

RESOLUTION NO. 16088

A RESOLUTION OF THE CITY COUNCIL OF THE CITY OF REDWOOD CITY ADOPTING FINDINGS OF NECESSITY AND NEED FOR AMENDMENTS, DELETIONS, AND ADDITIONS TO THE 2022 CALIFORNIA FIRE AND BUILDING STANDARDS CODES

WHEREAS, concurrent with this resolution, the City Council of the City of Redwood City will adopt the 2022 California Fire, Building, Residential, Electrical, Mechanical, Plumbing, Energy, Historical Building, Existing Building, and Green Building Standards Codes, (collectively herein “the Fire and Building Standards Codes”); and

WHEREAS, the California Health and Safety Code seeks to have uniform building standards in substantially the same format throughout the state; and

WHEREAS, the City of Redwood City (“City”) is authorized by Health and Safety Code Sections 13869.7, 17922, 17958, 17958.5, 17958.7, and 18941.5 to impose modifications on the Fire and Building Standards Codes, providing such modifications that are more stringent than state standards provided the modifications are “reasonably necessary” to protect the health, welfare and safety of the residents of the City “because of local climatic, geological or topographical conditions”; and

WHEREAS, the City Council of Redwood City has determined and finds that the attached changes and modifications are needed and reasonably necessary because of local climactic, geological or topographical conditions the City.

NOW, THEREFORE, BE IT RESOLVED BY THE CITY COUNCIL OF THE CITY OF REDWOOD CITY AS FOLLOWS:

FINDINGS:

1. **Necessity:** These local amendments to the Fire and Building Standards Codes have been recognized by the City as tools for addressing the fire and life safety hazards, problems, and concerns. These local amendments will provide future direction by which the City can establish and maintain an environment that ensures appropriate levels of fire and life safety to all who live and work within Redwood City and the Redwood City Fire Department’s jurisdictional boundaries.
2. **Local Conditions generally:** Local conditions have an adverse effect on the prevention of (1) major loss fires, (2) major earthquake damage, and (3) the potential for life and property loss, making necessary changes or modifications to the Fire and Building Standards Codes in order to provide a reasonable and appropriate degree of proper security and fire and life safety in the City. Below are listed adverse local climactic, geological, and topographical conditions largely articulated in the City’s General Plan and associated environmental impact report. Modifications which are necessitated by particular local conditions are delineated thereafter.

3. **Climatic:** The areas served by the City, on average, experience an annual rainfall between 8 to 18 inches. This rainfall can be expected between October and April of each year and is based on the 100-year weather almanac. However, during the summer and early fall months there is little, if any, measurable precipitation. During this dry period, the temperatures are usually between 70°-90° with light to gusty westerly winds. These drying winds, mixed with the natural vegetation, which is dominant throughout the area, create a hazardous fuel condition, which further creates extensive grass and brush land fire risk. With residential developments, encroaching into these wooded and grass, or brush-covered areas, wind and terrain-driven fires could have severe consequences to improved properties at risk. This has been demonstrated on several occasions in other areas of our State Fire/Rescue Aid Regions.

4. **Geological:**

- A. Geographic Location. The area served by the City is located in San Mateo County. This area identified as being in the southern region of the county.
- B. Seismic Location. The relatively young geological processes that have created the San Francisco bay region are still active today. Seismically, the City sits along the active San Andreas Fault.
- C. Size and population. Redwood City is approximately 19 square miles and has a population of approximately 84,500 people. The Redwood City Fire Department also serves the neighboring City of San Carlos, which is approximately 5.4 square miles and has a population of approximately 29,600 people.
- D. Roads and Streets. The number of vehicle miles driven is steadily increasing despite limited growth. Many older streets are narrow and steep. The impact of additional planned developments and increased traffic flow will continue to create an effect on the delivery of fire protection services.
- E. Soil Conditions. The City lays in the southern end of San Mateo County. The areas closest to the San Francisco Bay are overlain by unconsolidated fine silty clay, known as Bay Mud, which varies in thickness from a few feet to as much as thirty (30) feet. Bay Mud does not allow for infrastructure subject to corrosion. Bedrock lies beneath the area at depths generally three hundred (300) feet or more. The topography of the City varies, dropping from an elevation of eight hundred (800) feet to sea level. The slope of the City extends upwards on the western side. Slopes range from (0) degrees to more than (20) degrees on some streets.
- F. Vegetation. The hilly portion of the City contains trees, dense brush vegetation and a heavy growth of natural grasses. The City and surrounding areas suffer several wildland fires each year.

5. **Topographical:** The topographical element, as would be expected, is closely associated with the geological element. With elevation changes in the City, development is of a geological concern. Varying topography creates different development needs in different parts of the City. In the hilly areas, in particular, streets follow meandering patterns that accommodate varying slopes. This does not lend itself to a systematic street and road layout, which would promote easy traffic flow. Instead,

the City has few major cross-town thoroughfares, which tend to be heavily congested, particularly during commute hours and certain seasonal periods of the year. These thoroughfares include Alameda de Las Pulgas, Woodside Road, Edgewood Road, and El Camino Real, which serve both the City's population and "pass through" traffic from surrounding cities. During commute hours, the City experiences increased eastbound and westbound vehicular traffic to US 101 and Interstate 280.

This is of particular concern in relationship to emergency vehicle response. Congestion on the limited number of cross-town thoroughfares increases the response times of fire apparatus and other emergency vehicles. Requiring additional built-in automatic fire protection and detection systems that provide early detection and initial control of fires until the arrival of the fire department mitigates the potential impacts of increased response times for emergency vehicles.

6. **Conclusion:** Local climactic, geological and topographical conditions impact building safety and fire prevention efforts, particularly relating to the spread, acceleration, intensity, and size of fire involving buildings and vegetative areas in the City. Further, the possibility of seismic activity poses a risk of damage to all structures in the event of an earthquake and possible subsequent fire. The City Council finds it necessary to modify the Fire and Building Standards Codes to mitigate the effects of these local conditions.

The following table provides Fire and Building Standards Code sections that have been modified along with the associated local conditions that necessitate their modification:

Section Number	Local conditions
Fire Code Sections added: 102.13, 102.14, 104.10.3, 324, 507.1.1, 903.2.8(a) and (b), 903.2.22, 903.2.23, 903.4.4, 903.4.5, 903.4.6, 907.2.12.3.4, 907.8.5, 913.2.3, 5601.1.3.1, 5706.2.4.4.1, 6104.2.1	3, 4, and 5
Fire Code Sections amended: 101.1, 111.1, 111.2, 111.3, 111.4, 112.4, 202, 503.1.1, 503.2.3, 507.5.1.1, 510.2, 510.4.2.3, 510.6.1, 901.6.3, 903.2, 903.4.2, 903.6, 905.4, 907.1, 907.9, 4907.2, 5704.2.9.6.1, 5706.2.4.4, 5806.2, Chapter 80 13-22 Section 27.10, Chapter 80 13D-22 Section 6.2.2(2), Chapter 80 13D-22 Section 8.3.4	3, 4, and 5
Building Code Sections amended: 101.4.4, 502, 903.2, Appendix I, Appendix J, J102.1, J103.2(1)	3, 4, and 5
Building Code Sections added: 104.1.1, 105.1.3, 109.4.1, 110.1.2, 115.4.1, 116.1.1, 501.2.1, J103.3	3, 4, and 5
Residential Code Sections added: R106.2.1, R108.5.1, R905.1.3	3, 4, and 5
Plumbing Code Sections amended: 715.1	3, 4, and 5
Plumbing Code Sections added: 604.14, 701.8, 903.1.4, 1101.4.7, 1208.6.3.4	3, 4, and 5
Electrical Code Sections added: 300.6(A)(4)	3, 4, and 5
Green Building Standards Code Sections added: 4.106.4.1, 4.106.4.3.1, 4.106.4.3.2, 4.106.4.4.4, 4.106.5, 4.106.5.1, 4.106.5.2, 5.106.13, 5.106.13.1, 5.106.13.2	3, 4, and 5
Green Building Standards Code Sections amended: 202, 4.106.4, 4.106.4.2, 4.106.4.3, 5.106.5.3, 5.106.5.3.1, 5.106.5.3.2, 5.106.5.3.3, 5.106.5.3.4, 5.106.5.4, 5.106.5.4.1	3, 4, and 5

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Passed and adopted by the Council of the City of Redwood City at a
Joint City Council/Successor Agency Board/Public Financing Authority Meeting
thereof held on the 24th day of October 2022 by the following votes:

AYES: Aguirre, Espinoza-Garnica, Gee, Howard, Martinez
Saballos, Reddy and Mayor Hale

NOES: None

ABSENT: None

ABSTAINED: None

RECUSED: None



Giselle Hale
Mayor of the City of Redwood City

Attest:



Pamela Aguilar, CMC
City Clerk of Redwood City

I hereby approve the foregoing resolution this
26th day of October 2022.



Giselle Hale
Mayor of the City of Redwood City