

Attachment 3

Local Conditions and Findings – Pool Safety and Reach Codes

The following local conditions make the amendments to the California Building Standards Code pool safety requirements and electrical vehicle infrastructure and building electrification and construction and demolition debris reasonably necessary in San Mateo County.

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, including many high-density residential neighborhoods containing one and two-family dwellings with swimming pools. This can present a significant risk for drowning or near drowning accidents for children under five years of age, which can be mitigated by ensuring that all properties with swimming pools or spas have Code-compliant fenced enclosures in place as a primary means of protection.

Further, 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. The conditions within the County create hazardous conditions for which departure from California Building Standards Code is warranted.

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 and restoration of power utilities. Earthquakes of the magnitude experienced locally can cause major damage to electrical transmission facilities and natural gas infrastructure, which in turn cause power failures while at the same time starting fires or gas explosions throughout the County. There is a need to reduce dependence on the natural gas infrastructure to reduce harms and increase energy resiliency in the event of an earthquake. The

modifications and changes cited herein are designed to reduce natural gas hazards in buildings and encourage energy resiliency through increased installation of solar and storage systems.

Finding 3: Climatic

The County is located in Climate Zone 3 as established in the 2022 California Energy Code. Climate Zone 3 incorporates mostly coastal communities from Marin County to southern Monterey County including San Francisco. The County experiences precipitation ranging from 15 to 24 inches per year with an average of approximately 20 inches per year. Ninety-six percent (96%) of precipitation falls during the months of November through April and 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 degrees Fahrenheit. Temperatures as high as 110 degrees Fahrenheit 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 draughts, devastating wildfires, torrential storms, extreme heat, property damage, and

threats to human health and food supplies. The State of California has outlined specific steps to reduce greenhouse gas emissions to prevent these negative impacts of changing climate including moving the State to 100% clean energy by 2045. This gives local governments the opportunity to achieve greenhouse gas emission reductions with a climate positive impact by powering buildings from clean electricity. These climatic conditions along with the greenhouse emissions generated from structures in both the residential and nonresidential sectors requires exceeding the energy standards for building construction established in the 2022 California Buildings Standards Code.