

FIRE CODE

ORDINANCE NO. 23-01

AN ORDINANCE OF THE MORAGA-ORINDA FIRE DISTRICT OF CONTRA COSTA COUNTY, CALIFORNIA, ADOPTING THE 2022 EDITION OF THE CALIFORNIA FIRE CODE, WITH CERTAIN AMENDMENTS, AND BY REFERENCE, THE INTERNATIONAL FIRE CODE, 2021 EDITION, PUBLISHED BY THE INTERNATIONAL CODE COUNCIL, AND REPEALING ORDINANCE 20-01.

The Board of Directors, as the governing body of the Moraga-Orinda Fire District, does ordain as follows:

SECTION 1. ADOPTION OF THE CALIFORNIA FIRE CODE

For the purpose of prescribing regulations governing conditions hazardous to life and property from fire, explosion, or hazardous substances, materials and devices, and from conditions hazardous to life and property in the occupancy of buildings and premises, and in accordance with Section 13869 and 13869.7 of the California Health and Safety Code, the Moraga-Orinda Fire District does hereby adopt the 2022 California Fire Code (California Code of Regulations, Title 24, Part 9 [based on the 2021 International Fire Code published by the International Code Council]), including Chapters 1-80 and Appendices A, B, BB, C, CC, D, and H, as amended by changes, additions, and deletions set forth in Section 2 of this ordinance. The 2022 California Fire Code, on file in the office of the Moraga-Orinda Fire District, is hereby referenced and made a part hereof as if fully set forth in this ordinance, with the additions, insertions, deletions and changes prescribed in Section 2 of this ordinance, and from the date on which this ordinance shall take effect the provisions thereof shall be controlling within the limits of the Moraga-Orinda Fire District.

SECTION 2. AMENDMENTS TO THE CALIFORNIA FIRE CODE.

The 2022 California Fire Code is amended by the changes, additions and modifications set forth in this Section 2. Chapter and Section numbers used in this Section are those of the 2021 International Fire Code.

Chapter 1. Scope and Administration.

Section 101.1 is amended to read:

101.1 Title. These regulations shall be known as the Fire Code of the Moraga-Orinda Fire Protection District (“the District”) and are hereinafter referred to as “this code.”

Section 102.1 is amended to add item 5 to read:

5. Where not otherwise limited by law, the provisions of this code shall apply to vehicles, ships, and boats that are permanently affixed to a specific location within the boundaries of the District.

Section 105.5 is amended to read:

105.5 Required operational permits. The fire code official is authorized to issue operational permits for the operations set forth in Chapter 1, Sections 105.5.1 through 105.5.63.

Section 105.5.33 is amended to read:

105.5.33 Motor Fuel Dispensing Facilities. An operational permit is required for the operation of automotive, marine, and fleet motor fuel dispensing facilities, including sites that allow mobile fueling from a service provider to the general public, fueling of motor vehicles at approved locations from a tank vehicle, and limited or temporary fueling operations for special events (fueling of watercraft from shore, piers, floats, or barges).

Section 105.5.40 is amended to read:

105.5.40 Cannabis/Plant Extraction-Related System(s)/Operations. An operational permit is required for any of the following cannabis/plant extraction-related systems and operations:

1. Cultivation
2. Plant Extraction Systems
3. Testing/Lab
4. Manufacturing
5. Distribution
6. Carbon Dioxide Systems or Volatile Solvent

Section 105.5 is amended by adding Sections 105.5.52 through 105.5.62 to read:

105.5.52 Wood products. An operational permit is required to store chips, hogged material, wood or other combustible pallets, lumber, or plywood in excess of 200 cubic feet (6 m³) or 34.19 square feet.

105.5.55 Asbestos removal. An operational permit is required to conduct asbestos-removal operations regulated by Section 3319.

105.5.56 Automobile Wrecking or Dismantling Yard. An operational permit is required for all automobile wrecking yards, automobile dismantling operations, and similar operations.

105.5.57 Christmas tree sales. An operational permit is required to use a property for the purpose of selling cut Christmas trees.

105.5.58 Firework display. An operational permit is required to conduct a firework display regulated by Title 19 of the California Code of Regulations and Chapter 56 of this code.

- 105.5.59 **Model rockets.** An operational permit is required to sell model rocket motors or launch model rockets pursuant to California Code of Regulations, Title 19, div. 1, ch. 6, art. 17. Permits issued in accordance with this section are for the site and are effective as long as site conditions have not changed.
- 105.5.60 **Temporary Occupancy.** An operational permit is required for any temporary occupancy.
- 105.5.61 **Temporary water supply.** An operational permit is required to use a temporary water supply for construction of residential projects or subdivisions pursuant to Section 3313.1.
- 105.5.62 **Tire storage.** An operational permit is required to store more than 1,000 cubic feet (28.3 m3) of tires inside buildings pursuant to Chapter 34.

Section 105.6 is amended to read:

105.6 Required construction permits. The fire code official is authorized to issue construction permits for the operations set forth in Chapter 1, Sections 105.6.1 through 105.6.28.

Section 105.6 is amended by adding Sections 105.6.25 through 105.6.28 to read:

- 105.6.25 **Access for fire apparatus.** Plans shall be submitted to the fire code official, and a construction permit is required to install, improve, modify, or remove public or private roadways, driveways, and bridges for which District access is required by this code.
- 105.6.26 **Construction, Substantial Alterations and Substantial Additions for which a building permit is required.** Plans shall be submitted to the fire code official, and a construction permit is required for all substantial alterations of and all substantial additions to a building within the District.
Exception: Non-sprinklered Group R-3 Occupancies where work does not involve a substantial addition or substantial alteration and is not located in a VHFHSZ or WUI-FA.
- 105.6.27 **Subdivision of Land.** Plans shall be submitted to the fire code official, and a construction permit is required for all developments or improvements proposed within the District that involve the subdivision of land.
- 105.6.28 **Water supply for fire protection.** Plans shall be submitted to the fire code official, and a construction permit is required for the purpose of determining whether adequate water supplies, fire hydrants, and associated

systems are provided for all facilities, buildings, or portions of buildings either constructed or moved into the District pursuant to Section 507.

Section 105.7 is added to read:

105.7 Responsibility of permittee. Work performed under a construction permit shall be in strict accordance with the approved plans as reviewed by the fire code official, all requirements of this code, and any other laws or regulations applicable thereto. Any deviations from, or additions to, the work described in the plans originally submitted to the District must be presented to the fire code official for approval. District approval shall not relieve or exonerate any person from the responsibility of complying with the provisions of this code and no vested rights shall be created for any work performed in violation of this code.

Section 112.4 is amended to read:

112.4 Violation penalties. Every person who violates any provision of this code or shall fail to comply with any of the requirements thereof or who shall erect, install, alter, repair, or do work in violation of the approved construction documents or directive of the fire code official, or of a permit or certificate used under provisions of this code, shall be guilty of an infraction or misdemeanor in accordance with Health and Safety Code Section 13871. The imposition of one penalty for any violation shall not excuse the violation or permit it to continue; and all such persons shall be required to correct or remedy such violations or defects within a reasonable time; and when not otherwise specified, each day that prohibited conditions are maintained after due notice has been served shall constitute a separate offense.

Section 112.4.2 is added to read:

Section 112.4.2 Other penalties and remedies. Nothing in this Section 112.4 shall limit the fire code official from pursuing other available legal remedies for violations of this code, including but not limited to administrative citations and attendant fines, civil penalties, and administrative and summary abatements.

Chapter 2. Definitions.

Section 202 is amended by adding the following definitions to that section:

ADMINISTRATOR. Shall mean the Fire Chief or his or her authorized representative.

AERIAL PRE-PLANS. An overhead layout of a parcel containing structure(s) that identifies specific first responder related items to assist in effectively managing incidents and events for the protection of occupants, responding personnel, property, and the environment. The pre-plan shall be developed in accordance with a format approved by the District. Pre-plan symbols shall comply with the format approved by the District.

ALL-WEATHER DRIVING SURFACE. A roadway with a minimum surface finish that is designed to carry the imposed weight loads of fire apparatus.

AUTOMOBILE DISMANTLING OR WRECKING YARD. The operation of dismantling or removing parts from salvaged vehicles including engines or engine parts.

AUTOMOBILE WRECKING YARD. An area that stores or dismantles salvaged vehicles.

BOARD OF DIRECTORS. The governing body of the District.

COMBUSTIBLE MATERIAL. Rubbish, litter, or material of any kind, other than hazardous vegetation, that is combustible and endangers the public safety by creating a fire hazard as determined by the fire code official.

FIRE APPARATUS ACCESS ROAD. A road that provides fire apparatus access from a fire station to a facility, building or portion thereof. This is a general term that includes, but is not limited to a fire lane, public street, private street, driveway, parking lot lane, and access road.

FIRE TRAIL. A graded firebreak of sufficient width, surface, and design to provide access for personnel and equipment to suppress and assist in preventing surface extension of fires. Must be able to support the safe travel of a Type 3 Fire Apparatus.

HAZARDOUS VEGETATION. Vegetation that is combustible and endangers the public safety by creating a fire hazard, including but not limited to seasonal and recurrent grasses, weeds, stubble, brush, dry leaves, dry needles, dead, dying, or diseased trees, and any other vegetation as determined by the fire code official.

KEY BOX OR KNOX BOX. A UL (Underwriters Laboratory) Listed box, the size and style of which is approved by the fire code official, that meets the requirements of, and uses the same security key code adopted by, the District.

NEW CONSTRUCTION. Any new structure that requires a building permit or any construction that meets this code’s definition of a substantial addition or a substantial alteration shall be deemed new construction.

NUISANCE FIRE ALARM. The activation of any fire protection or alarm system which results in the response of the District and is caused by malfunction, improper maintenance, negligence, or misuse of the system by an owner, occupant, employee, or agent, or any other activation not caused by excessive heat, smoke, fire, or similar activating event.

PARCEL. A legal lot of any size.

PERSON. Includes any agency of the county, city or district or any other public agency and any individual, firm, association, partnership, business trust, corporation, limited liability company, or company.

RESPONSE TIME. The elapsed time from receipt of call to the arrival of the first unit on scene.

RUBBISH. Waste matter, litter, trash, refuse, debris, and dirt on streets, public property or private property in the District which is, or when dry may become, a fire hazard. See combustible material.

SPRINKLER ALARM AND SUPERVISORY SYSTEM (SASS). A dedicated function fire alarm system located at the protected premises installed specifically to monitor sprinkler water-flow alarm, valve supervisory, and general trouble conditions where a building fire alarm is not required.

STREETS. Includes alleys, parkways, driveways, sidewalks, and areas between sidewalks and curbs, highways, public right of ways, private road, public road, paper street, and easements.

SUBSTANTIAL ADDITION. The addition of new gross floor area that exceeds fifty percent of the existing gross floor area or the addition of new gross floor area that results in the building having a gross floor area of 3,600 sq. ft. or greater.

SUBSTANTIAL ALTERATION. Fifty percent or greater of the linear length of the wall of the building (exterior and interior) and fifty percent of the roof are removed or replaced within a one-year period.

TEMPORARY FIRE APPARATUS ACCESS ROAD FOR CONSTRUCTION. A temporary roadway for emergency vehicle use during construction of residential subdivision projects that is approved by the fire code official.

TEMPORARY WATER SUPPLY. Water stored for firefighting purposes in an aboveground tank approved by the fire code official during combustible construction.

Chapter 4. Emergency Planning and Preparedness.

Section 401.5.1 is added to read:

401.5.1 Nuisance Fire Alarm. A fee may be charged for nuisance fire alarms in accordance with a fee schedule adopted by the Board of Directors.

Section 401.10 is added to read:

401.10 Aerial Pre-Plans. For all new construction, the fire official is authorized to require a fire aerial pre-plan to be prepared by an approved vendor.

Section 403.11.1 is amended to read:

403.11.1 Standby Personnel. Where, in the opinion of the fire code official or fire chief, it is essential for public safety in a place of assembly, or any other place where people congregate, because of the number of persons, or the nature of the performance, exhibition, display, contest, or activity, the owner, agent, or lessee shall provide standby personnel as required and approved by the fire code official or fire chief. If the activity requires fire watch, fire watch shall be provided in accordance with Sections 403.11.1.1 and 403.11.1.2. Standby personnel needed for EMS standby shall be provided in accordance with Contra Costa County EMS Protocols.

Chapter 5. Fire Service Features.

Section 503.1.4 is added to read:

503.1.4 Access to open spaces. When access to open land/space or fire trail systems maintained for public or private use is obstructed by new development or construction of any kind, the developer or owner of the parcel shall provide alternate acceptable access into the area that is sufficient to allow access for fire personnel and apparatus. The alternate means of access requires the approval of the fire code official.

Section 503.1.5 is added to read:

503.1.5 Existing fire trail systems shall be maintained. When conditions make maintenance of existing trails impractical, alternate means of access shall be provided by the owner of the parcel and the alternate means of access must be approved by the fire code official.

Section 503.2.1 is amended to read:

503.2.1 Dimensions. Fire apparatus access roads shall have an unobstructed width of not less than 28 feet (8,534.4 mm), exclusive of shoulders, except for approved security gates in accordance with section 503.6, and an unobstructed vertical clearance of not less than 15 feet (4,572mm).

Section 506.1.3 is added to read:

506.1.3 Knox Rapid Entry System key box contents. The key boxes shall contain, but not be limited to, the following items as designated by the fire code official.

1. Labeled keys to locked points of egress, whether in interior or exterior of the building or buildings.
2. Labeled Keys to the locked mechanical rooms.
3. Labeled keys to any fence or secured areas not covered in Section 506.1.
4. Labeled keys to any other areas that may be required by the fire code official.
5. A card containing the names and telephone numbers for the emergency contact people for each occupancy.
6. Hazardous Safety Data Sheet (SDS).
7. Aerial pre-plan.

Chapter 6. Building Services and Systems.

Section 605.3.1 is added to read:

605.3.1 Spark Arrestors. All chimneys attached to any appliance or fireplace that burns solid fuel shall be equipped with an approved spark arrestor California Building Code Section 2113.9.2.

Chapter 9. Fire Protection Systems.

Section 901.6.3.2 is added to read:

901.6.3.2 Records. Records of all system inspections, tests, and maintenance required by the reference standards shall be submitted to a third-party electronic record keeping service as chosen by the District.

Section 902.1 is amended to add:

SUBSTANTIAL ADDITION. The addition of new gross floor area that exceeds fifty percent of the existing gross floor area or the addition of new gross floor area that results in the building having a gross floor area of 3,600 sq. ft. or greater.

SUBSTANTIAL ALTERATION. Fifty percent or greater of the linear length of the wall of the building (exterior and interior) and fifty percent of the roof are removed, replaced, or added within a one-year period.

Section 903.1 is amended to read:

903.1 General. Automatic sprinkler systems shall comply with this section. For the purposes of this section, fire walls shall not be considered as creating separate buildings. An automatic sprinkler system shall be provided for all new buildings with a gross floor area that exceeds 5,000 square feet, and in the locations set forth in Section 903.

Exception: Group U occupancies.

Section 903.2.1.1 is amended to read:

903.2.1.1 Group A-1. An automatic sprinkler system shall be provided throughout stories containing Group A-1 occupancies and throughout all stories from the Group A-1 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet.
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The fire area contains a multi-theater complex.

Section 903.2.1.3 is amended to read:

903.2.1.3 Group A-3. An automatic sprinkler system shall be provided throughout stories containing Group A-3 occupancies and throughout all stories from the Group A-3 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet.
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.
4. The structure exceeds 10,000 square feet, contains more than one fire area containing exhibition and display rooms, and is separated into two or more buildings by fire walls of less than 4-hour fire resistance rating without openings.

Section 903.2.1.4 is amended to read:

903.2.1.4 Group A-4. An automatic sprinkler system shall be provided throughout stories containing Group A-4 occupancies and throughout all stories from the Group A-4 occupancy to and including the levels of exit discharge serving that occupancy where one of the following conditions exists:

1. The fire area exceeds 5,000 square feet.
2. The fire area has an occupant load of 300 or more.
3. The fire area is located on a floor other than a level of exit discharge serving such occupancies.

Section 903.2.1.8 is added to read:

903.2.1.8 Group B. An automatic sprinkler system shall be provided for Group B occupancies and intervening floors of the building where the fire area exceeds 5,000 square feet.

Section 903.2.3 is amended to read:

903.2.3 Group E. An automatic sprinkler system shall be provided for new Group E occupancies as follows:

1. Throughout all Group E fire areas greater than 2,000 square feet in area.
Exception: An automatic sprinkler system is not required in any Group E Day Care Facility less than 5,000 square feet.
2. The Group E fire area is located on a floor other than a level of exit discharge serving such occupancies.
Exception: In buildings where every classroom has not fewer than one exterior exit door at ground level, an automatic sprinkler system is not required in any area below the lowest level of exit discharge serving that area.
3. The Group E fire area has an occupant load of 300 or more.
4. In rooms or areas with special hazards such as laboratories, vocational shops, and other such areas where hazardous materials in quantities not exceeding the maximum allowable quantity are used or stored.
5. Throughout any Group E structure greater than 4,000 square feet in area, which contains more than one fire area, and which is separated into two or more buildings by fire walls of less than 4-hour fire resistance rating without openings.
6. For public school state-funded construction projects, see Section 903.2.19.
7. For public school campuses, Kindergarten through 12th grade, see Section 903.2.20.

Section 903.2.4 is amended to read:

903.2.4 Group F-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-1 occupancy where one of the following conditions exists:

1. A Group F-1 fire area exceeds 5,000 square feet.
2. A Group F-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group F-1 fire areas on all floors, including any mezzanines, exceeds 10,000 square feet.
4. A Group F-1 occupancy is used for the manufacture of upholstered furniture or mattresses exceeding 2,500 square feet.

Section 903.2.4.4 is added to read:

903.2.4.4 Group F-2. An automatic sprinkler system shall be provided throughout all buildings containing a Group F-2 occupancy greater than 5,000 square feet.

Section 903.2.7 is amended to read

903.2.7 Group M. An automatic sprinkler system shall be provided throughout buildings containing a Group M occupancy where one of the following conditions exists:

1. A Group M fire area exceeds 5,000 square feet.
2. A Group M fire area is located more than three stories above grade plane.
3. The combined area of all Group M fire areas on all floors, including any mezzanines, exceeds 5,000 square feet.
4. A Group M occupancy is used for the display and sale of upholstered furniture or mattresses exceeds 5,000 square feet.
5. The structure exceeds 5,000 square feet, contains more than one fire area containing a Group M occupancy, and is separated into two or more buildings by fire walls of less than 4-hour fire resistance rating without openings.

Section 903.2.8 is amended to read:

903.2.8 Group R. An automatic sprinkler system installed in accordance with Section 903.3 shall be provided throughout all Group R occupancies. An automatic sprinkler system shall be installed in new manufactured homes, new mobile homes, and multifamily manufactured homes with two dwelling units, including those located in mobile home parks, in accordance with Title 25 of the California Code of Regulations.

Section 903.2.8.1.1 is added to read:

903.2.8.1.1 Group R-3 Substantial Addition or Alteration. An automatic sprinkler system shall be provided throughout all existing Group R-3 dwellings where either of the following occurs:

1. Substantial Addition. The addition of new gross floor area that exceeds fifty percent of the existing gross floor area or the addition of new gross floor area that results in the building having a gross floor area of 3,600 sq. ft. or greater.
2. Substantial Alteration. Fifty percent or greater of the linear length of the wall of the building (exterior and interior) and fifty percent of the roof are removed, replaced, or added within a one-year period.

Section 903.2.9 is amended to read:

903.2.9 Group S-1. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-1 occupancy where one of the following conditions exists:

1. A Group S-1 fire area exceeds 5,000 square feet.
2. A Group S-1 fire area is located more than three stories above grade plane.
3. The combined area of all Group S-1 fire areas on all floors, including any mezzanines, exceeds 10,000 square feet.
4. A Group S-1 occupancy is used for the storage of commercial motor vehicles where the fire area exceeds 5,000 square feet.

Section 903.2.9.1 is amended to read:

903.2.9.1 Repair garages. An automatic sprinkler system shall be provided throughout all buildings used as repair garages in accordance with Section 406.8 of the California Building Code, as shown:

1. Buildings having two or more stories above grade plane, including basements, with a fire area containing a repair garage exceeding 5,000 square feet.
2. Buildings not more than one story above grade plane, with a fire area containing a repair garage exceeding 5,000 square feet.
3. Buildings with repair garages servicing vehicles parked in basements.
4. A Group S-1 fire area used for the repair of commercial motor vehicles where the fire area exceeds 5,000 square feet or any tenant improvement to the structure exceeds 49% of the S-1 area.

Section 903.2.10.1 is amended to read:

903.2.10. Group S-2 parking garages. An automatic sprinkler system shall be provided throughout buildings classified as parking garages where any of the following conditions exists:

1. Where the fire area of the enclosed parking garage, in accordance with Section 406.6 of the California Building Code, exceeds 5,000 square feet.
2. Where the enclosed parking garage, in accordance with Section 406.6 of the California Building Code, is located beneath other groups.
Exception: Enclosed parking garages located beneath Group R-3 occupancies.
3. Where the fire area of the open parking garage, in accordance with Section 406.5 of the California Building Code, exceeds 48,000 square feet.

Section 903.2.10.3 is added to read:

903.2.10.3 Group S-2 low hazard storage. An automatic sprinkler system shall be provided throughout all buildings containing a Group S-2 occupancy exceeding 5,000 square feet.

Section 903.2.11.3 is amended to read:

Section 903.2.11.3 Buildings 35 feet or more in height. An automatic fire extinguishing system shall be installed in all occupancies regardless of type of construction, floor area, or occupancy load if the building is three stories or more than 35 feet in height measured in accordance with the California Building Code, Chapter 5.

Section 903.2.11.7 is added to read:

903.2.11.7 High-piled storage. An automatic sprinkler system shall be provided throughout buildings containing high-piled combustible storage.

Exception: An automatic sprinkler system is not required for 500 square feet or less, including aisles, of high-piled storage.

Section 903.2.22 is added to read:

903.2.22 Fire Department Delivery Capability. An automatic fire sprinkler shall be installed in all new buildings and occupancies, or in existing buildings or structures that change occupancy classification or use, when the required fire flow exceeds 2,000 gallons per minute.

Section 903.3.1.1.4 is added to read:

903.3.1.1.4 Undeclared Use. In buildings of undeclared use with floor to structure height greater than 14 feet, the fire sprinkler system shall be designed to conform to Extra Hazard Group I design density. In buildings of undeclared use with floor to structure height less than 14 feet, the fire sprinkler system shall be designed to conform to Ordinary Group II design density. Where a subsequent occupancy requires a system with greater capability, it shall be the responsibility of the owner occupant to upgrade the system.

Section 903.3.1.3.1 is added to read:

903.3.1.3.1. Eave protection. Sprinkler protection shall be provided under roof eaves (as defined in California Building Code Section 702A) in Fire Hazard Severity Zones and Wildland Urban Interface Fire Areas.

Section 903.3.1.3.2 is added to read:

903.3.1.3.2 Pipe limitations. Where CPVC pipe is installed above the insulation or is otherwise located in an unconditioned space, such as in an attic space, or a garage without conditioned living space above, CPVC pipe shall be adequately insulated to a minimum R-19 value, or equivalent, or pipe shall be limited to Type K or L copper, or ferrous piping.

Section 903.3.5.3 is added to read:

903.3.5.3 Non-permissible water supply storage. Swimming pools and ponds shall not be considered water storage for the purposes of Section 903.3.5.

Section 903.3.9 is amended to read:

903.3.9. Floor control valves. Individual floor control valves and water flow detection assemblies shall be provided for each floor in multi-floor buildings at an approved location.

Exception: Group R-3 and R-3.1 Occupancies.

Section 903.4.2 is amended to read:

903.4.2 Alarms. One approved audible and visual device shall be connected to every automatic sprinkler system at an approved location. Such sprinkler water-flow alarm devices shall be activated by water flow equivalent to the flow of a single sprinkler of the smallest orifice size installed in the system. Audible and visual alarm devices shall be provided on the exterior of the building in an approved location. Where a fire alarm system is installed, actuation of the automatic sprinkler system shall actuate the building fire alarm system.

Section 903.6.1 is added to read:

903.6.1 Substantial additions and alterations. An automatic sprinkler system shall be provided throughout all existing R-3 Occupancy buildings where a substantial addition or substantial alteration occurs. Group R-3 substantial additions or alterations shall comply with Section 903.2.8.1.1.

Section 903.6.2 is added to read:

903.6.2 Change of occupancy classification. Any existing building that undergoes a change of occupancy classification into a higher hazard category shall comply with the requirements of Section 903.2. Relative hazard categories of occupancy groups shall be established based upon the Heights and Areas Hazard Categories of Table 1011.5 of the current edition of the International Existing Building Code, as published by the International Code Council. The requirements of Section 903.2 shall not be required when a change of occupancy classification is made to an equal or lesser hazard category. Group L occupancies shall be considered a relative hazard of 1 (highest hazard).

Section 905.3.1, item 2, is amended to read:

905.3.1 Height.

2. Any building three (3) stories in height shall have a Class I standpipe installed that is interconnected with the fire sprinkler system.

Section 905.4, item 1, is amended to read:

905.4 Location of Class I standpipe hose connections.

1. In every required interior exit stairway, a hose connection shall be provided for each story above and below grade plane. Hose connections shall be located at the intermediate floor landings unless otherwise approved by the fire code official. See Section 909.20.2.3 of the California Building Code for additional provisions in proof enclosures.

Exception: A single hose connection shall be permitted to be installed in the open corridor or open breezeway between stairs that are not greater than 75 feet (22,860mm) apart.

Section 907.4.4 is added to read:

907.4.4 Monitoring of other fire systems. In buildings equipped with a fire alarm system or sprinkler alarm and supervisory service (SASS) system, where other fire suppression or extinguishing systems are installed in the building (including, but not limited to, commercial kitchen suppression systems, pre-action fire suppression systems, dry chemical systems, and clean agent systems), these other suppression systems shall be monitored by the SASS dedicated function fire alarm system and transmitted as a specific signal to the Central Station. The system shall be monitored in compliance with Section 907.6.6.

Section 907.5.2.3.1 is amended to read:

907.5.2.3.1 Public use and common use areas. Visible alarm notification appliances shall be provided in public use areas and common use areas, including but not limited to:

1. Sanitary facilities including restrooms, bathrooms, shower rooms, and locker rooms.
2. Corridors, hallways, and aisles with shelving and/or fixtures obstructing the required light intensity for that area.
3. Music practice rooms.
4. Band rooms.
5. Gymnasiums.
6. Multipurpose rooms.
7. Occupational shops.
8. Occupied rooms where ambient noise impairs hearing of the fire alarm.
9. Lobbies.
10. Meeting/Conference rooms.
11. Classrooms.
12. Medical exam rooms.
13. Open office areas.
14. Sales floor areas.
15. Break or lunchrooms.
16. Copy or work rooms.
17. Computer server rooms exceeding 200 sq. ft.
18. File or storage rooms exceeding 200 sq. ft.

Section 907.6.6 is amended to read:

907.6.6 Monitoring of fire alarm systems. A fire alarm system required by this chapter, or by the California Building Code, shall be monitored by a UL-listed Central Station service in accordance with NFPA 72 and this code.

Exceptions: Monitoring by a UL-listed central station is not required for:

1. Single- and multiple-station smoke alarms required by Section 907.2.10.
2. Group 1-3 occupancies, which shall be monitored in

accordance with Section 907.2.6.3.

3. Residential Day Care Facilities (occupancy load of 14 or less).
4. One- and two-family dwellings.
5. Residential Care Facilities licensed by the state with an occupant load of 6 or less.
6. Occupancies with local fire alarm systems that will give an audible and visible signal at a constantly attended location, as approved by the fire code official.

Section 907.6.7 is added to read:

907.6.7 Certification. New fire alarm systems shall be UL-Certified. A Certificate of Completion and other documentation as listed in NFPA 72 shall be provided for all new fire alarm system installations. It is the responsibility of the building owner or owner's representative to obtain and maintain a current and valid Certificate.

Section 907.6.7.1 is added to read:

907.6.7.1 Posting of Certificate. The UL Certificate shall be posted in a durable transparent cover within three feet of the fire alarm control panel within 45 days of the final acceptance test/inspection.

Chapter 10. Means of Egress.

Section 1028.5.1 is added to read:

1028.5.1 Exit discharge surface. Exterior exit pathway surfaces shall be suitable for pedestrian use in inclement weather and shall terminate at a public way as defined in the California Building Code.

Chapter 33. Fire Safety during Construction and Demolition.

Section 3303.1.2 is added to read:

3303.1.2 Amendments. Amendments may be required to an approved site safety plan if deemed necessary by both the building official and fire official based on previous fires or hazards that occurred on site or within the District.

Section 3303.1.3 is added to read:

3303.1.3 Site Security requirements. Site security requirements shall include the following if deemed necessary by both the building official and fire code official:

1. Controlled access points.
2. Site fencing, up to 12 feet in height with tamper sensors and security wires on top.
3. Security guards, full-time 24/7 presence on-site, to perform fire watch and patrols.
4. Detection check points located throughout the buildings for fire watch and patrol verification.
5. Security camera coverage throughout the site with motion detection notifications.
6. Identify measures taken to prevent tampering with security cameras and motion sensors.
7. Necessary lighting throughout the project site.

Section 3319 is added to read:

Section 3319 Asbestos Removal.

3319.1 General. Operations involving removal of asbestos or asbestos-containing materials from buildings shall be in accordance with Section 3319.

Exceptions: Section 3319 does not apply to the removal of asbestos from:

1. Pumps, valves, gaskets, and similar equipment.
2. Pipes, ducts, girders, or beams that have a length less than 21 linear feet (6400 mm).
3. Wall or ceiling panels that have an area of less than 10 square feet (0.93 m²) or a dimension of less than 10 linear feet (3048 mm).
4. Floor tiles when their removal can be completed in less than four hours.
5. Group R-3 occupancies.

3319.2 Notification. The fire code official shall be notified 24 hours prior to the commencement and closure of asbestos-removal operations. The permit applicant shall notify the building official when asbestos abatement involves the removal of materials that were used as a feature of the building's fire resistance.

3319.3 Plastic Film. Plastic film that is installed on building elements shall be flame resistant as required for combustible decorative material, in accordance with Section 807.

3319.4 Signs. Approved signs shall be posted at the entrance, exit and exit-access door, decontamination areas, and waste disposal areas for asbestos-removal operations. The signs shall state that asbestos is being removed from the area, that asbestos is a suspected carcinogen, and that proper respiratory protection is required. Signs shall have a reflective surface. Lettering shall be a minimum of 2 inches (51 mm) high.

Chapter 50. Hazardous Materials - General Provisions.

Section 5001.5.1, is amended to add items 10 and 11 to read:

5001.5.1 Hazardous Material Management Plan (HMMP). Where required by the fire code official, an application for permit shall include an HMMP. The HMMP shall include an aerial pre-plan of the facility to designate the following:

10. Fire Department related safety equipment including:

- A. Fire alarm control panel (FACP)
- B. Sprinkler riser
- C. Fire department connection (FDC)
- D. Knox Box location
- E. Gas valve shutoff
- F. Electrical main shutoff
- G. Water shutoff
- H. Elevator equipment room

11. A Site Fire/Explosion/Hazardous Material Release Analysis Assessment. A Fire Protection Engineer (FPE)-stamped risk assessment is required for each possible hazard risk associated with fire, explosion, smoke, and toxicity associated with the possible incident at a facility that is identified as a bulk transfer/process/storage facility. Refer to NFPA 550 & 551 for references.

Section 5001.5.3 is added to read:

5001.5.3 Emergency response support information. Floor plans, material safety data sheets, Hazardous Materials Management Plans (HMMP), Hazardous Material Inventory Statements (HMIS), and other information must be stored at a readily accessible location as determined by the fire code official. This location may be in cabinets located outside of facilities or buildings. Information may be required to be maintained in a specific electronic media format to facilitate computer-aided dispatching.

Section 5003.9.1.2 is added to read:

5003.9.1.2 Documentation. Evidence of compliance with the provisions of this chapter as well as

with state and federal hazardous material regulations shall be maintained on site and available for inspection by fire department personnel.

Chapter 53. Compressed Gasses.

Section 5307.2 is amended to delete exception number 1.

Section 5307.3.2.1 is amended to read:

5307.2.1 Gas detection system. Indoor storage and use areas and storage buildings shall be provided with a gas detection system complying with Section 916.

Section 5307.4.3 is amended to read:

5307.4.3 Gas detection system. A gas detection system complying with Section 916 shall be provided in rooms or indoor areas in which the carbon dioxide enrichment process is located, in rooms or indoor areas in which container systems are located, and in other areas where carbon dioxide is expected to accumulate. Carbon dioxide sensors shall be provided within 1 inch (305 mm) of the floor in the area where the gas is expected to accumulate, or leaks are most likely to occur. The system shall be designed as follows:

1. Activates a low-level alarm upon detection of a carbon dioxide concentration of 5,000 ppm.
2. Activates a high-level alarm upon detection of a carbon dioxide concentration of 10,000 ppm.

Chapter 56. Explosives and Fireworks.

Section 5601.1.3 is amended to read:

5601.1.3 Fireworks. The possession, manufacture, storage, sale, handling, and use of fireworks within all areas of Contra Costa County are prohibited.

Exceptions:

1. Storage and handling of fireworks by a public safety agency.
2. The use of fireworks for fireworks displays pyrotechnics before a proximate audience and pyrotechnic special effects in motion pictures, television, theatrical or group entertainment productions as allowed in Title 19, Division 1, Chapter 6 Fireworks reprinted in Section 5608 and Health and Safety Code Division 11.
3. Snap caps and party poppers classified by the State Fire Marshal as pyrotechnic devices.

Section 5601.2.2 is amended to read:

5601.2.2 Sale and retail display. No person shall construct a retail display or offer for sale any explosives, explosive materials, or fireworks within the District.

Exception: Snap caps and party poppers classified by the State Fire Marshal as pyrotechnic devices.

Section 5601.2.4 is amended to read as follows:

5601.2.4 Financial responsibility. Before a permit is issued pursuant to Section 5601.2, the applicant shall file with the District a corporate surety bond in the principal sum of \$2,000,000, or a public liability insurance policy for the same amount, for the purpose of the payment of all damages to persons or property which arise from, or are caused by, the conduct of any act authorized by the permit upon which any judicial judgment results. The fire code official is authorized to specify a greater or lesser amount when, in his or her opinion, conditions at the location of use indicate a greater or lesser amount is required. Government entities shall be exempt from this bond requirement.

Exception: Fireworks in accordance with California Code of Regulations, Title 19, Division 1, Chapter 6. See Section 5608.

Chapter 57. Flammable and Combustible Liquids.

Section 5703.3.1 is added to read:

5703.3.1 Facility Fire/Explosion/Hazardous Material Release Analysis Assessment. A Fire Protection Engineer (FPE)-stamped risk assessment is required for each possible hazard risk associated with fire, explosion, smoke, and toxicity associated with the possible incident at a facility that is identified as a bulk transfer/process/storage facility when required by the fire official. Refer to NFPA 550 & 551 for references.

Section 5704.2.9.6.1 is amended to read:

Section 5704.2.9.6.1 Locations where above-ground tanks are prohibited. The storage of Class I and II liquids in above-ground tanks outside of buildings is prohibited in all zoning districts except districts zoned for commercial, industrial, or agricultural uses.

Exception: Protected above-ground tanks for the purpose of emergency power generator installations in areas zoned commercial, industrial, agricultural, business district, rural or rural residential, and on an individual basis as approved by the fire code official. Tank size shall not exceed 1,000 gallons for any class of liquids.

Section 5706.2.4.4 is amended to read:

Section 5706.2.4.4 Locations where above-ground tanks are prohibited. Storage of Class I and II liquids in above-ground tanks is prohibited in all zoning districts except districts zoned for commercial, industrial, or agricultural uses.

Exception: Protected above-ground tanks for the purpose of emergency power generator installations in areas zoned commercial, industrial, agricultural, business district, rural or rural residential, and on an individual basis as approved by the fire code official. Tank size shall not exceed 1,000 gallons for any class liquids.

Chapter 58. Flammable Gasses and Flammable Cryogenic Fluids.

Section 5806.2 is amended to read as follows:

5806.2 Limitation. The storage of flammable cryogenic fluids in stationary containers outside of buildings is prohibited in any area which is zoned for other than industrial use.

Exception: Liquid hydrogen fuel systems in compliance with Section 5806.3 or 5806.4.

Chapter 61. Liquefied Petroleum Gases.

Section 6103.2.1.7 is amended to read:

6103.2.1.7 Use for food preparation. Individual portable LP-gas containers used, stored, or handled inside a building classified as a Group A, Group B, or Group M occupancy for the purposes of cooking, food display, or a similar use, shall be limited in size to one quart capacity and shall be of an approved type. The number of portable containers permitted will be at the discretion of the fire code official. LP-gas appliances used for food preparation shall be listed for such use in accordance with the California Mechanical Code and NFPA 58.

Section 6104.2 is amended to read:

6104.2 Maximum capacity within established limits. The storage of liquefied petroleum gas is prohibited in any central business district and in all zoning districts except districts zoned for commercial, industrial, rural, or agricultural uses. The aggregate capacity of any one installation used for the storage of liquefied petroleum gas shall not exceed a water capacity of 2,000 gallons (7570 L).

Chapter 80. Referenced Standards.

Chapter 80 is amended by adding the following referenced standards:

NFPA 3 (2015): Recommended Practice for Commissioning of Fire Protection and Life Safety Systems

NFPA 850 (2015): Recommended Practice for Fire Protection for Electric Generating Plants and High Voltage Direct Current Converter Stations

Chapter 80 is further amended by amending the NFPA 13D (2016) (Standard for the Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes) standard as follows:

Section 7.7.1 is added, to read:

7.7.1 Where CPVC pipe is installed above the normal insulation in an unconditioned space, such as in an attic space, or a garage without conditioned living space above, CPVC pipe shall be adequately insulated to a minimum R-19 value, or equivalent, or pipe shall be limited to Type K or L copper, or ferrous piping.

Section 8.3.5.1.2 is amended to read:

8.3.5.1.2 Where fuel-fired equipment is below or on the same level as occupied areas of the dwelling unit, at least one quick-response intermediate temperature sprinkler shall be installed above the equipment or at the wall separating the space with the fuel-fired equipment from the occupied space. In unconditioned spaces, CPVC pipe shall be adequately insulated to a minimum R-19 value, or equivalent, or pipe shall be limited to Type K or L copper, or ferrous piping.

Appendix B. Fire-Flow Requirements for Buildings.

Table B105.2 is amended to read:

TABLE B105.2
Required Fire-Flow for Buildings Other Than
One- and
Two-Family Dwellings, Group R-3 and R-4
Buildings and Townhouses

AUTOMATIC SPRINKLER SYSTEM (DESIGN STANDARD)	MINIMUM FIRE-FLOW (GALLONS PER MINUTE)	FLOW DURATION (HOURS)
No automatic sprinkler system	Value in Table B105.1(2)	Duration in Table B105.1(2)
Section 903.3.1.1 of the California Fire Code	50% of the value in Table B105.1(2) ^a	Duration in Table B105.1(2) at the reduced flow rate
Section 903.3.1.2 of the California Fire Code	50% of the value in Table B105.1(2) ^a	Duration in Table B105.1(2) at the reduced flow rate

For SI: 1 gallon per minute = 3.785 Lit

a. The reduced fire-flow shall be not less than 1,500 gallons per minute.

Appendix C. Fire Hydrant Locations and Distribution.

Table C102.1 is amended as follows:

The title of Table C102.1 is amended to read:

TABLE C102.1 REQUIRED NUMBER AND SPACING OF FIRE HYDRANTS
(footnotes h and j)

The heading of the fourth column of Table C102.1 is amended to read:

MAXIMUM DISTANCE FROM ANY POINT ON STREET OR ROAD FRONTAGE
TO A HYDRANT (d, f, g, i)

Footnotes "i" and "j" are added to Table C102.1, to read:

- i. A fire hydrant shall be provided within 250 feet of a fire trail access point off a public or private street.
- j. For infill projects within existing single-family residential developments, Section 507.5.1 applies.

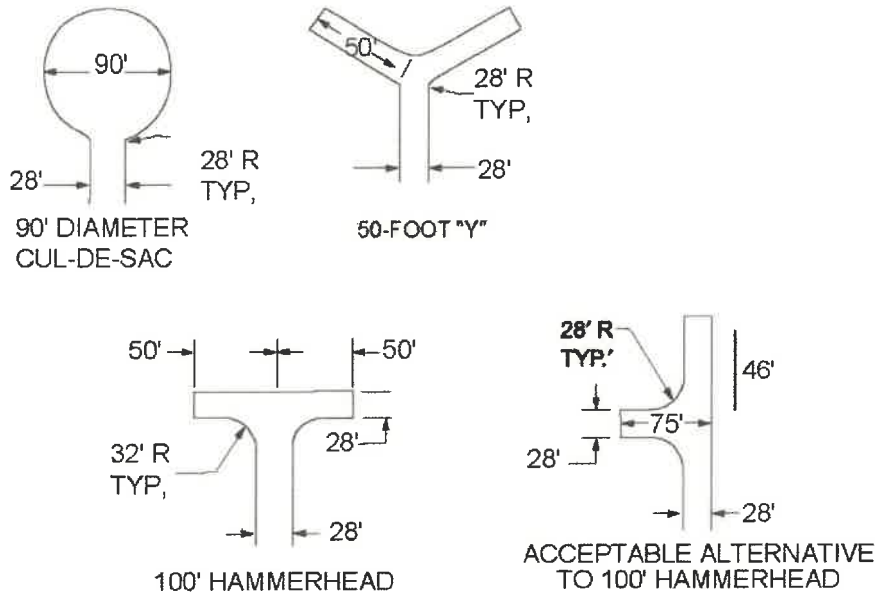
Appendix D. Fire Apparatus Access Roads.

Section D102.1 is amended to read:

D102.1 Access and loading. Facilities, buildings, or portions of buildings hereafter constructed shall be accessible to fire department apparatus by way of an approved fire apparatus access road with an asphalt, concrete, or other approved all-weather driving surface capable of supporting the imposed load of fire apparatus weighing at least 74,000 pounds (34,473 kg) in accordance with Caltrans Design Standard HS- 20-44.

Exception: Driveways serving one or two single-family dwellings may be constructed of an alternate surface material, providing the imposed weight load design minimums are met and the grade does not exceed 10 percent.

Figure D103.1 is amended to read:



Section D103.2 is amended to read:

D103.2 Grade. Fire department access roads having a grade of between 16 percent and 20 percent shall be designed to have a finished surface of grooved concrete sufficient to hold a 44,000-pound (19,958 kg) traction load. The grooves in the concrete surface shall be ½ inch (13 mm) wide by ½ inch (13 mm) deep and 1 ½ inch (38 mm) on center and set at a 30 to 45 degree angle across the width of the roadway surface. No grade shall exceed 20 percent, nor shall the cross slope exceed 8%, unless authorized in writing by the fire code official.

Section D103.2.1 is added, to read:

D103.2.1 Angles of approach and departure. The angles of approach and departure for any means of access shall not exceed 10 percent at 10 feet of the grade break.

Section D103.3 is amended to read:

D103.3 Turning radius. Based on a minimum unobstructed width of 28 feet, a fire apparatus access roadway shall be capable of providing a minimum standard turning radius of 28 feet (8,534.4 mm) inside and 48 feet (14,630.4 mm) outside.

Table D103.4 is amended to read:

Table D103.4
REQUIREMENTS FOR DEAD-END FIRE APPARATUS ACCESS ROADS

LENGTH (feet)	MINIMUM WIDTH (feet)	TURNAROUNDS REQUIRED
0-150	28	None required
151 - 750	28	100-foot Hammerhead, 90-foot-diameter cul-de-sac, or 50-foot “Y” configuration in accordance with figure D103.1
Over 750		Special approval required

- a. A driveway with a minimum width of 18 feet is acceptable for access to no more than two dwelling units. Parking is **not** permitted on the roadway.
- b. Any fire apparatus access roadway or driveway that is approved to be more than 750 feet in length and less than 28 feet wide shall have outsets or turnouts every 300 feet along the length of the road or driveway, or at locations approved by the fire code official. Each outset or turnout shall be of the following dimensions: an 8-foot-wide turnout that extends at least 40 feet in length.

Section D103.5 is amended to add Criteria 9:

9. All gates shall be installed and located a minimum of 30 feet off the street.

Section D103.6.1 is amended to read:

D103.6.1 Roads less than 28 feet in width. Fire apparatus access roads less than 28 feet wide shall be posted on both sides as a fire lane.

Section D103.6.2 is amended to read:

D103.6.2 Roads 28 feet in width or greater, but less than 36 feet in width. Fire apparatus access roads 28 feet wide or greater, but less than 36 feet wide, shall be posted on one side of the road as a fire lane.

Section D105.2 is amended to read:

D105.2 Width. Aerial Access. Aerial access roads shall have a minimum width of 36 feet (10973 mm) exclusive of shoulders, in the immediate vicinity of the building or portion thereof. Aerial access is required when building height is 30 feet or greater.

Section D106.1. is added to read:

D106.1. Required fire apparatus access roads for residential developments. The minimum number of access roads serving residential development(s) shall be based upon the number of dwelling units served as follows:

1. 1-20 units, one public or private fire apparatus access road.
2. 21-50 units, two public or private fire apparatus access road as approved by the fire code official.
3. 51-101+ units, three or more public or private fire apparatus access roads as approved by the fire code official.
4. Nothing in this section shall be construed to limit the creation of accessory dwelling units that are otherwise authorized by law.

Section D106.2 is deleted in its entirety.

SECTION 3. REPEAL OF CONFLICTING ORDINANCES.

Ordinance 20-01, adopting and amending the California Fire Code (2019 Edition) is hereby repealed.

SECTION 4. SEVERABILITY.

If any section, subsection, paragraph, sentence, or clause of this ordinance is determined in a final ruling by a court of competent jurisdiction to be invalid or unenforceable, such finding shall not invalidate any remaining portions of the ordinance. The Board hereby declares that it would have adopted this ordinance, and each section, subsection, sentence, or clause thereof, irrespective of the fact that any portion of the ordinance be declared invalid.

SECTION 5. DATE OF EFFECT.


This ordinance shall become effective on , 2023, and within fifteen (15) days of passage shall be published once with the names of the Directors voting for and against it, in the Contra Costa Times, a newspaper of general circulation in this District. Passed and Adopted on February 15, 2023, by the following vote:

PASSED, APPROVED and ADOPTED this 15th day of February, 2023 at the regular meeting of the District Board of Directors held virtually on February 15, 2023, on a motion made by Director Danziger, seconded by Director Jorgens, and duly carried with the following roll call vote:

AYES: DIRECTORS DANZIGER, HASLER, JORGENS, AND ROEMER
NOES: NONE
ABSENT: DIRECTOR JEX
ABSTAIN: NONE

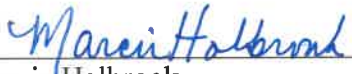
ORDINANCE 23-01

ATTEST:



John Jex, President
Board of Directors

ATTEST:



Marcia Holbrook
District Secretary/District Clerk

APPROVED AS TO FORM:


Jonathan Holtzman (Feb 28, 2023 14:57 PST)

Jonathan V. Holtzman
District Counsel






23-01 MOFD 2022 Fire Code Adopt Amend (2-6-22 redline accepted) (adopted 02.15.23)

Final Audit Report

2023-02-28

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