

BUILDING STANDARDS COMMISSION

2525 Natomas Park Drive, Suite 130
Sacramento, California 95833-2936
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January 10, 2011

Robert L. Woods, S.E., Chief Building Official
Building Division
City of Walnut Creek
1666 North Main Street
Walnut Creek, CA 94596

Dear Mr. Woods:

This letter is to acknowledge receipt on December 17, 2010 of the City of Walnut Creek submittal pertaining to Ordinance NO. 2094 with findings and is acceptable for filing. Per Health and Safety Code Section 17958.8 no modification or change to the California Building Standards Code shall become effective or operative for any purpose until the finding and the modification or change have been filed with the California Building Standards Commission (the Commission).

This letter attests only to the filing of these local modifications with the Commission, which is not authorized by law to determine the merit of the filing.

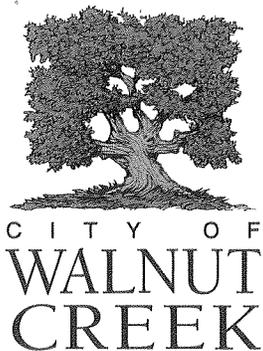
As a reminder, local modifications are specific to a particular edition of the Code. They must be readopted and filed with the Commission in order to remain in effect when the next triennial edition of the Code is published. In addition, should you receive Fire Protection District ordinances for ratification, it is required to submit the ratified ordinances to the Department of Housing and Community Development [H&SC Section 13869.7(c)], attention State Housing Law Program Manager, rather than the Commission.

If you have any questions or need any further information, you may contact me at (916) 263-0916.

Sincerely,


Jane Taylor
Senior Architect

cc: Chron
Local Filings



VIA REGISTERED MAIL

December 14, 2010

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Subject: Resolution Making Findings for Local Amendments and Adopted Ordinance

Dear Building Standards Commission:

Enclosed are the City of Walnut Creek's resolution making findings for amendments to the 2010 California Building Standards Code and the adopted ordinance containing the amendments.

Please contact me at 925-943-5828 if you have any questions.

Sincerely yours,

Robert L. Woods, S.E.
Chief Building Official
Building Division
1666 North Main Street
Walnut Creek, CA 94596
woods@walnut-creek.org

2010 DEC 17 A 9:58
CALIFORNIA BUILDING
STANDARDS COMMISSION

**CITY OF WALNUT CREEK
ORDINANCE NO. 2094**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF WALNUT CREEK
AMENDING TITLES 5 AND 9 OF THE WALNUT CREEK MUNICIPAL CODE RELATING
TO BUILDING AND CONSTRUCTION CODES**

Section 1. Findings.

Pursuant to California Health and Safety Code sections 17958.7 and 19941.5(b), the City Council hereby finds that modifications are reasonably necessary to sections 9-1.05, 9-1.06, and 9-1.07 of the 2010 California Building Code and section 9-20.04 of the 2010 California Residential Code because of the following local geological conditions in the City of Walnut Creek:

The City of Walnut Creek is located in the eastern portion of the San Francisco East Bay area, which is densely populated and located in an area of high seismic activity, as indicated by the United States Geological Survey and California Division of Mines and Geology. The City is located in Seismic Design Category D, one of the highest earthquake risk areas in the United States. Buildings and other structures in Seismic Design Category D can experience major ground shaking and significant seismic damage. The City is in close proximity to the Hayward, Calaveras, Concord, Antioch, and Mt. Diablo faults, as well as other lesser faults. The Concord and Antioch faults have a potential for a Magnitude 6 earthquake, while the Hayward and Calaveras faults have a potential for a Magnitude 7 earthquake.

The Tri-Chapter Uniform Code Committee (TUCC), a committee made up of local and regional building officials, code consultants, architects, engineers, and industry representatives from the three Bay Area International Code Council local chapters (East Bay Chapter, Monterey Bay Chapter, and Peninsula Chapter), has identified three significant inadequacies in the structural provisions of the 2010 California Building Code and one in the 2010 California Residential Code related to seismic performance and recommends four amendments to address the deficiencies. The City finds these amendments necessary and appropriate to minimize damage during moderate to strong earthquake motions.

The amendments are set forth in proposed Municipal Code sections 9-1.05, 9-1.06, 9-1.07, and 9-20.04. The amendment in Section 9-1.05 addresses an importance factor, *I*, that was inadvertently omitted from the stability coefficient equation in evaluating P-delta effects. The amendment in Section 9-1.06 addresses the lack of quality control during construction of isolated spread concrete footings. The amendments in Sections 9-1.07 and 9-20.04 address the problem of poor performance of plain or under-reinforced concrete footings during a seismic event for structures under the scope of the 2010 California Building Code and 2010 California Residential Code.

Section 2. Decision.

Based on the findings set forth above, the City Council of the City of Walnut Creek does ordain as follows:

Section A. Definition of "Diversion Requirement" in Section 5-3.601 of Article 6 of Chapter 3 of Title 5 of the Municipal Code is amended to read as follows:

1. "Diversion requirement" means redirection from the waste stream of at least fifty percent (50%), or the amounts specified in the City of Walnut Creek Green Building Code, whichever is the

more restrictive, of the total construction and demolition debris generated by a project via reuse or recycling, unless the applicant has been granted an infeasibility exemption pursuant to Section 5-3.605, in which case the diversion requirement shall be the maximum feasible diversion rate established by the compliance officer for the project.

Section B. Subsection 'a' of Section 5-3.602 of Article 6 of Chapter 3 of Title 5 of the Municipal Code is hereby amended to read as follows:

Sec. 5-3.602. Threshold for Covered Projects.

a. Covered Projects. All private and public construction, demolition, and renovation projects within the City, meeting one or more of the following, shall comply with this article:

1. The total costs of the project are projected to be greater than or equal to fifty thousand dollars (\$50,000.00); or
2. The project involves the construction or renovation of floor area greater than or equal to one thousand (1,000) square feet; or
3. The project includes demolition of a horizontal, vertical or sloping surface area greater than or equal to three hundred (300) square feet; or
4. The project is subject to the construction waste reduction, disposal and recycling provisions of the City of Walnut Creek Green Building Code.

For the purposes of determining whether a project meets the foregoing thresholds, all phases of a project and all related projects taking place on a single or adjoining parcel, as determined by the compliance officer, shall be deemed a single project.

Section C. Section 9-0.5.101 of Article 1 of Chapter 0.5 of Title 9 of the Municipal Code is hereby amended to read as follows:

Sec. 9-0.5.101. Title.

The regulations in Chapter 0.5 shall be known as the "Walnut Creek Building Regulations," may be cited as such, and will be referred to within Chapter 0.5 as "this code."

The following referenced codes, as adopted in Title 9 of the Municipal Code, shall be administered in accordance with this chapter, shall be considered part of the requirements of this code, and shall be known, designated and referred to as the "Construction Codes" for the City of Walnut Creek:

- a. The Building Code, as set forth in Chapter 1 of this title.
- b. The Electric Code, as set forth in Chapter 3 of this title.
- c. The Plumbing Code, as set forth in Chapter 4 of this title.

- d. The Mechanical Code, as set forth in Chapter 6 of this title.
- e. Dangerous Buildings Code, as set forth in Chapter 7 of this title.
- f. The Swimming Pool, Spa and Hot Tub Code, as set forth in Chapter 8 of this title.
- g. The Housing Code, as set forth in Chapter 5 of this title.
- h. The Solar Energy Code, as set forth in Chapter 13 of this title.
- i. Earthquake Hazard Reduction in Existing Buildings, as set forth in Chapter 14 of this title.
- j. The Energy Code, as set forth in Chapter 17 of this title.
- k. The Historic Building Code, as set forth in Chapter 18 of this title.
- l. The Fire Code, as set forth in Chapter 19 of this title.
- m. The Residential Code, as set forth in Chapter 20 of this title.
- n. The Green Building Code, as set forth in Chapter 21 of this title.
- o. The Existing Building Code, as set forth in Chapter 22 of this title.

Section D. Section 9-0.5.109 of Article 1 of Chapter 0.5 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

Sec. 9-0.5.109. Conflict Between this Chapter and Construction Codes.

Whenever there exists a conflict between the provisions of this chapter and the provisions of a construction code, the most restrictive provisions of the construction code shall prevail.

Section E. Subsection ‘a’ of Section 9-0.5.201 of Article 2 of Chapter 0.5 of Title 9 of the Municipal Code is hereby amended to read as follows:

- a. **General.** The Building Official is hereby authorized and directed to enforce all the provisions of this code. For such purposes he or she shall have the powers of a law enforcement officer.

Section F. Section 9-0.5.203, Appeals, of Article 2 of Chapter 0.5 of Title 9 of the Municipal Code is hereby repealed.

Section G. Subsection ‘d’ of Section 9-0.5.303 of Article 3 of Chapter 0.5 of Title 9 of the Municipal Code is hereby amended to read as follows:

- d. **Expiration.** Every permit issued by the Building Official under the provisions of this code shall expire by limitation and become null and void if the work authorized by such permit is not commenced within 180 days from the date of such permit, or if the work authorized by such permit is suspended or abandoned at any time after the work is commenced for a period of 180 days. Before such

work can be recommenced, a new permit shall be first obtained so to do, and the fee therefor shall be one-half the amount required for a new permit for such work based upon the valuation of remaining work to be completed and inspected, provided no changes have been made or will be made in the original plans and specifications for such work and provided further that such suspension or abandonment has not exceeded one year (365 days). In order to renew action on a permit that has expired for a period of one year (365 days), the permittee shall pay a new full permit fee based upon the valuation of remaining work to be completed and inspected.

A permittee holding an unexpired permit may apply for an extension of the time within which he may commence work under that permit when he is unable to commence work within the time required by this section for good and satisfactory reasons. The Building Official may extend the time for action by the permittee for a period not exceeding 180 days upon written request by the permittee showing that circumstances beyond the control of the permittee have prevented action from being taken. No permit shall be extended more than once.

Notwithstanding the above provisions, every permit issued by the Building Official under the provisions of this code shall expire and become null and void if the work authorized by such permit is not completed within 4 years from the date of issuance of such permit. The Building Official may extend this time on written request by the permittee showing that circumstances beyond the control of the permittee have prevented the completion of the work, and further provided the work has been ongoing and is continuing. The provisions of this paragraph shall apply to permits issued on and after January 1, 1996.

Section H. Subsection 'a' of Section 9-0.5.304 of Article 3 of Chapter 0.5 of Title 9 of the Municipal Code is hereby amended to read as follows:

a) **General.** Fees shall be assessed in accordance with the provisions of this section or shall be as set forth in the resolution establishing fees and charges as adopted by the City Council. The Building Official, with the written concurrence of the Community Development Director, may reduce plan review and/or permit fees where circumstances warrant. Any such action by the Building Official shall be documented for each case in the permanent record for the project.

Section I. Article 4. Appeals is hereby added to Chapter 0.5 of Title 9 of the Municipal Code as follows:

Article 4. Appeals

Sec. 9-0.5.401. Appeals: Establishment of Board of Appeals.

a) **General.** In order to hear and decide appeals of notices, orders, decisions, or determinations made by the building official regarding the application and interpretation of this code, there shall be and is hereby created a "Local Appeals Board" and "Housing Appeals Board," as those terms are defined and used in the California Building Standards Code (the "Board of Appeals"). The Board of Appeals shall be appointed by the City Manager and shall hold office at his or her pleasure.

b) **Limitations on Authority.** An application for appeal shall be based on a claim that the true intent of this code or the rules legally adopted thereunder have been incorrectly interpreted, the provisions of this code do not fully apply, or an equally good or better form of construction is proposed that satisfies the code. The Board of Appeals shall have no authority to waive requirements of this code.

c) **Number.** The Board of Appeals shall consist of five members and two alternates appointed by the City Manager.

The Building Official shall be an *ex officio* member of the Board of Appeals but shall have no vote on any matter before the Board.

d) **Alternate Members.** The City Manager shall appoint two alternate members who shall be called by the board chairperson to hear appeals during the absence or disqualification of a member. Alternate members shall possess the qualifications required for board membership.

e) **Qualifications.** The Board of Appeals shall consist of members who are qualified by experience and training to pass on matters pertaining to building construction and are not employees of the City. The Board of Appeals shall consist of five individuals. Appointees shall be qualified in and specifically knowledgeable in the California Building Standards Codes and applicable local ordinances.

f) **Chairperson.** The Board of Appeals shall annually select one of its members to serve as chairperson.

g) **Disqualification of Member.** A member shall not hear an appeal in which that member has a personal, professional, or financial interest, or a conflict of interest under the Fair Political Practices Act. A disqualified Board of Appeals member shall declare his or her disqualification to the building official, who shall arrange for an alternate member to serve in place of the disqualified member and shall make the disqualification part of the hearing record.

h) **Secretary.** The City Manager shall designate a qualified clerk to serve as secretary to the Board of Appeals. The secretary shall file a detailed record of all proceedings in the City Clerk's office.

i) **Compensation of Members.** Members of the Board of Appeals shall serve without compensation.

j) **Open Hearing.** The Board of Appeals shall have no regular meetings; all meetings shall be special meetings noticed pursuant to California Government Code section 54956. All hearings before the Board of Appeals shall be open to the public. The appellant, the appellant's representative, the Building Official, and any person whose interests are affected shall be given an opportunity to be heard.

k) **Hearing Procedure.** The hearing shall be informal and shall not require compliance with the rules of evidence. At the hearing, the Board of Appeals shall hear and consider all relevant evidence.

l) **Postponed Hearing.** When five members are not present to hear an appeal, either the appellant or the appellant's representative shall have the right to request a continuance of the hearing. Continuances of the hearing may be granted by the City Manager on request of the appellant or the appellant's representative for good cause shown, or on the City Manager's own motion.

m) **Board Decision.** The Board of Appeals shall affirm, modify, or reverse the decision of the Building Official by a concurring vote of two-thirds of its members.

n) **Administration.** The Building Official shall take immediate action in accordance with the decision of the Board of Appeals.

Sec. 9-0.5.402. Appeals: Right to Appeal.

Any person, firm, or corporation who is adversely affected by a decision, order, or determination made by the Building Official regarding the application and interpretation of this Code, and all other codes and ordinances required to be enforced by the Building Official, may appeal to the Board of Appeals. Such appeal shall be in writing and shall be filed with the City Clerk. Upon receipt of an appeal, a hearing shall be scheduled before the Board of Appeals. The Board of Appeals' decision shall be final.

Sec. 9-0.5.403. Appeals: Filing Requirements.

a) **Form of Appeal.** Any person may appeal from any notice, order, determination, or any action of the Building Official by filing at the City Clerk's office a written appeal containing the following:

1. A heading in the words: "Before the Board of Appeals of the City of Walnut Creek"
2. A caption reading: "Appeals of _____," giving the names of all appellants participating in the appeal.
3. A brief statement setting forth the legal interest of each of the appellants in the building or the land involved in the notice, order, determination, or action.
4. A brief statement in ordinary and concise language of the specific order or action protested, together with any material facts claimed to support the contentions of the appellant.
5. A brief statement in ordinary and concise language of the relief sought and the reasons why it is claimed the protested order or action should be reversed, modified or otherwise set aside.
6. The signatures of all parties named as appellants and their official mailing addresses.
7. The verification (by declaration under penalty of perjury) of at least one appellant as to the truth of the matters stated in the appeal.

b) **Filing of an Appeal.** Unless a different filing deadline is required by law, the appeal shall be filed within 10 days from the date of the service of such notice, order, determination, or action of the Building Official; provided, however, that if the building or structure is in such condition as to make it immediately dangerous to life, limb, property, or safety of the public or adjacent property and is ordered vacated and is posted as such, such appeal shall be filed within 3 days from the date of the service of the notice and order of the Building Official.

c) **Filing Fee.** A nonrefundable fee, as set forth in the City Council Adopted Fees and Charges, shall be submitted with the initial request for appeal.

Sec. 9-0.5.404. Appeals: Scheduling and Noticing Requirements.

a) **Scheduling and Noticing Appeal for Hearing.** As soon as practicable after receiving the written appeal, the City Manager shall fix a date, time, and place for the hearing of the appeal by the Board of Appeals. Except upon the request of the appellant or the appellant's representative, such date shall be not less than 10 days and not more than 60 days from the date the appeal was filed with the Building Official. Written notice of the time and place of the hearing shall be given at least 10 days prior to the date of the hearing either by causing a copy of such notice to be delivered to the appellant personally or by mailing a copy thereof, postage prepaid, addressed to the appellant at the address shown on the appeal.

b) **Effect of Failure to Appeal.** Failure of any person to file an appeal in accordance with the provisions of this Article shall constitute a waiver of the right to an administrative hearing and a failure to exhaust administrative remedies.

c) **Scope of Hearing on Appeal.** Only those matters or issues specifically raised by the appellant shall be considered in the hearing of the appeal.

d) **Staying of Order Under Appeal.** Except for vacation orders, enforcement of any notice or order of the Building Official issued under this code shall be stayed during the pendency of the appeal that is properly and timely filed.

Sec. 9-0.5.405. Appeals: Final Decision.

a) **Decision.** The decision of the Board of Appeals shall be in writing and include any material factual determinations and the reason(s) for the decision. The decision shall be final and effective immediately upon its adoption by the Board. A copy of the decision shall be mailed, faxed, or sent by electronic mail to the person who filed the appeal and to the Building Official.

Section J. Chapter 1 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

CHAPTER 1. BUILDING CODE

Sec. 9-1.01. Adoption.

The 2010 California Building Code, with necessary state amendments, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to, and by this reference, expressly incorporated and made a part of this chapter as though fully set forth in this chapter, subject to the amendments set forth in this chapter. The 2010 California Building Code shall be known, designated and referred to as the "California Building Code."

The California Building Code, as amended in this chapter, shall be known, designated and referred to as the "Building Code" for the City of Walnut Creek.

Sec. 9-1.02. Appendix Adoption.

Appendices C (Group U - Agricultural Buildings) and I (Patio Covers) of the California Building Code are hereby adopted. All remaining appendices are not adopted.

Sec. 9-1.03. Deletions.

Division II, Scope and Administration, of Chapter 1 of the California Building Code is hereby deleted, with the exception of those sections that are adopted by a State agency with local enforcement requirements.

Sec. 9-1.04. Amendments: Section 705.1.

Section 705.1 of the California Building Code is hereby amended by adding a new paragraph to read as follows:

705.1.1. It shall be unlawful for any person, firm or corporation to sell or deed any portion of any improved parcel of land to any other person, or to divide or subdivide any improved parcel of land, or to move or create any new property lines of any improved parcels of land, unless the following conditions are met:

1. The fire resistance of the exterior walls of the improvements on such parcel or parcels of land comply with all provisions of Section 705 (Exterior Walls) with respect to the resulting property lines, and

2. The heights and areas of all structures on such parcel or parcels of land comply with Chapter 5 (General Building Heights and Areas) with respect to the resulting property lines.

Sec. 9-1.05. Amendments: Section 1613.8.

Section 1613.8 is added to the California Building Code to read as follows:

1613.8 ASCE 7, Section 12.8.7. Modify ASCE 7, Section 12.8.7 by amending Equation 12.8-16 to include the Importance Factor, I , in the numerator.

Sec. 9-1.06. Amendments: Section 1704.4 Exception 1.

Amend Exception 1 of Section 1704.4 to read as follows:

1. Isolated spread concrete footings of buildings three stories or less above *grade plane* that are fully supported on earth or rock and where the structural design of the footing is based upon a specified compressive strength, f'_c , no greater than 2,500 pounds per square inch (psi)(17.2 Mpa).

Sec. 9-1.07. Amendments: Section 1908.1.8.

Amend Section 1908.1.8 in its entirety to read as follows:

1908.1.8 ACI 318, section 22.10 Delete ACI 318, Section 22.10, and replace with the following:

22.10 - Plain concrete in structures assigned to Seismic Design Category C, D, E or F.

22.10.1- Structures assigned to Seismic Design Category C, D, E or F shall not have elements of structural plain concrete, except as follows:

- (a) Isolated footings of plain concrete supporting pedestals or columns are permitted, provided the projection of the footing beyond the face of the supported member does not exceed the footing thickness.

Exception: In detached one and two-family dwelling three stories or less in height, the projection of the footing beyond the face of the supported member is permitted to exceed the footing thickness.

- (b) Plain concrete footings supporting walls are permitted, provided the footings have at least two continuous longitudinal reinforcing bars. Bars shall not be smaller than No. 4 and shall have a total area of not less than 0.002 times the gross cross-sectional area of the footing. A minimum of one bar shall be provided at the top and bottom of the footing. Continuity of reinforcement shall be provided at corners and intersections.

Exception: In detached one and two-family dwellings three stores or less in height and constructed with stud bearing walls, plain concrete footings with at least two continuous longitudinal reinforcing bars not smaller than No. 4 are permitted to have a total area of less than 0.002 times the gross cross-sectional area of the footing.

Section K. Chapter 2, Building Moving and Demolition, of Title 9 of the Municipal Code is hereby amended by replacing each and every occurrence of the term “Chief of Code Enforcement” with the term “Building Official.”

Section L. Section 9-3.01 of Article 1 of Chapter 3 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

Sec. 9-3.01. Adoption.

The 2010 California Electrical Code, with necessary State amendments, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is on file in the office of the Building Official, is adopted and referred to and by this reference expressly incorporated herein and made a part of this chapter as though fully set forth in this chapter. The 2010 California Electrical Code shall be known, designated and referred to as the “California Electrical Code.”

The California Electrical Code, as amended in this Chapter, shall be known, designated and referred to as the “Electrical Code” for the City of Walnut Creek.

Section M. Article 7, Establishment of Underground Utility District, of Chapter 3 of Title 9 of the Municipal Code is hereby amended by replacing each and every occurrence of the term “Chief of Code Enforcement” with the term “Building Official.”

Section N. Chapter 4 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

CHAPTER 4. PLUMBING CODE

Sec. 9-4.01. Adoption.

The 2010 California Plumbing Code, with necessary state amendments, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to and by this reference expressly incorporated herein and made a part of this article as though fully set forth herein. The 2010 California Plumbing Code shall be known, designated and referred to as the “California Plumbing Code.”

The California Plumbing Code, as amended in this Chapter, shall be known, designated and referred to as the “Plumbing Code” for the City of Walnut Creek.

Sec. 9-4.02. Deletions.

Division II, Administration, of Chapter 1 of the California Plumbing Code is hereby deleted, with the exception of those sections that are adopted by a State agency with local enforcement requirements.

Section O. Sections 9-5.01 and 9-5.02 of Chapter 5 of Title 9 of the Municipal Code are hereby amended in their entirety to read as follows:

Sec. 9-5.01. Adoption of the Uniform Housing Code (1997 Edition).

The Uniform Housing Code, 1997 Edition, published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, D.C. 20001, one copy of which is kept in the office of the Building Official, is adopted and referred to and by this reference expressly incorporated and made a part of this chapter as though fully set forth in this chapter, subject to the additional deletions and amendments set forth in this chapter. The Uniform Housing Code, 1997 Edition, shall be known, designated and referred to as the "Uniform Housing Code."

The Uniform Housing Code, as amended in this Chapter, shall be known, designated and referred to as the "Housing Code" for the City of Walnut Creek.

Sec. 9-5.02. Deletions.

Section 203 of the Uniform Housing Code is hereby deleted.

Chapter 12, Appeal, of the Uniform Housing Code is hereby deleted in its entirety.

Chapter 13, Procedures for Conduct of Hearing Appeals, of the Uniform Housing Code is hereby deleted in its entirety.

Section 1502 of the Uniform Housing Code is hereby deleted.

Section P. Section 9-5.03 of Chapter 5 of Title 9 of the Municipal Code is hereby repealed.

Section Q. Chapter 6 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

CHAPTER 6. MECHANICAL CODE

Sec. 9-6.01. Adoption.

The 2010 California Mechanical Code, with necessary state amendments, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept with the Building Official, is adopted and referred to and by this reference expressly incorporated herein and made a part of this article as though fully set forth herein. The 2010 California Mechanical Code shall be known, designated and referred to as the "California Mechanical Code."

The California Mechanical Code, as amended in this Chapter, shall be known, designated and referred to as the "Mechanical Code" for the City of Walnut Creek.

Sec. 9-6.02. Deletions.

Division II, Administration, of Chapter 1 of the California Mechanical Code is hereby deleted, with the exception of those sections that are adopted by a State agency with local enforcement requirements.

Section R. Chapter 7 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

CHAPTER 7. DANGEROUS BUILDINGS CODE

Sec. 9-7.01. Adoption.

The Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, published by the International Code Council, 500 New Jersey Avenue, NW, 6th Floor, Washington, D.C. 20001, one copy of which is kept in the office of the Building Official, is adopted by reference and made a part of this chapter, subject to the amendments set forth in this chapter. The Uniform Code for the Abatement of Dangerous Buildings, 1997 Edition, shall be known, designated and referred to as the "Uniform Dangerous Buildings Code."

The Uniform Dangerous Buildings Code, as amended in this chapter, shall be known, designated and referred to as the "Dangerous Buildings Code" for the City of Walnut Creek.

Sec. 9-7.02. Deletions.

- a) Chapters 5 and 6 of the Uniform Dangerous Buildings Code are hereby deleted in their entirety.
- b) Section 802 of the Uniform Dangerous Buildings Code is hereby deleted in its entirety.

Sec. 9-7.03. Amendments.

- a) Section 204 of the Uniform Dangerous Buildings Code is hereby amended as follows:

Change references from Sections 108 and 1701 of the Building Code to Section 9-0.5.305 of the Municipal Code (inspections required) and Chapter 17 (Structural Tests and Special Inspections) of the building code, respectively.

- b) Section 801.2 of the Uniform Dangerous Buildings Code is hereby amended to read as follows:

801.2 **Costs.** The cost of such work shall be paid from the General Fund, and may be made a special assessment against the property involved, or may be made a personal obligation of the property owner.

- c) Section 912 of the Uniform Dangerous Buildings Code is hereby amended to read as follows:

All money recovered by payment of the change or assessment or from the sale of the property at foreclosure sale shall be paid to the treasurer of the City, who shall credit the same to the General Fund.

Section S. Sections 9-8.101 and 9.8102 of Article 1 of Chapter 8 are amended in their entirety to read as follows:

Sec. 9-8.101. Adoption.

The Uniform Swimming Pool, Spa and Hot Tub Code, 2009 edition, published by the International Association of Plumbing and Mechanical Officials, 5001 East Philadelphia Street, Ontario, California, 91761-2816, one copy of which is kept in the office of the Building Official, is adopted and referred to and by this reference expressly incorporated herein and made a part of this chapter as though fully set forth herein, subject to the amendments set forth in this chapter. The Uniform Swimming Pool, Spa and Hot Tub Code, 2009 Edition, shall be known, designated and referred to as the "Uniform Swimming Pool, Spa and Hot Tub Code."

The Uniform Swimming Pool, Spa and Hot Tub Code, as amended in this chapter, shall be known, designated and referred to as the "Swimming Pool, Spa and Hot Tub Code " for the City of Walnut Creek.

Sec. 9-8.102. Deletions.

Chapter 1, Administration, of the Uniform Swimming Pool, Spa and Hot Tub Code is hereby deleted.

Section T. Article 2, Enclosures, of Chapter 8 of Title 9 of the Municipal Code is hereby amended by replacing each and every occurrence of the term "administrative authority" with the term "Building Official."

Section U. Chapter 9, Site Development, of Title 9 of the Municipal Code is hereby amended by replacing each and every occurrence of the term "Chief of Code Enforcement" with the term "Building Official."

Section V. Chapter 13 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

CHAPTER 13. SOLAR ENERGY

Sec. 9-13.01. Adoption.

The Uniform Solar Energy Code, 2009 Edition, published by the International Association of Plumbing and Mechanical Officials, 5001 East Philadelphia Street, Ontario, California 91761-2816, one copy of which is kept in the office of the Building Official, is adopted and referred to and by this reference expressly incorporated herein and made a part of this article as though fully set forth herein. The Uniform Solar Energy Code, 2009 Edition, shall be known, designated and referred to as the "Uniform Solar Energy Code."

The Uniform Solar Energy Code, as amended in this chapter, shall be known, designated and referred to as the "Solar Energy Code" for the City of Walnut Creek.

Sec. 9-13.02. Deletions.

Chapter 1, Administration, of the Uniform Solar Energy Code is hereby deleted.

Sec. 9-13.03. Amendments.

The definition of “Authority Having Jurisdiction” in Section 203.0 of the Uniform Solar Energy Code is hereby amended to read as follows:

Authority Having Jurisdiction. The Building Official or his/her duly authorized representative.

Section W. Subsection ‘b’ of the Exceptions to Section 9-14.02 of Chapter 14 of Title 9 of the Municipal Code is hereby amended to read as follows:

b. **Provisions Also Covered in Code.** When provisions of this chapter and provisions of the Walnut Creek Building Code both apply, the provisions of this chapter shall govern, except as modified by the building official.

Section X. Subsection ‘c’ of Section 9-14.02 of Chapter 14 of Title 9 of the Municipal Code is hereby amended by replacing the term “Code Enforcement Division” with the term “Building Division.”

Section Y. Subsection ‘d’ of Section 9-14.02 of Chapter 14 of Title 9 of the Municipal Code is hereby amended by replacing the words “code enforcement agency” with the term “building division.”

Section Z. Subsection ‘c’ of Section 9-14.05 of Chapter 14 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

c. **Appeal From Order.** The owner of the building may appeal the building official’s initial determination that the building is within the scope of this chapter. Such appeal shall be filed within 60 days from the service date of the order described in Section 9-14.05(b).

Section AA. Subsection ‘e’ of Section 9-14.05 of Chapter 14 of Title 9 of the Municipal Code is hereby amended to read as follows:

e. **Enforcement.** If the owner or other person in charge or control of the subject building fails to comply with any order issued by the building official pursuant to this chapter within any of the time limits set forth in Section 9-14.04, the building official shall order the entire building vacated and remain vacated until such order has been complied with. If compliance with such order has not been accomplished within 90 days after the date the building has been ordered or vacated, or by such additional time as may have been granted pursuant to Section 9-14.05(c) the building official may order demolition of the building in accordance with the City of Walnut Creek Dangerous Buildings Code, or any other applicable provisions of the Walnut Creek Municipal Code.

Section BB. Section 9-14.06 of Chapter 14 of Title 9 of the Municipal Code is hereby amended to read as follows:

Sec. 9-14.06 Minimum Earthquake Standards.

Appendix Chapter A1 of the City of Walnut Creek Existing Building Code (Chapter 22) shall be used as the minimum earthquake standards within this chapter.

Section CC. Section 9-17.01 of Chapter 17 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

Sec. 9-17.01 Adoption.

The 2010 California Energy Code, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to, and by this reference, expressly incorporated and made a part of this chapter as though fully set forth in this chapter, subject to the amendments set forth in this chapter. The 2010 California Energy Code shall be known, designated and referred to as the "California Energy Code."

The California Energy Code, as amended in this chapter, shall be known, designated and referred to as the "Energy Code" for the City of Walnut Creek.

Section DD. Section 9-18.01 of Chapter 18 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

Sec. 9-18.01 Adoption.

The 2010 California Historical Building Code, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to, and by this reference, expressly incorporated and made a part of this chapter as though fully set forth in this chapter, subject to the amendments set forth in this chapter. The 2010 California Historical Building Code shall be known, designated and referred to as the "California Historical Building Code."

The California Historical Building Code, as amended in this chapter, shall be known, designated and referred to as the "Historical Building Code" for the City of Walnut Creek.

Section EE. Chapter 20 is hereby added to Title 9 of the Municipal Code as follows:

CHAPTER 20. RESIDENTIAL CODE

Sec. 9-20.01. Adoption.

The 2010 California Residential Code, with necessary state amendments, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to, and by this reference, expressly incorporated and made a part of this chapter as though fully set forth in this chapter, subject to the amendments set forth in this chapter. The 2010 California Residential Code shall be known, designated and referred to as the "California Residential Code."

The California Residential Code, as amended in this chapter, shall be known, designated and referred to as the "Residential Code" for the City of Walnut Creek.

Sec. 9-20.02. Appendix Adoption.

Appendix H (Patio Covers) of the California Residential Code is hereby adopted. All remaining appendices are not adopted.

Sec. 9-20.03. Deletions.

Division II, Administrative, of Chapter 1 of the California Residential Code is hereby deleted, with the exception of those sections that are adopted by a State agency with local enforcement requirements.

Sec. 9-20.04. Amendments: Section R403.1.3.

Amend Section R403.1.3 to read as follows:

R403.1.3 Seismic reinforcing. Concrete footings located in Seismic Design Categories D₀, D₁ and D₂, as established in Table R301.2(1), shall have minimum reinforcement of at least two continuous longitudinal reinforcing bars not smaller than No. 4 bars. Bottom reinforcement shall be located a minimum of 3 inches (76 mm) clear from the bottom of the footing.

In Seismic Design Categories D₀, D₁ and D₂ where a construction joint is created between a concrete footing and a stem wall, a minimum of one No. 4 bar shall be installed at not more than 4 feet (1219 mm) on center. The vertical bar shall extend to 3 inches (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 D₀, D₁ and D₂ 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 (1219 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 D₀, D₁ and D₂ masonry stem walls without solid grout and vertical reinforcing are not permitted.

Exception: In detached one- and two-family dwellings which are three stories or less in height and constructed with stud bearing walls, isolated plain concrete footings supporting columns or pedestals are permitted.

Section FF. Chapter 21 is hereby added to Title 9 of the Municipal Code as follows:

CHAPTER 21. GREEN BUILDING CODE***Sec. 9-21.01. Adoption.***

The 2010 California Green Building Standards Code, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to, and by this

reference, expressly incorporated and made a part of this chapter as though fully set forth in this chapter, subject to the amendments set forth in this chapter. The 2010 California Green Building Standards Code shall be known, designated and referred to as the "California Green Building Code."

The California Green Building Code, as amended in this chapter, shall be known, designated and referred to as the "Green Building Code" for the City of Walnut Creek.

Section GG. Chapter 22 is hereby added to Title 9 of the Municipal Code as follows:

CHAPTER 22. EXISTING BUILDING CODE

Sec. 9-22.01 Adoption.

The 2010 California Existing Building Code, with necessary state amendments, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to and by this reference expressly incorporated and made a part of this chapter as though fully set forth herein, subject to the amendments set forth in this chapter. The 2010 California Existing Building Code shall be known, designated and referred to as the "California Existing Building Code."

The California Existing Building Code, as amended in this chapter, shall be known, designated and referred to as the "Existing Building Code" for the City of Walnut Creek.

Section 3. Filing.

The Chief Building Official shall cause to be filed a copy of this resolution along with the modifications and changes expressly marked and identified to the 2010 California Building Code and the 2010 California Residential Code with the California Building Standards Commission and the State Department of Housing and Community Development.

Section 4. Effective Date.

The City Clerk is directed to format and number this ordinance to be in conformance with this title as appropriate.

This ordinance shall become effective on January 1, 2011.

PASSED AND ADOPTED by the City Council of the City of Walnut Creek at a regular meeting thereof held on the 16th day of November 2010, by the following called vote:

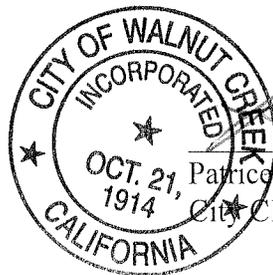
- | | | |
|---------|-----------------|--|
| AYES: | Councilmembers: | Rajan, Simmons, Skrel, Silva, Mayor Rainey |
| NOES: | Councilmembers: | None |
| ABSENT: | Councilmembers: | None |

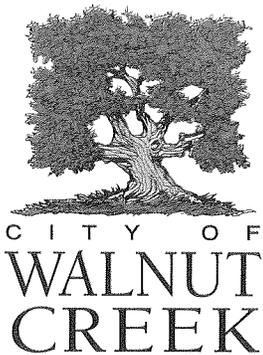
/s/ Susan M. Rainey
Mayor of the City of Walnut Creek

Attest:

/s/ Patrice M. Olds
City Clerk of the City of Walnut Creek

I HEREBY CERTIFY the foregoing to be a true and correct copy of Ordinance No. 2094, duly passed and adopted by the City Council of Walnut Creek, County of Contra Costa, State of California, at a regular meeting of said Council held on the 16th day of November 2010.

 Patrice M. Olds
Patrice M. Olds
City Clerk of the City of Walnut Creek



VIA REGISTERED MAIL

February 25, 2011

California Building Standards Commission
2525 Natomas Park Drive, Suite 130
Sacramento, CA 95833

Subject:
Filing of 2010 California Fire Code Adopted Ordinance, Amendments and Findings

Dear Building Standards Commission:

Enclosed are the City of Walnut Creek's adopted ordinance and amendments to the 2010 California Fire Code along with the necessary findings. The findings and amendments were approved by the City of Walnut Creek City Council on February 15, 2011.

Please contact me at 925-943-5828 if you have any questions.

Sincerely yours,

Robert L. Woods, CBO, S.E.
Chief Building Official
Building Division
1666 North Main Street
Walnut Creek, CA 94596
woods@walnut-creek.org

2011 FEB 28 P 4:19
CALIFORNIA BUILDING
STANDARDS COMMISSION

**CITY OF WALNUT CREEK
ORDINANCE NO. 2100**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF WALNUT CREEK
AMENDING CHAPTER 19 OF TITLE 9 OF THE WALNUT CREEK MUNICIPAL CODE
FOR THE ADOPTION OF THE 2010 CALIFORNIA FIRE CODE**

Section 1. Findings.

1. The California Building Standards Commission approved and published the 2010 edition of the California Building Standards Code, which includes the 2010 California Fire Code, on July 1, 2010.
2. The newly adopted California Building Standards Code became effective on January 1, 2011.
3. California Health and Safety Code sections 17958, 17958.5, 17958.7, and 18941.5 provide that cities and counties may make modifications or changes to the building standards contained in the California Building Standards Code upon an express finding that such modifications or changes are reasonably necessary because of local climatic, geological, or topographical conditions.
4. The City of Walnut Creek is a member of the Contra Costa County Fire Protection District (CCCFPD).
5. The Board of Supervisors for Contra Costa County, acting as the Board of Directors for the CCCFPD, has adopted *Contra Costa County Fire Protection District Finding of Need for Changes or Modifications in the 2010 California Building Standards Code, Title 24, Part 9, California Fire Code Due to Local Conditions*, incorporated herein by this reference, that concludes that more restrictive California Fire Code standards are reasonably necessary because of specified local climatic, geological or topographical conditions.
6. Pursuant to the *Contra Costa County Fire Protection District Finding*, the Contra Costa County Board of Supervisors, acting as the Board of Directors for the CCCFPD, approved Ordinance No. 2010-15 adopting the 2010 California Fire Code and making certain amendments thereto to address local conditions.
7. The City of Walnut Creek desires to adopt those amendments contained in CCCFPD Ordinance No. 2010-15, with one amendment, as set forth below.
8. Pursuant to Health and Safety Code sections 17958, 17958.5, 17958.7, and 18941.5, the amendments are reasonably necessary because of the local climatic, geological, and topographical conditions set forth in the *Contra Costa County Fire Protection District Finding*, as referenced above.

Section 2. Decision.

Based on the findings set forth above, the City Council of the City of Walnut Creek does ordain as follows:

Chapter 19 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

CHAPTER 19. FIRE CODE***9-19.01. Adoption.***

The 2010 California Fire Code, with necessary state amendments, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to, and by this reference expressly incorporated and made a part of this chapter as though fully set forth in this chapter, subject to the amendments set forth in this chapter. The 2010 California Fire Code shall be known, designated and referred to as the California Fire Code.

The California Fire Code, as amended in this chapter, shall be known, designated and referred to as the Fire Code for the City of Walnut Creek.

9-19.02. Adoption of Fire Code Amendments from CCCFPD Ordinance No. 2010-15.

The amendments to the 2010 California Fire Code contained in Contra Costa County Fire Protection District (CCCFPD) Ordinance No. 2010-15, one copy of which is kept in the office of the Building Official, are adopted and referred to, and by this reference, expressly incorporated and made part of this chapter as though fully set forth in this chapter, subject to additional amendments and deletions as set forth in this chapter.

9-19.03. Amendments to CCCFPD Ordinance No. 2010-15.

The CCCFPD's amendment to Appendix D Section D103.3 is hereby amended in its entirety to read as follows:

D103.3 Turning radius. Based on a minimum unobstructed width of 20 feet, a fire apparatus access roadway shall be capable of providing a minimum standard turning radius of 25 feet (7620 mm) inside and 45 feet (13 716 mm) outside.

Exception: Residential developments consisting solely of R-3 Occupancy Groups may provide at the end of dead-end roadways a 35-foot outside radius roadway, plus a mountable curb and sidewalk with a width of 5 feet, for an aggregate 40-foot turning radius cul-de-sac, provided the sidewalk and curb areas and any components contained therein are designed to carry the imposed loads pursuant to Section D102.1.

Section 3. Filing.

The Chief Building Official shall file a copy of this ordinance along with the modifications and changes expressly marked and identified to the 2010 California Fire Code with the California Building Standards Commission and the California Department of Housing and Community Development pursuant to 2010 California Fire Code section 1.1.8.

Section 4. Effective Date.

This ordinance shall become effective 30 days from the date of its adoption. The City Clerk is directed to format and number this ordinance to be in conformance with this title as appropriate.

PASSED AND ADOPTED by the City Council of the City of Walnut Creek at a regular meeting thereof held on the 15th day of February 2011, by the following called vote:

AYES:	Councilmembers:	Lawson, Skrel, Simmons, Mayor Silva
NOES:	Councilmembers:	None
ABSENT:	Councilmembers:	Rajan

/s/ Cindy Silva
Mayor of the City of Walnut Creek

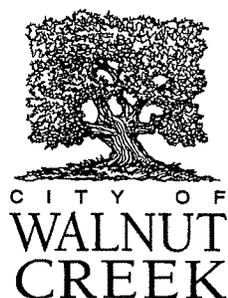
Attest:

/s/ Patrice M. Olds
City Clerk of the City of Walnut Creek

I HEREBY CERTIFY the foregoing to be a true and correct copy of Ordinance No. 2100, duly passed and adopted by the City Council of Walnut Creek, County of Contra Costa, State of California, at a regular meeting of said Council held on the 15th day of February 2011.



Patrice M. Olds
Patrice M. Olds
City Clerk of the City of Walnut Creek



Agenda Report

DATE: FEBRUARY 1, 2011
TO: CITY COUNCIL
FROM: COMMUNITY DEVELOPMENT DEPARTMENT – BUILDING DIVISION
SUBJECT: ADOPTION OF THE 2010 CALIFORNIA FIRE CODE WITH AMENDMENTS

STATEMENT OF ISSUE:

Although the 2010 California Fire Code is part of the California Building Standards Code, it was not adopted during the triennial code adoption process in the fall of 2010 due to the proposed Fire Code amendments still being evaluated by the Contra Costa County Fire Protection District (CCCYPD) and its member jurisdictions at that time. Since then, CCCYPD and City staff have hosted two stakeholder outreach meetings, obtained stakeholder feedback, and evaluated the proposed amendments.

The Contra Costa County Board of Supervisors adopted the 2010 California Fire Code on December 7, 2010 with the amendments in CCCYPD Ordinance No. 2010-15 (Attachment 3). The amendments are not applicable to the City of Walnut Creek unless specifically adopted by the City Council.

Based upon stakeholder response and the City's evaluation, staff is recommending adoption of the 2010 California Fire Code with CCCYPD amendments, along with one proposed City amendment to address the impact on residential development within the City.

RECOMMENDED ACTION:

Staff recommends that the City Council review and approve the proposed Ordinance (Attachment 1) amending Chapter 19 of Title 9 of the Walnut Creek Municipal Code adopting the 2010 California Fire Code as amended.

DISCUSSION:

Background

The California Building Standards Commission updates the California Building Standards Code every three years. In July 2010, the California Building Standards Commission published the 2010 edition of the California Building Standards Code, which includes the 2010 California Fire Code. In the fall of 2010, the City of Walnut Creek adopted the construction-related portions of the 2010 California Building Standards Code, which became effective on January 1, 2011, with the exception of the 2010 California Fire Code. The 2010 California Fire Code was not adopted during the regular triennial code

adoption cycle because the proposed Fire Code amendments were still being evaluated by CCCFPD and its member jurisdictions at that time. The City of Walnut Creek is a member of CCCFPD.

Stakeholder Outreach

In the fall of 2010, City staff provided CCCFPD's proposed amendments to stakeholders that also reviewed the Fire Code amendments in the prior adoption cycle. These stakeholders included the Downtown Business Association, the Chamber of Commerce, developers, owners, architects, fire protection engineers and members of the development community. In addition, City staff hosted two outreach meetings in concert with CCCFPD staff on October 13, 2010. These meetings were open to all CCCFPD member jurisdictions and their stakeholders as well. Fire Marshal Lewis Broschard was in attendance at both outreach meetings to discuss CCCFPD's proposed amendments.

The stakeholders provided valuable feedback which helped the Fire Marshall clarify the amendment language and intent. The stakeholder meetings also provided a good opportunity for the community to understand the amendments, the justification and need for the amendments, and their impact on development within the City. As a result of the positive response, staff believes that the amendments adopted by the Board of Supervisors were developed in a collaborative manner that took into account stakeholder input.

CCCFPD Finding and Ordinance Adopting Fire Code with Amendments

State law allows fire protection districts and local jurisdictions to adopt local amendments to the California Fire Code upon making findings based on climatic, topographical or geological conditions. The Contra Costa County Board of Supervisors, acting as the Board of Directors for the CCCFPD, adopted findings that conclude that more restrictive California Fire Code standards are reasonably necessary because of specified local climatic, topographical or geological conditions. The findings are contained in Attachment 2, *Contra Costa County Fire Protection District Finding of Need for Changes or Modifications in the 2010 California Building Standards Code, Title 24, Part 9, California Fire Code Due to Local Conditions*.

Pursuant to the finding in Attachment 2, the Contra Costa County Board of Supervisors adopted Ordinance No. 2010-15 (Attachment 3) on December 7, 2010, that adopts the 2010 California Fire Code with amendments to address local conditions. Those amendments became effective within the unincorporated areas of Contra Costa County on January 7, 2011. The CCCFPD is now requesting its member jurisdictions to ratify the amendments to provide uniform and consistent requirements throughout the Fire Protection District.

CCCFPD Amendments

During the previous adoption cycle, the City did not adopt CCCFPD amendments related to sprinkler requirements because stakeholders expressed concerns over the economic impact of those amendments and the lack of sufficient evidence to justify those amendments. Consequently, the City adopted only those portions of the amendments that staff believed would not negatively impact development within the City. In the current adoption, CCCFPD amendments related to sprinkler provisions are reasonable and are sufficiently supported by the statements in Attachment 4, *Contra Costa County Fire Protection District 2010 Fire Code Amendments "Why do we need reduced thresholds for automatic sprinklers in commercial occupancies?"*

Staff believes CCCFPD amendments in the current adoption cycle have less impact on both new and existing developments. Major highlights of the amendments and their impacts are summarized below:

- **Fire Sprinklers – New Commercial Buildings:** The proposed amendments lower the fire sprinkler installation thresholds for new commercial buildings. The triggering level for new commercial buildings will now be 5,000 square feet. The following table summarizes the most common commercial occupancies being developed in the City of Walnut Creek and shows the change in sprinkler thresholds for each occupancy:

Occupancy Classification	Typical Use	Base Code Fire Area Trigger for Sprinklers (square feet)	Proposed Fire Area Trigger for Sprinklers (square feet)
B	Business uses for office, professional or service-type transactions, such as city halls, offices, medical offices, banks, beauty shops	No trigger	5,000
M	Mercantile uses for the display and sale of merchandise, such as retail shops, department stores, markets	12,000	5,000
A-3	Assembly uses intended for worship, recreation or amusement, such as community halls, libraries, gymnasiums, churches	12,000	5,000
A-2	Assembly uses intended for food and/or drink consumption, such as restaurants, bars, night clubs	5,000	5,000 (No change)

* Fire Area is defined in the 2010 California Building and Fire Codes as the aggregate floor area enclosed and bounded by exterior walls, fire walls, fire barriers or horizontal assemblies of a building.

- **Fire Sprinklers – Commercial Additions and Expansions:** The amendments provide for new fire sprinkler installation thresholds for existing commercial buildings that undergo additions and expansions. The two criteria for triggering sprinklers are: 1) the addition or expansion increases the existing fire area by more than 50 percent; and 2) the resulting total fire area exceeds 5,000 square feet. Since both criteria must be met before sprinklers are triggered, staff believes the new thresholds will not have a significant negative impact on the City’s existing commercial building stock.
- **Fire Sprinklers – Commercial Changes in Occupancy Classification:** The amendments provide for new fire sprinkler installation thresholds for existing buildings that undergo a change of occupancy classification to a higher hazard category from a lower hazard category, based upon hazard categories defined in the amendments. Where such changes occur, sprinklers are only required when: 1) the change of occupancy results in a higher hazard category; and 2) the fire area of the new occupancy exceeds 5,000 square feet. Since both criteria must be met before sprinklers are triggered, staff believes this amendment will not have a significant negative impact on the City’s existing commercial building stock.

-
- **Fire Sprinklers – Newly Constructed Single Family and Duplex Residential Buildings:** For the first time in California, the new California Residential Code that became effective on January 1, 2011 requires sprinklers in every newly constructed single family and duplex residential building and within any additions or alterations to such building in the future. These requirements apply uniformly across California and are not subject to any of the proposed local amendments. Local jurisdictions cannot opt out of these regulations.
 - **Fire Sprinklers – Single Family and Duplex Residential Additions and Expansions:** The amendments provide for sprinklering of existing single family and duplex residential buildings only when they undergo an addition or expansion that: 1) increases the existing fire area by more than 50 percent; and 2) results in a total fire area greater than 3,600 square feet. Since both criteria must be met before sprinklers are triggered, staff believes that this amendment will have only a small impact on the City's existing housing stock.
 - **Photovoltaic Systems:** The amendments add roof-level access, pathway and marking requirements that come from the language that is expected to be in the 2013 California Fire Code. In other words, these amendments will apply the next-code-cycle requirements now.
 - **Fire Apparatus Access Roads:** The amendments provide requirements for fire apparatus access roads and address minimum performance characteristics of CCCFPD's fire apparatus. These amendments are essentially the same as those in the previous adoption cycle.

CCCFPD Policy Change

The CCCFPD announced a policy change at the outreach meetings. This change will allow the control valves of new sprinkler systems to be housed inside buildings provided the fire department connection and risers remain accessible. The control valves are also allowed to be the water district valves. This change addresses staff concerns over the installation of required valves within the public sidewalk areas for buildings without frontage.

City Amendment

To address the impact on residential development within the City of Walnut Creek, staff recommends one amendment to CCCFPD amendments that will allow a tighter turning radius for cul-de-sacs on newly-constructed fire apparatus access roadways in single-family and duplex residential developments. The tighter turning radius will cause less impact to remaining infill cul-de-sac residential developments in the City and provide more uniformity with existing cul-de-sac developments throughout the City. Although the Fire Marshal expressed an interest in minimizing local amendments for uniformity within the Fire Protection District, the City's proposed exception is acceptable to him. This City amendment carries forward a similar amendment in the previous adoption cycle.

City Finding and Ordinance Adopting Fire Code with Amendments

Staff recommends adopting the 2010 California Fire Code with CCCFPD amendments and one City amendment. In order for the City to adopt these amendments to the 2010 California Fire Code, the City must make findings that the modifications are reasonably necessary because of local climatic, topographical or geological conditions. Those findings must, in turn, be filed with the California Building Standards Commission and the California Department of Housing and Community Development. Attachment 1 is the Ordinance adopting the 2010 California Fire Code as amended. It is

primarily identical to CCCFPD Ordinance No. 2010-15 (Attachment 3), with the addition of one City amendment that reduces the turning radius at dead-end fire apparatus access roadways in residential developments. Attachment 1 also contains the City's findings that are necessary for making amendments to the 2010 California Fire Code, which reference the CCCFPD finding in Attachment 2.

Conclusion

Staff recommends that the City Council adopt the 2010 California Fire Code as amended per the proposed Ordinance in Attachment 1. Staff believes the required findings in support of the amendments can be made as identified in the proposed Ordinance in Attachment 1.

ENVIRONMENTAL ANALYSIS:

The purpose of the City's adoption of the 2010 California Fire Code with amendments is to provide minimum standards to safeguard life, limb, health, property, and public welfare for all types of construction. Adoption of these codes will not have the effect of deleting or substantially changing any regulatory standards or required findings. Because it can be determined with certainty that this project has no potential for causing a significant effect on the environment, the amendments are exempt from the provisions of the California Environmental Quality Act ("CEQA") pursuant to CEQA Guidelines section 15061(b)(3). In addition, adoption of these codes is exempt from review under CEQA Guidelines section 15308 because the project is an action being taken by a regulatory agency where the process involves procedures for the protection of the environment and that does not have the potential to cause significant effects on the environment.

FINANCIAL IMPACTS:

There will likely be some development costs associated with the proposed Fire Code amendments. The amendments related to commercial uses will be reviewed and inspected by CCCFPD with no net impact on City services. The amendments related to single-family and duplex residential fire sprinklers and photovoltaic installations will be reviewed and inspected by City staff and will thus have some impact on City services and training needs. The additional City services that will be needed will be absorbed into the current budget.

ALTERNATIVE ACTION:

City Council could elect to adopt the 2010 California Fire Code with only a portion of the amendments; adopt the 2010 California Fire Code without any of the amendments; or adopt the 2010 California Fire Code with any modifications to the amendments to mitigate concerns that the City Council may have.

DOCUMENTS:

- Attachment 1: Proposed Ordinance adopting the 2010 California Fire Code as amended
- Attachment 2: Contra Costa County Fire Protection District Finding of Need for Changes or Modifications in the 2010 California Building Standards Code, Title 24, Part 9, California Fire Code Due to Local Conditions
- Attachment 3: Contra Costa County Fire Protection District Ordinance No. 2010-15
- Attachment 4: Contra Costa County Fire Protection District 2010 Fire Code Amendments "Why do we need reduced thresholds for automatic sprinklers in commercial occupancies?"

COUNCIL ACTION RECOMMENDED:

Move to introduce and waive further reading of the Ordinance amending Chapter 19 of Title 9 of the Walnut Creek Municipal Code adopting the 2010 California Fire Code, as amended.

STAFF CONTACT: Sharon Goei, Plan Check Engineer
(925) 256-3548
goei@walnut-creek.org

**CITY OF WALNUT CREEK
ORDINANCE NO.**

**AN ORDINANCE OF THE CITY COUNCIL OF THE CITY OF WALNUT CREEK
AMENDING CHAPTER 19 OF TITLE 9 OF THE WALNUT CREEK MUNICIPAL CODE
FOR THE ADOPTION OF THE 2010 CALIFORNIA FIRE CODE**

Section 1. Findings.

1. The California Building Standards Commission approved and published the 2010 edition of the California Building Standards Code, which includes the 2010 California Fire Code, on July 1, 2010.
2. The newly adopted California Building Standards Code became effective on January 1, 2011.
3. California Health and Safety Code sections 17958, 17958.5, 17958.7, and 18941.5 provide that cities and counties may make modifications or changes to the building standards contained in the California Building Standards Code upon an express finding that such modifications or changes are reasonably necessary because of local climatic, geological, or topographical conditions.
4. The City of Walnut Creek is a member of the Contra Costa County Fire Protection District (CCCFPD).
5. The Board of Supervisors for Contra Costa County, acting as the Board of Directors for the CCCFPD, has adopted *Contra Costa County Fire Protection District Finding of Need for Changes or Modifications in the 2010 California Building Standards Code, Title 24, Part 9, California Fire Code Due to Local Conditions*, incorporated herein by this reference, that concludes that more restrictive California Fire Code standards are reasonably necessary because of specified local climatic, geological or topographical conditions.
6. Pursuant to the *Contra Costa County Fire Protection District Finding*, the Contra Costa County Board of Supervisors, acting as the Board of Directors for the CCCFPD, approved Ordinance No. 2010-15 adopting the 2010 California Fire Code and making certain amendments thereto to address local conditions.
7. The City of Walnut Creek desires to adopt those amendments contained in CCCFPD Ordinance No. 2010-15, with one amendment, as set forth below.
8. Pursuant to Health and Safety Code sections 17958, 17958.5, 17958.7, and 18941.5, the amendments are reasonably necessary because of the local climatic, geological, and topographical conditions set forth in the *Contra Costa County Fire Protection District Finding*, as referenced above.

Section 2. Decision.

Based on the findings set forth above, the City Council of the City of Walnut Creek does ordain as follows:

Chapter 19 of Title 9 of the Municipal Code is hereby amended in its entirety to read as follows:

CHAPTER 19. FIRE CODE***9-19.01. Adoption.***

The 2010 California Fire Code, with necessary state amendments, published by the California Building Standards Commission, 2525 Natomas Park Drive, Suite 130, Sacramento, CA 95833-2936, one copy of which is kept in the office of the Building Official, is adopted and referred to, and by this reference expressly incorporated and made a part of this chapter as though fully set forth in this chapter, subject to the amendments set forth in this chapter. The 2010 California Fire Code shall be known, designated and referred to as the California Fire Code.

The California Fire Code, as amended in this chapter, shall be known, designated and referred to as the Fire Code for the City of Walnut Creek.

9-19.02. Adoption of Fire Code Amendments from CCCFPD Ordinance No. 2010-15.

The amendments to the 2010 California Fire Code contained in Contra Costa County Fire Protection District (CCCFPD) Ordinance No. 2010-15, one copy of which is kept in the office of the Building Official, are adopted and referred to, and by this reference, expressly incorporated and made part of this chapter as though fully set forth in this chapter, subject to additional amendments and deletions as set forth in this chapter.

9-19.03. Amendments to CCCFPD Ordinance No. 2010-15.

The CCCFPD's amendment to Appendix D Section D103.3 is hereby amended in its entirety to read as follows:

D103.3 Turning radius. Based on a minimum unobstructed width of 20 feet, a fire apparatus access roadway shall be capable of providing a minimum standard turning radius of 25 feet (7620 mm) inside and 45 feet (13 716 mm) outside.

Exception: Residential developments consisting solely of R-3 Occupancy Groups may provide at the end of dead-end roadways a 35-foot outside radius roadway, plus a mountable curb and sidewalk with a width of 5 feet, for an aggregate 40-foot turning radius cul-de-sac, provided the sidewalk and curb areas and any components contained therein are designed to carry the imposed loads pursuant to Section D102.1.

Section 3. Filing.

The Chief Building Official shall file a copy of this ordinance along with the modifications and changes expressly marked and identified to the 2010 California Fire Code with the California Building Standards Commission and the California Department of Housing and Community Development pursuant to 2010 California Fire Code section 1.1.8.

Section 4. Effective Date.

This ordinance shall become effective 30 days from the date of its adoption. The City Clerk is directed to format and number this ordinance to be in conformance with this title as appropriate.

CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT
FINDING OF NEED FOR CHANGES OR MODIFICATIONS IN THE 2010
CALIFORNIA BUILDING STANDARDS CODE, TITLE 24, PART 9, CALIFORNIA
FIRE CODE DUE TO LOCAL CONDITIONS

I. Changes or Modifications

Pursuant to Section §17958 of the State of California Health and Safety Code, the Board of Directors of the Contra Costa County Fire Protection District, in its ordinance adopting and amending the 2010 California Building Standards Code, Title 24, Part 9, California Fire Code, changes, modifies, and amends Section 903.1 through Section 907.8.5.

II. Finding

Pursuant to Section §17958.5 and §17958.7 of the State of California Health and Safety Code, the Board of Directors of the Contra Costa County Fire Protection District finds that the above referenced change, modification, and amendment is needed and is reasonably necessary because of certain local climatic, geological, and topographic conditions as described below.

A. Climatic

1. Precipitation and Relative Humidity

(a) Conditions

Precipitation ranges from 15 to 24 inches per year with an average of approximately 20 inches per year. Ninety-six (96) percent falls during the months of October through April and four (4) percent from May through September. This is a dry period of at least five (5) months each year. Additionally, the area is subject to occasional drought. Relative humidity remains in the middle range most of the time. It ranges from forty-five (45) to sixty-five (65) percent during spring, summer, fall, and from sixty (60) to ninety (90) percent in the winter. It occasionally falls as low as fifteen (15) percent.

(b) Impact

Locally experienced dry periods cause extreme dryness of untreated wood shakes and shingles on buildings and non-irrigated grass, brush and weeds, which are often near buildings with wood roofs and sidings. Such dryness causes these materials to ignite very readily and burn rapidly and intensely.

Because of dryness, a rapidly burning grass fire or exterior building fire can quickly transfer to other buildings by means of radiation or flying brands, sparks and embers. A small fire can rapidly grow to a magnitude beyond the control capabilities of the Fire District resulting in an excessive fire loss.

2. Temperature

(a) Conditions

Temperatures have been recorded as high as 114⁰ F. Average summer highs are in the 90⁰ range, with average maximums of 105⁰ F.

(b) Impact

High temperatures cause rapid fatigue and heat exhaustion of firefighters, thereby reducing their effectiveness and ability to control large building and wildland fires.

Another impact from high temperatures is that combustible building material and non-irrigated weeds, grass and brush are preheated, thus causing these materials to ignite more readily and burn more rapidly and intensely. Additionally, the resultant higher temperature of the atmosphere surrounding the materials reduces the effectiveness of the water being applied to the burning materials. This requires that more water be applied, which in turn requires more Fire District resources in order to control a fire on a hot day. High temperatures directly contribute to the rapid growth of fires to an intensity and magnitude beyond the control capabilities of the Fire District.

3. Winds

(a) Conditions

Prevailing winds in the area are from the south or southwest in the mornings and from the north or northwest in the afternoons. However, winds are experienced from virtually every direction at one time or another. Velocities are generally in the fourteen (14) mph to twenty-three (23) mph ranges, gusting to twenty-five (25) to thirty-five (35) mph. Forty (40) mph winds are experienced occasionally and winds up to fifty-five (55) mph have been registered locally. During the winter half of the year, strong, dry, gusty winds from the north move through the area for several days creating extremely dry conditions.

(b) Impact

Winds such as those experienced locally can and do cause fires, both interior and exterior, to burn and spread rapidly. Fires involving non-irrigated weeds, grass and brush can grow to a magnitude and be fanned to intensity beyond the control capabilities of the Fire District very quickly even by relatively moderate winds. When such fires are not controlled, they can extend to nearby buildings, particularly those with untreated wood shakes or shingles.

Winds of the type experienced locally also reduce the effectiveness of exterior water streams used by the Fire District on fires involving large interior areas of buildings, fires which have vented through windows and roofs due to inadequate built-in fire protection and fires involving wood shake and shingle building exteriors. Local winds will continue to be a definite factor towards causing major fire losses to buildings not provided with fire resistive roof and siding materials and buildings with inadequately separated interior areas or lacking automatic fire protection systems. National statistics frequently cite wind conditions, such as those experienced locally, as a major factor where conflagrations have occurred.

4. Summary

These local climatic conditions affect the acceleration, intensity, and size of fire in the community. Times of little or no rainfall, of low humidity, and high temperatures create extremely hazardous conditions, particularly as they relate

to wood shake and shingle roof fires and conflagrations. The winds experienced in this area can have a tremendous impact upon structure fires. During wood shake and shingle roof fires, or exposure fires, winds can carry sparks and burning brands to other structures, thus spreading the fire and causing conflagrations. In building fires, winds can literally force fires back into the building and can create a blow torch effect, in addition to preventing "natural" ventilation and cross-ventilation efforts.

B. Geological and Topographic

1. Seismicity

(a) Conditions

Contra Costa County is located in Seismic Risk Zone 4, which is the worst earthquake area in the United States. Buildings and other structures in Zone 4 can experience major seismic damage. Contra Costa County is in close proximity to the San Andreas Fault and contains all or portions of the Hayward, Calaveras, Concord, Antioch, Mt. Diablo, and other lesser faults. A 4.1 earthquake with its epicenter in Concord occurred in 1958, and a 5.4 earthquake with its epicenter also in Concord occurred in 1955. The Concord and Antioch faults have a potential for a Richter 6 earthquake and the Hayward and Calaveras faults have the potential for a Richter 7 earthquake. Minor tremblers from seismic activity are not uncommon in the area.

The fire environment of a community is primarily a combination of two factors: the area's physical **geologic** characteristics and a historic pattern of urban-suburban development. These two factors, alone and combined, create a mixture of environments which ultimately determines the area's fire protection needs. The Fire District has 3 distinct areas. They are: the West, which includes the City of San Pablo and the communities of North Richmond, El Sobrante, and East Richmond Heights. The Central includes the Cities of Lafayette, Martinez, Pleasant Hill, Concord, Walnut Creek, Clayton and the communities of Clyde, Pacheco, Alhambra Valley and Alamo. The East includes the Cities of Antioch, Pittsburg and the community of Bay Point.

Because of the size of the Contra Costa County Fire Protection District (304 Square miles) the characteristics of the fire environment changes from one location to the next. Therefore the District has not one, but a number of fire environments, each of which has its individual fire protection needs from two major oil refineries, to heavy industrial facilities, freeways, rail lines, waterways, port facilities, wildland areas, urban and suburban town settings and major downtown areas.

Interstates 80 and 680, State Highways 4, 24 and 242, Bay Area Rapid Transit District (BART) and major thoroughfares travel throughout the District. There are 2 major rail lines which run through the District. An overpass or underpass crossing collapse would alter the response route and time for responding

emergency equipment. This is due to the limited crossings of the major highways and rail lines.

Earthquakes of the magnitude experienced locally can cause major damage to electrical transmission facilities, which, in turn, cause power failures while at the same time starting fires throughout the Fire District. The occurrence of multiple fires will quickly deplete existing fire district resources; thereby reducing and/or delaying their response to any given fire. Additionally, without electrical power, elevators, smoke management systems, lighting systems, alarm systems and other electrical equipment urgently needed for building evacuation and fire control in large buildings without emergency generator systems would be inoperative, thereby resulting in loss of life and/or major fire losses in such buildings.

(b) Impact

A major earthquake could severely restrict the response of the Fire District and its capability to control fires involving buildings of wood frame construction, with ordinary wood shake and shingle exteriors, or with large interior areas not provided with automatic smoke and fire control systems.

2. Soils

(a) Conditions

The area is replete with various soils, which are unstable, clay loam and alluvial fans being predominant. These soil conditions are moderately to severely prone to swelling and shrinking, are plastic, and tend to liquefy.

Throughout the Fire District, the topography and development growth has created a network of older, narrow roads. These roads vary from gravel to asphalt surface and vary in percent of slope, many exceeding twenty- (20) percent. Several of these roads extend up through the winding passageways in the hills providing access to remote, affluent housing subdivisions. Many of these roads are private with no established maintenance program. During inclement weather, these roads are subject to rock and mudslides, as well as down trees, obstructing all vehicle traffic. It is anticipated that during an earthquake, several of these roads would be practically impassable.

3. Topographic

(a) Conditions

i. Vegetation

The service area of the Contra Costa County Fire Protection District has a varied topography and vegetative cover. A conglomeration of flat lands, hills, and ridges make up the terrain. Development has occurred on the flat lands in the District and in the past 15 years development has spread into the hills, valleys and ridge lands of the District.

Highly combustible dry grass, weeds, and brush are common in the hilly and open space areas adjacent to built-up locations six (6) to eight (8) months of

each year. Many of these areas frequently experience wildland fires, which threaten nearby buildings, particularly those with wood roofs, or sidings. This condition can be found throughout the Fire District, especially in those fully developed areas and those areas marked for future development.

ii. Surface Features

The arrangement and location of natural and manmade surface features, including hills, creeks, canals, freeways, housing tracts, commercial development, fire stations, streets and roads, combine to limit efficient response routes for Fire District resources into and through many areas.

iii. Buildings, Landscaping and Terrain

Many of the “newer” large buildings and building complexes have access and landscaping features or designs which preclude, or greatly limit, efficient approach or operational access to them by Fire District vehicles. In addition, the presence of security gates, roads of inadequate width and grades which are too steep for Fire District vehicles create an adverse impact on fire suppression efforts.

When Fire District vehicles cannot gain access to buildings involved with fire, the potential for complete loss is realized. Difficulty reaching a fire site often requires additional fire personnel and resources to successfully and safely mitigate the event. Access problems often result in severely delaying, misdirecting, or making fire and smoke control efforts unsuccessful.

(b) Impact

The above local geological and topographical conditions increase the magnitude, exposure, accessibility problems, and fire hazards presented to the Contra Costa County Fire Protection District. Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself. Hazardous materials, particularly toxic gases, could pose the greatest threat to the largest number, should a significant seismic event occur. Public Safety resources would have to be prioritized to mitigate the greatest threat, and may likely be unavailable for smaller single dwelling or structure fires.

Other variables may intensify the situation:

1. The extent of damage to the water system.
2. The extents of isolation due to bridge and/or freeway overpass collapse.
3. The extent of roadway damage and/or amount of debris blocking the roadways.
4. Climatic conditions (hot, dry weather with high winds).
5. Time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours.
6. The availability of timely mutual aid or military assistance.
7. The large portion of dwellings with wood shake or shingles coverings could result in conflagrations.

III. Summary

Local climatic, geologic, and topographic conditions impact fire prevention efforts, and the frequency, spread, acceleration, intensity, and size of fire involving buildings in this community. Further, they impact potential damage to all structures from earthquake and subsequent fire. This was the case in the October 17, 1989 Loma Prieta earthquake that measured 6.9 and occurred on the San Andreas fault, centered near Santa Cruz. This event caused several residential fires and numerous commercial buildings were damaged.

Therefore, based on the findings declared in this document, it is found reasonably necessary that the 2010 California Fire Code be changed or modified to mitigate the effects of the above conditions.

The changes and/or modifications to the 2010 California Fire Code, as expressed in Contra Costa County Fire Protection District Ordinance #2010-15, are found to be necessary to mitigate the above described impacts which are caused by the above described local climatic, geological and topographic conditions.

Ordinance #2010-15 is attached in its entirety.

ORDINANCE NO. 2010-15

FIRE CODE

ORDINANCES OF THE COUNTY OF CONTRA COSTA, THE CROCKETT-CARQUINEZ FIRE PROTECTION DISTRICT, AND THE CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT ADOPTING THE 2010 CALIFORNIA FIRE CODE WITH AMENDMENTS.

The Contra Costa County Board of Supervisors, as the Board of Supervisors for Contra Costa County and as the Board of Directors of the Crockett-Carquinez Fire Protection District and the Contra Costa County Fire Protection District, ordains as follows:

SECTION 1. ADOPTION OF THE CALIFORNIA FIRE CODE.

Contra Costa County, the Crockett-Carquinez Fire Protection District and the Contra Costa County Fire Protection District hereby adopt the 2010 California Fire Code (California Code of Regulations, Title 24, Part, 9 [based on the 2009 International Fire Code published by the International Code Council]), including Chapters 1-45 and 47-49, Appendix Chapter 4, Appendix B, Appendix C, Appendix D, Appendix F, Appendix H, Appendix I, and Appendix J, as amended by the changes, additions and deletions set forth in this ordinance. The 2010 California Fire Code, with the changes, additions, and deletions set forth this ordinance, is adopted by this reference as though fully set forth in this ordinance. As of the effective date of this ordinance, the provisions of the fire code are controlling and enforceable within the limits of each jurisdiction.

SECTION 2. AMENDMENTS TO THE CALIFORNIA FIRE CODE.

The 2010 California Fire Code is amended by the changes, additions and deletions set forth in this Section 2. Chapter and Section numbers used below are those of the 2010 California Fire Code.

Chapter 1. Administration.

Section 101.1 is amended to read:

101.1 Title. This code is the Fire Code of Contra Costa County, the Crockett-Carquinez Fire Protection District, and the Contra Costa County Fire Protection District, and is hereinafter referred to as "this code".

Section 102.1 is amended to add item 5, to read:

102.1 Construction and design provisions. The construction and design provisions of this code shall apply to:

5. Where not otherwise limited by law, the provisions of this code shall apply to vehicles, ships, and boats that are permanently affixed to a specific location within the boundaries of this jurisdiction.

Section 105.6 is amended to read:

105.6 Required operational permits. The fire code official is authorized to issue operational permits for the operations set forth in Chapter 1, Sections 105.6.1 through 105.6.54.

Section 105.6 is amended by adding subsections 105.6.48 through 105.6.54, to read:

105.6.48 Asbestos removal. A permit is required to conduct asbestos-removal operations regulated by Section 1418.

105.6.49 Battery systems. A permit is required to operate stationary lead-acid battery systems having a liquid capacity of more than 50 gallons (189 L) pursuant to Section 608.

105.6.50 Christmas tree sales. A permit is required to use a property for the purpose of selling cut Christmas trees.

105.6.51 Firework aerial display. A permit is required to conduct a firework display regulated by California Code of Regulations, Title 19 and Chapter 33 of this code.

105.6.52 Model rockets. A permit is required to sell or launch model rockets pursuant to California Code of Regulations, Title 19, Division 1, Article 17.

105.6.53 Temporary water supply. A permit is required to use a temporary water supply for construction of residential projects or subdivisions pursuant to Section 1412.1.

105.6.54 Tire storage. A permit is required to store more than 1,000 cubic feet (28.3m³) of tires inside buildings pursuant to Chapter 25.

Section 105.7 is amended to read:

105.7 Required construction permits. The fire code official is authorized to issue construction permits for the operations set forth in Chapter 1, Sections 105.7.1 through 105.7.21.

Section 105.7 is amended by adding sections 105.7.15 through 105.7.21 as follows:

105.7.15 Access for fire apparatus. Plans shall be submitted and a permit is required to install, improve, modify, or remove public or private roadways, driveways, and bridges for which Fire District access is required by the Fire Code. A permit is required to install a gate across a fire apparatus access road pursuant to Section 503.

105.7.16 Construction, alteration, or renovation of a building for which a building permit is required. Plans shall be submitted to the fire code official for all land developments or for the construction, alteration, or renovation of a building within the jurisdiction where a building permit is required.

Exception: Non-sprinklered Group R-3 Occupancies where work does not involve a substantial addition or expansion.

105.7.17 Medical gas systems. A construction permit is required for the installation of or modification to a medical gas system pursuant to Section 3006.

105.7.18 Refrigeration equipment. A permit is required to install a mechanical refrigeration unit or system regulated by Chapter 6.

105.7.19 Land Development, Subdivisions. Plans shall be submitted to the fire code official for all land developments or improvements proposed within the jurisdiction that involve the subdivision of land.

105.7.20 Water supply for fire protection. Plans shall be submitted to the fire code official for the purpose of determining whether adequate water supplies, fire hydrants, and associated systems are provided for all facilities, buildings or portions of buildings either constructed or moved into the District pursuant to Section 507.

105.7.21 Solar photovoltaic power systems. A construction permit is required to install or modify Solar photovoltaic power systems.

Section 108.1 is amended to read:

108.1 Board of Appeals established. In order to hear and decide appeals of orders, decisions or determinations made by the fire code official relative to the application and interpretation of this code, there is hereby created a board of appeals. The board of appeals is comprised of the Board of Directors.

Section 108.3 is deleted.

Section 109.3 is amended in its entirety to read:

109.3 Violation penalties. Every person who violates any provision of this fire code is guilty of a misdemeanor. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects within a reasonable time; and when not otherwise specified, each ten (10) days that prohibited conditions are maintained shall constitute a separate offense. The application of the aforesaid penalty shall not be held to prevent the enforced removal of prohibited conditions. This section is a declaration of Health and Safety Code section 13871 and is not intended to create a different or separate penalty.

Section 111.4 is amended to read:

111.4 Failure to comply. Any person who continues any work after having been served with a stop work order is subject to citation, except any work that a person is directed by the fire code official to perform to remove a violation or unsafe condition.

Chapter 2. Definitions

Section 202 is amended by adding the following definitions to read:

Administrator. Fire Chief.

All-weather driving surface. A roadway with a minimum surface finish of one layer of asphalt or concrete that is designed to carry the imposed weight loads of fire apparatus.

Board of Directors. The Contra Costa County Board of Supervisors as the governing body of the Crockett-Carquinez Fire Protection District and the Contra Costa County Fire Protection District.

Board of Fire Commissioners. An advisory commission appointed by the Board of Directors to act as set forth in this ordinance and by resolutions of the Board of Directors.

Driveway. A private roadway that provides access to no more than two (2) single-family dwellings.

Fire Code Official. In the Contra Costa County Fire Protection District, the Fire Code Official is the Fire Marshal. In the Crockett-Carquinez Fire Protection District, the Fire Code Official is the Fire Chief.

Firebreak. A continuous strip of land upon and from which all rubbish, weeds, grass or other growth that could be expected to burn has been abated or otherwise removed in order to prevent extension of fire from one area to another.

Firetrail. A graded firebreak of sufficient width, surface, and design to provide access for personnel and equipment to suppress and to assist in preventing a surface extension of fires.

Nuisance Fire Alarm. The activation of any fire protection or alarm system which results in the response of the Fire District and is caused by malfunction, improper maintenance, negligence, or misuse, of the system by an owner, occupant, employee, or agent, or any other activation not caused by excessive heat, smoke, fire, or similar activating event.

Response time. The elapsed time from receipt of call to the arrival of the first unit on scene.

Rural area. An area generally designated for agricultural or open space uses with parcels more than 10 acres (4.046873ha) in size.

Rural residential area. An area generally designated for single family residential use with parcels between three (1.2140619ha) and 10 (4.046873ha) acres in size.

Running time. The calculated time difference between leaving the first-due station and arriving on the emergency scene.

Sprinkler Alarm and Supervisory System (SASS): A Dedicated Function Fire Alarm System located at the protected premise installed specifically to monitor sprinkler water-flow alarm, valve supervisory, and general trouble conditions where a Building Fire Alarm is not required.

Substantial Addition or Expansion. Addition, expansion, remodel, or renovation of any structure where the addition of new fire area exceeds fifty percent of the existing fire area.

Temporary fire department access road for construction. An approved temporary roadway for emergency vehicle use during construction of residential subdivision projects.

Temporary fire department access road for construction of one (1) residential (R3) unit. A temporary roadway for emergency vehicle use during construction of an individual residential (R3) structure where a fire department access road is required as part of the project.

Temporary water supply. Water stored for firefighting purposes in an approved aboveground tank during combustible construction.

Tree litter. Any limbs, bark, branches and/or leaves in contact with other vegetation or left to gather on the ground.

Chapter 3. General Precautions Against Fire.

Section 304.1.2 is amended to read:

304.1.2 Vegetation. Hazards created by the growth of weeds, grass, vines, trees or other growth capable of being ignited and endangering property shall be mitigated in accordance with Section 318.

Section 304.1.4 is added to read:

304.1.4 Clothes Dryers. Clothes dryers shall be frequently cleaned to maintain the lint trap, mechanical and heating components, vent duct and associated equipment free from accumulations of lint and combustible materials.

Section 308.1.4 Exception 1 is amended to read:

Exception 1. Residential Occupancies.

Section 318 is added to Chapter 3, to read:

318 Exterior Fire Hazard Control.

318.1 General.

318.1.1 Jurisdictional Authority. The Board of Directors, as the supervising, legislative and executive authority of the jurisdiction, hereby delegates to the Board of Fire Commissioners of the jurisdiction all its powers, duties and rights to act pursuant to Part 5 (commencing with Section 14875), Division 12, of the Health and Safety Code, to clear or order the clearing of rubbish, litter or other flammable material where such flammable material endangers the public the safety by creating a fire hazard. Fire hazard abatement will be conducted in accordance with the provisions of said Part 5 and this ordinance. In the application of the provisions of said Part 5 to fire hazard abatement proceedings under this ordinance and the Fire Protection District Law of 1987, the terms "Board of Directors" or "Board," when used in Part 5, means the Board of Fire Commissioners of this jurisdiction under this section; and the officers designated in Health and Safety Code Section 14890 are the employees of the jurisdiction.

318.1.2 Retention of Jurisdictional Authority. If no Board of Fire Commissioners has been appointed for the jurisdiction, then the Board of Directors retains its powers and rights to act pursuant to said Part 5.

318.1.3 Contract for Services. The Board of Directors reserves and retains the power to award a contract for fire hazard abatement work when the employees of the jurisdiction are not used to perform the abatement work.

318.2 Definitions.

Weeds. All weeds growing upon streets or private property in the jurisdiction, including any of the following:

1. Weeds that bear seeds of a fluffy nature or are subject to flight.
2. Sagebrush, chaparral (including Chamise, Coyote Brush/Greasewood, Brooms, and Buckwheat), and any other brush or weeds that attain such large growth as to become, when dry, a fire menace to adjacent improved property.
3. Weeds that are otherwise noxious or dangerous.
4. Poison oak and poison sumac when the conditions of growth constitute a menace to public health.
5. Dry grass, brush, tree litter, litter, or other flammable materials that endanger the public safety by creating a fire hazard.

Rubbish. Waste matter, litter, trash, refuse, debris and dirt on streets, or private property in the jurisdiction which is, or when dry may become, a fire hazard.

Streets. Includes alleys, parkways, driveways, sidewalks, and areas between sidewalks and curbs, highways, public right of ways, private road, trails, easements, and fire trails.

Person. Includes individuals, firms, partnerships, and corporations.

Defensible Space. The area within the perimeter of a parcel providing the key point of defense from an approaching wildland or escaping structure fire.

Priority Hazard Zone. An area where the threat from wildfire is severe due to proximity to open space, topography, degree of space, density of homes amount of vegetation (native and ornamental) and other conditions favorable to fast moving fires.

Reduced Fuel Zone. The area that extends from thirty (30) feet to one hundred (100) feet or more away from the structure or to the property line, whichever is closer to the structure.

Cost of Abatement. Includes all expenses incurred by the jurisdiction in its work of abatement undertaken and administrative costs pursuant to Section 318.5 of this Ordinance.

318.3 Weeds and Rubbish a Public Nuisance. The Board hereby declares that all weeds growing upon private property or streets in this jurisdiction and all rubbish on private property or streets in this jurisdiction are public nuisances. Such weed nuisance is seasonal and recurrent.

318.4 Abatement of Hazard.

318.4.1 Prohibition. No person who has any ownership or possessory interest in or control of parcel of land shall allow to exist thereon any hazardous rubbish, weeds, trees, or other vegetation that constitutes a fire hazard. Destruction by burning within this jurisdiction is unlawful unless the written permission of the fire chief is first obtained, and all other applicable permits are obtained from appropriate governing agencies or jurisdictions.

318.4.2 Specific Requirements. The District shall develop minimum abatement standards for land in residential, rural and/or rural residential, business, industrial areas, or land which is unused or vacant. Such standards may be modified periodically as circumstances dictate.

318.4.2.1 Clearance of Weeds from Streets. The Fire Code Official is authorized to cause areas within 10 feet (3048 mm) on each side of portions of streets which are improved, designed or ordinarily used for vehicular traffic to be cleared of flammable vegetation and other combustible growth. The Fire Code Official is authorized to enter upon private property to do so, to the extent allowed by law.

318.5 Abatement Procedures.

318.5.1 Abatement Order. The fire code official may order the abatement of the weeds and rubbish described in Sections 304.1.2 and 318.2. On making the order, the fire code official will mail a copy of a notice to the owners of the affected property as their names and addresses appear upon the last county equalized assessment roll, or as their names and addresses are known to the fire code official. As an alternative to mailing, the notice may be posted upon the affected property and published in the jurisdiction, not less than 15 days prior to the date of the abatement hearing. Copies of the notice will be headed with the words "Notice to Abate Weeds and Rubbish" in letters at least one inch high. The notice will be in substantially the following form:

NOTICE TO ABATE WEEDS AND RUBBISH

You are hereby notified that weeds and rubbish constitute a fire hazard on the following described property owned by you:

(Describe property by common street designation, by metes and bounds, Assessor's code area and parcel number, or by reference to attached map).

You must remove the weeds and rubbish within fifteen (15) days from the date of this notice. If you fail to do so, the (jurisdiction) Fire Protection District will remove it, and the cost of the abatement, including administrative costs, will be collected as property taxes and will be a lien on your property until paid.

You are further notified that the Board of Supervisors has declared that such weeds and rubbish constitute a public nuisance and that such weeds also constitute a seasonal and recurring nuisance.

You may appear before the Board of Fire Commissioners of this jurisdiction on (time and date) at (place-room, street, address, and city) to show cause why this order should not be enforced.

(Signed): (Name of fire code official of name of jurisdiction)

318.5.2 Hearing Date. A date for hearing on the notice will be sent at least 15 days after the date of the notice. The date of the notice is the date on which the notice is placed in the United States mail or the date on which it is posted on the property. At the hearing, the property owner or his agent may appear to show cause why the order should not be enforced. For good cause shown, the Board of Fire Commissioners may extend the time for compliance with the order or may rescind the order.

318.5.3 Contract Award. If the owner fails to comply with the order, the fire code official may have the weeds and rubbish abated either by employees of this jurisdiction or by contract. If a contract is awarded, it will be by public bid, awarded to the lowest responsible bidder. A contract may include work on more than one parcel. Concerning any contract previously awarded as provided in this subsection and that has been fully extended as provided in that contract, it may thereafter be extended on its same terms and conditions for a further period (not to exceed one year) by agreement of the Board of Supervisors and the involved contractor.

318.5.4 Abatement Report of Costs. The fire code official or his or her designee abating the nuisance will keep an account of the cost of abatement in front of or on each separate parcel of land and will render an itemized report in writing to the Board of Fire Commissioners showing the cost of removing the weeds and rubbish on or in front of each separate lot or parcel of land, or both. Before the report is submitted to the Board of Fire Commissioners, a copy of it will be posted for at least three days on or near the chamber door of the Board with a notice of the time and when the report will be submitted to the Board for confirmation. At the time fixed for receiving and considering the report, the Board of Fire Commissioners will hear it and any objections of any of the property owners liable to be assessed for the work of abatement. Thereupon, the Board of Fire Commissioners may make such modifications in the report as it deems necessary, after which the report will be confirmed. The amount of the cost, including administrative costs, of abating the nuisance in front of or upon the various parcels of the land mentioned in the report as confirmed will constitute special assessment against the respective parcels of land, and are a lien on the property for the amount of the respective assessments. Such lien attaches upon recordation, in the office of the County Recorder, of a certified copy of the Resolution of Confirmation.

318.5.5 Cost Assessments. Upon confirmation of the report of cost by the Board of Fire Commissioners and the recordation of the Resolution of Confirmation, a copy of the report of cost will be sent to the County Auditor, who will enter the amount of the assessments against the parcels. Thereafter the amount of the assessments will be collected at the same time and in the same way as County taxes are collected. The owners are subject to the same penalties and the same procedure and sale in case of delinquency as provided for ordinary county taxes. All laws applicable to the levy, collection, and enforcement of county taxes are applicable to these assessment taxes.

318.6 Alternate Mitigation. In lieu of ordering abatement as provided in Section 318.5.1, the fire code official of this jurisdiction may order the preparation of firebreaks/fuelbreaks around parcels of property where combustible weeds, crops, or brush are present. In determining the proper width for firebreaks/fuelbreaks, the fire code official will consider the height of the growth, weather condition, topography, and the accessibility to the property for fire protection equipment. The procedure set forth in Section 318.5.1 for the abatement of weeds and rubbish shall apply to the preparation of firebreaks/fuelbreaks.

318.7 Subsurface Fires.

318.7.1 Peat Fire. It is the duty of each person, firm, corporation, or association not to permit a peat fire in or a fire involving combustible vegetable matters under the surface of the natural ground to remain upon the property. It is hereby declared that it is the duty of any person as herein defined to take all necessary precautions to extinguish any subsurface fire involving peat or vegetable material at the owner's own cost and expense.

318.7.2 Fire Suppression Costs. If there exists upon the lands or property of any person as herein defined a subsurface fire involving the burning or combustion of peat, vegetable matter or vegetation, and the owner or occupant thereof has not taken reasonable precautions within a reasonable time to extinguish or minimize such fire or combustion, this jurisdiction may, in addition to its regular duties to extinguish or minimize such fire or combustion, go upon the lands of any person as herein defined and extinguish such fire or combustion. Any costs incurred by the Fire District in fighting the fire and for the cost of providing rescue or emergency medical services shall be a charge against the property owner. The charge shall constitute a debt of the property owner and is collectable by the jurisdiction incurring those costs in the same manner as in the case of an obligation under a contract, express or implied. (See Health and Safety Code, §13009.)

Section 319 is added to Chapter 3 to read:

319 Automobile Wrecking Yards.

319.1 General. The operation of automobile wrecking yards shall be in accordance with this section.

319.2 Definitions.

Automobile Wrecking Yard. An area that stores or dismantles salvaged vehicles.

Automobile Dismantling. The operation of dismantling or removing parts from salvaged vehicles including engines or engine parts.

319.3 Requirements.

319.3.1 Permits. An operation permit is required for all automobile wrecking yards, automobile dismantling operations, and similar operations.

319.3.2 Fire Apparatus Access Roads. Fire apparatus access roads shall be constructed throughout the site in accordance with this code and shall be maintained clear of all vehicles and stored items.

319.3.3 Welding and cutting. Welding and cutting operations shall be conducted in an approved location, clear of all flammable liquids and combustible materials, including weeds, tires and all other debris.

319.3.4 Housekeeping. Combustible rubbish accumulated on site shall be collected and stored in approved containers, rooms or vaults of noncombustible materials. Combustible vegetation, cut or uncut, shall be removed when determined by the fire code official to be a fire hazard.

319.3.5 Fire Protection. Offices, storage buildings and vehicles used for site operations shall each be provided with at least one portable fire extinguisher with not less than a 4-A: 40-B-C rating. When required by the fire code official, additional fire extinguishers shall be provided.

319.3.6 Tire storage. Tires shall be stored in racks or in a manner as approved by the fire code official.

319.3.6.1 Distance from Water Supply. Tire storage shall be located on-site and no further than 500 feet from a fire hydrant or an approved water supply as determined by the fire code official.

319.3.7 Storage Piles. Storage piles shall be located a minimum of 20 feet from property lines and shall have an unobstructed access road on all sides of not less than 20 feet.

319.3.8 Burning operations. The burning of salvaged vehicles and salvaged or waste materials is prohibited.

319.3.9 Motor vehicle fluids. Motor vehicle fluid shall be drained from salvaged vehicles when such liquids are leaking onto the ground and prior to dismantling or removing engine/motor parts.

319.3.9.1 Mitigation of leaking fluids. Precautions shall be taken to prevent fluids from salvaged vehicles from leaking onto the ground. Supplies or equipment capable of mitigating leaks from fuel tanks, crankcases, brake systems and transmissions shall be kept available on site. Single-use plugs, diking and absorbent materials shall be disposed of as hazardous waste and removed from the site in a manner in accordance with federal, state and local requirements.

319.3.10 Fuel tanks. Fuel tanks of salvaged vehicles shall be emptied of all flammable (gasoline, diesel) fuels in an approved manner and stored in approved tanks.

319.3.10.1 Repair of vehicle fuel tanks. The repair of fuel tanks, including cutting, welding or drilling of any kind, is prohibited.

319.3.11 Lead acid batteries. Lead acid batteries shall be removed from all salvaged vehicles and stored in an approved manner in a location approved by the fire code official.

Chapter 4. Emergency Planning and Preparedness.

Section 401.3.1 is amended by adding a new subsection 401.3.1.1 to read:

401.3.1.1 Nuisance Fire Alarm fee: A fee may be charged for false and/or nuisance fire alarms in accordance with a fee schedule adopted by the Board of Directors.

Chapter 5. Fire Service Features.

Section 503.1 is amended to add subsection 503.1.4 to read:

503.1.4 Access to Open Spaces. When existing access to open land or space, or to fire trail systems maintained for public or private use, is obstructed by new development of any kind, the developer shall

provide an alternate means of access into the area that is sufficient to allow access for fire personnel and apparatus. The alternate means of access must be approved by the fire code official.

Section 503.2.1 is amended by adding the following exception:

Exception: A minimum 16 foot wide driveway is acceptable for access to one or two single-family dwellings.

Section 505 is amended by adding Section 505.3, to read:

505.3 Street names and addressing. Street names and addressing shall be submitted for review and approval to the fire code official, whose approval will not be unreasonably withheld. The purpose of the review is to verify that new street names and addressing will not duplicate existing street names and addressing.

Section 507.2 is amended by adding subsection 507.2.3, to read:

507.2.3 Suburban and rural water supply storage. Swimming pools and ponds shall not be considered water storage for the purposes of Section 507.1.

Section 510.1.1 is added to read:

Section 510.1.1 Emergency Responder Radio Installation. Installations of emergency responder radios shall be in accordance with Appendix J of this code.

Chapter 6. Building Services and Systems.

Section 603.6 is amended by adding subsection 603.6.6, to read:

603.6.6 Sparks from chimneys. A chimney that is used with either a fireplace or heating appliances in which solid or liquid fuel is used shall be maintained with spark arresters that are required for incinerators pursuant to the California Mechanical Code.

Section 605.11 is added to Chapter 6 to read:

605.11 Solar Photovoltaic Power Systems. Solar photovoltaic power systems shall be installed in accordance with this code, the California Building Code and California Electrical Code.

Exception: Detached Group U non-habitable structures such as parking shade structures, carports, solar trellises, similar type structures, and Group R-3 Occupancies where less than 50% of the roof area is covered with solar panels are not subject to the requirements of this section.

605.11.1 Marking. Marking is required on all interior and exterior DC conduit, enclosures, raceways, cable assemblies, junction boxes, combiner boxes, and disconnects.

605.11.1.1 Materials. The materials used for marking shall be reflective, weather resistant and suitable for the environment. Marking as required in sections 605.11.1.2 through 605.11.1.4 shall have all letters capitalized with a minimum height of 3/8 inch (9.5 mm) white on red background.

605.11.1.2 Marking content. The marking shall contain the words "WARNING: PHOTOVOLTAIC POWER SOURCE"

605.11.1.3 Main service disconnect. The marking shall be placed adjacent to the main service disconnect in a location clearly visible from the location where the disconnect is operated.

605.11.1.4 Location of Marking. Marking shall be placed on all interior and exterior DC conduit, raceways, enclosures and cable assemblies every 10 feet (3048 mm) within 1 foot (305 mm) of all turns or bends and within 1 foot (305 mm) above and below all penetrations of roof/ceiling assemblies and all walls and/or barriers.

605.11.2 Locations of DC conductors. Conduit, wiring systems, and raceways for photovoltaic circuits shall be located as close as possible to the ridge or hip or valley and from the hip or valley as directly as possible to an outside wall to reduce trip hazards and maximize ventilation opportunities. Conduit runs between sub arrays and to DC combiner boxes shall be installed in a manner that minimizes total amount of conduit on the roof by taking the shortest path from the array to the DC combiner box. The DC combiner boxes shall be located such that conduit runs are minimized in the pathways between arrays. DC wiring shall be installed in metallic conduit or raceways when located within enclosed spaces in a building. Conduit shall run along the bottom of load bearing members.

605.11.3 Access and pathways. When a solar photovoltaic power system installed on a roof, roof access, pathways, and spacing requirements shall be provided in order to ensure access to the roof; provide pathways to specific areas of the roof; provide for smoke ventilation operations; and to provide emergency egress from the roof.

Exceptions:

1. Requirements relating to ridge, hip, and valleys do not apply to roofs with slopes with a ratio of two units vertical to twelve units horizontal (2:12) or less.
2. Residential structures shall be designed so that each array is no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in either axis.
3. The fire chief may allow panels/modules to be located up to the ridge when an alternative ventilation method acceptable to the fire chief has been provided or where the fire chief has determined vertical ventilation techniques will not be employed.

605.11.3.1 Roof access. When a solar photovoltaic power system is installed on a roof, roof access must be provided in an area that does not place ground ladders over openings such as windows or doors, and at strong points of building construction in locations where the access point does not conflict with overhead obstructions such as tree limbs, wires, or signs.

605.11.3.2 Residential systems for one- and two-family residential dwellings. A solar photovoltaic power system installed on the roof of a one- or two-family residential dwelling shall be installed in accordance with Sections 605.11.3.2.1 through 605.11.3.2.4

605.11.3.2.1 Residential buildings with hip roof layouts. Panels /modules shall be located in a manner that provides a 3 foot (914 mm) wide clear access pathway from the eave to the ridge on each roof slope where panels/modules are located. The access pathway shall be located at a structurally strong location on the building capable of supporting the live load of fire fighters accessing the roof.

605.11.3.2.2 Residential buildings with a single ridge. Panels/modules shall be located in a manner that provides two three-foot (3') wide access pathways from the eave to the ridge on each roof slope where panels/modules are located.

605.11.3.2.3 Hips and Valleys. Panels/modules shall be located no closer than 18 inches (457 mm) to a hip or valley if panels/modules are to be placed on both sides of a hip or valley. If the panels are to be located on only one side of a hip or valley that is of equal length then the panels may be placed directly adjacent to the hip or valley.

605.11.3.2.4 Smoke Ventilation. Panels/modules shall be located no higher than 3 feet (914 mm) below the ridge in order to allow for fire department smoke ventilation operations.

605.11.3.3 All other occupancies. A solar photovoltaic power system installed on the roof of any occupancy other than a one- or two-family residential dwelling shall be installed in accordance with 605.11.3.3.1 through 605.11.3.3.3.

Exception: Where it is determined by the fire code official that the roof configuration is similar to a one- or two-family dwelling, the fire code official may approve the residential access and ventilation requirements provided in 605.11.3.2.1 through 605.11.3.2.4.

605.11.3.3.1 Access. There shall be a minimum 6 foot (1829 mm) wide clear perimeter around the edges of the roof.

Exception: If either axis of the building is 250 feet (76 200 mm) or less, there shall be a minimum four 4 foot (1290 mm) wide clear perimeter around the edges of the roof.

605.11.3.3.2 Pathways. The solar installation shall be designed to provide designated pathways. The pathways shall meet the following requirements:

1. The pathway shall be over areas capable of supporting the live load of fire fighters accessing the roof
2. The center line axis pathways shall be provided in both axes of the roof. Center line axis pathways shall run where the roof structure is capable of supporting the live load of firefighters accessing the roof.
3. There shall be a straight pathway, at least four feet (1290 mm) wide, clear to each skylight and/or ventilation hatch.
4. There shall be a straight pathway, at least four feet (1290 mm) wide, clear to each roof standpipe.
5. There shall be a straight pathway, at least four feet (1290 mm) wide, around each roof access hatch, with at least one pathway at least four feet (1290 mm) wide, clear to each parapet or roof edge.

605.11.3.3.3 Smoke Ventilation. The solar installation shall be designed to meet the following requirements:

1. Arrays shall be no greater than 150 feet (45 720 mm) by 150 feet (45 720 mm) in distance in either axis in order to create opportunities for smoke ventilation operations.
2. Smoke ventilation options between array sections shall be one of the following:
 - 2.1. A pathway 8 feet (2438 mm) or greater in width;
 - 2.2. A 4 foot (1290 mm) or greater in width pathway and bordering roof skylights or smoke and heat vents;
 - 2.3. A 4 foot (1290 mm) or greater in width pathway and bordering 4 foot (1290 mm) x 8 foot (2438 mm) "venting cutouts" every 20 feet (6096 mm) on alternating sides of the pathway

605.11.4 Ground mounted photovoltaic arrays. Ground mounted photovoltaic arrays shall be installed to comply with Sections 605.11 through 605.11.2 and this section. Access and pathway requirements do not apply to ground-mounted, free standing photovoltaic arrays. A clear brush area of 10 feet (3048 mm) is required for ground mounted photovoltaic arrays.

Chapter 8. Interior Finish, Decorative Materials and Furnishings.

Section 806 is amended by adding subsections 806.1.4, 806.1.5 and 806.1.6, to read:

806.1.4 Flame retardants. Cut trees shall be treated by a California State Fire Marshal-licensed fire retardant applicator. Trees shall be properly treated with an approved flame retardant.

806.1.5 Tags. Trees shall bear a tag stating date of placement in the public building, type of flame-retardant treatment used, name of the person who applied the flame retardant, the name of the person affixing the tag, a permit expiration date and the name of the designated individual making daily tests.

806.1.6 Daily tests. Trees shall be tested daily by a designated individual. The test shall include a check for dryness and adequate watering.

Chapter 9. Fire Protection Systems.

Section 901.6.2.2 is added to read:

901.6.2.2 Inspection Records. Records of all Inspections, testing and maintenance for all water based fire suppression systems shall be completed on the forms found in annex B of NFPA 25, California Edition.

Section 902 is amended to add:

Substantial Addition or Expansion. Addition, expansion, remodel, or renovation of any structure where the addition of new fire area exceeds fifty percent of the existing fire area.

Section 903.2 is adopted in its entirety except as amended below:

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided for Group A-1 occupancies where one of the following conditions exists:

1. The fire area exceeds 5000 square feet.
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area contains a multi-theater complex.

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided for Group A-3 occupancies where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet.
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The structure exceeds 10,000 square feet, contains more than one fire area containing exhibition and display rooms, and is separated into two or more buildings by fire walls of less than four hour fire resistance rating without openings.

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided for Group A-4 occupancies where one of the following conditions exists:

1. The fire area exceeds 5000 square feet
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

903.2.2.1 Group B. An automatic sprinkler system shall be provided for Group B occupancies where the fire area exceeds 5,000 square feet.

903.2.3 Group E. Except as provided for in Section 903.2.3.1 for a new public school campus an automatic sprinkler system shall be provided for Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 5000 square feet in area.
2. Throughout every portion of educational buildings below the lowest level of exit discharge serving that portion of the building.

Exception: An automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area where every classroom throughout the building has at least one exterior exit door at ground level.

3. In rooms or areas with special hazards such as laboratories, vocational shops and other such areas where hazardous materials in quantities not exceeding the maximum allowable quantity are used or stored.
4. Throughout any Group E structure greater than 10,000 square feet in area, which contains more than one fire area, and which is separated into two or more buildings by fire walls of less than four hour fire resistance rating without openings.

903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 5000 square feet.
2. A Group F-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 10,000 square feet.

903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 5000 square feet.
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 10000 square feet
4. A Group M occupancy is used for the display and sale of upholstered furniture.
5. The structure exceeds 10,000 square feet, contains more than one fire area containing a Group M occupancy, and is separated into two or more buildings by fire walls of less than 4-hour fire-resistance rating.

903.2.8.1 Group R-3 Substantial Addition or Expansion. An automatic sprinkler system shall be provided throughout all existing Group R-3 dwellings where a substantial addition or expansion occurs and the new total fire area of the structure exceeds 3,600 square feet.

903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 5000 square feet
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 10000 square feet.

903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406 of the California Building Code, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 5000 square feet.
2. Buildings no more than one story above grade plane, with a fire area containing a repair garage exceeding 5000 square feet
3. Buildings with repair garages servicing vehicles parked in basements.

903.2.10 Group S-2 enclosed parking garages. An automatic sprinkler system shall be provided throughout buildings classified as enclosed parking garages in accordance with Section 406.4 of the California Building Code as follows:

1. Where the fire area of the enclosed parking garage exceeds 5000 square feet; or
2. Where the enclosed parking garage is located beneath other occupancy groups.

Section 903.3.1.1.2 is added to read:

903.3.1.1.2 Undeclared Use. In buildings of undeclared use with floor to structure height greater than 14 feet (356 mm), the fire sprinkler system shall be designed to conform to Extra Hazard Group I design density. In buildings of undeclared use with floor to structure height less than 14 feet (356 mm), the fire sprinkler system shall be designed to conform to Ordinary Group II design density. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the owner and/or the occupant to upgrade the system.

Section 903.3.5 is amended to add subsection 903.3.5.3 to read:

903.3.5.3 Non-permissible water supply storage. Swimming pools and ponds shall not be considered water storage for the purposes of Section 903.3.5.

Section 903.3.8 is added to read:

903.3.8. Floor control valves. Individual floor control valves and waterflow detection assemblies shall be provided for each floor in multi-floor buildings at an approved location.

Exception: Group R-3 and R-3.1 Occupancies

Section 903.4.2 is amended to read:

903.4.2 Alarms. One approved audible and visual device shall be connected to every automatic sprinkler system at 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. Audible and visual alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

Section 903.6 is amended by adding subsections 903.6.3 and 903.6.4 to read:

903.6.3 Substantial Addition or Expansion. An automatic sprinkler system shall be provided throughout all existing buildings where a substantial addition or expansion occurs *and* the total fire area of the structure exceeds 5,000 square feet. Group R-3 substantial additions or expansions shall comply with Section 903.2.8.1.

903.6.4 Change of occupancy classification. Any existing building that undergoes a change of occupancy classification into a higher hazard category shall comply with the requirements of Section 903.2. Relative hazard categories of occupancy groups shall be established based upon the Heights and Areas Hazard Categories of Table 912.5 of the current edition of the International Existing Building Code, as published by the International Code Council. The requirements of Section 903.2 shall not be required when a change of occupancy classification is made to an equal or lesser hazard category. Group L occupancies shall be considered a relative hazard of 1 (highest hazard). R-3.x occupancies shall be considered a relative hazard of 4 (lowest hazard).

Section 907.5.4 is added to read:

907.5.4 Monitoring of other fire systems. In buildings equipped with a fire alarm system or sprinkler alarm and supervisory service (SASS) system, where other fire suppression or extinguishing systems are installed in the building (including but not limited to commercial kitchen suppression systems, pre-action fire suppression systems, dry chemical systems, and clean agent systems), these other suppression systems shall be monitored by the SASS dedicated function fire alarm system and transmitted as a specific signal to the Central Station. The system shall be monitored and comply with the UL Certification requirements contained herein.

Section 907.6.2.3.1 is amended to read:

907.6.2.3.1 Public and common areas. Visible alarm notification appliances shall be provided in public use areas and common use areas, including but not limited to:

1. Sanitary facilities including restrooms, bathrooms, shower rooms and locker rooms.
2. Corridors, hallways, aisles with shelving and/or fixtures obstructing the required light intensity for that area.
3. Music practice rooms.
4. Band rooms.
5. Gymnasiums.
6. Multipurpose rooms.
7. Occupational shops.
8. Occupied rooms where ambient noise impairs hearing of the fire alarm.
9. Lobbies
10. Meeting/Conference rooms.
11. Classrooms.
12. Medical exam rooms.
13. Open office areas.
14. Sales floor areas.
15. Break or lunch rooms
16. Copy or work rooms.
17. Computer server rooms exceeding 200 sq. ft.
18. File or Storage rooms exceeding 200 sq. ft.

Section 907.7.5 is amended to read:

907.7.5 Monitoring of fire alarm systems. A fire alarm system required by this chapter, or by the California Building Code, shall be monitored by a UL-listed Central Station service in accordance with NFPA 72 and this code.

Exception: Monitoring by a UL listed central station is not required for:

1. Single and multiple station smoke alarms required by section 907.2.11
2. Group I-3 occupancies shall be monitored in accordance with section 907.2.6.3.4
3. Residential Day Care Facilities (occupancy load of 14 or less)
4. One and two family dwellings
5. Residential Care Facilities licensed by the state with an occupant load of 6 or less.
6. Occupancies with a local fire alarm system that will give an audible and visible signal at a constantly attended location, as approved by the Fire Code Official.

Section 907.8.4 is added to read:

907.8.4 Certification. New fire alarm systems shall be UL-Certified. A Certificate of Completion and other documentation as listed in NFPA 72 shall be provided for all new fire alarm system installations. It is the responsibility of the building owner or owner's representative to obtain and maintain a current and valid Certificate.

Section 907.8.5 is added to read:

907.8.5 Posting of Certificate. The UL Certificate shall be posted in a durable transparent cover within 3 feet of the fire alarm control panel within 45 days of the final acceptance test/inspection.

Chapter 10. Means of Egress.

Section 1027.6 is amended by adding a new subsection 1027.6.1, to read:

1027.6.1 Exit discharge surface. Exterior exit pathway surfaces shall be suitable for pedestrian use in inclement weather, and shall terminate at a public way as defined in the California Building Code.

Chapter 14. Fire Safety During Construction and Demolition.

Section 1401.3 is added to read:

1401.3 Permits. Permits shall be obtained for asbestos removal operations, temporary fire department access roads for construction, and temporary water supplies as set forth in sections 105.6 and 105.7.

Section 1418 is added to read:

Section 1418 Asbestos removal.

1418.1 General. Operations involving removal of asbestos or asbestos-containing materials from buildings shall be in accordance with Section 1418.

Exception: Section 1418 does not apply to the removal of asbestos from:

1. Pumps, valves, gaskets and similar equipment.
2. Pipes, ducts, girders or beams that have a length less than 21 linear feet (6400 mm).
3. Wall or ceiling panels that have an area of less than 10 square feet (0.93 m²) or a dimension of less than 10 linear feet (3048 mm).
4. Floor tiles when their removal can be completed in less than four hours.
5. Group R-3 occupancies.

1418.2 Notification. The fire code official shall be notified 24 hours prior to the commencement and closure of asbestos-removal operations. The permit applicant shall notify the building official when asbestos abatement involves the removal of materials that were used as a feature of the building's fire resistance.

1418.3 Plastic Film. Plastic film that is installed on building elements shall be flame resistant as required for combustible decorative material, in accordance with Section 807.

1418.4 Signs. Approved signs shall be posted at the entrance, exit and exit-access door, decontamination areas and waste disposal areas for asbestos-removal operations. The signs shall state that asbestos is being removed from the area, that asbestos is a suspected carcinogen, and that proper respiratory protection is required. Signs shall have a reflective surface. Lettering shall be a minimum of 2 inches (51 mm) high.

Chapter 27. Hazardous Materials – General Provisions.

Section 2701.5 is amended by adding subsection 2701.5.3 to read:

2701.5.3 Emergency response support information. Floor plans, material safety data sheets, Hazardous Materials Management Plans (HMMP), Hazardous Material Inventory Statements (HMIS), and other

information must be stored at a readily accessible location, as determined by the fire code official. This location may be in cabinets located outside of facilities or buildings. Information may be required to be maintained in a specific electronic media format to facilitate computer aided dispatching.

Section 2703.9.1 is amended by adding subsection 2703.9.1.2 to read:

2703.9.1.2 Documentation. Evidence of compliance with provisions of this chapter as well as with state and federal hazardous material regulations shall be maintained on site and available for inspection by fire department personnel.

Chapter 33 Explosives and Fireworks.

Section 3301 is amended to add Sections 3301.2, 3301.3, 3301.4 and 3301.5, to read:

3301.2 Fireworks. The possession, manufacture, storage, sale, handling and use of fireworks are prohibited. The possession, manufacture, storage, sale, handling and use of fireworks or pyrotechnic materials within the jurisdiction of the District are prohibited.

Exceptions:

1. Fireworks may be temporarily stored only if they are aerial or theatrical piece fireworks stored in conjunction with an approved and permitted aerial or set display.
2. Snap Caps and Party Poppers classified by the State Fire Marshal as pyrotechnic devices.

3301.2.1 Prohibited and Limited Acts. The storage of explosive materials is prohibited in any central business district and in all zoning districts except districts zoned for industrial or agricultural uses. In districts where the storage of explosive materials is permitted, the quantities of explosives and distances shall be in accordance with International Fire Code Sections 3301.8.1 and 3301.8.1.1.

3301.3 Rocketry. The storage, handling and use of model and high-power rockets shall comply with the requirements of the California Code of Regulations, Title 19, Chapter 6, Article 17 and, when applicable, NFPA 1122, NFPA 1125, and NFPA 1127.

3301.3.1 Ammonium nitrate. The storage and handling of ammonium nitrate shall comply with the requirements of Chapter 40 and NFPA 490.

Exception: The storage of ammonium nitrate in magazines with blasting agents shall comply with the requirements of NFPA 495.

3301.4 Residential uses. No person shall keep or store, nor shall any permit be issued to keep or store, any explosives, fireworks or pyrotechnic material at any place of habitation, or within 100 feet (30 480mm) thereof.

Exception: Storage of smokeless propellant, black powder, and small arms primers for personal use and not for resale in accordance with Section 3306.

3301.5 Sale and retail display. The possession, manufacture, storage, sale, handling and use of fireworks or pyrotechnic materials is prohibited.

Exception: Snap Caps and Party Poppers classified by the State Fire Marshal as pyrotechnic devices.

Section 3308 is amended by adding Sections 3308.2 and 3308.3 to read:

3308.2 Permit required. A permit is required to conduct an aerial display in accordance with California Code of Regulations, Title 19, Chapter 6. (See Chapter 1, Section 105.6.52.)

Exception: Snap Caps and Party Poppers classified by the State Fire Marshal as pyrotechnic devices.

3308.3 Financial responsibility. Before a permit is issued pursuant to Section 3308.2, the applicant shall file with the jurisdiction a corporate surety bond in the principal sum of \$1,000,000 or a public liability insurance policy for the same amount, for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The fire code official is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement.

Chapter 34. Flammable and Combustible Liquids.

Section 3404.2.9.6.1 is amended to read:

3404.2.9.6.1 Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited in all zoning districts except districts zoned for commercial, industrial, or agricultural uses.

Exception: Protected above-ground tanks for the purpose of emergency power generator installations in areas zoned commercial, industrial, agricultural, central business district, rural or rural residential, and for facilities on an individual basis consistent with the intent of this provision. Tank size shall not exceed 500 gallons (1892.706L) for Class I or II liquids, or 1,000 gallons (3785.412L) for Class III liquids.

Section 3406.2.4.4 is amended to read:

3406.2.4.4 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks is prohibited in all zoning districts except district zoned for commercial, industrial, or agricultural use.

Chapter 35. Flammable Gases and Flammable Cryogenic Fluids.

Section 3506.2 is amended to read:

3506.2 Limitation. The storage of flammable cryogenic fluids in stationary containers outside of buildings is prohibited in any area which is zoned for other than industrial use.

Exception: Liquid hydrogen fuel systems in compliance with section 3506.3 or 3506.4.

Chapter 38. Liquefied Petroleum Gases.

Section 3803.2.1.7 is amended in its entirety to read:

3803.2.1.7 Use for food preparation. Individual portable L-P containers used, stored, or handled inside a building classified as a Group A or Group B occupancy for the purposes of cooking, food display, or a similar use, shall be limited in size to one quart capacity and shall be of an approved type. The number of portable containers permitted will be at the discretion of the fire code official. LP-gas appliances used for food preparation shall be listed for such use in accordance with the International Fuel Gas Code, the International Mechanical Code, and NFPA 58.

Section 3804.2 is amended to read:

3804.2 Maximum capacity within established limits. The storage of liquefied petroleum gas is prohibited in any central business district and in all zoning districts except districts zoned for commercial, industrial, rural, or agricultural uses. The aggregate capacity of any one installation used for the storage of liquefied petroleum gas shall not exceed a water capacity of 2,000 gallons (7570 L).

Appendix B. Fire-Flow Requirements for Buildings.

Section B105.2, the exception, is amended to read:

Exception: A reduction in required fire-flow of 50 percent, as approved by the fire code official, when the building is provided with an approved automatic sprinkler system and installed in accordance with Section 903.3.1.1. The resulting fire-flow shall be not less than 1,500 gallons per minute (5678L/min) for the prescribed duration as specified in Table B105.1.

Appendix C. Fire Hydrant Locations and Distribution.

Table C105.1 footnote f and g are added to read:

- f. A fire hydrant shall be provided within 250 feet of a fire trail access point off a public or private street.
- g. For infill projects within existing single-family residential developments, Section 507.5.1 applies.

Appendix D. Fire Apparatus Access Roads

Section D102.1 is amended to read:

D102.1 Access and loading. Facilities, buildings or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an *approved* fire apparatus access road with an asphalt, concrete or other approved *all-weather driving surface* capable of supporting the imposed load of fire apparatus weighing at least 74,000 pounds (33 566 kg) in accordance with CalTrans Design Standard HS-20-44.

Exception: *Driveways* serving one or two single-family *dwellings* may be constructed of an alternate surface material, providing the imposed weight load design minimums are met and the grade does not exceed 10 percent.

Section D103.1 is deleted in its entirety.

Section D103.2 is deleted in its entirety and replaced by the following, to read:

D103.2 Grade. Fire department access roadways having a grade of between 16 percent and 20 percent shall be designed to have a finished surface of grooved concrete sufficient to hold a 44,000 pound (19 958 kg) traction load. The grooves in the concrete surface shall be ½ inch (13 mm) wide by ½ inch (13 mm) deep and 1 ½ inch (38 mm) on center and set at a 30 to 45 degree angle across the width of the roadway surface. No grade shall exceed 20 percent, nor shall the cross slope exceed 8%, unless authorized in writing by the fire code official.

Section D103.2.1 is added to read:

D103.2.1 Angles of approach and departure. The angles of approach and departure for any means of access shall not exceed 10 percent at 10 feet of the grade break.

Section D103.3 is deleted in its entirety and replaced by the following, to read:

D103.3 Turning radius. Based on a minimum unobstructed width of 20 feet, a fire apparatus access roadway shall be capable of providing a minimum standard turning radius of 25 feet (7620 mm) inside and 45 feet (13 716 mm) outside.

ORDINANCE CONTINUES ON NEXT PAGE

Table D103.4 is amended to read:

Table D103.4
REQUIREMENTS FOR DEAD-END FIRE
APPARATUS ACCESS ROADS

LENGTH (feet)	MINIMUM WIDTH (feet)	TURNAROUNDS REQUIRED
0 – 150	20 ^a	None required
151 – 750	20 ^b	100-foot Hammerhead, 50-foot “Y”, 75-foot Shunt or 90-foot-diameter cul-de-sac in accordance with figure D103.1
Over 750		Special approval required ^b

- a. A driveway with a minimum width of 16 feet is acceptable for access to no more than two single-family dwellings.
- b. Any fire apparatus access roadway or driveway that is approved to be less than 20 feet wide and to exceed 750 feet in length shall have outssets or turnouts every 300 feet along the length of the road or driveway, or at locations approved by the fire code official. Each outset or turnout shall be of the following dimensions: an 8 foot wide turnout that extends at least 40 feet in length.

Figure D103.1 is amended to read:

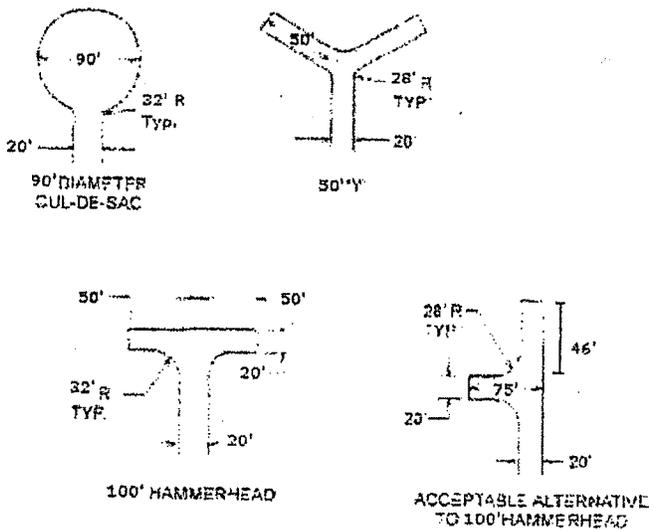


Figure D103.1
Dead-end Fire Apparatus Access Road Turnaround

Section D103.5 is amended by amending criteria 1 and adding criteria 10, to read:

1. The minimum clear width shall be 20 feet (6096mm.)
Exception: For access to one or two single-family *dwelling*s, 16 feet clear width is acceptable.
10. All gates shall be installed and located a minimum of 30 feet off the street.

Section D103.6.1 is amended to read:

D103.6.1 Roads less than 28 feet in width. Fire apparatus access roads less than 28 feet wide shall be posted on both sides as a *fire lane*.

Section D103.6.2 is amended to read:

D103.6.2 Roads 28 feet in width or greater, but less than 36 feet in width. Fire apparatus access roads 28 feet wide or greater, but less than 36 feet wide, shall be posted on one side of the road as a *fire lane*.

Section D106.1 is amended to delete the exception and read:

D106.1 Projects having more than 100 dwelling units. Multiple-family residential projects having more than 100 *dwelling units* shall be provided with two separate and *approved* fire apparatus access roads and shall meet the requirements of Section D104.3.

Section D106.2 is deleted in its entirety.

SECTION 3. REPEAL OF FIRE CODE.

Ordinance No. 2007-47, adopting the 2007 California Fire Code with amendments, is hereby repealed.

SECTION 4. VALIDITY.

The Contra Costa County Board of Supervisors declares that if any section, paragraph, sentence or word of this ordinance or of the 2010 California Fire Code as adopted and amended herein is declared for any reason to be invalid, it is the intent of the Contra Costa County Board of Supervisors that it would have passed all other portions or provisions of this ordinance independent of the elimination here from any portion or provision as may be declared invalid.

SECTION 5. MORE RESTRICTIVE REQUIREMENTS.

If requirements more restrictive than those in this fire code are adopted by the city of Antioch, Clayton, Concord, Lafayette, Martinez, Pittsburg, Pleasant Hill, San Pablo, or Walnut Creek, or the County of Contra Costa, those requirements will apply only within the jurisdiction adopting those requirements.

SECTION 6. EFFECTIVE DATE.

This ordinance becomes effective 30 days after passage, and within 15 days of passage shall be published once in the Contra Costa Times, a newspaper published in this County. This ordinance shall be published in a manner satisfying the requirements of Government Code section 25124, with the names of supervisors voting for and against it.

Passed on December 7 2010, by the following vote:

AYES: Wilkins, Piepho, Howe

NOES: None

ABSENT: Storia

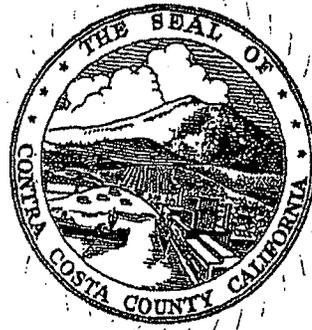
ABSTAIN: District IV seat is vacant

ATTEST: David Twa,
Clerk of the Board of Supervisors
and County Administrator

Gayle P. Dickema
Board Chair

By:

Jane Miller
Deputy



I hereby certify that this is a true and correct copy of an action taken and entered on the minutes of the Board of Supervisors on the date shown.

ATTESTED: December 13, 2010

DAVID TWA, Clerk of the Board
of Supervisors and County Administrator

By: Patricia S. Law Deputy

CONTRA COSTA COUNTY FIRE PROTECTION DISTRICT

2010 Fire Code Amendments

Why do we need reduced thresholds for automatic sprinklers in commercial occupancies?

Fire District Staffing and Fire Suppression Service Delivery

The latest LAFCO Municipal Service Review (MSR) revealed the median staffing levels for urban fire departments in the Bay Area was 0.9 per 1,000 people. The median staffing levels for staffing levels for urban fire departments in Contra Costa County was 0.8 full-time sworn staff per 1,000 people. This fire district has staffing levels of just 0.6 full-time sworn staff per 1,000 people. The national standard for staffing is 1.0 staff per 1,000 people.

In a mature urban area the staffing configuration is typically four paid firefighters per station at all times. None of the jurisdictions in Contra Costa County have achieved this staffing level. The Occupational Safety and Health Administration (OSHA) requires at least 4 firefighters be present at a fire scene prior to making entry into a building – this alone requires two of our crews as each crew only contains 3 firefighting staff. In addition, OSHA requirements and National Fire Protection Association (NFPA) standards dictate additional personnel to be assigned to command and control positions to adequately and safely supervise fire ground operations – even at smaller fires. Based on the recommendations and conclusions of the Fire District's Michele Drive Line of Duty Deaths Investigation as well as the National Institute for Occupational Safety and Health (NIOSH) report on the incident, a safety officer is staffed as an additional layer of safety and oversight. This requires an additional staff position at each fire scene.

As determined by standards established by the International Code Council included in the California Fire Code, Insurance Service Office (ISO), and the NFPA, the fire flow required (flow rate of water supply, measured at 20 pounds per square inch (psi) residual pressure, that is available for firefighting) for a 5,000 square foot building with common wood frame construction is 2,000 gallons per minute (gpm). In order to fully and properly staff a fire requiring 2000 gpm of fire flow, a total of 20-24 firefighters would be needed assuming the largest firefighting hoses were deployed. This is the equivalent of a two alarm fire given that a one alarm assignment to a commercial structure fire includes 14 firefighting personnel in our district.

Using national response standards established by NFPA, fire suppression resources should be deployed to provide for the arrival of an engine company within a 4 minute travel time to 90 percent of fire incidents. The standard goes on to state the fire department shall have the capability to deploy an initial full alarm assignment within a 6 minute travel time to 90 percent of these incidents. The fire district is currently not capable of meeting this response standard throughout all the communities we serve; the installation of automatic fire sprinklers will help offset the staffing shortfalls of the fire district by providing effective fire suppression systems in these new buildings, reducing the need and reliance on a stressed emergency services delivery system.

The responsibility of the Fire District to cover first responder advanced life support (ALS – Paramedic) services throughout the communities we serve must also be balanced against all the other emergency services we provide. The need to keep fire crews available for emergency medical responses is critical as these represent almost 80% of all calls for service. The timely release of resources from fire scenes, or the ability to fight smaller fires with fewer fire crews is paramount to keeping adequate coverage for additional fire and emergency medical responses throughout the fire district.

In addition, the staffing figures presented above (0.6 per 1,000 people) for this district are representative through the last fiscal year. The current economic climate, which is forecast to affect local government and public safety funding for the foreseeable future, has reduced our ability to provide staffing at these levels. Like almost every fire agency in the Bay Area, and throughout the state, we are looking at the concept of “browning out” fire stations. This will have a lasting effect on our continued ability to provide the same quantity of staffing in the same response time as compared to previous years – there are not enough fire engines to cover all the needs in all the areas – and this isn’t going to change in the foreseeable future.

RECENT AUTOMATIC FIRE SPRINKLER SYSTEM SUCCESS STORY IN WALNUT CREEK

1677 N. Main Street – An employee tried to extinguish a pan fire by throwing water on it and created a fire ball. The heat and flames traveled 20 plus feet, activating 4 sprinkler heads in its path. The fire was immediately extinguished by the sprinkler system and there was no extension of fire into the attic space. Minor damage from smoke to kitchen area only – business resumed within hours of the fire.

The Non-Residential Structure Fire Problem (Nationally) 2004-2009

Year	Fires	Civilian deaths	Civilian injuries	Direct property damage	Direct property damage
				(In billions) As reported	(In billions) In 2009 dollars
2004	115,500	80	1,350	\$2.40	\$2.70
2005	115,000	50	1,500	\$2.30	\$2.50
2006	111,500	85	1,425	\$2.60	\$2.80
2007	116,500	105	1,350	\$3.11	\$3.21
2008	112,000	120	1,400	\$3.81	\$3.81
2009	103,500	105	1,690	\$3.00	\$3.00

This trend shows an increase in civilian injuries as well as a generally increasing trend in civilian deaths. Property damage, as reported, and in 2009 dollars is also generally increasing. This is significant as the number of fires is generally decreasing over this 5 year period.

CONCLUSION

According to the NFPA, when sprinklers are present, the chances of dying in a fire and the average property loss per fire are both cut by one-half (50%) to two-thirds (66%), as compared to fires in buildings where sprinklers are not present. Aside from firefighter and explosion-related fatalities, there has never been a multiple loss of life in a fully sprinklered building due to fire or smoke, according to the National Fire Sprinkler Association.

The installation of automatic fire sprinklers in all commercial buildings exceeding 5,000 square feet will assist the fire district in managing our resources more effectively and eliminating the need to commit additional resources to fires in these buildings. In addition, civilian fire deaths and injuries can be greatly reduced, if not almost eliminated, in these sprinklered buildings. Property loss, business revenue loss and continuity issues, and tax revenue loss to local government can be minimized through the installation of automatic fire sprinklers in commercial occupancies greater than 5,000 square feet.

