



COUNTY OF SAN MATEO
Inter-Departmental Correspondence
Planning and Building



Date: October 22, 2013
Board Meeting Date: December 10, 2013
Special Notice / Hearing: None
Vote Required: Majority

To: Honorable Board of Supervisors

From: Jim Eggemeyer, Community Development Director

Subject: Adoption of the 2013 California Building Standards Code and Amending the San Mateo County Ordinance Code, Division VII (Building Regulations)

RECOMMENDATION:

Adoption of an ordinance adopting the latest editions of the 2013 California Building Standards Code and amending the San Mateo County Ordinance Code, Division VII, Building Regulations, making the required findings in Attachment A, previously introduced on November 19, 2013 and waiver of reading the ordinance in its entirety.

BACKGROUND:

Proposal: The Planning and Building Department proposes the adoption of the 2013 California Building Standards Code as required by State law, and corresponding amendments to the San Mateo County Ordinance Code, Division VII (Building Regulations), in addition to local amendments to the California Building Standards Code to address specific concerns within unincorporated San Mateo County.

State Code Requirements: The California Building Standards Commission has adopted the 2013 California Building Code(s) based on the International Building Code, International Residential Code and International Fire Code Standards (IBC, IRC and IFC-2012). Building and Fire Codes are published and adopted by the State of California on 3-year cycles. The International Code Council (ICC) develops construction and public safety codes on a triennial calendar through a governmental consensus process. This system of code development has provided the citizens of the United States the highest level of safety in the world for more than 80 years. The most recent adoption by the State was the 2013 Edition of the California Building Standards Code(s), which is based on the new model codes of the International Building Code, International Residential Code and the International Fire Code, developed and published by the International Code Council (ICC).

Local jurisdictions are required to enforce these regulations as adopted by the State. Counties or cities may choose to modify specific code sections, but must make specific findings based on topographical, geological, or climatic conditions that exist within the jurisdiction. The Planning and Building Department (the Department) proposes to make some local amendments, as discussed below.

DISCUSSION:

Included below is the necessary information and discussion to amend specific sections of the California Building Standards Code (California Building Code) to address San Mateo County (County) concerns. There are four major items proposed for re-adoption with seven minor administrative modifications to the San Mateo County, Division VII (Building Regulations). This includes: (1) Class B or Better Roofing, Section 9113; (2) Fire Sprinkler Requirements, Section 9114; (3) Chapter 7A, Section 9117; and (4) the Existing Prohibition on Plastic Pipe, Section 9184. These major items require facts and findings stated in this report.

Local jurisdictions are required to adopt new local amendments and re-adopt existing local amendments each time the State adopts new building codes. A local jurisdiction must approve findings that there are specific local topographical, geological and/or climatic conditions that necessitate any major local amendments.

In addition to the proposed four major amendments, the Department proposes seven minor administrative amendments, which do not require facts and findings to be made based on local conditions. These amendments include clarifications and minor additions to existing County code sections and are explained in detail later in this report.

The Department is also proposing to adopt the State's Green Building Standards Code (Part 11) as part of the County's adoption of the latest edition (2013) of the California Building Standards Code. On February 12, 2008, your Board adopted an ordinance establishing the Green Building Program for the unincorporated areas in San Mateo County, one of the first ordinances in all of the County to require green building products and construction methods for new construction or substantial remodels of residential single-family, low rise multi-family, commercial and industrial buildings. The County's regulations also provided incentives for projects that include expedited building permit processing and guarantees building inspections within two working days of a request.

The Department has reviewed the State's latest Code and finds the version similar to the County's Green Building Program, specifically in regard to the construction of buildings reducing the negative impact or having a positive environmental impact and encouraging sustainable construction practices in the planning and design, energy efficiency, water efficiency and conservation, material conservation and resource efficiency, and environmental quality. In order for the Department to continue to enforce its Green Building Program, to the State's Regulations, the County is required to make findings that there are specific local topographical, geological and/or climatic conditions that necessitate local amendments. Additional research and analysis would be required

at this time by the Department to work with the State in order to prepare draft findings for your Board's review.

The Department has contacted numerous local cities in the County and found the proposed action by the County is consistent with the actions taken by other cities (adoption of the State regulations). The Department, as part of its obligations for compliance with the County's Climate Action Plan (CAP) will research the State's Green Building Code Voluntary Measures Tier 1 and Tier 2, Enhanced Green Building Measures, for residential and non-residential construction and report back to your Board our findings.

A. PROPOSED MAJOR LOCAL AMENDMENTS

Each of the proposed major local amendments below includes discussion in the following four areas: (1) Proposed Amendment Summary; (2) Finding(s); (3) Local Conditions and Impacts; and (4) Recommendations and Proposed County Code Language.

1. Class B or Better Roofing; Modifications to Existing Fire Sprinkler Requirements, and Re-Adoption of Wildland Urban Interface Fire Hazard Area Modifications and the State Fire Hazard Severity Zone Maps

a. Proposed Amendment Summary

Pursuant to State law, the Board of Supervisors of San Mateo County, in its ordinance amending the 2013 California Building Standards Code, amends provisions of the California Building Standards Code as it pertains to the regulation of the fire safety of buildings. Specifically, such amendments include: (1) all roofing materials on all new structures and major remodels are to be Class B or better; (2) new structures, with specific exceptions, must install automatic fire sprinkler systems; (3) re-adopting and amending Section 9114.2.c; and (4) re-adopting Section 9117, Chapter 7A. These major amendments are discussed as a group because they are all fire safety related and are all affected by the same local conditions.

b. Finding

Pursuant to State law including but not limited to Sections 13143.5, 18941.5, 17958.5 and 17958.7 of the California Health and Safety Code, the governing body of San Mateo County finds that the above changes or modifications are reasonably necessary because of certain local climatic, geological and topographic conditions as described below which create situations which can and do result in extremely uncontrollable and contagious fire situations which can and

do result in excessive harm and danger to life and property in the community.

All of the proposed fire safety related amendments help protect structures and firefighters during a fire. Fire resistive roof materials help reduce the spread of windborne fires. Fire sprinklers help suppress fires inside a building and help reduce the amount of water needed from outside sources to suppress the fire. Adoption of the Wildland Urban Interface Fire Hazard Area Modifications and State Fire Hazard Severity Zone Maps assists in identifying areas within San Mateo County that are especially prone to high risk of fire and will require building materials in these zones that reduce the risk of fire damage.

c. Local Conditions

The following local conditions make the above amendments necessary to the California Building Standards Code in order to provide a reasonable degree of fire and life safety in San Mateo County.

CLIMATIC

Precipitation and Relative Humidity

Precipitation ranges 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 – May 2001 has been rated as the fifth driest May in California records; 2001 also experienced the 17th driest November-February, the 16th driest November-March, the 24th driest October-May, and the 23rd driest June-May periods. Similar periods of continued 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 percent in the winter. It occasionally falls as low as 15 percent.

Impact

Locally experienced dry periods cause extreme dryness of untreated wood shakes and shingles on buildings and non-irrigated grass, brush and weeds, which are often near buildings with wood roofs. Such dryness causes these materials to ignite very readily and burn rapidly and intensely. Because of dryness, a rapidly burning grass fire or exterior building fire can quickly transfer to other buildings with dry shake or shingle roofs by means of radiation or flying sparks and embers. Where there are large and/or numerous buildings with untreated shake or shingle exteriors, a small fire can rapidly grow to a magnitude beyond the control capabilities of the fire departments, resulting in an excessive fire loss within the community.

The average rainfall in the County is frequently surpassed by concentrated periods of heavy rainfall. These factors, combined with soil types, terrain and existing road systems, have led to landslides and flooding across the State, the County, and private road systems. The blockage of access routes delays or prevents the ability of fire apparatus to respond to the scene of an emergency.

During 1982 and again in 1998, these conditions resulted in closures of Highway 1 in the Devil's Slide area, Highway 84 in the La Honda area, and Pescadero Road in the Pescadero area for extended periods. Many other County-maintained roads also experience landslides, resulting in closures, or limited traffic capabilities for fire apparatus. Although roads known to be susceptible to closure have been identified by CalTrans and the County, clearing of these routes is dependent upon knowledge and availability of resources. Thus, a road closure could prevent firefighter access during a critical period.

Following past rains, partial or complete road blockages were found on Tunitas Creek Road, Bear Gulch West, Oak Knoll, Springdale, Glenloch Way, Alpine Road, Cloverdale, and Pescadero Road.

Temperatures

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. These extended periods occurred in July 1988, July 1990, October 1991 and in August and September 1998.

Impact

High temperatures cause rapid fatigue and heat exhaustion of fire-fighters, thereby reducing their effectiveness and ability to control large wildland fires, which can endanger buildings, or large fires involving either interiors or exteriors of buildings. This limited ability results in losses of buildings without automatic fire protection systems.

Local high temperatures occasionally cause loss of electrical power in all or portions of communities within the County due to overloading from air conditioning equipment or other temperature-related stresses on the electrical utilities. Water storage and delivery systems within the County depend primarily or entirely upon electrical power for both domestic and fire flow delivery. Extended periods of power loss reduce the amount of storage available for suppression of wildland and structural fires.

Another impact from high temperatures is that combustible building materials and non-irrigated weeds, grass and brush are preheated, thus causing these materials to ignite more readily and burn more rapidly and intensely. Additionally, the atmosphere surrounding the materials being of a higher temperature reduces the effectiveness of the water being applied to the burning materials. This requires that more water be more effectively applied, which in turn requires more fire department resources in order to control a fire on a hot day. High temperatures directly contribute to the rapid growth of fires to an intensity and magnitude beyond the control capabilities of the fire departments.

Winds

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 MPH. Forty (40) MPH winds are experienced and winds up to 55 MPH have been registered locally.

Impacts

Winds such as those experienced locally can and do cause fires (interior and exterior) to burn and spread rapidly. Fires involving non-irrigated weeds, grass and brush can grow to a magnitude and be fanned to an intensity beyond the control capabilities of the fire department very quickly, even by relatively moderate winds. When such fires are not controlled, they can extend to nearby buildings, particularly those with untreated wood shake or shingle roofs.

Local winds frequently cause damage to electrical transmission lines which then arc, spark and/or break. This can start fires on untreated wood shake or shingle roofs or in dry vegetation, which can spread to nearby untreated wood shake or shingle roofs. Additionally, when power lines are broken by winds, they can result in power outages in large portions of the County.

Local winds frequently cause the breakage of limbs and branches of trees. It is not unusual for local winds to cause trees to fall. In many instances, damage occurs in trees adjacent to electrical transmission and distribution lines. During December 1997, these winds caused broken tree limbs to break power lines, resulting in fires. In 1998, the fire in Frenchman's Creek burned approximately 35 acres. The fire burning concurrently in Tunitas Creek burned more than 45 acres of grass, brush, and timbered areas, and resulted in the destruction of a year-round dwelling and another structure.

When interior building fires break open windows, winds can cause smoke and fire to quickly spread to other portions of the building via interior and exterior openings. An interior blowtorch effect can be created by wind when windows on more than one side of the building are open. When an interior fire ventilates through the roof of a building, regardless of the type of roof construction, sparks and embers from the fire are carried by winds to other roofs and to dry weeds, grass and brush, thereby starting additional fires.

When buildings are covered with untreated wood shake or shingle roofs, local wind conditions make them very susceptible to ignition by sparks or embers from other fires and cause them to burn more rapidly and intensely. Burning buildings with wood shake and shingle roofs in turn give off more sparks and embers to be carried by winds to other buildings.

Winds of the type experienced locally also reduce the effectiveness of exterior water streams used by the fire department on fires involving interior areas of buildings. Local winds will continue to be a definite factor toward causing major fire losses to buildings not provided with fire resistive roofs and automatic fire sprinkler systems. National statistics frequently cite wind conditions such as those experienced locally as a major factor where conflagrations have occurred.

National statistics also indicate that structures protected by automatic fire sprinkler systems confine, contain, or control interior fires to the area, or room of origin, reducing the need for exterior hose streams.

GEOLOGICAL

Seismicity

The County is located in Seismic Risk Zone 4, which is the worst earthquake area in the United States. Buildings and other structures in Zone 4 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 activities with nearby epicenters have the potential for the following impacts.

Impact

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 area separation walls, smoke barriers, door frames, etc., thereby negating the effectiveness of these structural elements which are intended to prevent fire and smoke from spreading within the building.

Soils

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.

Impact

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 area separation walls, smoke barriers, door frames, etc., thereby negating the effectiveness of structural elements intended to prevent fire and smoke from spreading within 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 percent 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 buildings are covered with untreated wood shakes or shingles, particularly where these structures have no automatic fire protection systems such as sprinklers.

TOPOGRAPHIC

Vegetation

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, particularly those with wood roofs. 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.

Examples of fires of this type include the San Mateo Highlands in 1988, Devonshire Canyon in 1990, and Palomar Park in 1991. On the morning of October 16, 1991, a structure fire occurred on Sylvan Way in Emerald Lakes Hills. The fire quickly spread to adjacent trees and vegetation, and debris and ash fell into unburned vegetation and onto adjacent structures in an area more than 400 feet around the fire. The morning fog, which cleared during suppression activities, contributed to the lack of fire spread in the vegetation. An undetected ember landed in an abandoned redwood septic tank approximately 175 feet from the fire, and smoldered for nearly twelve hours before breaking into open flame and spreading to surrounding grasses.

Impact

Fire involving large areas of dry vegetation can quickly grow to a magnitude beyond the control capabilities of a fire department. Such fires give off sparks, embers and radiated heat that easily ignite untreated wood shakes and shingles on nearby buildings. When such a situation occurs, fire department resources may not be able to prevent major fire losses in locations with such conditions.

Surface Features

The arrangement and location of natural and man-made surface features, including hills, creeks, highways, housing tracts, individual dwelling units, commercial development, open space areas, streets and roads, combine to limit feasible response routes for fire department resources in and to County areas.

Impact

The limited number of response routes and lack of feasible alternate routes subject responding fire department units to significant delays in arriving at fires. As the community and environs continue to grow without compensating increases in traffic arterials, the traffic congestion problem becomes correspondingly worse. Delays result in an insufficient number of fire department resources arriving early to effectively control fires involving buildings with untreated wood shake and shingle roofs or with interiors not having automatic fire protection systems. The result can be serious fire losses at such buildings.

Additional delays including total blockage of existing access routes must be anticipated particularly where they traverse the hilly areas serving many communities. These delays result from a combination of residents attempting to flee or enter the fire area and spectators driving and/or parking along normal or alternate access roads. Fire damage from these delays and complete inability to reach fire scenes by fire apparatus is intensified and results in the need for additional suppression resources to obtain control.

Buildings, Landscaping and Terrain

Many of the new buildings and building complexes have building and landscaping features and designs, which preclude or greatly limit any approach or operational access to their exteriors by fire department vehicles. There are many concentrations of houses and other buildings in the County with untreated wood shake or shingle roofs, which are well within 20 feet of each other. There are many such buildings to which access by firefighting personnel to all but one side is made virtually impossible due to landscaping, fences, slopes or other buildings.

Impact

When fire department vehicles and personnel cannot gain access to the exteriors of buildings involved with fire, it becomes necessary to conduct all extinguishing and ventilating operations via the interior. It

also requires that equipment must be carried for long distances from fire vehicles to the fire location. Such operations quickly exhaust fire personnel both in numbers and in stamina. Access problems often result in severely delaying, misdirecting or making impossible fire and smoke control efforts such as locating the seat of the fire, applying hose streams and locating and opening windows or roofs for ventilation. This can result in extensive heat, smoke and water damage in much of the building not originally involved in the fire. Access problems increase the potential for, and numbers of, injuries sustained by firefighting personnel.

When fire department access to buildings with burning wood shakes or shingles is precluded, the fires continue to spread both through the involved building and then to other buildings with similar exterior coverings. The combination of buildings with untreated wood shake or shingle roofs and without fire sprinkler systems located in close proximity to each other, and with impeded access for the fire department, can readily result in multiple building fires and major fire losses.

Electrical Power Transmission Equipment

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. Most of the electrical power provided within the County is supplied via above-ground facilities.

Impact

Above-ground electrical power transmission lines are subject to damage from overloading, winds, trees, earthquakes and collisions from motor vehicles and aircraft.

When damaged, these facilities often start fires involving dry vegetation and/or untreated wood shakes or shingles from the resultant arcing and sparking. Frequently, such damage results in numerous fires being started simultaneously, thereby quickly dispersing available fire department forces. This in turn results in delayed and/or limited response by the fire department to any given fire, thereby causing excessive fire damage due to limited fire department capacity.

Damaged electrical lines often fall onto streets, thereby obstructing response routes from fire stations to fire locations, which again results

in excessive fire damage due to limited and/or delayed response by the fire department.

Also, damage to electrical transmission lines frequently results in large areas of the community being without power for extended periods of time. Unless a building involved in a fire located in a powerless area has its own automatic fire alarm system containing an emergency power supply or fire sprinkler system, fire can result in major damage and possible loss of life.

Additionally, the existence of above-ground electrical transmission poles and lines along streets and near buildings often results in partial to complete obstruction of exterior operations and access to the building by fire department aerial apparatus. This again limits the effectiveness and capabilities of the fire department and contributes to extensive fire losses.

d. Recommendations and Proposed County Code Language

The Planning and Building Department recommends the following four amendments to the California Building Standards Code because they are necessary to mitigate the above-described impacts, which are caused by local climatic, geological and topographic conditions.

Class B, or Better, Fire Resistive Roofing

This proposed amendment would require all new homes or structures undergoing a re-roofing project within the unincorporated area of San Mateo County to have Class B or better fire resistive roofing.

State Code Provisions, Section 1503.3 – Minimum Roof Covering Requirements

Since 1995, California State Code provisions have required every new structure, and every existing structure, when 50 percent or more of the total roof area is re-roofed within any one-year period commencing any date on or after July 1, 1995, to have a Class C fire retardant roof covering.

Proposed Provision, San Mateo County Ordinance Code, Division VII, Chapter 3, Article 1, Section 9113

1. The following requirements shall apply to all new buildings or structures and existing structures that require a building permit issued by San Mateo County.

- a. The roof covering for every new building or structure, or any existing building or structure which is undergoing a re-roof and all materials applied as part of a roof covering assembly, shall have a minimum fire rating of Class B or higher, treated in accordance with California Building Standards Code, Section(s) 1505, Table 1505.1, and Section 1505.1.3. Where required by the California Building Standards Code or other provision of law, roof coverings must meet a higher fire rating.
 - b. Subsection 1.a of this section shall not apply to buildings or structures that are less than 120 square feet in floor area.
 - c. Any person installing or constructing roof covering shall, immediately upon completion of the roof covering, provide certification of the roof covering classification to the building owner and to the inspection authority having jurisdiction.
2. The requirements of this section are minimum standards for new construction and re-roofing of existing structures. Where the International Building Code, International Residential Building Code, International Fire Code, or the California Building Standards Code contains higher standards or additional or more stringent requirements than required by this section, those additional or more stringent requirements shall apply. Further, nothing in this section shall prevent any fire authority having jurisdiction from adopting and enforcing regulations imposing more stringent requirements than those provided by this section.

Fire Sprinkler Requirement Modifications

This proposed amendment would require that automatic fire extinguishing systems be provided in all new structures, with specific exceptions.

The primary proposed modification to the existing fire sprinkler requirements is that the current exemption of some habitable structures of 1,000 square feet or less would be removed. Cal-Fire supports this amendment for life-safety reasons because many people reside in residences of 1,000 square feet or less.

State Code Provisions, Section 903.1. Automatic Fire Sprinkler Systems – Minimum Requirements

Section 903.1 requires the installation of automatic fire sprinkler systems in certain occupancies and specifically exempts existing (R-3) single-family dwellings.

Proposed Provision, San Mateo County Ordinance Code, Division VII, Chapter 3, Article 1, Section 9114

1. The following proposed requirements shall apply to all new buildings or structures that require a building permit issued by San Mateo County.
 - a. Except as otherwise provided by this section, or as provided under Section 903.1 of the California Building Standards Code, automatic fire sprinkler systems shall be installed and maintained in every new building or structure of any type of construction, use, occupancy or size which requires a building permit issued by San Mateo County.
 - b. 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 occupancy classification.
 - c. An automatic fire sprinkler system shall be provided throughout an existing structure when a building permit is issued to allow additions, alterations, or repairs within any 12-month period, which increase the value of the structure by 50 percent (50%) for one- and two-family dwellings.
 - d. Automatic fire sprinklers shall be installed in any garage or carport and breezeway attached to any structure for which a fire sprinkler system is required. A detached non-habitable garage, 1,000 square feet or more in size, and/or which has an attached studio or workshop shall require the installation of an NFPA-13 light hazardous automatic fire sprinkler system.

2. The following structures are exempt from the requirements of this section.
 - a. Agricultural Buildings. For the purpose 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 buildings” include a place of employment where agricultural products are processed, treated or packaged. Office uses within agricultural buildings shall not exceed ten percent (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.
 - b. Non-residential structures less than 1,000 square feet.
 - c. Mobile and/or manufactured homes in a mobile home park, recreational trailers, fifth wheels, and similar structures used for temporary housing during the construction of a permitted building.
 - d. Mausoleums of Type I construction, as defined by the California Building Standards Code, which do not contain offices, chapels, stores, or other places of public occupancy for purposes other than parking of vehicles.
 - e. Open-air parking garages of Type I construction, as defined by the California Building Standards Code, which do not contain offices, chapels, stores, or other places of public occupancy for purposes other than parking and are detached from other buildings.
 - f. Car wash structures where no offices or waiting rooms are attached.
3. Additions, alterations or modifications to any existing structure containing automatic fire sprinklers shall require the extension or modification of the fire sprinkler system throughout the added, altered, or modified areas.

Plans for the installation, extension or modification of an automatic fire sprinkler system shall be submitted to the Planning and Building Department of San Mateo County for review and approval by the appropriate fire department or district prior to installation. Additions, alterations, or remodels to an

existing dwelling previously equipped with automatic fire sprinklers shall require the submittal of three sets of sprinkler plans and hydraulic calculations. All components of the existing system shall be submitted for review to determine compliance with the applicable standards.

4. All automatic fire sprinkler systems shall comply with the most current adopted edition of NFPA-13, NFPA-13-D, NFPA-13-R and any additional County specifications, or modifications imposed by supplemental rules and regulations adopted by the County of San Mateo.
5. The installation of an automatic fire suppression system may be required by the Building Official when an alteration, addition or change in use or occupancy of a building or portion of a building thereof increases the hazard of fire or threat to life and safety.
6. The requirements of this section are intended to represent minimum standards for new construction. Nothing in this section shall prevent any fire authority having jurisdiction from adopting and enforcing any regulations, which impose more stringent requirements. Further, any requirements of the International Building Code, International Residential Code, International Fire Code or the California Building Standards Code(s), which is more restrictive, specify higher standards or mandates specific locations within a structure for automatic fire sprinkler systems shall be applicable.

Re-Adopt and Amend Wildland Urban Interface Fire Hazard Area Modifications and State Fire Hazard Severity Zone Maps

The adoption of these amendments and maps would require that all new homes or structures/buildings built within designated Fire Hazard Areas follow the standards put forth by Chapter 7A of the 2013 California Building Code.

State Code Provisions – Chapter 7A of the 2013 California Building Standards Code

Chapter 7A of the 2013 California Building Standards Code and the State Fire Hazard Severity Zone Maps provide new standards for all new buildings built within designated Fire Hazard Areas. New buildings within these designated areas would be required to use State-approved fire resistant materials such as hardi-plank or stucco and maintain specific clearances around structures.

*Proposed Provision, San Mateo County Ordinance Code, Division VII,
Chapter 3, Article 1, Section 9117*

The following proposed requirements shall apply to all new buildings or structures that require a building permit issued by San Mateo County.

Chapter 7A of the 2013 California Building Standards Code, and the State Responsibility Area (SRA) and Local Responsibility Area (LRA) Fire Hazard Severity Zone maps shall apply to all new buildings in the County that require a building permit.

2. Plastic Pipe Prohibition

a. Proposed Amendment Summary

Pursuant to State law, the Board of Supervisors of San Mateo County, in its ordinance amending the County Ordinance Code, Division VII, changes or modifies certain provisions of the Uniform Plumbing Code and the California Building Standards Code as it pertains to the regulation of the health and life safety of buildings. Specifically, such proposed amendments would include the continued prohibition of the use of Acrylonitrile Butadiene Styrene (ABS), and Polyvinyl Chloride (PVC) drain, waste and venting plumbing systems on or within structures, and that the use of Polyvinyl Chloride (PVC), Chlorinated Polyvinyl Chloride (CPVC), and cross-linked Polyethylene (PEX) potable water piping systems would also be prohibited from use.

b. Finding

Pursuant to State law including but not limited to Sections 13143.5, 18941.5, 17959.5 and 17958.7 of the California Health and Safety Code, the governing body of San Mateo County finds that the above amendments are reasonably necessary because of certain local climatic, and geological conditions as described below which create situations which can and do result in health and safety conditions which in turn result in excessive harm and danger to life and property in the community.

c. Local Conditions

The following local conditions make the amendment necessary to the Uniform Plumbing Code and the California Building Standards Code in order to provide a reasonable degree of health and life safety in this County.

CLIMATIC

Precipitation and Relative Humidity

Precipitation ranges 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 4 percent from May through September. This results in a dry period of at least five months each year. Additionally, the area is subject to multi-year periods of drought each decade--the last one occurring from 1986 until the winter of 1992. Continued periods of drought are expected locally in the future.

Relative humidity remains in the middle range most of the time. It ranges from 45 to 65 percent in the winter and occasionally falls as low as 15 percent.

Impact

Locally experienced dry periods cause extreme dryness. Plastic piping such as ABS, PVC, PE and CPVC is of low strength and hardness, with low heat stability, high thermal expansion, and very low chemical resistivity. Extended or repeated periods of drought cause ABS, PVC, PE, PEX and CPVC piping to become brittle.

Rigid plastic pipe systems that have become brittle cannot flex sufficiently to absorb stresses from building shaking or settlement or from thermal expansion. Retained stresses readily damage plastic piping, particularly at solvent-welded joints.

Damage to brittle pipe during seismic activity can cause raw sewage to discharge into wall cavities and under-floor areas providing the potential of disease and infection. Potable water piping systems that are damaged during seismic activity provide the potential of cross-contamination or back siphonage into the domestic water systems or groundwater aquifers.

Temperatures

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. These extended periods occurred in July 1988, in July 1990, in October 1991 and in August and September 1998.

Impact

High temperatures cause plastic pipe to become brittle. Rigid plastic pipe systems that have become brittle cannot flex sufficiently to absorb stresses from building shaking or settlement or from thermal expansion. Retained stresses readily damage plastic piping, particularly at solvent-welded joints.

Once again, damage to brittle pipe during seismic activity can cause raw sewage to discharge into wall cavities and under-floor areas providing the potential of disease and infection. Potable water piping systems that are damaged during seismic activity provide the potential of cross-contamination or back siphonage into the domestic water systems or groundwater aquifers.

GEOLOGICAL

Seismicity

The County is located in Seismic Risk Zone 4, which is the worst earthquake area in the United States. Buildings and other structures in Zone 4 can experience major seismic damage. Within San Mateo County are located the San Andreas, San Gregorio, Seal Cove, as well as numerous other lesser faults. Additionally, San Mateo County is located relatively close to active faults located in Alameda County, Santa Clara County and Santa Cruz County. Earthquake activities with nearby epicenters have the potential for the following impact.

Impact

An earthquake of even mid magnitude could result in structural damage to structures, including damage to plastic pipe systems. With plastic susceptible to breaking at the joint, it makes such a system easily damaged by any shifting or settling of the structure during a seismic event. Where metal piping may have enough strength to hold, plastic would not. The failure of plastic piping and the problems attendant to the release of sewage or the contamination of domestic water systems would certainly exacerbate the problems after a seismic event.

d. Recommendations and Proposed County Code Language

The following changes and/or modifications to the 2013 California Plumbing Code (based on the 2012 Uniform Plumbing Code), and the California Building Standards Code are recommended to mitigate the

above-described impacts, which are caused by local climatic and geological conditions.

State Code Provisions

The existing State Code allows the use of ABS and PVC piping for drain and waste systems and plumbing venting systems for structures not exceeding three floors above grade.

The existing State Code also allows the use of ABS, PVC, CPVC, PE, and PEX piping for potable water distribution systems.

Proposed Continuation of San Mateo County Ordinance Code, Division VII, Chapter 3, Article 3, Section 9184, Prohibiting Plastic Pipe for Potable Water

1. Chapter 6 of the California Plumbing Code is hereby amended to read as follows:

Section 604.0. Materials

Section 604.1. All pipe, tube, and fittings carrying water used in potable water systems intended to supply drinking water shall meet the requirements of NSF 61 as found in Table 14-1. All materials used in the water supply system, except valves and similar devices, shall be of a like material, except where otherwise approved by the authority having jurisdiction. Materials for building water piping and building supply piping shall be in accordance with Table 6-4 and the standards in Table 14-1 except that all potable water piping and fittings shall be of brass, copper, cast iron, galvanized malleable iron, galvanized wrought iron, and galvanized steel. All materials used in the water supply system, except valves and similar devices, shall be of like material.

Additional Exceptions:

- (1) [OSHDP 1, 2, 3 and 4] Use of CPVC is not permitted for applications under authority of the Office of Statewide Health Planning and Development.
- (2) [OSHDP 1, 2, 3 and 4] Use of PEX piping is not permitted for applications under the authority of the Office of Statewide Health Planning and Development.

(3) [OSHPD 1, 2, 3 and 4] Use of PEX-AL-PEX piping is not permitted for applications under the authority of the Office of Statewide Health Planning and Development.

(4) [AGR, DHS] Use of PEX piping is not adopted for applications under the authority of the Department of Health Services and the Department of Food and Agriculture.

Section 604.1.1. Local Authority to Approve CPVC Pipe Within Residential Buildings Under “Specified” Conditions.

[HCD 1 and HCD 2] All potable water piping and fittings shall be of brass, copper, cast iron, galvanized malleable iron, galvanized wrought iron, and galvanized steel. All materials used in the water supply system, except valves and similar devices, shall be of like material. The Building Official, in accordance with the procedures set forth in Chapter 3, shall authorize by permit the use of CPVC for non-potable hot and cold water distribution systems within the interior of residential buildings provided all of the following conditions are satisfied:

(a) Permit Conditions. Any building permit issued pursuant to Section 604.1.1 shall be conditioned on compliance with the mitigation measures set forth in this section.

(b) Approved Materials. Only CPVC plumbing material listed as an approved material and installed in accordance with this code may be used.

(c) Installation and Use. Any installation and use of CPVC plumbing material pursuant to this section shall comply with all applicable requirements of this code and Section 301.0 of Appendix I of this code, Installation Standards for CPVC Solvent Cemented Hot and Cold Water Distribution Systems, IAPMO IS 20-2005.

(d) Certification of Compliance. Prior to issuing a building permit pursuant to Section 604.1.1, the Building Official shall require as part of the permitting process that the contractor, or the appropriate plumbing subcontractors, provide written certification: (1) that is required in subdivision (e), and (2) that he or she will comply with the flushing procedures and worker safety measures set forth in Section 301.0 of Appendix I of this code, Installation Standards for CPVC Solvent Cemented Hot and Cold Water Distribution Systems, IAPMO IS 20-2005.

(e) Worker Safety. Any contractor applying for a building permit that includes the use of CPVC plumbing materials authorized pursuant to this section shall include in the permit application a signed written certification stating that: (1) They are aware of the health and safety hazards associated with CPVC plumbing installations; (2) They have included in their Injury and Illness Prevention Plan the hazards associated with CPVC plumbing pipe installations; and (3) The worker safety training elements of their Injury and Illness Prevention Plan meet the Department of Industrial Relation's guidelines.

(f) Findings of Compliance. The Building Official shall not give final permit approval of any CPVC plumbing materials installed pursuant to Section 604.1.1 unless he or she finds that the material has been installed in compliance with the requirements of this code and that the installer has complied with the requirements in Section 1.2.1 of Appendix I of this code, Installation Standards for CPVC Solvent Cemented Hot and Cold Water Distribution Systems, IAPMO IS 20-2005.

(g) Penalties. Any contractor or subcontractor found to have failed to comply with the ventilation, glove or flushing requirements of Section 1.2.2 of Appendix I of this code, Installation Standards for CPVC Solvent Cemented Hot and Cold Water Distribution Systems, IAPMO IS 20-2005, shall be subject to the penalties in Health and Safety Code, Division 13, Part 1.5, Chapter 6 (Section 17995 et. seq.). In addition, if during the conduct of any building inspection the Building Official finds that the ventilation and glove requirements of Section 1.2.2 of Appendix I of this code, "Special Requirements for CPVC Installation within Residential Buildings," are being violated, such Building Officials shall cite the contractor or subcontractor for that violation.

Section 604.5. Cast-iron fittings up to and including two (2) inches (51 mm) in size, when used in connection with potable water piping, shall be galvanized.

2. Chapter 7 of the California Plumbing Code is hereby amended to read as follows:

Section 701.0. Materials

Section 701.1. Drainage piping shall be cast iron, galvanized steel, galvanized wrought iron, copper, brass, Stainless Steel 304 or 316L, Schedule 40 ABS (DWV), Schedule 40 PVC

(DWV), extra-strength vitrified clay pipe, or other approved materials having a smooth and uniform bore, except that:

Section 701.1.1. No galvanized wrought iron or galvanized steel pipe shall be used underground and shall be kept at least six (6) inches (152 mm) above ground.

Section 701.1.2. ABS and PVC (DWV) piping installations shall be limited to underground installation outside of the structure, and in accordance with IS 5, IS 9, and Chapter 15, "Firestop Protection." Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed index of not more than 50, when tested in accordance with the Test for Surface-Burning Characteristics of the Building Materials. (See the Building Code standards based on ASTM E-84 and ANSI/UL 723.)

3. Chapter 9 of the California Plumbing Code is hereby amended to read as follows:

Section 903.0. Materials

Section 903.1. Vent pipe shall be cast iron, galvanized steel, galvanized wrought iron, copper, brass, Schedule 40 ABS DWV, Schedule 40 PVC DWV, Stainless Steel 304 or 316L (Stainless Steel 304 pipe and fittings shall not be installed underground and shall be kept at least six (6) inches (152 mm) above ground), or other approved materials having a smooth and uniform bore. ABS and PVC shall not be approved for use for vent piping or fittings except for underground installation beginning two (2) feet outside the structure.

Section 903.1.1. No galvanized wrought iron or galvanized steel pipe shall be used underground and shall be kept at least six (6) inches (152 mm) above ground.

Section 903.1.2. ABS and PVC (DWV) piping installations shall be installed in accordance with IS 5, IS 9, and Chapter 15, "Firestop Protection." Except for individual single-family dwelling units, materials exposed within ducts or plenums shall have a flame-spread index of not more than 25 and a smoke-developed index of not more than 50 when tested in accordance with the Test for Surface-Burning Characteristics of the Building Materials (see the Building Code standards based on ASTM E-84 and ANSI/UL 723).

Section 903.1.2.1. [For OSHPD 1, 2, 3 and 4] ABS and PVC installations are not allowed.

Section 903.1.3. [HCD 1 and HCD 2] ABS or PVC installations are limited to not more than two stories of areas of residential accommodation.

B. PROPOSED MINOR LOCAL ADMINISTRATIVE CODE AMENDMENTS

In addition to the adoption of the California Building Standards Code with the above-proposed local amendments, the proposed ordinance also re-adopts San Mateo County Ordinance Code, Division VII and amends several sections of the San Mateo County administrative codes. Administrative codes are not held to the same standard as building codes, in that no specific findings are required to adopt these regulations. These administrative codes contain such standards as permit requirements, application procedures, the number of plan sets required, permit term limits, and similar procedures. There are seven minor local amendments the Department recommends. The proposed re-adoption and/or amendments include the following topics: (1) amending Term of Permits; (2) adopting the 2013 California Building Standards Code (Building Code Section 9100); (3) re-adopting Section 9118, California Residential Code; (4) re-adopting Section 9119, California Green Building Standards Code; (5) re-adopting Section 9150, California Electrical Code; (6) re-adopting and amending Section 9180, California Plumbing Code, and (7) re-adopting Section 9200, California Mechanical Code, and wording that officially adopts the California Building Standards Code, Mechanical Code, Electrical Code and Plumbing Code, with local amendments.

Discussion and proposed language for each amendment follows below.

1. Permit Requirement

a. Proposed Amendment

All permits issued for a temporary storage unit, as defined in Section 9025, shall have a term of not more than 90 days. The Building Official may extend this permit if the applicant can show cause of an economic and/or physical hardship (only one 90-day extension shall be allowed).

b. Rationale

Currently, the County Ordinance Code, Division VII (Building Regulations) does not address the need to permit temporary storage units. These storage units have become a public safety issue due to the items that are stored in these units. The items stored can be a fire

hazard (paint, lacquer, lumber, and/or household items). In order to protect life and property, the Planning and Building Department is proposing limits and permits for these temporary storage units.

c. Proposed Ordinance Code Language

Adding number 3 to Section 9025:

3. A permit shall be required for all temporary storage units, storage containers, and/or a POD (Portable on Demand) storage unit greater than 60 square feet. These temporary storage units shall comply with all local building and zoning regulations.

2. Term of Permits

a. Proposed Amendment

Currently, the County Ordinance Code, Division VII (Building Regulations) addresses terms of permits in Section 9033. Section 9033 (adding number 7) is proposed to be changed by adding the following clarifying language: A permit issued as a result of a Stop Work Notice will be limited to 90 days, with one extension of 90 days, as approved by the Building Official and/or the Community Development Director. The applicant shall provide substantial improvement within the first 90-day period, and provide documentation of an economic and/or a personal hardship to the Building Official and/or the Community Development Director to be considered for the “one” time extension of 90 days.

b. Rationale

The proposed clarifying language will provide the Planning and Building Department with the necessary language required to resolve building violations as the result of issuing a Stop Work Notice(s) and requiring property owners to resolve their building violations in a timely manner. All construction without the benefit of a building permit puts the occupants at risk of fire, inadequate seismic compliance, inadequate electrical, plumbing and/or gas pipe installations, inadequate mechanical ventilation, and/or unsanitary conditions. This language is necessary to enforce the Planning and Building Department’s mandate to protect life and property.

c. Proposed Ordinance Code Language

Adding number 7 and number 8 to Section 9033:

7. A permit issued as a result of a Stop Work Notice will be limited to 90 days, with one extension of 90 days, as approved by the Building Official and/or the Community Development Director. The applicant shall provide substantial improvement within the first 90-day period, and provide documentation of an economic and/or a personal hardship to the Building Official and/or the Community Development Director to be considered for the “one” time extension of 90 days.
 8. All permits issued for a temporary storage unit, as defined in Section 9025, shall have a term of not more than 90 days. The Building Official may extend this permit if the applicant can show cause of an economic and/or physical hardship (only one 90-day extension shall be allowed).
3. Adoption of the California Building Standards Code, Electrical Code, Plumbing Code, and Mechanical Code

- a. Proposed Amendments**

These sections adopt the latest editions of the California Building Code, Electrical Code, Plumbing Code, and Mechanical Code with any new appendices, amendments, errata, and/or emergency supplements, which were not adopted in the last code adoption.

- b. Rationale**

As stated above, new editions of the Building Code, Electrical Code, Plumbing Code and Mechanical Code have been adopted in this triennial edition of the California Building Standards Code. In order to effectively administer the County Ordinance Code and the California Building Standards Code, it is necessary for the County to specifically adopt these latest editions, with local amendments as noted in this report.

- c. Proposed Ordinance Code Language**

Section 9100. Adoption of 2013 California Building Standards Code. The latest adopted editions of the 2013 California Building Standards Code, Title 24, excluding Part 1 (California Administrative Code) and including the 2013 California Building Code (Part 2), 2013 California Residential Code, Title 24 (Part 2.5), 2013 California Energy Code (Part 6), 2013 California Historical Building Code (Part 8), 2013 California Fire Code (Part 9), 2013 California Existing Building Code (Part 10), 2013 California Reference Standards Code (Part 12) and all appendices, amendments, errata, and emergency supplements are

hereby adopted and by reference except as otherwise provided in Division VII, as the Building Code of the County of San Mateo. A copy of the "California Building Standards Code" is on file at the San Mateo County Building Inspection Section. The mandatory requirements of the appendix to the California Building Standards Code shall be enforceable to the same extent as if contained in the body of the Building Code. Any amendments, errata and/or emergency supplements to this code shall be enforceable to the same extent as if contained in the body of the "California Building Standards Code."

Section 9118. Adoption of 2013 California Residential Code. The latest adopted edition of the 2013 California Residential Code, Title 24 (Part 2.5), is hereby adopted and incorporated by reference. All appendices within the referenced standard above and all amendments, errata, and/or emergency supplements are also adopted during this triennial California Building Standards Code cycle. A copy of the "California Residential Code" is on file at the San Mateo County Building Inspection Section.

Section 9119. Adoption of 2013 California Green Building Standards Code. The latest adopted edition of the 2013 California Green Building Standards Code, Title 24 (Part 11), is hereby adopted and incorporated by reference. All appendices within the referenced standard above and all amendments, errata, and/or emergency supplements are also adopted during this triennial California Building Standards Code cycle. A copy of the "California Green Building Code" is on file at the San Mateo County Building Inspection Section.

Section 9150. Adoption of 2013 California Electrical Code. The latest adopted edition of the 2013 California Electrical Code (Title 24, Part 3) is hereby adopted and incorporated by reference. All appendices within the referenced standard above and all amendments, errata, and/or emergency supplements are also adopted during this triennial California Building Standards Code cycle. A copy of the "California Electrical Code" is on file at the San Mateo County Building Inspection Section.

Section 9180. Adoption of 2013 California Plumbing Code. The latest adopted edition of the 2013 California Plumbing Code (Title 24, Part 5) is hereby adopted and incorporated by reference. All appendices within the referenced standard above and all amendments, errata, and/or emergency supplements are also adopted during this triennial California Building Standards Code cycle. A copy of the "California Plumbing Code" is on file at the San Mateo County Building Inspection Section.

Section 9200. Adoption of 2013 California Mechanical Code. The latest adopted edition of the 2013 California Mechanical Code (Title 24, Part 4) is hereby adopted and incorporated by reference. All appendices within the referenced standard above and all amendments, errata, and/or emergency supplements are also adopted during this triennial California Building Standards Code cycle. A copy of the “California Mechanical Code” is on file at the San Mateo County Building Inspection Section.

County Counsel has reviewed and approved the Ordinance as to form.

The adoption of the 2013 California Building Standards Code(s) and amendment of the San Mateo County Ordinance Code, Division VII (Building Regulations) contributes to the 2025 Shared Vision outcome of a Livable Community by promoting buildings that are permitted and inspected under the most current code, thus protecting life and property.

FISCAL IMPACT:

None

ATTACHMENT:

A. Recommended Findings and Action

COUNTY OF SAN MATEO
PLANNING AND BUILDING DEPARTMENT

RECOMMENDED FINDINGS AND ACTION

Board Meeting Date: November 19, 2013

Prepared By: Charles Clark
Building Inspection Manager

For Adoption By: Board of Supervisors

RECOMMENDED FINDINGS:

Regarding the Adoption of the California Building Standards Codes, Find:

1. That the proposed adoption of the current triennial edition of the California Building Standards Codes, Title 24 and all appendices, as required by law, provides the minimum specific building code requirements for certain occupancies and types of buildings to ensure that structures, which are erected or altered, are constructed in a manner that address the highest level for health, fire, and life safety issues as discussed in the staff report.

Regarding the Re-Adoption of the San Mateo County Ordinance Code, Division VII (Building Regulations), Find:

2. That the proposed re-adoption of the San Mateo County Ordinance Code, Division VII (Building Regulations) is required in order to update the regulations every time San Mateo County adopts the California Building Standards Codes and will also provide the minimum specific building code requirements for certain occupancies and types of buildings to ensure that structures, which are erected or altered, are constructed in a manner that address specific local conditions regarding health, fire, and life safety issues as discussed in the staff report.

Regarding the Adoption of the Local Amendments of the California Building Standards Codes, Find:

3. That the proposed adoption of the local amendments of the current triennial edition of the California Building Standards Codes, Title 24 and all appendices provides the minimum specific local building code requirements for certain occupancies and types of buildings to ensure that structures in unincorporated San Mateo County, which are erected or altered, are constructed in a manner that address certain local climatic, geologic, or topographic conditions and to the highest level for health, fire, and life safety issues as discussed in the staff report; specifically:

- a. Regarding Class B or better roofing, fire sprinkler requirements, and fire hazard area standards, that in San Mateo County there are climatic (including precipitation and relative humidity, temperature, and wind conditions), geological (including seismicity and soils), and topographical (including vegetation, surface features, buildings, landscaping, and terrain, and electrical power transmission equipment) conditions that limit or reduce the effectiveness and capabilities of fire departments in controlling fires involving buildings used for human habitation, as well as structures not used for human habitation, and that such local conditions also cause situations which increase the likelihood of ignition and rapid and intense burning, and the likelihood of extensive damage from smoke and heat, and increased water damage resulting from quantities of water necessary to control fires occurring in such buildings and necessitate more restrictive fire prevention measures that mitigate and prevent the adverse impacts and results caused by such local climatic, geological and topographic conditions.

Further finds that the adoption of these code changes and modifications may not prevent the incidence of fire; however, the implementation of these changes can reduce the severity and potential for loss of life and property.

- b. Regarding plastic pipe prohibition, due to climatic and geological conditions within San Mateo County, that create situations which can and do result in health and safety conditions which in turn result in excessive harm and danger to life and property in that plastic materials are subject to deterioration, causing brittleness, and in a seismic event, these brittle materials are likely to crack or break, causing leakage and possible cross contamination. These cracks or breaks can occur within concealed spaces, making detection difficult until health problems or excessive odors occur.

Regarding the Adoption of Local Administrative Amendments of the California Building Standards Codes, Find:

4. That these local amendments are necessary for the effective administration of building permits, including new County standards, updating terminology and numbering systems, clarifying requirements, processes, and any ambiguities, investigation fees, violations and penalties, as discussed in the staff report.

RECOMMENDED ACTION:

Adopt the Ordinance implementing the California Building Standards Codes, the San Mateo County Ordinance Code, Division VII (Building Regulations), and Local and Administrative Amendments of the California Building Standards Codes.