of the ceiling covering removed or exposed exceeds 75% or greater of the total floor area of the building/structure.

EXCEPTION: Occupancy types required to have an automatic fire sprinkler system installed by the California Building Code will comply with the requirements of the California Building Code.

#### L104 Installation Requirements

##### L104.1 Modifications

L104.1 For the purposes of this Appendix, fire walls shall not be considered as creating separate buildings.

L104.1.2 Where allowed, sprinkler systems installed in accordance with NFPA 13D in Group R-3 occupancies shall provide sprinkler protection for attached Group U occupancies.

L104.1.2 When NFPA 13R sprinkler systems are provided in Group R occupancies, exceptions to, or reductions in, code requirements are not allowed based on the installation of either a NFPA 13R or NFPA 13 sprinkler system. This shall also include requirements in the California Code of Regulations, Title 24, Part 2 and Part 9.

L104.1.3 Buildings/structures containing multiple use occupancies which include one or more Group R occupancies shall be protected throughout with fire sprinklers that meet NFPA 13 standards.

**SECTION 3: CALIFORNIA ENVIRONMENTAL QUALITY ACT EXEMPTION.** The city council determines that this ordinance is exempt from review under the California Environmental Quality Act (California Public Resources Code §§ 21000, et seq., "CEQA") and the regulations promulgated thereunder (14 California Code of Regulations §§ 15000, et seq., the "State CEQA Guidelines") because it consists only of minor revisions and clarifications to an existing code of construction-related regulations and specification of procedures related thereto and will not have the effect of deleting or substantially changing any regulatory standards or findings required therefore. This ordinance, therefore, is an action being taken for enhanced protection of the environment and that does not have the potential to cause significant effects on the environment.

**SECTION 4: SAVINGS CLAUSE.** Repeal of any provision of the SBMC or any other city ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, this Ordinance's effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

**SECTION 5: SEVERABILITY.** If any part of this Ordinance or its application is deemed invalid by a court of competent jurisdiction, the City Council intends that

such invalidity will not affect the effectiveness of the remaining provisions or applications and, to this end, the provisions of this Ordinance are severable.

SECTION 6: VALIDITY OF PREVIOUS CODE SECTIONS. If this the entire Ordinance or its application is deemed invalid by a court of competent jurisdiction, any repeal of the SBMC or other the city ordinance by this Ordinance will be rendered void and cause such SBMC provision or other city ordinance to remain in full force and effect for all purposes.

SECTION 7: EFFECTIVE DATE. This Ordinance will take effect on the 31<sup>st</sup> day following its final passage and adoption or January 1, 2011, whichever is later.

PASSED AND ADOPTED this \_\_\_\_ day of \_\_\_\_\_, 2010.

Bill Fulton  
Mayor

ATTEST:

Mabi Covarrubias Plisky  
City Clerk

APPROVED AS TO FORM:



Ariel Pierre Calonne  
City Attorney

**ORDINANCE NO. 2010-\_\_\_**

**AN ORDINANCE OF THE COUNCIL OF THE CITY OF  
SAN BUENAVENTURA ADOPTING BY REFERENCE THE  
2010 EDITION OF THE CALIFORNIA MECHANICAL  
CODE AND AMENDING CERTAIN PROVISIONS  
THEREOF THROUGH EXPRESS FINDINGS OF LOCAL  
NECESSITY**

The Council of the City of San Buenaventura does ordain as follows:

SECTION 1: Chapter 12.130 of Division 12 of the San Buenaventura Ordinance Code ("SBMC") is amended in its entirety to read as follows:

**Mechanical Standards**

**Section 12.130.010. Adoption of the California Mechanical Code, 2010 Edition.**

Pursuant to Government Code sections 50022.1 to 50022.8, inclusive, Part 4 of Title 24 of the California Code of Regulations, known as the California Mechanical Code, 2010 Edition ("CMC"), including Appendices A through D thereof, and standards contained therein, is adopted by reference, subject to changes set forth in this chapter. One true copy of said Code, is on file in the office of the City Clerk and Building Official and is available for public inspection as required by law.

**Section 12.130.020. Amendments.**

After due consideration, the City Council finds and determines that due to the need to establish administrative procedures to enforce the CMC, that changes to the California Mechanical Code, 2010 Edition, are needed and therefore, the CMC is modified, amended, added to, and changed as set forth below:

1. Section 100 is added to read as follows:

**100. Administrative Coordination of Codes.** For the purposes of establishing fees, administering permits and inspections, processing alternate methods of compliance, hearing appeals, and other local administrative reasons, in place of Chapter 1, Division II of the CMC, the 2010 California Building Code as adopted in SBMC Chapter 12.115 is intended to replace CMC Chapter 1, Division II.

Note: For administrative purposes, the 2010 California Building Code applies to both residential and non-residential mechanical applications.

SECTION 2: CALIFORNIA ENVIRONMENTAL QUALITY ACT EXEMPTION. The City Council determines that this ordinance is exempt from review under the California Environmental Quality Act (California Public Resources Code Section 21000, *et seq.*,

"CEQA") and the regulations promulgated thereunder (14 California Code of Regulations Sections 15000, *et seq.*, the "State CEQA Guidelines") because it consists only of minor revisions and clarifications to an existing code of construction-related regulations and specification of procedures related thereto and will not have the effect of deleting or substantially changing any regulatory standards or findings required therefor. This ordinance, therefore, is an action being taken for enhanced protection of the environment and that does not have the potential to cause significant effects on the environment.

SECTION 3: SAVINGS CLAUSE. Repeal of any provision of the SBMC or any other city ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, this Ordinance's effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

SECTION 4: EFFECTIVE DATE. This Ordinance will take effect on the 31<sup>st</sup> day following its final passage and adoption or January 1, 2011, which ever is latest.

PASSED AND ADOPTED this \_\_\_\_ day of November, 2010.

Bill Fulton  
Mayor

ATTEST:

Mabi Covarrubias Plisky  
City Clerk

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Ariel Pierre Calonne  
City Attorney

**ORDINANCE NO. 2010-\_\_\_**

**AN ORDINANCE OF THE COUNCIL OF THE CITY OF SAN BUENAVENTURA ADOPTING BY REFERENCE THE 2010 EDITION OF THE CALIFORNIA PLUMBING CODE AND AMENDING CERTAIN PROVISIONS THEREOF THROUGH EXPRESS FINDINGS OF LOCAL NECESSITY**

The Council of the City of San Buenaventura does ordain as follows:

**SECTION 1: FINDINGS.** After due consideration, the City Council finds and determines that local climatic, topographic, and geographical conditions exist as follows:

- A. Climatic and Geological. The City has a limited supply of local water some of which is corrosive in nature which requires modification of plumbing fixtures to conserve water and protect the public health and welfare.
- B. After due consideration, the City Council finds and determines that these local climatic and geological conditions make modifications and changes to the 2010 Edition of the California Plumbing Code reasonably necessary to provide sufficient and effective protection of life, health and property.

**SECTION 2:** Chapter 12.120 of Division 12 of the San Buenaventura Municipal Code ("SBMC") is amended in its entirety to read as follows:

**Plumbing Standards**

**Section 12.120.010. Adoption of California Plumbing Code, 2010 Edition.**

Pursuant to California Government Code sections 50022.1 to 50022.8, inclusive, Part 5 of Title 24 of the California Code of Regulations, known as the California Plumbing Code, 2010 Edition ("CPC"), including Appendices **A, B, D, G, I, K, and L** thereof, is adopted by reference subject to the amendments, additions and deletions set forth in this chapter. The CPC will apply to all occupancies identified by this code. One true copy of the CPC is on file in the office of the City Clerk and Building Official and is available for public inspection as required by law

**Section 12.120.020. Amendments.**

- A. After due consideration, the City Council finds and determines that local climatic, topographic, and geographical conditions exist as follows: Climatic and Geological. The City has a limited supply of local water some of which is corrosive in nature which requires modification of plumbing fixtures to conserve water and protect the public health and welfare.

B. These local climatic and geological conditions make modifications and changes to the PCP reasonably necessary to provide sufficient and effective protection of life, health and property. Therefore, the CPC is modified, amended, added to, and changed as set forth below:

1. Section 100 is added to read as follows:

**100. Administrative Coordination of Codes.** For the purposes of establishing fees, administering permits and inspections, processing alternate methods of compliance, hearing appeals, and other local administrative purposes, CPC Chapter 1, Division II is replaced by the 2010 California Building Code, Chapter 1 as adopted in the San Buenaventura Municipal Code.

**Note:** For administrative purposes, the 2010 California Building Code applies to both residential and non-residential plumbing applications.

2. Section 600 is added to read as follows:

**600. Sub-Metering Required.** San Buenaventura Municipal Code sections 22.130.015, 22.130.030, 22.130.050 require sub-metering domestic water supplies serving multiple residential and non-residential units within the same building. Visit [www.municode.com](http://www.municode.com) on the Internet or the City Hall permit counter for copies of these municipal code sections.

3. Section 604.2 is amended to read as follows:

**604.2. Use Of Copper Tubing.** Copper tube for water piping will have a weight of not less than Type L.

4. Section 611.5 is added to read as follows:

**611.5 Water Softener Loop.** Each single-family and multi-family dwelling unit will have its water distribution and drainage system designed to allow for connection to water softener equipment. The connection will be by means of an exposed, readily accessible plumbing loop or by other means approved by the administrative authority. The water softener discharge will terminate into an approved plumbing receptor.

EXCEPTION: Apartment units (excluding condominiums) with a common water meter and common main water line.

5. Section 713.4.1 is added to read as follows:

**713.4.1 Economic Hardship - Sewer System Unavailable.** When the applicant seeks to install a new alternate private sewage disposal system or to repair/replace an alternate private sewage disposal system and the public sewer

is located more than two hundred (200) feet from any property line and/or connection is not available from the sewer service agency, the public sewer may be considered as not being available when it has been adequately demonstrated to the satisfaction of the Administrative Authority that the total cost of connecting to the public sewer would be at least one and one half times the total cost of the alternative private sewage disposal system.

6. Section 1014.1 is amended to add the following sentence at the end of the paragraph:

All approved grease traps shall also meet the requirements of other Department and Divisions of the City.

7. Section 1110 is added to read as follows:

**1110.0 General.** The following regulatory language is based on the International Association of Plumbing and Mechanical Officials (IAPMO) Green Plumbing & Mechanical Code.

**1110.1 Scope.** The provisions of this chapter shall apply to the construction, alteration, and repair of alternate water source systems for non-potable applications.

**1110.1.1 Allowable Use of Alternate Water.** Where approved or required by the Building Official, alternate water sources; rainwater, shall be permitted to be used in lieu of potable water for the applications identified in this chapter.

**1110.2 System Design.** Alternate water source systems complying with this chapter shall be designed by a person registered or licensed to perform plumbing design work. Components, piping, and fittings used in any alternate water source system shall be listed.

**EXCEPTIONS:**

- (1) A person registered or licensed to perform plumbing design work is not required to design rainwater catchment systems used for irrigation with a maximum storage capacity of 360 gallons (1,363 L).
- (2) A person registered or licensed to perform plumbing design work is not required to design rainwater catchment systems for single family dwellings where all outlets, piping, and system components are located on the exterior of the building.

**1110.3 Permit.** It shall be unlawful for any person to construct, install, alter, or cause to be constructed, installed, or altered any alternate water source system in

a building or on a premise without first obtaining a permit to do such work from the Building Official.

**EXCEPTIONS:**

- (1) A permit is not required for exterior rainwater catchment systems used for outdoor drip and subsurface irrigation with a maximum storage capacity of 360 gallons (1,363 L).
- (2) A plumbing permit is not required for rainwater catchment systems for single family dwellings where all outlets, piping, and system components are located on the exterior of the building. This does not exempt the need for permits if required for electrical connections, tank supports, or enclosures.

**1110.4 Component Identification.** System components shall be properly identified as to the manufacturer.

**1110.5 Maintenance and Inspection.** Alternate water source systems and components shall be inspected and maintained in accordance with Section 1110.5.1 through Section 1110.5.3.

**1110.5.1 Frequency.** Alternate water source systems and components shall be inspected and maintained in accordance with Table 1110.5 unless more frequent inspection and maintenance is required by the manufacturer.

**1110.5.2 Maintenance Log.** A maintenance log for rainwater is required to have a permit in accordance with Section 1110.3 and shall be maintained by the property owner and be available for inspection. The property owner or designated appointee shall ensure that a record of testing, inspection and maintenance as required by Table 1110.5 is maintained in the log. The log will indicate the frequency of inspection and maintenance for each system.

**1110.5.3 Maintenance Responsibility.** The required maintenance and inspection of alternate water source systems shall be the responsibility of the property owner, unless otherwise required by the Building Official.

**1110.6 Operation and Maintenance Manual.** An operation and maintenance manual for rainwater systems required to have a permit in accordance with Section 1110.3 shall be supplied to the building owner by the system designer. The operating and maintenance manual shall include the following:

- (1) Detailed diagram of the entire system and the location of system components.
- (2) Instructions on operating and maintaining the system.

- (3) Details on maintaining the required water quality as determined by the Building Official.
- (4) Details on deactivating the system for maintenance, repair, or other purposes.
- (5) Applicable testing, inspection, and maintenance frequencies as required by Table 1110.5.
- (6) A method of contacting the manufacturer(s).

**1110.7 Minimum Water Quality Requirements.** The minimum water quality for alternate water source systems shall meet the applicable water quality requirements for the intended application as determined by the public health Authority Having Jurisdiction. In the absence of water quality requirements, the EPA/625/R-04/108 contains recommended water reuse guidelines to assist regulatory agencies develop, revise, or expand alternate water source water quality standards.

**TABLE 1110.5  
MINIMUM ALTERNATE WATER SOURCE TESTING, INSPECTION, AND MAINTENANCE  
FREQUENCY**

| DESCRIPTION   | MINIMUM FREQUENCY   |
|---|---|
| Inspect and clean filters and screens, and replace (if necessary)   | Every 3 months  |
| Inspect and verify that disinfection, filters and water quality treatment devices and systems are operational and maintaining minimum water quality requirements as determined by the Authority Having Jurisdiction | In accordance with manufacturer's instructions, and the Authority Having Jurisdiction |
| Inspect and clear debris from rain- water gutters, downspouts, and roof washers   | Every 6 months  |
| Inspect and clear debris from roof or other aboveground rainwater collection surfaces   | Every 6 months  |
| Remove tree branches and vegetation overhanging roof or other aboveground rainwater collection surfaces   | As needed   |
| Inspect pumps and verify operation  | After initial installation and every 12 months thereafter                             |
| Inspect valves and verify operation   | After initial installation and every 12 months thereafter                             |
| Inspect pressure tanks and verify operation   | After initial installation and every 12 months thereafter                             |
| Clear debris from and inspect storage tanks, locking devices, and verify operation  | After initial installation and every 12 months thereafter                             |
| Inspect caution labels and marking  | After initial installation and every 12 months thereafter                             |
| Inspect and maintain mulch basins for gray water irrigation systems   | As needed to maintain mulch depth and prevent ponding and runoff                      |
| Cross-connection inspection and test*   | After initial installation and every 12 months thereafter                             |

\* The cross-connection test shall be performed in the presence of the Authority Having Jurisdiction in accordance with the requirements of this Chapter.

**EXCEPTIONS:**

- (1) Water treatment is not required for rainwater catchment systems used for aboveground irrigation with a maximum storage capacity of 360 gallons (1363 L).
- (2) Water treatment is not required for rainwater catchment systems used for subsurface or drip irrigation.

**1110.8 Material Compatibility.** Alternate water source systems shall be constructed of materials that are compatible with the type of pipe and fitting materials, water treatment, and water conditions in the system.

**1110.9 System Controls.** Controls for pumps, valves, and other devices that contain mercury that come in contact with alternate water source water supply shall not be permitted.

8. Section 1111 is added to read as follows:

**1111.0 Non-Potable Rainwater Catchment Systems.** The following regulatory language is based largely on the International Association of Plumbing and Mechanical Officials (IAPMO) Green Plumbing & Mechanical Code.

**1111.1 General.** The provisions of this section shall apply to the installation, construction, alteration, and repair of rainwater catchments systems intended to supply uses such as water closets, urinals, trap primers for floor drains and floor sinks, irrigation, industrial processes, water features, cooling tower makeup and other uses approved by the Authority Having Jurisdiction. Additional design criteria can be found in the ARC SA/ASPE Rainwater Catchment Design and Installation Standard.

**1111.2 Plumbing Plan Submission.** No permit for any rainwater catchment system requiring a permit shall be issued until complete plumbing plans, with appropriate data satisfactory to the Building Official, have been submitted and approved. No changes or connections shall be made to either the rainwater catchment or the potable water system within any site containing a rainwater catchment water system without approval by the Authority Having Jurisdiction.

**1111.3 System Changes.** No changes or connections shall be made to either the rainwater catchment system or the potable water system within any site containing a rainwater catchment system requiring a permit without approval by the Building Official.

**1111.4 Connections to Potable or Reclaimed (Recycled) Water Systems.** Rainwater catchment systems shall have no direct connection to any potable water supply or alternate water source system. Potable or reclaimed (recycled) water is permitted to be used as makeup water for a rainwater catchment system provided the potable or reclaimed (recycled) water supply connection is protected by an air gap or reduced-pressure principle backflow prevention device in accordance with the plumbing code.

**1111.5 Initial Cross-Connection Test.** Where any portion of a rainwater catchment system is installed within a building, a cross-connection test is required in

accordance with 1111.11.2. Before the building is occupied or the system is activated, the installer shall perform the initial cross-connection test in the presence of the Authority Having Jurisdiction. The test shall be ruled successful by the Building Official before final approval is granted.

**1111.6 Sizing.** Rainwater catchment system distribution piping for indoor applications shall be sized as outlined in this supplement for sizing potable water piping. The design and size of rainwater drains, gutters, conductors, and leaders shall be in accordance with the plumbing code.

**1111.7 Rainwater Catchment System Materials.** Rainwater catchment system materials shall be in accordance with Section 1111.7.1 through Section 1111.7.4.

**1111.7.1 Water Supply and Distribution Materials.** Rainwater catchment water supply and distribution materials shall comply with the requirements of the plumbing code for potable water supply and distribution systems, unless otherwise provided for in this section.

**1111.7.2 Rainwater Catchment System Drainage Materials.** Materials used in rainwater catchment drainage systems, including gutters, downspouts, conductors, and leaders shall comply with the requirements of the plumbing code for storm drainage.

**1111.7.3 Storage Tanks.** Rainwater storage tanks shall be in accordance with Section 1111.9.5.

**1111.7.4 Collection Surfaces.** The collection surface shall be constructed of a hard, impervious material.

**1111.8 Rainwater Catchment Water System Color and Marking Information.** Rainwater catchment systems shall have a colored background in accordance with the plumbing code. Rainwater catchment systems shall be marked, in lettering in accordance with the plumbing code, with the words: "CAUTION: NON-POTABLE RAINWATER WATER, DO NOT DRINK."

**1111.9 Design and Installation.**

**1111.9.1 Outside Hose Bibs.** Outside hose bibs shall be allowed on rainwater piping systems. Hose bibs supplying rainwater shall be marked with the words: "CAUTION: NON-POTABLE WATER, DO NOT DRINK" and the symbol in Figure 503.9.

**1111.9.2 Deactivation and Drainage for Cross-connection Test.** The rainwater catchment system and the potable water system within the building shall be provided with the required appurtenances (e.g., valves, air or vacuum relief

valves, etc.) to allow for deactivation or drainage as required for cross-connection test in Section 1111.11.2.

**1111.9.3 Collection Surfaces.** Rainwater shall be collected from roof surfaces. Rainwater catchment system shall not collect rainwater from:

- (1) Vehicular parking surfaces.
- (2) Surface water runoff.
- (3) Bodies of standing water.

**1111.9.3.1 Prohibited Discharges.** Overflows and bleed-off pipes from roof-mounted equipment and appliances shall not discharge onto roof surfaces that are intended to collect rainwater.

**1111.9.4 Minimum Water Quality.** The minimum water quality for harvested rainwater shall meet the applicable water quality requirements for the intended applications as determined by the Building Official. No treatment is required for rainwater used for subsurface or non-sprinkled surface irrigation where the maximum storage volume is less than 360 gallons (1,363 L).

**1111.9.5 Rainwater Storage Tanks.** Rainwater storage tanks shall be constructed and installed in accordance with Section 1111.9.5.1 through Section 1111.9.5.7.

**1111.9.5.1 Construction.** Rainwater storage shall be constructed of solid, durable materials not subject to excessive corrosion or decay and shall be watertight. Storage tanks shall be approved by the Building Official, provided such tanks comply with approved applicable standards.

**1111.9.5.2 Location.** Rainwater storage tanks shall be permitted to be installed above or below grade.

**1111.9.5.3 Above Grade.** Above grade storage tanks shall be of an opaque material, approved for above-ground use in direct sunlight or shall be shielded from direct sunlight. Tanks shall be installed in an accessible location to allow for inspection and cleaning. The tank shall be installed on a foundation or platform that is constructed to accommodate all loads in accordance with the building code.

**1111.9.5.4 Below Grade.** Rainwater storage tanks installed below grade shall be structurally designed to withstand all anticipated earth or other loads. Holding tank covers shall be capable of supporting an earth load of not less than 300 pounds per square foot (lb/ft<sup>2</sup>) (1,465 kg/m<sup>2</sup>) when the tank is designed for underground installation. Below grade rainwater tanks installed underground shall be provided with manholes. The manhole opening shall be located a minimum of 4 inches (102 mm) above the surrounding grade. The surrounding grade shall be sloped away

from the manhole. Underground tanks shall be ballasted, anchored, or otherwise secured, to prevent the tank from floating out of the ground when empty. The combined weight of the tank and hold down system should meet or exceed the buoyancy force of the tank.

**1111.9.5.5 Drainage and Overflow.** Rainwater storage tanks shall be provided with a means of draining and cleaning. The overflow drain shall not be equipped with a shutoff valve. The overflow outlet shall discharge as required by the plumbing code for storm drainage systems. Where discharging to the storm drainage system, the overflow drain shall be protected from backflow of the storm drainage system by a backwater valve or other approved method.

**1111.9.5.5.1 Overflow Outlet Size.** The overflow outlet shall be sized to accommodate the flow of the rainwater entering the tank and not less than the aggregate cross-sectional area of all inflow pipes.

**1111.9.5.6 Opening and Access Protection.**

**1111.9.5.6.1 Animals and Insects.** Rainwater tank openings shall be protected to prevent the entrance of insects, birds, or rodents into the tank.

**1111.9.5.6.2 Human Access.** Rainwater tank access openings exceeding 12 inches (305 mm) in diameter shall be secured to prevent tampering and unintended entry by either a lockable device or other approved method.

**1111.9.5.7 Marking.** Rainwater tanks shall be permanently marked with the capacity and the language: "NON-POTABLE RAINWATER." Where openings are provided to allow a person to enter the tank, the opening shall be marked with the following language: "DANGER-CONFINED SPACE."

**1111.9.6 Pumps.** Pumps serving rainwater catchment systems shall be listed. Pumps supplying water to water closets, urinals, and trap primers shall be capable of delivering not less than 15 psi (103 kPa) residual pressure at the highest and most remote outlet served. Where the water pressure in the rainwater supply system within the building exceeds 80 psi (552 kPa), a pressure reducing valve reducing the pressure to 80 psi (552 kPa) or less to all water outlets in the building shall be installed in accordance with the plumbing code.

**1111.9.7 Roof Drains.** Primary and secondary roof drains, conductors, leaders, and gutters shall be designed and installed in accordance with the plumbing code.

**1111.9.8 Water Quality Devices and Equipment.** Devices and equipment used to treat rainwater to maintain the minimum water quality requirements determined by the building official, shall be listed or labeled (third-party certified) by a listing

agency (accredited conformity assessment body) and approved for the intended application.

**1111.9.9 Freeze Protection.** Tanks and piping installed in locations subject to freezing shall be provided with an adequate means of freeze protection.

**1111.9.10 Debris Removal.** The rainwater catchment conveyance system shall be equipped with a debris excluder or other approved means to prevent the accumulation of leaves, needles, other debris and sediment from entering the storage tank. Devices or methods used to remove debris or sediment shall be accessible and sized and installed in accordance with manufacturer's installation instructions.

**1111.9.11 Required Filters.** A filter permitting the passage of particulates no larger than 100 microns (100  $\mu\text{m}$ ) shall be provided for rainwater supplied to water closets, urinals, trap primers, and drip irrigation system.

**1111.9.12 Roof Gutters.** Gutters shall maintain a minimum slope and be sized in accordance with the plumbing code.

**1111.10 Signs.** Signs in buildings using rainwater water shall be in accordance with Section 1111.10.1 and Section 1111.10.2.

**1111.10.1 Commercial, Industrial, and Institutional Restroom Signs.** A sign shall be installed in all restrooms in commercial, industrial, and institutional occupancies using non-potable rainwater for water closets, urinals or both. Each sign shall contain 1/2-inch (12.7 mm) letters of a highly visible color on a contrasting background. The location of the sign(s) shall be such that the sign(s) shall be visible to all users. The number and location of the signs shall be approved by the Building Official and shall contain the following text: TO CONSERVE WATER, THIS BUILDING USES RAINWATER TO FLUSH TOILETS AND URINALS.

**1111.10.2 Equipment Room Signs.** Each equipment room containing non-potable rainwater equipment shall have a sign posted with the following wording in 1 inch (25.4 mm) letters:

CAUTION NON-POTABLE RAINWATER, DO NOT DRINK. DO NOT CONNECT TO DRINKING WATER SYSTEM. NOTICE: CONTACT BUILDING MANAGEMENT BEFORE PERFORMING ANY WORK ON THIS WATER SYSTEM.

This sign shall be posted in a location that is visible to anyone working on or near rainwater water equipment.

**1111.11 Inspection and Testing.** Rainwater catchment systems shall be inspected and tested in accordance with Section 1111.11.1 through Section 1111.11.2.

**1111.11.1 Supply System Inspection and Test.** Rainwater catchment systems shall be inspected and tested in accordance with the applicable provisions of the plumbing code for testing of potable water and storm drainage systems.

**1111.11.2 Annual Cross-Connection Inspection and Testing.** An initial and subsequent annual inspection and test required by Section 1111.5 shall be performed on both the potable and rainwater catchment water systems. The potable and rainwater catchment water system shall be isolated from each other and independently inspected and tested to ensure there is no cross-connection in accordance with Section 1111.11.2.1 through Section 1111.11.2.4.

**1111.11.2.1 Visual System Inspection.** Prior to commencing the cross-connection testing, a dual system inspection shall be conducted by the Building Official and other authorities having jurisdiction as follows:

- (1) Pumps, equipment, equipment room signs, and exposed piping in equipment room shall be checked.

**1111.11.2.2 Cross-Connection Test.** The procedure for determining cross-connection shall be followed by the applicant in the presence of the Building Official and other authorities having jurisdiction to determine whether a cross-connection has occurred as follows:

- (1) The potable water system shall be activated and pressurized. The rainwater catchment water system shall be shut down and completely drained. The potable water system shall remain pressurized for a minimum period of time specified by the Building Official while the rainwater catchment water system is empty. The minimum period the rainwater catchment water system is to remain depressurized shall be determined on a case-by-case basis, taking into account the size and complexity of the potable and rainwater catchment water distribution systems, but in no case shall that period be less than 1 hour.
- (2) Fixtures, potable and rainwater shall be tested and inspected for flow. Flow from any rainwater catchment water system outlet shall not indicate a cross-connection. No flow from a potable water outlet shall indicate that it is be connected to the rainwater water system.
- (3) The drain on the rainwater catchment water system shall be checked for flow during the test and at the end of the period.
- (4) The potable water system shall then be completely drained.

- (5) The rainwater catchment water system shall then be activated and pressurized.
- (6) The rainwater catchment water system shall remain pressurized for a minimum period of time specified by the Building Official while the potable water system is empty. The minimum period the potable water system is to remain depressurized shall be determined on a case-by-case basis, but in no case shall that period be less than 1 hour.
- (7) Fixtures, potable and rainwater catchment, shall be tested and inspected for flow. Flow from any potable water system outlet shall not indicate a cross-connection. No flow from a rainwater catchment water outlet shall indicate that it is connected to the potable water system.
- (8) The drain on the potable water system shall be checked for flow during the test and at the end of the period.
- (9) If there is no flow detected in any of the fixtures which would indicate a cross-connection, the potable water system shall be repressurized.

**1111.11.2.3 Discovery of Cross-Connection.** In the event that a cross-connection is discovered, the following procedure, in the presence of the Building Official, shall be activated immediately:

- (1) Rainwater catchment water piping to the building shall be shut down at the meter, and the rainwater water riser shall be drained.
- (2) Potable water piping to the building shall be shut down at the meter.
- (3) The cross-connection shall be uncovered and disconnected.
- (4) The building shall be retested following procedures listed in Section 1111.11.2.1 and Section 1111.11.2.2.
- (5) The potable water system shall be chlorinated with 50 ppm chlorine for 24 hours.
- (6) The potable water system shall be flushed after 24 hours, and a standard bacteriological test shall be performed. If test results are acceptable, the potable water system shall be permitted to be recharged.

**1111.11.2.4 Annual Inspection.** An annual inspection of the rainwater catchment water system, following the procedures listed in Section 1111.11.2.1 shall be required. Annual cross-connection testing, following the procedures listed in Section 1111.11.2.2 shall be required by the Building Official, unless site conditions do not

require it. In no event shall the test occur less than once in 4 years. Alternate testing requirements shall be permitted by the Building Official

9. Section K1.0 (A) of Appendix K is amended to read as follows:

- a. Where permitted by Section 713.0, the building sewer shall be permitted to be connected to a private sewage disposal system complying with the provisions of this appendix. The type of system shall be determined on the basis of information contained in the soil report concerning location, soil porosity, and ground water level, and shall be designed to receive all sewage from the property. The soils report shall be performed under the supervision of a California – registered environmental health specialist, Civil Engineer, Geologist, or Engineering Geologist. The system, except as otherwise approved, shall consist of a septic tank with effluent discharging into a subsurface disposal field, into (1) or more seepage pits, or into a combination of subsurface disposal field and seepage pits. The Building Official shall be permitted to grant exceptions to the provisions of this appendix for permitted structures that have been destroyed due to fire or natural disaster and that cannot be reconstructed in compliance with these provisions provided that such exceptions are the minimum necessary.

10. Section K4.0 (A) and (B) of Appendix K are amended to read as follows:

- (A) Disposal field and seepage pits shall be sized in accordance with the percolation test or analyses required by subsection (B) of this section.
- (B) In order to determine the absorption qualities of soils, the proposed site shall be subjected to percolation test and/ or hydrometer analyses performed under the supervision of a California- registered environmental health specialist, Civil Engineer, Geologist or Engineering Geologist. The Building Official shall approve such test that meet recognized standards at their discretion.

11. Section K8.0 is deleted entirely.

12. Section K9.0 (H) of Appendix K is added to read as follows:

- (H) The discharge of industrial waste into a soil absorption system shall be prohibited unless specifically approved by the Building Official.

**SECTION 3: CALIFORNIA ENVIRONMENTAL QUALITY ACT EXEMPTION.** The City Council determines that this ordinance is exempt from review under the California Environmental Quality Act (California Public Resources Code §§ 21000, *et seq.*, "CEQA") and the regulations promulgated thereunder (14 California Code of Regulations §§ 15000, *et seq.*, the "State CEQA Guidelines") because it consists only of

minor revisions and clarifications to an existing code of construction-related regulations and specification of procedures related thereto and will not have the effect of deleting or substantially changing any regulatory standards or findings required therefor. This ordinance, therefore, is an action being taken for enhanced protection of the environment and that does not have the potential to cause significant effects on the environment.

SECTION 4: SAVINGS CLAUSE. Repeal of any provision of the SBMC or any other city ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, this Ordinance's effective date. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

SECTION 5: SEVERABILITY. If any part of this Ordinance is deemed invalid by a court of competent jurisdiction, the city council intends that such decision will not affect the validity of the remaining portions of this Ordinance and, to this end, the provisions of this Ordinance are severable.

SECTION 6: VALIDITY OF PREVIOUS CODE SECTIONS. If this entire Ordinance is repealed or is deemed invalid by a court of competent jurisdiction, such action will render this Ordinance void and cause such SBMC Ordinance previously in effect prior to amendment by this Ordinance to remain in full force and effect for all purposes.

SECTION 7: EFFECTIVE DATE. This Ordinance will take effect on the 31<sup>st</sup> day following its final passage and adoption or on January 1, 2011, which ever is later.

PASSED AND ADOPTED this \_\_\_\_ day of November 2010.

Bill Fulton, Mayor

ATTEST:

Mabi Covarrubias Plisky  
City Clerk

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Ariel Pierre Calonne  
City Attorney

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**ORDINANCE NO. 2010-\_\_\_**

**AN ORDINANCE OF THE COUNCIL OF THE CITY OF  
SAN BUENAVENTURA ADOPTING BY REFERENCE THE  
2010 EDITION OF THE CALIFORNIA RESIDENTIAL  
CODE AND AMENDING CERTAIN PROVISIONS  
THEREOF THROUGH EXPRESS FINDINGS OF LOCAL  
NECESSITY**

The Council of the City of San Buenaventura does ordain as follows:

**SECTION 1: FINDINGS.** The City Council finds that certain local climatic, geological, or topographical conditions exist as follows:

A. Climatic. The City experiences periods of high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the fire department may have great difficulty in controlling fires occurring in hillside brush areas as well as structures not having built-in fire protection. The City also experiences periods of intense rainfall, which create the need for special drainage precautions.

B. Geological. The City is located in an area with expansive soils and includes hillsides that are subject to mudflows and unstable conditions. Special foundation considerations and soils analyses requirements must be in place to provide a reasonable degree of structural integrity for buildings constructed in these areas. Several earthquake faults run through the City that, when active, will impose unique lateral loads on structures in the City. Special lateral structural design criteria are needed to resist these lateral loads imposed by active earthquake faults in the City.

C. Topographical. The City has hillside and flat land developments that require special drainage precautions, as well as a system of roadways and highways that generate traffic noise. Structures would be subject to water damage without special requirements addressing site drainage.

D. After due consideration, the City Council finds and determines that these local climatic, geological, and topographical conditions make modifications and changes to the 2010 Edition of the California Residential Code reasonably necessary to provide sufficient and effective protection of life, health, and property.

**SECTION 2:** Chapter 12.110 of Division 12 of the San Buenaventura Municipal Code (“SBMC”) is amended in its entirety to read as follows:

## Residential Building Standards

### Section 12.110.010. Adoption of California Residential Code, 2010 Edition.

Pursuant to California Government Code sections 50022.1 to 50022.8, inclusive, Part 2.5 of Title 24 of the California Code of Regulations, known as the California Residential Code, 2010 Edition ("CRC"), including all standard printed Chapters and Sections (whether adopted by the State matrix or not), is adopted by reference subject to the amendments, additions, and deletions set forth in this chapter. The CRC will apply to residential occupancies identified by this code. One true copy of the CRC is on file in the office of the City Clerk and Building Official and is available for public inspection as required by law.

### Section 12.110.020. Amendments.

A. The city council finds that certain local climatic, geological, and/or topographical conditions exist as follows:

1. Climatic. The City experiences periods of high temperatures accompanied by low humidity and high winds each year. These conditions could create an environment in which the fire department may have great difficulty in controlling fires occurring in hillside brush areas as well as structures not having built-in fire protection. The city also experiences periods of intense rainfall, which create the need for special drainage precautions.
2. Geological. The City is located in an area with expansive soils and includes hillsides that are subject to mudflows and unstable conditions. Special foundation considerations and soils analyses requirements must be in place to provide a reasonable degree of structural integrity for buildings constructed in these areas. Several earthquake faults run through the City that, when active, will impose unique lateral loads on structures in the City. Special lateral structural design criteria are needed to resist these lateral loads imposed by active earthquake faults in the City.
3. Topographical. The City has hillside and flat land developments that require special drainage precautions, as well as a system of roadways and highways that generate traffic noise. Structures would be subject to water damage without special requirements addressing site drainage.

B. After due consideration, the city council finds and determines that these local climatic, geological, and topographical conditions make modifications and changes to the CRC reasonably necessary to provide sufficient and effective protection of life, health, and property. The CRC is therefore modified, amended, added to, and changed as set forth below:

1. Chapter 1, Section R102.7, is amended to read as follows:

R102.7 Property Maintenance. The provisions of the most recently adopted Ventura City Property Maintenance Code (Article 6 of Chapter 12.310 of Division 12 of the San Buenaventura Municipal Code, as amended) shall apply to existing structures and premises; equipment and facilities; light, ventilation, space heating, sanitation, life and fire safety hazards; responsibilities of owners, operators, and occupants; and occupancy of existing premises and structures.

2. Section R102.8 is added to read as follows:

#### R102.8 Post-Damage Assessment.

R102.8.1 Adoption and Intent. This section establishes regulations as amendments to the building code for the expeditious assessment and marking of damaged structures. This section also establishes standard placards to be used to indicate the condition of a structure for continued occupancy. The section further authorizes the Building Official and his or her authorized representatives to post the appropriate placard at each entry point to a building or structure upon completion of a safety assessment.

R102.8.2 Definitions. For the purposes of this section, the following definition applies:

R102.8.3 Safety Assessment means a visual, non-destructive examination of a building or structure for the purpose of determining the condition for continued occupancy.

#### R102.8.4 Placards.

R102.8.4.1 Descriptions. The following are verbal descriptions of the official jurisdiction placards to be used to designate the condition for continued occupancy of buildings or structures.

(1) INSPECTED - Lawful Occupancy Permitted is to be posted on any building or structure wherein no apparent structural hazard has been found. This placard is not intended to mean that there is no damage to the building or structure.

(2) RESTRICTED USE is to be posted on each building or structure that has been damaged wherein the damage has resulted in some form of restriction to the continued occupancy. The individual who posts this placard will note in general terms the type of damage encountered and will clearly and concisely note the restrictions on continued occupancy.

(3) UNSAFE - Do Not Enter or Occupy is to be posted on each building or structure that has been damaged such that continued occupancy poses a threat to life safety. Buildings or structures posted with this placard shall not be entered under any circumstance except as authorized in writing by the Building Official, or his or her authorized representative. Safety assessment teams shall be authorized to enter these buildings at any time. This placard is not to be used or considered as a demolition order.

The individual who posts this placard will note in general terms the type of damage encountered.

R102.8.4.2 Reference. This ordinance number, the name of the jurisdiction, its address, and phone number shall be permanently affixed to each placard.

R102.8.4.3 Removal of Placards. Once it has been attached to a building or structure, a placard is not to be removed, altered or covered until done so by an authorized representative of the Building Official. It shall be unlawful for any person, firm or corporation to alter, remove, cover or deface a placard unless authorized pursuant to this section.

3. Section R103.3 is amended to read as follows:

R103.3 Deputies. In accordance with the prescribed procedures of this jurisdiction and with the concurrence of the appointing authority, the Building Official shall have the authority to appoint a Deputy Building Official, the related technical officers, inspectors, plan examiners and other employees. Such employees shall have powers as delegated by the Building Official.

4. Section R104.5 is amended to read as follows:

R104.5 Identification. The Building Official, and his/her representatives, shall carry and display, in a readily visible location, City identification that shows the City, Department, Division, employee name, and employee rank at all times while conducting City business.

5. Section R105.2 Item 1 is amended as follows:

- 1) A one-story detached accessory building used as a tool and/or storage shed, playhouse or similar use, provided it meets the following:
  - a. 120 sq. ft. maximum floor area.
  - b. 8 feet maximum top plate height.
  - c. 4:12 maximum pitch roof.
  - d. Has no regulated plumbing or electrical or mechanical equipment.
  - e. Is located in a residential zone.
  - f. No more than one such structure per lot.

6. Section R105.2 Item 2 is amended as follows:

- 2) Residential fences of wood, chain link or similar materials that are not more than 6 foot in height from grade as defined in this code.

7. Section R105.2 Item 5 is amended as follows:

8. 5) Residential sidewalks and residential driveways not more than 30 inches above grade and not over any basement or story, and not part of a required Accessible Route of Travel as defined in this code.

Section R105.2 Mechanical: Item 7 is amended to read as follows:

7) Nationally listed plug and cord, self-contained, refrigeration systems of 1 horsepower or less.

9. Section R105.2.1 is amended to read as follows:

105.2.1 In emergency situations, where emergency equipment replacement or repair must be performed, the person who performs the emergency work shall make permit application for the emergency work within one working business day following the emergency replacement or repair.

10. Section R105.3 Item 4 is amended to read as follows:

4) Be accompanied by construction documents, fees, and other information as required by sections R106, R108 and R109 of this code.

11. Section R105.3 Item 8 is added to read as follows:

8) Have obtained Planning Division approval to make application for building permit.

12. Section R105.3 Item 9 is added to read as follows:

9) Be filed by appropriate state-licensed contractors or their authorized representatives, except for work on 1-2 unit dwellings, including structures accessory thereto, which may be filed by owner builders when approved by the Building Official.

13. Section R105.5 is amended to read as follows:

R105.5 Expiration of Permit. Every permit issued by the Building Official under the provisions of this Code will expire by limitation and become null and void, if the building or work authorized by such permit is not commenced:

- a. within six (6) months after the date such permit was issued, or
- b. if the building or work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of six (6) months, or
- c. if the work authorized by such permit does not receive final inspection approval within three (3) years from the date the permit was issued, or
- d. if the abatement deadline prescribed by the City's Code Enforcement section has passed.

Before such work may be recommenced, a new permit will first be obtained to do so. The fee therefore, will be based upon the extent of work remaining to complete the project, but such fee will not exceed one-half the current permit fee providing no changes have been made or will be made in the original plan and specifications for such work; and provided further that such suspension or abandonment has not exceeded one (1) year. In order to renew action on a permit after expiration exceeds one year, the permittee will pay a new full permit fee. When the permittee is unable to perform work within the time required by this section, for good cause shown, any permittee holding an unexpired permit may apply for an extension of the time within which the permittee may perform work under that permit. The Building Official may, without requiring payment of an additional permit fee, extend the time for action by the permittee for periods not exceeding six (6) months upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. For purposes of this Section, the time period during which a project is deemed suspended or abandoned will be measured as elapsed time between approved REQUIRED INSPECTIONS as delineated in this code.

14. Section R108.5 is amended to read as follows:

R108.5 Fee Refunds. The Building Official may authorize refunding of a fee paid hereunder which was erroneously paid or collected.

The Building Official may authorize refunding of not more than 80 percent of the permit fee when no work has been done under a permit issued in accordance with this code.

The Building Official may authorize refunding of not more than 80 percent of the Plan Check Deposit fee paid when an application for a permit for which a plan check deposit has been paid is withdrawn or cancelled before any examination time has been expended.

The Building Official shall not authorize the refunding of any fee paid, except upon written application filed by the original permittee not later than 180 days after the date of the fee payment.

15. Section R108.7 is added and reads as follows:

R108.7 Fees. fees will be as established by city council resolution or ordinance. The city council will hold a public hearing upon notice on the resolution or on any proposed amendments thereto. The resolution or any amendment thereto will take effect on the date approved by city council adoption.

16. Section R112 is amended to read as follows:

R112. Local Appeals Board. A Local Appeals Board (also identified as "Board" or "Board of Appeals") is established to hear and decide appeals of orders, decisions, or determinations made by the Building Official or Fire Marshal relative to the application and interpretation of the building requirements of the city. The Board will consist of seven members who will be appointed by the city council. In addition, the Building Official, or his or her designee, will be an ex-officio member and will act as secretary to the Board. Five of the voting members will constitute a quorum; the ex-officio member will have no vote. Each of the voting members will be qualified by experience and training to consider matters pertaining to construction regulations and each will be an actual resident of the City during his/her incumbency. Whenever possible, the Board will be composed of members representing the following specialties: General Contractor, Licensed Professional Engineer, Licensed Architect, Handicapped Accessibility Advocate, Planning/Zoning Professional, Licensed Real Estate Professional. If a Board member ceases at any time to be an actual resident of the City, the office held by that member will be deemed vacant. Of the members of the Board first appointed, three will be appointed for initial terms of four years. Their successors will be appointed for terms of four years. Each member will serve until his or her successor is appointed. The Board will adopt reasonable rules and regulations for conducting its business and will render all decisions and findings in writing to the appellant with a copy to the Building Official. The Board may recommend to the city council such new legislation as it may deem appropriate. The Local Appeals Board will serve as the appellate board or body whenever any of the codes adopted by reference provide for same. The Local Appeals Board will also act as the Appeals Board for the Earthquake Hazard Reduction Ordinance. Appeals to the Board will be processed in accordance with administrative policies and on application forms provided by the Building Official. A fee established by city council resolution will accompany an application for a hearing before the Board of Appeals. Copies of any rules and regulations adopted by the Board will be delivered to the Building Official, who will make them freely accessible to the public. The Board of Appeals will have no authority relative to interpretation of the administrative provisions of this code nor will the Board be empowered to waive requirements of this code or the technical codes.

17. Section R115 is added to read as follows:

R115 Notice of Non-Compliance. Whenever the Building Official determines that work has been done on, over, or in any property in the City of San Buenaventura without the required permit, or has otherwise not been completed in accordance with

the State Building Standards as adopted by the City of San Buenaventura, the Building Official may record a Notice of Non-Compliance for the subject property with the County Recorder after notifying the subject property owner of record, in writing, at least 30-days prior to recording. The Notice of Non-Compliance shall describe the property, set forth the non-compliance conditions, and shall identify the property owner given notice and that owners mailing address from the currently available County tax roll.

The Building Official shall submit a Release of Non-Compliance to the County Recorder when it is determined that non-compliant conditions have been completely corrected in accordance with the City Municipal Code and all other Local, State, and Federal regulations. A fee, established by City Council, may be charged to the property owner for the preparation of the Release of Non-Compliance document. Payment of this fee and all other fees associated with the enforcement case are prerequisites to delivery of the Release of Non-Compliance to the property owner. The Building Official may, at his/her discretion, enter into a written agreement with buyers of a Noticed property such that a Release of Non-Compliance is issued for a specific period of time in order to facilitate the purchase of the property and abatement of the violations. In these situations, payment of all other fees associated with the enforcement case may follow issuance of the Release of Non-Compliance.

18. Section R116 is added to read as follows:

R116. Conflicts with other City Codes and Ordinances. When a conflict exists between City Planning and Zoning regulations and this section, the City Planning and Zoning regulations will take precedence.

19. Section R117 is added to read as follows:

R117. Fire District. Fire-resistive and fire preventative construction requirements specific to development within the urban wildland interface shall be in accordance with the State Fire Code as adopted by the City's Fire Marshal.

20. Section R313.2 is amended to read as follows:

R313.2 One- and two-family dwelling automatic fire systems. An automatic fire sprinkler system shall be installed in one- and two-family dwellings.

*Exception:* For Additions and alterations to existing buildings see California Fire Code Section L103.2

R313.2.1 (Remains as drafted by the State)

21. Section R401.1 is amended to read as follows:

R401.1 APPLICATION. The provisions of this chapter shall control the design and construction of the foundation and foundation spaces for all buildings. In addition to

the provisions of this chapter, the design and construction of foundations in areas prone to flooding as established by Table R301.2(1) shall meet the provisions of Section R322. Wood foundations shall be designed and installed in accordance with AF&PA PWF.

**EXCEPTION:** The provisions of this chapter shall be permitted to be used for wood foundations only in the following situations:

1. In buildings that have no more than two floors and a roof.
2. When interior basement and foundation walls are constructed at intervals not exceeding 50 feet (15,240 mm).

Wood foundations in Seismic Design Category D<sub>0</sub>, D<sub>1</sub> D<sub>2</sub> and E shall be designed in accordance with accepted engineering practice.

22. Section R402.3.1.2 is amended to read as follows:

R403.1.2 Continuous Footing In Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> AND D<sub>2</sub>. The braced wall panels at exterior walls of buildings located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub> and D<sub>2</sub> shall be supported by continuous footings. All required interior braced wall panels in buildings shall be supported by continuous footings.

23. Section R403.1.3 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> and 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>, D<sub>2</sub> and E 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 (1,219 mm) on center. The vertical bar shall extend to 3 inches (76 mm) 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>, D<sub>2</sub> and E 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 (1,219 mm) 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>, D<sub>2</sub> and E masonry stem walls without solid grout and vertical reinforcing are not permitted.

**EXCEPTION:** In detached one- and two-family dwellings in Seismic Design Categories A, B, and C, which are three stories or less in height and constructed with stud bearing walls, plain concrete footings without longitudinal reinforcement supporting

walls and isolated plain concrete footings supporting columns or pedestals are permitted.

24. Section R403.1.5 is amended to read as follows:

**R403.1.5 Slope.** The top surface of footings shall be level. The bottom surface of footings shall not have a slope exceeding one unit vertical in ten units horizontal (10-percent slope). Footings shall be stepped where it is necessary to change the elevation of the top surface of the footings or where the slope of the bottom surface of the footings will exceed one unit vertical in ten units horizontal (10-percent slope).

For structures located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, D<sub>2</sub>, and E, stepped footings shall be reinforced with four (4) ½-inch diameter (12.7 mm) deformed reinforcing bars. Two bars shall be placed at the top of the footing and two bars shall be placed at the bottom of the footing.

25. Section R404.2 is amended to read as follows:

**R404.2 WOOD FOUNDATION WALLS.** Wood foundation walls shall be constructed in accordance with the provisions of Sections R404.2.1 through R404.2.6 and with the details shown in Figures 403.1(2) and R403.1(3). Wood foundation walls shall not be used for structures located in Seismic Design Categories D<sub>0</sub>, D<sub>1</sub>, D<sub>2</sub>, and E.

26. Section R802.8 is amended to read as follows:

**R802.8 LATERAL SUPPORT.** Roof framing members and ceiling joists having a depth-to-thickness ratio exceeding 2 to 1 based on nominal dimensions shall be provided with lateral support at points of bearing to prevent rotation. For roof rafters with ceiling joists attached per Table R602.3(1), the depth-thickness ratio for the total assembly shall be determined using the combined thickness of the rafter plus the attached ceiling joist.

27. Section R802.10.2 is amended to read as follows:

**R802.10.2 Design.** Wood trusses shall be designed in accordance with accepted engineering practice. The design and manufacture of metal-plate-connected wood trusses shall comply with ANSI/TPI 1. The truss design drawings shall be prepared by a registered professional.

28. Section R902.1 is amended to read as follows:

**R902.1 Roof Covering Materials.** Roofs shall be covered with materials as set forth in Sections R904 and R905. A minimum Class B shall be installed all areas designated by this section. Roof coverings shall be nationally listed and tested in accordance with UL 790 or ASTM E 108.

Additional roof covering fire-resistive or classification requirements as published in the City Fire Code shall supercede the requirements of the above paragraph.

29. Section R902.1.1 is amended to read as follows:

R902.1.1 Roof Coverings Within Very High Fire Hazard Severity Zones. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the addition, alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class A.

30. Section R902.1.2 is amended to read as follows:

R902.1.2 Roof Coverings Within State Responsibility Areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within anyone-year period, the entire roof covering of every new structure, and any roof covering applied in the addition, alteration, repair or replacement of the roof of every existing structure shall be a fire-retardant roof covering that is at least Class A.

31. Section R902.1.3 is amended to read as follows:

R902.1.3 Roof Coverings In All Other Areas. The entire roof covering of every existing structure where more than 50 percent of the total roof area is replaced within any one-year period, the entire roof covering of every new structure, and any roof covering applied in the addition, alteration, repair or replacement of the roof of every existing structure, shall be a fire-retardant roof covering that is at least Class B.

32. Section R902.2 is amended to read as follows:

R902.2 Fire-Retardant-Treated Shingles And Shakes. Fire-retardant-treated wood shakes and shingles are wood shakes and shingles complying with UBC Standard 15-3 or 15-4 which are impregnated by the full-cell vacuum-pressure process with fire-retardant chemicals, and which have been qualified by UBC Standard 15-2 for use on Class A, B or C roofs.

Except as provided in Sections 902.1.1 through 902.1.3, fire-retardant-treated wood shakes and shingles shall not be permitted.

33. Section R1001.3.1 is amended to read as follows:

R1001.3.1 Vertical Reinforcing. For chimneys up to 40 inches (1016 mm) wide, four No.4 continuous vertical bars shall be placed between wythes of solid masonry or within the cells of hollow unit masonry, extended to the bottom third of the footing, turned a minimum 24 inches horizontal and grouted in accordance with Section R609.

Grout shall be prevented from bonding with the flue liner so that the flue liner is free to move with thermal expansion. For chimneys more than 40 inches (1,016 mm) wide, two additional No.4 vertical bars shall be provided for each additional flue incorporated into the chimney or for each additional 40 inches (1,016 mm) in width or fraction thereof.

SECTION 3: CALIFORNIA ENVIRONMENTAL QUALITY ACT EXEMPTION. The city council determines that this ordinance is exempt from review under the California Environmental Quality Act (California Public Resources Code §§ 21000, *et seq.*, "CEQA") and the regulations promulgated thereunder (14 California Code of Regulations §§ 15000, *et seq.*, the "State CEQA Guidelines") because it consists only of minor revisions and clarifications to an existing code of construction-related regulations and specification of procedures related thereto and will not have the effect of deleting or substantially changing any regulatory standards or findings required therefor. This ordinance, therefore, is an action being taken for enhanced protection of the environment and that does not have the potential to cause significant effects on the environment.

SECTION 4: SAVINGS CLAUSE. Repeal of any provision of the SBMC or any other city ordinance herein will not affect any penalty, forfeiture, or liability incurred before, or preclude prosecution and imposition of penalties for any violation occurring before, the effective date of this Ordinance. Any such repealed part will remain in full force and effect for sustaining action or prosecuting violations occurring before the effective date of this Ordinance.

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SECTION 5: EFFECTIVE DATE. This Ordinance will take effect on the 31<sup>st</sup> day following its final passage and adoption or January 1, 2011 whichever is later.

PASSED AND ADOPTED this \_\_\_\_ day of \_\_\_\_\_, 2010.

\_\_\_\_\_  
Bill Fulton, Mayor

ATTEST:

Mabi Covarrubias Plisky  
City Clerk

APPROVED AS TO FORM:

  
\_\_\_\_\_  
Ariel Pierre Calonne  
City Attorney