# ORDINANCE NO.\_\_\_\_\_ BOARD OF SUPERVISORS, COUNTY OF SAN MATEO, STATE OF CALIFORNIA

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AN ORDINANCE AMENDING THE 2022 CALIFORNIA BUILDING STANDARDS
CODE AND DIVISION VII (BUILDING REGULATIONS) OF THE SAN MATEO
COUNTY ORDINANCE CODE TO INCORPORATE LOCAL SAN MATEO COUNTY
FIRE DEPARTMENT FIRE CODE AMENDMENTS

The Board of Supervisors of the County of San Mateo, State of California,

ORDAINS as follows

### <u>SECTION 1</u>. FINDINGS OF FACT

For the purposes of this ordinance, the Board of Supervisors hereby makes the following findings, as required by Sections 13143.5, 17958.5, 17958.7, and 18941.5 of the California Health and Safety Code.

The Board of Supervisors finds and declares that the unique characteristics of the topographic, geologic, and climatic conditions found in San Mateo County make the local amendments to the California Building Standards Code (Title 24 of the California Code of Regulations) reasonable and necessary.

### Finding 1: Topographic

Significant elevation changes occur within the County. Highly combustible dry grass, weeds and brush are common in the hilly and open space areas adjacent to built-up locations six to eight months of each year. When these areas experience wildland fires, they immediately threaten nearby buildings. This condition can be found throughout the County, especially in those developed and developing areas of the County, which

interface and intermix with adjoining wildlands. The threat of wildland fires could be compounded by above-ground electrical power transmission lines suspended on poles and towers exist throughout the County. Many power line poles are located adjacent to streets and roads and many of the transmission wires are suspended above large areas of dry vegetation and near untreated wood shake or shingle roofs.

Development has followed the path of least resistance, creating a meandering pattern.

This does not lend itself to a good systematic street and road layout, which would promote easy traffic flow. It has, in fact, resulted in few major cross-town thoroughfares that tend to be heavily congested, primarily during commute hours and seasonal periods of the year. This creates barriers that reduce the response time of fire equipment and other emergency services.

The topography of the County is also challenged by major development patterns.

Employment areas are located adjacent to the major thoroughfares within the County.

The people who work in these areas have added to the traffic congestion in the County thereby reducing the response time capabilities of the various fire agencies.

#### Finding 2: Geologic

The majority of the County encompasses areas classified as Seismic Design Category E, which is the most severe earthquake category. Buildings and other structures in Category E can experience major seismic damage. Within San Mateo County are active faults such as San Andreas, San Gregorio, Seal Cove, and other lesser faults. Earthquake activity with nearby epicenters has the potential for inducing landslides which can create situations of reduced emergency response times.

A major earthquake could result in the cutting-off of response routes of fire companies by collapsing buildings, overpasses and bridges throughout the County. 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 County. The occurrence of multiple fires will quickly disperse existing fire department resources, thereby reducing and/or delaying their response to any given fire.

Even minor seismic activity has an adverse impact on fire protection. Any earth movement, which causes buildings to move, creates cracking and warping of fire walls, smoke barriers, door frames, etc., thereby negating the effectiveness of these structural elements which are intended to prevent fire and smoke from spreading throughout a building.

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, and are plastic and tend to liquefy, depending upon moisture content.

The swelling, shrinking, shifting and settling of local soils cause shifting and warping of buildings built upon them. As noted above, any earth movement, which causes buildings to move, creates cracking and warping of fire walls, smoke barriers, door frames, etc., thereby negating the effectiveness of structural elements intended to prevent fire and smoke from spreading throughout a building. Additionally, these soils are susceptible to seismic shock and moisture concentrations. This may result in landslides in hilly and creek side areas, which often exceed 30% slopes and can

obstruct roads used for response by the fire department. Such restriction of response routes can result in major fire losses in locations where these structures have no automatic fire protection systems such as sprinklers.

### **Finding 3: Climatic**

The County is located in Climate Zone 3 as established in the 2022 California Energy Code. Precipitation, in normal years, can range from 15 to 24 inches per year with an average of approximately 20 inches per year. Ninety-six percent (96%) falls during the months of October through April and four percent (4%) from May through September. This is a dry period of at least five months each year. Additionally, the area is subject to frequent periods of drought – indeed, the area recently suffered through an unprecedented seven-year drought. Similar periods of extended drought may be expected locally in the future. Relative humidity remains in the middle range most of the time. It ranges from 45 to 65% in the winter, and occasionally falls as low as 15 percent. Temperatures from June through September average above 80° F. Temperatures as high as 110° F have been recorded, and it is not unusual to experience several continuous days with temperatures in the mid to high 90s. Prevailing winds in the area are from the west. However, winds are experienced from virtually every direction at one time or another. Velocities are generally in the 12 miles per hour (MPH) range, gusting to 25 to 35 miles per hour. Forty (40) MPH winds are experienced and winds up to 55 MPH have been registered locally. Climate change is causing historic droughts, devastating wildfires, torrential storms, extreme heat, property damage, and threats to human health and food supplies. These climatic conditions in the County can result in exacerbated fire hazard and emergency service needs.

### **SECTION 2. AMENDMENTS**

Division VII (Building Regulations) of the San Mateo County Ordinance Code and County Ordinance No. 4873 is amended as follows:

- ARTICLE 3 ("FIRE CODE"), SECTION 9120 ("ADOPTION OF 2022
   CALIFORNIA FIRE CODE"), is replaced in its entirety with the following:
  - The latest adopted edition of the 2022 California Fire Code, Title 24, Part 9, is hereby adopted and incorporated by reference. In addition, Sections 305, 307, 308, 310, 311, 503, appendices B, C, D, I, N, and O within the referenced code and all amendments, errata, and/or emergency supplements, including local amendments as set forth herein, are also adopted during this triennial California Building Standards Code cycle. A copy of the "California Fire Code" is on file at the San Mateo County Building Inspection Section.
- 2. ARTICLE 3 ("FIRE CODE"), SECTION 9128 ("DEFINITIONS"), is hereby amended as follows:
  - The defined term "Driveway" is deleted.
- 3. ARTICLE 3 ("FIRE CODE"), SECTION 9129 ("IGNITION SOURCES"), is hereby renamed "COMBUSTABLE WASTE MATERIAL" and is amended as follows:
  § 305.6 Fuel Breaks is deleted.

### §304.1.2.1 Clearance of Brush, Vegetative Growth from Structure Area is added as follows:

Any person owning, leasing, controlling, operating, or maintaining any building or structure in or upon any area within the jurisdictional boundary of the San Mateo County Fire Department, shall, upon written notification remove and clear such brush or vegetative growth from the area of the building or structure, as prescribed within the written notice.

### §304.1.2.2 Fire Breaks is added as follows:

The San Mateo County Fire Department may require the installation of "Fire Breaks" around or within parcels of property where combustible weeds, crops, brush, or other combustible materials are present. The specific width and length of the "Fire Breaks" will be determined by the San Mateo County Fire Department. The following conditions will be included as part of the determining factors regarding the width and length of the "Fire Breaks":

- 1. Height and width of combustible material present.
- 2. Prevailing weather conditions.
- 3. Topography of site.
- 4. Available fire apparatus access.
- 5. Fire protection systems available on-site.

Relationship of structures within the given parcel to the combustible
material, or adjacent parcels where structures would become exposed to the
presence of the combustible material.

§305 is adopted in its entirety.

§307 is adopted in its entirety.

§308 is adopted in its entirety.

§310 is adopted in its entirety.

§311 is adopted in its entirety.

4. ARTICLE 3 ("FIRE CODE"), SECTION 9130 ("FIRE APPARATUS ACCESS ROADS"), is amended as follows:

§502.1 Definitions is amended to add the defined term "Accessory

Structure/Building: A detached structure that is accessory to and incidental to that of the main structure and that is located on the same lot.

§503.1.1, Exceptions 1.3 and 2, are deleted.

§503.1.1.1 ("Land Divisions") is deleted.

§503.1.2.1. Fire Department Access is amended to read as follows:

Fire Department Access shall be required when one or more additions, alterations, or repairs, or combination thereof, in a two-year period, exceed more than 50% of the existing square footage of the facility or building.

### **Exceptions:**

- Any exemption otherwise allowable under the Fire Code as determined by the Fire Code Official.
- Exterior improvements and work not requiring permits as provided in the Building Code.
- Detached Group U occupancies or detached carports less than 1000 square feet.
- 4. Work requiring only a mechanical, electrical, plumbing, and/or demolition permit.

### §503.2.3.1 All Weather Surface is added as follows:

All weather surfaces shall be a minimum of 6 inches of compacted Class II base rock and 2 inches of asphalt or concrete for grades up to 15%. From 15% to 20%, an engineered surface such as a rough grooved concrete is required. In no circumstances shall the grade exceed 20%.

## §503.2.6 "Bridges and elevated surfaces" is replaced in its entirety as follows:

Where a bridge or an elevated surface is part of a fire apparatus access road, the bridge shall be constructed and maintained in accordance with AASHTO HS-20. Bridges and elevated surfaces shall be designed for a live load sufficient to carry the imposed loads of fire apparatus. Vehicle load limits, certified by an engineer, shall be posted at both entrances to bridges. Where elevated surfaces designed

for emergency vehicle use are adjacent to surfaces which are not designed for such use, approved barriers, approved signs or both shall be installed and maintained.

§503.3.1 is renamed "Fire Access Lane Markings" and replaced in its entirety with the following:

The designation shall be indicated (1) by a sign posted immediately adjacent to, and visible from, the designated place clearly stating in letters not less than 1-inch in height that the place is a fire lane, (2) by outlining or painting the place in red and, in contrasting color, marking the place with the words "FIRE LANE", which are clearly visible from a vehicle, or (3) by a red curb or red paint on the edge of the roadway upon which is clearly marked with the words "FIRE LANE".

- 5. ARTICLE 3 ("FIRE CODE"), SECTION 9131 ("PREMISES IDENTIFICATION"),
  is amended as follows:
  - §505.1.5 Suite/Unit identification is replaced in its entirety with the following:

Buildings containing separate suite and/or unit identification shall have the suite or unit identification clearly posted with assigned letters or numbers having a minimum height of 4 inches and a minimum stroke of 1/2-inch. Assigned letters or numbers shall be of contrasting color to the background and located between 5 feet and 6 feet off the finished floor. Directional address numbers or letters shall be provided.

6. ARTICLE 3 ("FIRE CODE"), SECTION 9132 ("KEY BOXES"), is amended as follows:

§506.1.3 "Key Boxes" is replaced in its entirety with the following:

When required by the San Mateo County Fire Department, a Key Box of the size and type designated shall be mounted on the building near the main entrance and shall be located a minimum of 60 inches, and not higher than 72 inches, above the finished floor in a location approved by the Fire Code Official. Additional Key Boxes may be required at rear entrances to buildings. Knox padlocks or Knox Gate Switches may be required at any access as specified by the Fire Code Official.

§506.1.4 is deleted.

7. ARTICLE 3 ("FIRE CODE"), SECTION 9133 ("FIRE PROTECTION WATER SUPPLIES"), is amended as follows:

§507.1.1 "Fire Department Water Supply" is added to read as follows:

Fire Department Water Supply shall be required when one or more additions, alterations, or repairs, or combination thereof, in a two-year period, exceed more than 50% of the existing square footage of the facility or building.

#### **Exceptions:**

 Any exemption otherwise allowable under the Fire Code as determined by the Fire Code Official.

- Exterior improvements and work not requiring permits as provided in the Building Code.
- Detached Group U occupancies or detached carports less than 1000 square feet.
- 4. Work requiring only a mechanical, electrical, plumbing, and/or demolition permit.

## §507.2.2.1 "Suburban and Rural Water Supplies" is amended to read as follows:

In areas where public and/or private fire mains are not available for the provision of the required fire flow, the Fire Code Official may develop a standard which requires a water supply for firefighting be provided. In developing this standard, the Fire Code Official may be guided by NFPA Standards and Appendix B and C of the California Fire Code 2022 edition. Fire suppression water storage tanks will comply with local requirements to prevent earthquake damage.

## §507.2.2.2 "Storage of Suburban and Rural Water Supplies" is added to read as follows:

In calculating the water supply available to meet the minimum fire flow required in Section 507.1, swimming pools, ponds and underground cisterns shall not be considered a primary water source.

8. ARTICLE 3 ("FIRE CODE"), SECTION 9134 ("FUEL FIRED APPLIANCES"), is amended as follows:

- §603.6.6 "Spark Arrestors" is deleted and is replaced with [RESERVED].
- 9. ARTICLE 3 ("FIRE CODE"), SECTION 9135 ("AUTOMATIC SPRINKLER SYSTEMS"), is amended as follows:
  - §903.1.2 is renamed "All Occupancies and Facilities" and replaced in its entirety with the following:

The following requirements shall apply to all new buildings or structures which require a building permit issued by the County of San Mateo Building and Planning Department:

- 1. Except as otherwise provided by this Section, or as provided under Section 903.3 of the latest adopted edition of the California Fire 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 County of San Mateo Building and Planning Department.
- 2. The term "automatic fire 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 the occupancy classification or other standards approved by the California State

Fire Marshals' office and approved by the Fire Chief, or their designee, on a case-by-case basis.

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

- 1. Agricultural Buildings. For the purposes of this Section, an "Agricultural building" is defined as a non-residential structure designed and constructed to house farm implements, hay, grain, poultry, livestock or other horticultural products. "Agricultural building" includes a place of employment where agricultural products are processed, treated, or packaged. Office uses within "agricultural buildings" shall not exceed 10% of the total floor area of the building unless such buildings are provided with an automatic fire sprinkler system throughout. "Agricultural buildings" shall include greenhouses.
- 2. Non-Residential Structures not exceeding 1,000 sq. ft. in area.
- Mausoleums of Type 1 construction, as defined by the California Building Code, which do not contain offices, chapels, or other places where the public assembles on a regular basis.
- 4. Car wash structures where no offices or waiting rooms are attached.

The requirements of this Section are intended to represent minimum standards for new construction. Further, any requirements of the California Building Code, the California Fire Code or the California Building Standards Code that are more restrictive, specify higher standards, or mandate specific locations within a structure for automatic sprinkler systems shall apply.

# § 903.2.8.1.1 "Automatic sprinkler systems installed in Group R-3 occupancies" is added to read as follows:

Automatic sprinkler systems installed in Group R-3 occupancies shall conform to the following standards in addition to Section 903.3 of the currently adopted edition of the California Fire Code:

- Automatic sprinkler system coverage shall be provided throughout the residence to include attached garages, and any interior rooms used for storage.
- 2. An exterior bell shall be mounted in a location to be audible from the street upon activation of the required flow switch.
- An interior horn shall be mounted in a central location audible from the master bedroom upon activation of the required flow switch.
- A sprinkler head shall be mounted on a metal sprig above any attic access openings and where required by the Authority Having Jurisdiction.
- 5. An inspector's test valve shall be mounted to flow from the most remote area of the system in an accessible location for structures of 3,600 sq. ft. or greater in size.

- 6. All group R, Division 3 occupancies shall require an automatic sprinkler system regardless of square footage.
- Accessory Dwelling Units shall conform to the most recent California State
   Fire Marshal's Information Bulletin.

### § 903.3.8 "Limited area sprinkler systems" is added to read as follows:

Limited area sprinkler systems shall be in accordance with the standards listed in Section 903.3.1 except as provided in Section 903.3.8.1 through 903.3.8.6.

§903.3.8.6 "Partial Automatic Fire Sprinkler Systems" is added to read as follows:

Unless approved in writing by the Fire Code Official, automatic fire sprinkler systems that only protect a portion of the building shall not be allowed.

§ 903.6 "Existing buildings or structures" is added to read as follows:

An automatic sprinkler system shall be provided in existing buildings and structures where required in Chapter 11 of the California Fire Code and in accordance with the San Mateo County Ordinance Code.

§ 903.6.1.1 "Where required" is replaced in its entirety with the following:

All existing buildings and structures, except for Group R-3 One and Two-Family Dwellings, shall be provided with an automatic fire sprinkler system when any of the following conditions occur:

(A) The renovation of any structure, additions to any structure, or any combination thereof, affects a gross floor area which exceeds 50% of the existing floor area of the structure. For the purposes of this Section, when determining the affected gross floor area of an existing structure, whenever more than 50% of the wall or ceiling coverings (e.g., wallboard, plaster, etc.) have been removed from within a room or space bounded by three or more walls within the structure, the entire gross floor area of the room or space shall be counted towards the total affected gross floor area of the existing structure.

**Exception:** When in the opinion of the Fire Chief, or their designee, the change of occupancy classification does not result in a significant increase in the level of life safety or fire safety of the occupancy, the Fire Chief, or their designee, may waive the requirement for automatic fire sprinkler system installation.

(B) When a change in occupancy classification, as defined within the Building Code, results in an increased fire hazard or risk due to business operation and/or number of occupants permitted in the building.

§Section 905.5.3 Class II System 1 1/2-inch hose is replaced in its entirety with the following:

A minimum 1 1/2-inch (37.5 mm) hose shall be allowed to be used for hose stations in light-hazard occupancies where investigated and listed for this service and where approved by the Fire Code Official.

10. ARTICLE 3 ("FIRE CODE"), SECTION 9136 ("FIRE ALARM AND DETECTION SYSTEMS"), is amended as follows:

§907.1.6 "Working Clearance" is renumbered as §907.8.4.1

§907.8.5.2 "Making False Report" is added to read as follows:

It shall be unlawful for a person to give, signal or transmit a false alarm. A false report may include signals from a fire alarm system, including signals caused during fire alarm maintenance without prior Fire Department notification. Making a false report shall be liable to a fine as set forth in the Fire Department Fee Schedule.

11. ARTICLE 3 ("FIRE CODE"), SECTION 9141 "APPENDICES" is added to read as follows:

Appendix B adopted in its entirety.

Appendix C adopted in its entirety.

Appendix D is adopted with the following amendments:

§D102.2 Fire Apparatus Roads is added to read as follows:

Fire Apparatus Roads shall comply with Sections D102.2.1 through D102.2.2.

§D102.2.1 Parking is added to read as follows:

Roads 32 feet or greater in width shall allow parking on both sides.

§D102.2.2 Turnouts is added to read as follows:

Roads exceeding 800 feet in length shall provide turnouts no more than 400 feet apart.

### §D103.4.1 Dead Ends is added to read as follows:

The San Mateo County Fire Department reserves the right to use all, or portions of, County right of way for Fire Department access or turnarounds.

§D103.6.3 Maintenance and Installation of Fire Access Signs is added to read as follows:

It shall be unlawful for the owner, lessee, or person in charge of private property to fail to install and maintain required fire access lane signs and/or markings after having been given notice by the San Mateo County Fire Department.

### §D103.7 Traffic Signal Control Devices is added to read as follows:

When a government agency requires an Encroachment Permit at any intersection and new or existing traffic signals are involved, the traffic signals shall be provided with a traffic signal control device that is operated from the fire apparatus.

Appendix I is adopted in its entirety.

Appendix N is adopted in its entirety.

**Appendix O is adopted** with the following amendments:

§O101.1 Scope.

These regulations shall apply to *permanent* or temporary haunted houses, ghost walks or similar amusement uses, where decorative materials and confusing

sounds and/or visual effects are present and shall be in accordance with this Appendix.

### **SECTION 3. SEVERABILITY**

If any portion of this ordinance is for any reason held by any court to be invalid or unconstitutional, that portion shall be deemed a separate, distinct, and independent provision and such holding shall not affect the validity of the remaining portion hereof nor other applications of the ordinance which can be given effect without the invalid provision or application, and to this end the provisions of this ordinance are declared to be severable.

### **SECTION 4**: EFFECTIVE DATE

This ordinance shall take effect 30 days after its adoption by the Board of Supervisors.

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