

## **EXHIBIT A**

### **FINDINGS OF FACT AND NEED FOR CHANGE OR MODIFICATIONS TO THE STATE BUILDING STANDARDS CODE BECAUSE OF LOCAL CONDITIONS**

#### **CHANGES OR MODIFICATIONS**

Pursuant to Sections 17958.5, 17958.7, and 18941.5 of the California Health and Safety Code, the Board of Directors of the Sleepy Hollow Fire Protection District in its ordinances adopting and amending the 2016 California Fire Code, certain portions of the 2015 edition of the International Fire Code, and Appendix A of the 2015 edition of the International Wildland-Urban Interface Code, changes or modifies certain provisions of the 2016 California Fire Code (California Code of Regulations, Title 24, Part 9). A copy of the text of such changes or modifications is attached.

Pursuant to Sections 17958.5, 17958.7, and 18941.5 of the California Health and Safety Code, the Board of Directors of the Sleepy Hollow Fire Protection District has determined and finds that the attached changes or modifications to the 2016 California Fire Code are needed and are reasonably necessary because of local climatic, geographic and topographic conditions.

#### **PROFILE OF THE SLEEPY HOLLOW FIRE PROTECTION DISTRICT**

The Sleepy Hollow Fire Protection District encompasses an area of 3.38 square miles with a resident population of approximately 2,345. The physical location of the District is in the central part of Marin County, in the central portion of the Ross Valley.

The placement of commercial development has been limited to the valley floor area with the residential communities extending out and up into the steep canyons and hills which surround the valley on both the north and south sides.

Travel into and out of the area is accomplished through two lane roads, which are the main arteries of commuter traffic to the bay area commercial centers.

The Board of Directors recognizes the fact that Marin County has been plagued many times in the late 1800's and early 1900's by brush and forest fires which not only threaten destruction, but on a number of occasions devastated large portions of communities. The desire of the community to preserve natural vegetation has resulted in the encroachment of brush and grass on fire roads, trails, breaks and streets within the District, thus rendering such separations ineffective against the spread of fires and safe egress. Natural growth, which is highly flammable during the drier months of the year, encroaches upon many properties, thus posing a potential fire threat to many structures and creating a substantial hindrance to the control of such fires.

With the given profile of the Sleepy Hollow Fire Protection District and the subsequent research being conducted by members of the Ross Valley Fire Department staff, the District has established certain requirements, which were developed to increase the level of safety and reduce the level of exposure to the citizens of the District as well as protect the buildings (investments) within its boundaries. The

following points were established as factors which caused concern and are herein established and submitted as the “Findings of Fact”:

## 1. CLIMATIC

**a. Precipitation.** The normal year’s rainfall is approximately 30 to 50 inches on the average calendar year. The area has been subject to extended periods of drought and less than normal rainfall as well as intense rains, which have caused local flooding and damage from geotechnical failure (landslides). Approximately 90% of the annual rainfall is during the months of November through April, and 10% from May through October.

**b. Relative Humidity.** Moisture in the air, also known as relative humidity, changes significantly during any given day. Humidity generally ranges from 50% during daytime hours to 85% at night. It drops to 30% during the summer months and occasionally drops lower. During periods when the area experiences easterly hot, dry winds, the relative humidity drops significantly, thus creating a greater danger.

**c. Temperatures.** Average summer highs are in the 75 degree to 85 degree range. There are weather periods where temperatures can rapidly reach 100 degrees and have been recorded even higher.

**d. Winds.** Prevailing winds are generally from the West. However, winds are experienced from virtually every direction at one time or another, due to topography. Velocities are generally in the 5 – 15 mph range, gusting to 10 – 30 mph, particularly during the summer months. Extreme winds, up to 50 mph, have been known to occur.

**e. Summary.** The climate (weather patterns) within the Sleepy Hollow Fire Protection District is predominantly affected by the marine influence of the Pacific Ocean. During the summer months, the southerly exposed slopes and open fields become dry with seasonal grasses, which present a fuel for the rapid spread of fire. The Northerly slopes are heavily wooded and present a moderate to heavy fuel load with respect to fire danger. These local climactic 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. Furthermore, winds experienced in this area can have a tremendous impact upon structure fires of buildings in close proximity to one another and wildland areas. All water storage and supply comes from reservoirs and lakes within the County, and are affected by the climate accordingly.

## 2. GEOGRAPHICAL and TOPOGRAPHICAL

**a. Geographical Features.** The geographical features in and around the Sleepy Hollow Fire Protection District are a source of enjoyment for our residents. The hills and valleys give a natural beauty to the area with forested hills and golden yellow meadows leading up to them. These geographic features form the backdrop for the residential and commercial communities and dictate the locations of roadways and building locations. These geographic features also create barriers, which negatively affect accessibility and influence fire behavior during major conflagrations. Many structures (new and old) are constructed of highly combustible material, which offer little resistance to fire and could contribute to the spread of fire. For practical and cost reasons, new structures are built of wood (type V)

construction. The potential for conflagration exists with the density of the various specific areas of the District. The concentrated residential occupancies, causes concern when considering the “exposure” elements of building to building to grass and brush areas of the District.

**b. Seismic Location.** The Sleepy Hollow Fire Protection District lies within the recognized Seismic Zone #4, which is the most dangerous zone. While the area has experienced several significant seismic events, there has been a minimum of damage. The District sits between two active earthquake faults (San Andreas and Hayward) and numerous potentially active faults. The potential for great damage exists, and must be considered as a real threat to be planned for.

**c. Size and Population.** The Sleepy Hollow Fire Protection District encompasses an area of 3.38 square miles with a resident population of approximately 2,345. The District is served by the Ross Valley Fire Department. Ross Valley Fire operates four (4) stations (two of which are in San Anselmo, one in Fairfax, and one in Ross) with 33 fire personnel (serving the Towns of Fairfax, San Anselmo, Ross and the Sleepy Hollow Fire Protection District), having diverse responsibilities including wildland, urban, and paramedical.

**d. Roads and Streets.** The Sleepy Hollow Fire Protection District is served by a single main access road, from one direction. Several areas have limited roadways and escape routes. The District has numerous narrow, winding dead-end roads, including private access roads, which results in access problems and extended travel times. The accessibility for fire department apparatus is of concern due to the lack of turnouts and roadway widths which increases response time.

**e. Topography.** The Sleepy Hollow Fire Protection District, and the Ross Valley The Department’s service area, is a conglomeration of oak plains, hills, valleys, and ridges. The flatter lands are found in the center portion of the service area and approximately half of the residential development is in this area. The other half of the service area with residential development consists of hillsides with slopes ranging from approximately 15-30% and 30+%. These hazardous conditions present an exceptional and continuing fire danger to the residents of the community due to the difficulty of the terrain and topography of the area, much of it consisting of box canyons with steep, brush covered slopes; narrow winding streets used by residents of the District and the Fire Department for ingress and egress, steep hills which hinder Fire Department response time; older and inadequate water systems in certain areas of the community; and the location of buildings and structures with relation to these dangerous areas. The water supply for domestic and fire flow systems within the District are directly affected by the topographical layout. The supply of water comes from lakes, which are managed by a public utilities district responsible for maintaining an adequate supply. The water distribution system within the District is old in some areas served by mains, which are inadequate in size to provide water for fire protection. The valley floor is served by mains which contain an exceptionally large volume of water for fire protection. The District has a base elevation of approximately 35 feet and extends to areas in excess of 900 feet above sea level.

**f. Vegetation.** The Board of Directors recognizes that the Sleepy Hollow Fire Protection District has within its borders and along its boundaries significant areas of grass, brush, and heavily forested lands. In addition, the natural vegetation of the area has been altered by the addition of ornamental trees and shrubs, which are not native and add fuel around the houses and buildings of our community. The south-facing exposure is primarily annual grasses, highly flammable brush, with occasional clumps of

bay and oak trees in the more sheltered pockets. The north-facing slopes are heavily wooded from lower elevations to ridge with oak and bay trees and minor shrubs of the general chaparral class. Expansion of the residential community into areas of heavier vegetation has resulted in homes existing in close proximity to dense natural foliage. Often, such dwellings are completely surrounded by highly combustible vegetation compounding the fire problem from a conflagration point of view. Of particular recent notice is the increase in dead-down fuel and ladder accumulation directly associated with the Sudden Oak Death Syndrome..

### **Summary**

The above local geographic and topographic conditions increase the magnitude, exposure, accessibility problems and fire hazards presented to the Fire Department.

Fire following an earthquake has the potential of causing greater loss of life and damage than the earthquake itself.

The valley floor has zones recognized by the Federal Emergency Management Agency as flood zones. During times of intense rainfall, flooding and landslides have occurred which have destroyed structures and threatened lives. Within the past decade, these events have caused the local government to declare disasters and seek state and federal assistance.

Some of the existing structures in the commercial areas of the District lack the required firewall separation. These structures cause concern to the Fire Department because of the potential for major conflagration. As these structures are replaced, the exposure potential will be significantly reduced.

Several other variables may tend to intensify an incident, such as the extent of damage to the water system; the extent of roadway damage and/or amount of debris blocking the roadways; climatic conditions (hot, dry weather with high winds); time of day will influence the amount of traffic on roadways and could intensify the risk to life during normal business hours; and the availability of timely mutual aid or military assistance.

### **Conclusion**

Local climatic, geographic, 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. Therefore, it is found to be reasonably necessary that the California Fire Code, International Wildland-Urban Interface Code, and the State Building Standards Code be changed or modified to mitigate the effects of the above conditions.

Furthermore, California Health and Safety Code Section 17958.7 requires that the modification or change be expressly marked and identified as to which each finding refers. Therefore, the Sleepy Hollow Fire Protection District finds that the following table provides code sections that have been modified pursuant to Sleepy Hollow Fire Protection District Ordinance No. 2016-1, which are building standards as defined in Health and Safety Code Section 18909, and the associated referenced conditions for modification due to local climatic, geological, and topographical reasons:

| <b>Section Number</b> | <b>Local Climatic, Geological and Topographical Conditions</b> |
|-----------------------|--|
| 102.5                 | 1a, 1b, 1e, 2a, 2b, 2d, 2e                                     |
| 104.12                | 2c, 2g   |
| 104.13                | 2c, 2d, 2g   |
| 105.6.49              | 1e, 2a, 2b, 2d, 2e, 2f   |
| 105.7.19              | 1e, 2a, 2b, 2d, 2e, 2f   |
| 202 (c)               | 1e, 2a, 2b, 2d, 2e, 2f   |
| 202(f)                | 2a, 2d, 2e, 2g   |
| 202(j)                | 1e, 2a, 2b, 2e, 2f, 2g   |
| 202(m)                | 1e, 2a, 2b, 2e, 2f, 2g   |
| 202 (s)               | 1e, 2a, 2b, 2d, 2e, 2f   |
| 202 (t)               | 1e, 2a, 2b, 2d, 2e, 2f   |
| 202(u)                | 1e, 2a, 2b, 2d, 2e, 2f   |
| 302.1                 | 2b, 2d, 2e, 2g   |
| 320.1                 | 2b, 2d, 2e, 2g   |
| 320.2                 | 2b, 2d, 2e, 2g   |
| 320.3                 | 2b, 2d, 2e, 2g   |
| 320.4                 | 2b, 2d, 2e, 2g   |
| 401.1.1               | 2b, 2c, 2d, 2g   |
| 401.3.2.1.            | 2a, 2b, 2c, 2d, 2e   |
| 402.1                 | 2b, 2c, 2d, 2g   |
| 403.1.1               | 2b, 2c, 2d, 2g   |
| 403.10.1.4            | 2b, 2c, 2d, 2g   |
| 501.5                 | 1a, 1b, 1c, 2d, 2e, 2f   |
| 502.1                 | 1a, 1b, 1c, 2d, 2e, 2f   |
| 503.1.4               | 1a, 1b, 1c, 2d, 2e, 2f   |
| 503.1.5               | 2a, 2d, 2e, 2g   |
| 503.2.1               | 2a, 2d, 2e, 2g   |
| 503.2.6.1             | 2a, 2b, 2c, 2d, 2e, 2f   |
| 503.4                 | 2a, 2d   |
| 503.4.2               | 2a, 2d   |
| 503.6.1               | 2a, 2d,  |
| 503.6.2               | 2a, 2d   |
| 506.1                 | 2a, 2d, 2e, 2g   |
| 507.5.1               | 1e, 2a, 2b, 2c, 2d, 2e, 2f, 2g                                 |
| 507.5.1.2             | 2a, 2d, 2e, 2g   |
| 507.5.7               | 2a, 2c, 2f   |
| 605.11.3              | 2a, 2b, 2d, 2e, 2f   |
| 605.11.4              | 2a, 2b, 2d, 2e, 2f   |
| 605.11.5              | 2a, 2b, 2d, 2e, 2f   |
| 901.7                 | 1a, 1b, 1e, 2a, 2b, 2d, 2e                                     |
| 903.2                 | 1a, 1b, 1e, 2a, 2b, 2d, 2e                                     |
| 903.3                 | 1a, 1b, 1e, 2a, 2b, 2d, 2e                                     |
| 904.12                | 1e, 2g   |
| 906.11                | 1e, 2g   |

|           |  |
|-----------|--|
| 907.2     | 2c, 2d, 2g                                 |
| 907.2.11  | 1e, 2g                                     |
| 907.8.5.1 | 1e, 2g                                     |
| 3101.1    | 1e, 2a, 2b, 2d, 2e, 2f                     |
| 4906.2    | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| 4906.4    | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| 4906.4.1  | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| 4907.1    | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| 4907.2    | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| 4907.3    | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| 4907.4    | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| 5601.1.3  | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| A104.7.2  | 1a, 1b, 1c, 1d, 1e, 2a, 2c, 2d, 2e, 2f, 2g |
| A104.11   | 1a, 1b, 1c, 1e, 2a, 2d, 2e, 2f             |
| A104.12   | 1a, 1b, 1c, 1e, 2a, 2d, 2e, 2f             |
| A104.13   | 1a, 1b, 1c, 1e, 2a, 2d, 2e, 2f             |