

HAYWARD CITY COUNCIL

RESOLUTION NO. 16-_____

Introduced by Council Member _____

RESOLUTION FINDING AND DETERMINING THE NEED FOR
CHANGES OR MODIFICATION TO THE CALIFORNIA FIRE
CODE, 2016 EDITION

WHEREAS, California Health and Safety Code sections 13143.2 and 13143.5 permit a city to make such changes or modifications as deemed reasonably necessary because of local conditions to be made in specified uniform industry codes; and

WHEREAS, it is necessary that the City's Fire Code be revised to conform with parallel provisions in the City's Building Code as well as to address specialized needs presented by local conditions.

NOW, THEREFORE, BE IT RESOLVED that the City Council of the City of Hayward does hereby find and determine as follows:

1. In connection with the adoption by reference of the California Fire Code, 2016 Edition, the City needs to adopt changes or modifications to the following sections of the California Fire Code, 2016 Edition, by reason of local conditions: 1, 2, 3, 4, 5, 6, 7, 8, 104.10, 104.10.1, 104.12, 105.2.2, 105.8, 108.1, 202, 503.1.4, 507.5.1, 603.4, 605.11 through 605.11.6, 901.4.2, 901.4.5, 903.2, 903.2.19, 903.2.20, 903.3.1.1, 903.4.2, 905.1, 905.3, 905.4, 1413.1, 2703.1.5, 2905.3, 3401.4.1, 3403.1.4, 3404.1.1, 3406.2, 3406.2.8, 4901.3, 4902, 4905.2, 4905.2.1, 4905.2.2, 4905.2.3, 4906, 4907, APPENDIX B Section B105.1 and B 105.2, APPENDIX C TABLE C105.1, 9, 10, 11, 12, 13, and 14.

2. The amendments to the California Fire Code, 2016 Edition (published by the International Code Council) have been recognized by the City of Hayward to address the fire problems, concerns, and future directions by which this City can establish and maintain an environment which will afford an acceptable level of fire and life safety protection to its citizens and guests.

3. The "Findings of Facts" contained herein addresses present local conditions which either singularly or in combination cause the aforesaid amendments to be adopted. The following local conditions have an adverse effect on the prevention and control of major loss fires, thereby making it necessary to adopt the above changes or modifications in the California Fire Code in order to provide a reasonable degree of fire and life safety in this community.

CLIMATIC

- (a) Precipitation: Precipitation ranges from 15 to 24 inches per year with an average of approximately 17.58 inches per year. 95 percent falls during the months of October through April, and five percent from May through September.
- (b) Relative Humidity: Humidity during May through November ranges from 20 to 40 percent going as low as 10 percent on an average of 10 days during this period. During December through April, the humidity ranges from 41 to 68 percent.
- (c) Temperatures: High temperatures have been recorded in the low 100's F. Average summer highs are in the 73 F. range with an average annual maximum temperature of 66 F.
- (d) Winds: Prevailing winds are from the west, northwest (WNW). However, winds are experienced from virtually every direction at one time or another. Velocities are generally in the 14 to 23 miles-per-hour range, gusting to 25 to 35 miles-per-hour. Forty miles-per-hour winds are experienced occasionally, and higher have been registered. 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.
- (e) Summary: These local climatic conditions effect the acceleration, intensity, and size of fires 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 fires involving buildings. During wildland and wood shake and shingle roof fires, winds can carry sparks and burning brands to other roofs, thus spreading the fire and causing conflagrations. In building fires, winds can literally force fire back into buildings and can create a blowtorch effect, in addition to preventing "natural" ventilation and cross-ventilation efforts.

GEOLOGICAL AND TOPOGRAPHIC

- (a) Vegetation: Dry grass and brush are common in the hills and open-space areas adjacent to built-up locations during six to eight months of each year. Many of these areas frequently experience wildland fires which threaten nearby buildings, particularly those with wood roofs or sidings.
- (b) Hills, Creeks, Canals, Freeways, Railways, Housing Tracts, Large Buildings, Building Complexes, and the Airport: All of these surface features, both natural and man-made, have a major adverse effect upon the road and street

layout in the City including major traffic routes. These conditions limit the number, and cause indirect routing of major arterial streets for normal traffic as well as emergency vehicle response.

- (c) Terrain: Areas with buildings include level, sloping, and rolling terrain. This terrain is not dissimilar to terrain in other locations which have experienced major conflagrations.
- (d) Roads and Streets: As noted above, the limited number, and the indirect routing of roads and streets in the City create heavy, slow traffic conditions and excessively long travel routes from point to point.
- (e) Population: The current and rapidly growing population in the City creates two fire protection problems:
 - (1) The more people, the more emergency incidents requiring Fire Department response. The greater the frequency of alarms, the greater the chance there will be simultaneous emergency incidents requiring Fire Department response. This results in longer response times and/or fewer fire companies to respond to any emergency within the City; and
 - (2) The more people, the more traffic congestion during a greater part of the day. Such traffic congestion not only slows Fire Department response but often restricts access to fire scenes.
- (f) Buildings, Landscaping, and Clearances: Many building complexes are of designs which greatly limit the approach to and accessibility by Fire Department resources. Many houses and other buildings with wood roofs or sidings are close together, and fire will readily spread from one to another by both radiation and convection of flying brands.
- (g) Summary: Essentially, the above local geological and topographical conditions present fire frequency, magnitude, exposures, and accessibility problems and have a negative impact upon the response capability of the Fire Department. The quantity of Fire Department resources that can arrive within an effective time is limited. The time in which they can respond is extended due to lengthy travel distances and traffic congestion.

4. CONCLUSION. Local climatic, geological, and topographic conditions have a definite impact upon the frequency, spread, acceleration, intensity and size of fire involving buildings in Hayward. Furthermore, they have an adverse impact upon the number of Fire Department resources which can be brought to bear upon such fires within an

