ORDINANCE NO. 2009 - 544

ORDINANCE OF THE TOWN OF WOODSIDE AMENDING CHAPTER 150 OF THE WOODSIDE MUNICIPAL CODE, BUILDING REGULATIONS, TO INCLUDE ADDITIONAL REGULATIONS REQUIRING THE USE OF FIRE RESISTANT MATERIALS AND CONSTRUCTION METHODS AND AMENDING THE TABLE OF SPECIAL ORDINANCES OF THE WOODSIDE MUNICIPAL CODE, TABLE I: ZONING MAP CHANGES.

IT IS HEREBY ORDAINED by the Town Council of the Town of Woodside to amend the Woodside Municipal Code as follows:

SECTION ONE: **FINDINGS**

Pursuant to Sections 17958.5 and 17958.7(a) of the State of California Health and Safety Code, the Town Council of the Town of Woodside has determined and finds that modifications to the California Building Code are reasonably necessary because of the local climatic, geographic, and topographic conditions.

Local conditions have an adverse effect on the prevention of major fire loss and the potential for life and property loss, making necessary changes or modifications in the 2007 California Building Code, in order to provide a reasonable degree of property security and fire and life safety in the community.

Following are listed adverse local climatic, geographic, and topographic conditions:

1. Climatic Conditions

   a. Precipitation. Precipitation in Woodside ranges from less than 10 inches in drought years to over 40 inches in hillside areas in wet years, with an average of 23 inches or 24 inches per year. Over 90% of the rainfall typically falls from November through April.

   b. Relative Humidity. Humidity generally ranges from fifty percent (50%) during daytime to seventy percent (70%) at night, but occasionally drops to below 50% during the summer months.

   c. Temperature. Average summer high temperatures are in the mid-seventies (70's) to nineties (90's), and occasionally may reach 100° or more.

   d. Winds. Prevailing winds are from the West to Northwest. However, winds originate from virtually every direction at one time or another. Velocities are generally in the five (5) to fifteen (15) miles per hour range, gusting to thirty (30) miles per hour, particularly during the summer months. Extreme winds, up to sixty (60) mph have occurred in the

past.

e. Summary. These local climatic conditions affect the acceleration, intensity and size of fire in the community. Times of little or no rainfall, or 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 the area can have a tremendous impact upon structure fires of buildings in close proximity to one another or to flammable vegetation commonly found in the area. During wood shake and shingle roof fires, winds can carry sparks and burning brands to other structures, thus spreading the fire and causing conflagrations. In building fires, winds can force fires back into the structure and can create a blow torch effect, in addition to preventing "natural" ventilation and cross-ventilation effects.

2. Geographic and Topographic Conditions

a. Geographic Location. Woodside is located in the southern portion of San Mateo County.

b. Seismic Location. The relatively young geological processes that have created the San Francisco Bay Area are still active today. Seismically, the Town of Woodside is bisected by active traces of the San Andreas Fault.

c. Fire Service. The Town of Woodside's planning area is served by the Woodside Fire Protection District (from fire stations in Woodside and Portola Valley), the California State Division of Forestry (fire stations on Skyline Blvd. and the Emerald Lake Area), and by Stanford University, with a fire station at the Stanford Linear Accelerator Center. The eastern portion of the Town's planning area is served by the Menlo Park Fire Protection District and the Redwood City Fire Department. The Kings Mountain Fire Brigade, a volunteer fire company with a station on Skyline Boulevard, also provides fire protection in the Skyline area.

d. Roads and Streets. Many streets in the Town are narrow and/or steep. The impact of additional development and traffic flow will continue to have an adverse effect on the delivery of emergency services to many areas of the Town.

e. Geology and Topography. The Town of Woodside contains significant areas of steep slopes, particularly in the western hills of the Santa Cruz Mountains. Landslide potential is also significant in many areas of the Town, especially as may be induced by seismic activities. The steep topography and geologic constraints further limit

access for emergency vehicles and may enhance the potential for conflagration.

f. Buildings and Vegetation. Many houses with wood roofs and siding are located close together or are located close to highly flammable dense vegetation, so that fire will readily spread from one to another.

g. Other Variables. Other variables that may tend to intensify fire spreading or inhibit emergency response include:

1. The extent of damage to water systems;
2. The extent of debris blocking roadways or driveways;
3. Time of day relative to traffic levels; and
4. The large portion of dwellings with wood roof coverings.

3. Conclusion

Local climatic, geographic, and topographic conditions are likely to adversely affect fire prevention efforts and the frequency, spread, acceleration, intensity, and size of fire involving buildings in the Woodside area. Further, they may contribute to potential damage to structures from earthquake and fire. Therefore, it is found to be reasonably necessary that the 2007 Building Codes contained in this Ordinance be changed or modified to mitigate the effects of the above conditions, and that the findings stated previously apply to all such modifications.

SECTION TWO: Chapter 150.01 of the Woodside Municipal Code is amended as follows:

Section 150.01. BUILDING CODE; AMENDMENTS.

A. Adoption of 2007 California Building Code: The Code of rules, regulations and standards, published by the International Code Conference under the title, “2007 edition of the California Building Standards Code, incorporating the 2006 International Building Code, Volumes 1 and 2,” and including the following appendices Appendix Chapter 1 Administration (excluding Section 101.4.6, Section 103, Section 105.1.1,Section 105.1.2, Section 110.2), Appendix C Agricultural Buildings (Group –U), Appendix I Patio Covers; and Appendix J Grading, , hereinafter collectively called "California Building Code," regulating the erection, construction, enlargement, alteration, repair, moving, removal, demolition, conversion, occupancy, equipment, use, height, area and maintenance of all buildings and structures in the Town of Woodside, is hereby adopted, and by reference incorporated herein as if fully set forth, except as hereinafter otherwise provided, as the Building Code of the Town of Woodside. The mandatory requirements of the appendix to the Building Code shall be enforceable to the same extent as if contained in the

body of the Building Code. Any amendments and supplements of this Code shall be enforceable to the same extent as if contained in the body of the California Building Code.

B. Powers and Duties of the Building Official: Section 103 Appendix Chapter 1 Administration of the 2007 California Building Code is hereby amended with the addition of the following language:

Right to Disconnect Utility Service. The Building Official or his authorized representative shall have the authority to disconnect or order discontinuance of any utility service or energy supply to buildings, structures, or equipment therein regulated by this Code and the construction codes in cases of emergency or where necessary for safety to life or property. Such utility service shall be discontinued until the emergency is abated or it is determined that the threat to life or property has been corrected.

C. Fees: Fees shall be assessed according to the current Town of Woodside fee schedule adopted by Town Council resolution.

D. Fire Hazard Severity Zones designated on a map titled "Very High Fire Hazard Severity Zones in LRA – Woodside", dated May 2, 2008, and retained on file at Woodside Town Hall, 2955 Woodside Road, Woodside, CA 94062, are Local Agency Very High Fire Hazard Severity Zones for the purpose of applying Chapter 7A, Materials and Construction Methods for Exterior Wildfire Exposure, of the California Building Code.

E. Materials and Construction Methods for Exterior Wildfire Exposure.

(1) For the purposes of this section, the following definitions shall apply:

IGNITION-RESISTANT MATERIAL. Any product which, when tested in accordance with ASTM E84 for a period of 30 minutes, shall have a flame spread of not over 25 and show no evidence of progressive combustion. In addition, the flame front shall not progress more than 10 ½ feet (3200 mm) beyond the centerline of the burner at any time during the test.

Materials shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D2898 and ASTM D3201. All materials shall bear identification showing the fire performance rating thereof. That identification shall be issued by ICC-ES/ICBO ES or a testing facility recognized by the State Fire Marshal having a service for inspection of materials at the factory.

Fire-Retardant-Treated Wood or noncombustible materials as defined in section 202 of the California Building Code shall satisfy the intent of this section.

(2) Standards of Quality. The State Fire Marshal standards listed below and as referenced in this section are located in the California Referenced Standards Code, Part 12 and Chapter 35 of the California Building Code.

SFM 12-7A-1, Exterior Wall Siding and Sheathing
SFM 12-7A-2, Exterior Window
SFM 12-7A-3, Under Eave
SFM 12-7A-4, Decking

(3) The following requirements shall apply to all new buildings or structures which require a building permit from the Town of Woodside for which a complete building permit application is submitted after May 1, 2009:

(a) Roofing.

1. General. Roofs shall comply with the requirements of Chapter 7A and Chapter 15 of the California Building Code. Roofs shall have a roofing assembly installed in accordance with its listing and the manufacturer's installation instructions.
2. Roof coverings. Where the roof profile allows a space between the roof covering and roof decking, the spaces shall be constructed to prevent the intrusion of flames and embers, be firestopped with approved materials or have one layer of No. 72 ASTM cap sheet installed over the combustible decking.
3. Roof valleys. When provided, valley flashings shall not be less than 0.019-inch (0.48 mm) (No. 26 galvanized sheet gage) corrosion-resistant metal installed over a minimum 36 inches (914 mm) wide underlayment consisting of one layer of No. 72 ASTM cap sheet running the full length of the valley.
4. Roof gutters. Roof gutters shall be provided with the means to prevent the accumulation of leaves and debris in the gutter.

(b) Attic ventilation.

1. General. When required by Chapter 15 of the California Building Code, roof and attic vents shall resist the intrusion of flame and embers into the attic area of the structure, or shall be protected by corrosion resistant, non-combustible wire mesh with ¼ inch (6 mm) openings or its equivalent.
2. Eave or cornice vents. Vents shall not be installed in eaves and cornices.
   Exception: Eave and cornice vents may be used provided they resist the intrusion of flame and burning embers into the attic area of the structure.
3. Eave protection. Eaves and soffits shall meet the

requirements of SFM 12-7A-3 or shall be protected by ignition-resistant materials or noncombustible construction on the exposed underside.

(c) Exterior walls.

1. General. Exterior walls shall be approved non-combustible or ignition resistant material, heavy timber, or log wall construction or provide protection from the intrusion of flames and embers in accordance with standard SFM 12-7A-1.
2. Exterior wall coverings. Exterior wall coverings shall extend from the top of the foundation to the roof, and terminate at 2 inch (50.8 mm) nominal solid wood blocking between rafters at all roof overhangs, or in the case of enclosed eaves, terminate at the enclosure.
3. Exterior wall openings. Exterior wall openings shall be in accordance with this section.
   i. Exterior wall vents. Unless otherwise prohibited by other provisions of the California Building Code, vent openings in exterior walls shall resist the intrusion of flame and embers into the structure or vents shall be screened with a corrosion-resistant, non-combustible wire mesh with ¼ inch (6 mm) openings or its equivalent.
   ii. Exterior glazing and window walls. Exterior windows, window walls, glazed doors, and glazed openings within exterior doors shall be insulating-glass units with a minimum of one tempered pane, or glass block units, or have a fire resistance rating of not less than 20 minutes, when tested according to ASTM E 2010, or conform to the performance requirements of SFM 12-7A-2.
   iii. Exterior door assemblies. Exterior door assemblies shall conform to the performance requirements of standard 12-7A-1 or shall be of approved noncombustible construction, or solid core wood having stiles and rails not less than 1 3/8 inches thick with interior field panel thickness no less than 1 1/4 inches thick, or shall have a fire resistance rating of not less than 20 minutes when tested according to ASTM E 2074.
   Exception: Noncombustible or exterior fire retardant treated wood vehicle access doors are not required to comply with this chapter.

(d) Decking.

1. Decking surfaces. Decking, surfaces, stair treads, risers, and landings of decks, porches, and balconies where any portion of such surface is within 10 feet (3048 mm) of the primary structure

shall comply with one of the following methods:

i. Shall be constructed of Ignition-Resistant Materials and pass the performance requirements of 12-7A-4, Parts A and B.

ii. Shall be constructed with heavy timber, exterior fire retardant treated wood or approved non-combustible materials.

iii. Shall pass the performance requirements of SFM 12-7A-4, Part A, 12-7A-4.7.5.1 only with a net peak heat release rate of 25kW/sq-ft for a 40 minute observation period and:

(a) Decking surface material shall pass the accelerated weathering test and be identified as Exterior type, in accordance with ASTM D2898 and ASTM D3201 and;

(b) The exterior wall covering to which the deck is attached and within 10 feet (3048 mm) of the deck shall be constructed of approved noncombustible or ignition resistant material.

Exception: Walls are not required to comply with this sub-section if the decking surface material conforms to ASTM E-84 Class B flame spread.

The use of paints, coating, stains, or other surface treatments are not an approved method of protection as required in this section.

(e) Underfloor and appendages protection.

1. Underside of appendages and floor projections. The underside of cantilevered and overhanging appendages and floor projections shall maintain the ignition-resistant integrity of exterior walls, or the projection shall be enclosed to the grade.

2. Unenclosed underfloor protection. Buildings shall have all underfloor areas enclosed to the grade with exterior walls in accordance with section F(1)(c).

Exception: The complete enclosure of under floor areas may be omitted where the underside of all exposed floors, exposed structural columns, beams and supporting walls are protected as required with exterior ignition-resistant material construction or be heavy timber.

~~D.~~F. Roofing Requirements: Section 1505 of the California Building Code is hereby amended with the addition of the following language:

The roof covering or roof assembly for all structures shall be Class A ~~or Class B~~ fire retardant. The roof covering on any structure regulated by this Code shall be as specified in Table No. 1505.1 and

as classified in Section 1505. The roof-covering assembly includes the roof deck, underlayment, insulation and covering which is assigned a roof-covering classification. Detached patio covers, spa covers, gazebos, sheds with 120 square feet or less of roof area and awning covers are exempt. Roof covering repairs of less than three hundred (300) square feet in a 12-month period are exempt from the provisions of this paragraph. These standards shall apply when there is conflict with less stringent standards of the California Building Code.

~~E.~~ G. Automatic Fire-Extinguisher Systems: Section 903.2 of the California Building Code is hereby amended with the addition of the following language:

(1) The following requirements shall apply to all new buildings or structures which require a building permit from the Town of Woodside for which a complete building permit application is submitted after May 1, 2000:

(a) Except as otherwise provided by this section, or as provided under section 903.2 of the California Building Code, automatic fire sprinkler systems shall be installed and maintained in every new building or structure of any type, use, occupancy or size which requires a building permit issued by the Town of Woodside.

(b) The term "automatic sprinkler system" as used in this section means an integrated system of underground and overhead piping, including a water supply such as a gravity tank, fire pump, reservoir, pressure tank, or connection by underground piping to a fire main, which system complies in all respects with the requirements for such systems contained in standards issued by the National Fire Protection Association based upon occupancy classification.

(c) As referenced in National Fire Protection Association (NFPA) standards, Section 13D, Chapter 2, Section 2-1 - General Provisions: Every automatic sprinkler system shall have at least one (1) automatic water supply. Where stored water is used as the sole source of supply, the minimum quantity of water shall equal the water demand rate (as specified in Chapter 4 of Section 13D of the NFPA standards) times ten (10) minutes. Exception: Dwelling units that are one (1) story in height and less than 2,000 square feet in floor area shall have a water supply of at least seven (7) minutes for the two (2) sprinkler demand that is typically required as specified in Chapter 4 of Section 13D of the NFPA standards).

(d) As referenced in National Fire Protection Association (NFPA) standards, Section 13D, Chapter 2, Section 2-2 - Water Supply Sources: The following water supply sources shall be considered to be acceptable by this standard:

1. A connection to a reliable waterworks system with or without an automatically operated pump.

2. An elevated tank.

3. A pressure tank designed to ASME standards for a pressure vessel with a reliable pressure source.

4. A stored water source with an automatically operated pump (which could also be used to supply the residence's domestic water supply).

(2) The following structures are exempt from the requirements of this Section:

(a) Agricultural buildings, as defined in Section 202 of the 2007 California Building Code (including but not limited to greenhouses), which are located at least 60 feet from any residential structure and barns unless otherwise specified in this code.

(b) Not used.

(c) “Manufactured housing,” as defined by California Health and Safety Code Section 18007.

(d) Structures not exceeding 1,000 square feet in area.

(e) Mausoleums of Type I construction, as defined by the 1997 Uniform Building Code, which do not contain offices, chapels or other places where the public assembles on a regular basis.

(f) Open-air parking garages of Type I construction as defined by the 1997 Uniform Building Code, which do not contain offices, stores or other places of public occupancy for purposes other than parking of vehicles.

(g) Roofed structures with no walls or doors.

(3) The requirements of this Section are intended to present minimum standards for new construction. Nothing in this Section shall prevent any fire authority having jurisdiction from adopting and enforcing any regulations which impose more stringent requirements. Further, any requirement of the 2007 California Building Code, the Uniform Fire Code or the State Building Standards Code, which is more restrictive, specifies higher standards or mandates specific locations within a structure for automatic sprinkler systems, shall be applicable.

(4) Notwithstanding the other provisions of this section, no existing residential building or structure shall be required to conform to the requirements of this section, unless the addition, alterations or repairs to the existing building o structure within any 12-month period exceed 75% of the estimated value of such building or structure, as calculated by the Town Building Official or unless the provisions of Section 150.01(E)(2)(g) applied and the applicant is now seeking a permit to install any

doors or walls.

(5) Residential structures with attached garages for which a complete building permit application is submitted after May 1, 2000 shall have automatic fire sprinkler heads installed in the garage in addition to those required in the 13D standards of the National Fire Protection Association. The number and location of such fire sprinkler heads shall be such that full coverage of the garage will be obtained.

(6) When a stored water source with an automatically operated pump system is installed, the Woodside Fire Protection District will conduct an annual inspection of the system to insure reliability. Any deficiencies found to exist by the District as a result of such inspections shall be corrected by the property owner within thirty (30) days of receipt of written notice from the District requiring such deficiencies to be corrected.

H. Exterior glazing and window wall requirements. Section 2403 of the California Building Code is hereby amended with the addition of the following language:

Exterior windows, window walls, glazed doors, and glazed openings within exterior doors shall be insulating-glass units with a minimum of one tempered pane, or glass block units, or have a fire resistance rating of not less than 20 minutes, when tested according to ASTM E 2010, or conform to the performance requirements of State Fire Marshal standard 12-7A-2, located in the California Referenced Standards Code, Part 12 and Chapter 35 of the California Building Code.

I. Decking requirements. Section 2304.8.1 of the California Building Code is hereby amended with the addition of the following language:

Decking, surfaces, stair treads, risers, and landings of decks, porches, and balconies where any portion of such surface is within 10 feet (3048 mm) of the primary structure shall comply with one of the following methods:

(1) Shall be constructed of Ignition-Resistant Materials and pass the performance requirements of State Fire Marshal standard 12-7A-4, Parts A and B, located in the California Referenced Standards Code, Part 12 and Chapter 35 of the California Building Code.

(2) Shall be constructed with heavy timber, exterior fire retardant treated wood or approved non-combustible materials.

(3) Shall pass the performance requirements of State Fire Marshal standard 12-7A-4, Part A, 12-7A-4.7.5.1, located in the California Referenced Standards Code, Part 12 and Chapter 35 of the California Building Code, only with a net peak heat release rate of 25kW/sq-ft for a 40 minute observation period and:

(a) Decking surface material shall pass the accelerated

weathering test and be identified as Exterior type, in accordance with ASTM D2898 and ASTM D3201 and;

(b) The exterior wall covering to which the deck is attached and within 10 feet (3048 mm) of the deck shall be constructed of approved noncombustible or ignition resistant material.

Exception: Walls are not required to comply with this sub-section if the decking surface material conforms to ASTM E-84 Class B flame spread.

The use of paints, coating, stains, or other surface treatments are not an approved method of protection as required in this section.

SECTION THREE: Reference to Ordinance 2008-542, passed July 24, 2008 is hereby deleted from the Table of Special Ordinances, Table I: Zoning Map Changes.

SECTION FOUR: In the event that any provision of this ordinance is in conflict with any other ordinances of the Town of Woodside or the Woodside Municipal Code, the provisions of this ordinance shall prevail.

SECTION FIVE: If any section, subsection, subdivision, paragraph, sentence, clause or phrase of this Ordinance or any part thereof is for any reason held to be unconstitutional or invalid, or ineffective by any court of competent jurisdiction, such decision shall not affect the validity or effectiveness of the remaining portions of the Ordinance or any part thereof. The Town Council hereby declares that it would have passed each section, subsection, subdivision, paragraph, sentence, clause or phrase thereof irrespective of the fact that any one or more sections, subsections, subdivisions, paragraphs, sentences, clauses or phrases be declared unconstitutional or invalid or ineffective.

SECTION SIX: Pursuant to Section 36937 of the Government Code of the State of California, the Ordinance shall take effect and be in full force and effect thirty (30) days after its final passage.

SECTION SEVEN: The Town Clerk shall cause this Ordinance to be published in accordance with the requirements of Section 36933 of the Government Code of the State of California.

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I, the undersigned, hereby certify that the foregoing Ordinance is a full, true and correct copy of Ordinance No. 2009 – 544 of the Town of Woodside entitled as above; that it was introduced on the 24th of February, 2009, and was passed and adopted by the Town Council on the 10th of March, 2009 by the following vote:

AYES, Councilmembers: Boynton, Burow, Gordon, Hodges, Romines, Tanner, Mayor Mason
NOES, Councilmembers: None
ABSENT, Councilmembers: None
ABSTAIN, Councilmembers: None

_____
Clerk of the Town of Woodside

APPROVED:

_____
Mayor of the Town of Woodside