OXNARD FIRE DEPARTMENT

FIRE PREVENTION DIVISION

Design for Fire and Life Safety

The Oxnard Fire Department offers fire protection services through eight strategically located fire stations, and a fire prevention staff that provides project planning, plan review, and inspection services.

The City of Oxnard enjoys an Insurance Services Office (ISO) Class II Fire Protection Grading, due in part to stringent protection requirements that are applicable to all projects.

All projects will require a detailed analysis by the Fire Marshal and Fire Prevention staff in which specific project conditions will be determined. The Fire Prevention staff is available for pre- and post- submittal consultation on an hourly basis to review all fire protection aspects of your project.

Code Compliance – The Oxnard Fire Department enforces the 2019 California Fire Code (CFC); Titles 19 and 24 of the California Code of Regulations; the 2019 California Building Code (CBC) as applicable to the Fire Department; and Chapter 14-sections 14-24 through 14-26 of the Oxnard City Code.

The National Fire Protection Association Standards, including 2016-NFPA 13 for Fire Sprinklers and 2016-NFPA 72 for Alarm Systems are only some of the nationally recognized guides that are used for reference.

Our Department utilizes Mutual and Automatic Aid procedures to ensure that an appropriate number of personnel and equipment can arrive at an incident within a prescribed amount of time. Essentially, this means that neighboring fire agencies often respond to emergencies within the City of Oxnard. A number of our requirements are driven by this and the facts surrounding our staffing levels.

That information is available on our website
https://www.oxnard.org/fire-department/fire-prevention/

INSIDE:

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ACCESS REQUIREMENTS – Fire Apparatus

Fire lanes, fire access roads and secondary fire access routes shall have a clear width of **26** feet and have a minimum vertical clearance of **13** feet **6** inches. Widths are measured from face of curb/base of rolled curb. This width shall be increased by **5** feet for each floor above the second story. The driving surface shall be an all-weather type that is capable of supporting the imposed loads of fire apparatus (**76,000 pounds**).

Gates shall have a minimum clear opening of **20** feet for two-way traffic, and **15** feet each for one-way traffic sets of gates.

Designated fire lanes shall have approved signs and markings which meet the approved standards of the Fire Department, the Traffic Engineering Department, and the State of California Vehicle Code.

Roadway intersections and turning radii shall meet the minimum requirements of the City of Oxnard Traffic Engineering Department.

Turnarounds shall be required on all drives, courts and cul-de-sacs equal to or greater than **150** feet in length. Tee or hammerhead turnarounds will be considered on a project-by-project basis.

SPECIAL ACCESS SYSTEMS:

- Commercial, industrial, and retail projects are required to install a Knox-Box. KNOX Series 3200 is used for most commercial applications. Knox-Boxes may be ordered online at http://www.knoxbox.com/store/findDept.cfm
- Electrically operated vehicle entry gates may require Click-2-Enter radio activated controls at the discretion of the Fire Chief. See http://www.click2enter.net/ for details.
- Additional information on the type and location of special access systems may be obtained from the Fire Department.

ADDRESSING:

Commercial, industrial, multi-family residential, care facilities and those deemed appropriate are to have address numbers a minimum of eight inches in height. Address numbers shall be plainly visible and legible from the street or roadway fronting the building. Numbers shall contrast with their background to make them plainly visible.

One and two family residences shall have address numbers a minimum of four inches in height. Address numbers shall be plainly visible and legible from the street or roadway fronting the building. Numbers shall contrast with their background to make them plainly visible, with no brass, gold, or similar reflective surfaces.

In multiple building projects and projects with rear access roadways, address numbers shall also be placed on the rear of the buildings or the rear of the property.

ACCESS REQUIREMENTS – Firefighting

The ability of our Fire Department to make a quick attack of a fire, or to respond to another emergency, has been one of the key factors for allowing the City of Oxnard to have one of the lowest fire losses per capita in the country for a city of its size.

Building designers and other professionals should make every effort to remove any barriers for the rapid access and entry of emergency personnel and provide the safest environment possible.

All portions of the exterior walls of a single story building shall be not more than **150** feet from an approved fire access roadway. This distance must take into account any natural or man-made barriers such as trees, shrubs, fences, etc. and will be measured as a path of travel for the deployment of firefighting hose.

For each additional story in height, the distance shall be reduced by **20** feet per floor (i.e., a two-story building shall be no more than **130** feet from the access roadway and a three-story building no more than **110** feet from the roadway).

Buildings above **four** stories in height shall have approved roadways, or access, on at least three sides of the building, and no point on the perimeter of the building shall be more than **60** feet from such roadways.

FIRE PROTECTION – Fire Hydrants

Fire Hydrants, permanent all weather surface roadways, curbs and gutters, are required to be in place **prior** to combustible framing.

All combustible framing must be kept within **150** feet of an acceptable access road serviced with active fire hydrants. If a project requires a secondary fire access, it shall have a minimum clear width of **26** feet and a vertical clearance of **13** feet, **6** inches, be paved and support a **76,000 pound** fire apparatus.

All new hydrants shall be 6” wet barrel with National Standard Thread (NST) outlets. Refer to Public Works Standard Plates for installation details.

Sizing and type of City of Oxnard approved hydrants are as follows
(Public Works Plate #23):

- Type 1 – One & two family Residential: 4” x 2½” Jones J-3700 or approved equal.
- Type 2 – Multi-family Residential: 4”x4”x2½” Jones J-3775 or approved equal.
- Type 3 – Commercial/Industrial: 4”x4”x2½” Jones J-3775 or approved equal.

Fire hydrant locations shall be clearly identified by the installation of **blue** reflective markers in the middle of the street.

Fire Flow and Hydrant Spacing

Residential
A fire flow of **2500** GPM at **20**-PSI residual for single-family residences. A spacing requirement of **500** feet with no structure more than **300** feet from a hydrant. Multiple family residential spacing is **300** feet with no structure more than **200** feet from a hydrant.

Industrial and Commercial
A fire flow of **4500** GPM at **20**-PSI residual for industrial and commercial structures. A spacing requirement of **300** feet and located so that no structure is more than **150** feet from multiple hydrants (onsite hydrants are included).

Streets with medians shall have hydrants placed on each side of the median so that fire hose lines will not have to cross the street.

Tactical considerations may require additional hydrants – and will be considered on a project-by-project basis.

Onsite hydrants shall **not** be connected to the same underground supply as the fire sprinkler or fire standpipe systems.

When any portion of a building is more than **150** feet from a fire hydrant provided on a public street, onsite hydrants capable of providing the required fire flow will be required.

NOTE: Fire flows listed are minimums and specific projects may require additional fire flow depending on occupancy, size and construction of a particular building. Fire flow for a project will be based on the largest building within the project. Be aware that the City Water Department has reduced the city water pressure during periods of conservation.

Fire flow data for the City of Oxnard is available from Oxnard Public Works. Contact the City of Oxnard Service Center/Development Services Plan Check regarding existing hydrant fire flow data, and for permitting and test inspection/documentation requirements for conducting flow tests.

A Fire Protection Engineer may be required to assist with your project.

FIRE PROTECTION SYSTEMS – Fire Sprinklers

Fire sprinklers are recognized as the most cost effective method of reducing the loss of life and property from fire.

Automatic fire sprinkler protection is required in all new buildings, including dwellings, in accordance with Oxnard City Code, Chapter 14, section 14-26.

A separate submittal and permit is required, with submittal to the City of Oxnard Service Center, 214 S. C. St., Oxnard CA 93030, (805)385-7925.

NFPA 13 is the standard for commercial system design. Note that for the purposes of fire sprinkler design and coverage, fire walls shall not be considered as creating separate buildings.

NFPA 13R is the standard for residential Occupancies up to and including four stories. NFPA 13R systems will be flow tested for approval to ensure system adequacy. Field flow tests will be for one to four heads flowing. Attics will require protection; call for specific coverage specifications.

NFPA 13D is the standard for one and two family dwellings. NFPA 13D systems will be flow tested for approval to ensure system adequacy. Field flow tests will be for one and two heads flowing.

This policy statement gives an overview of the requirements of the City of Oxnard.

1. Automatic fire sprinklers shall be installed throughout all newly constructed buildings regardless of location, floor type, or occupancy classification.

   Commercial speculative buildings for which a predetermined use per the CBC has not been determined are to be designed with a minimum density factor of **.21** GPM over a minimum of **3000** square feet of area.

   Commercial speculative buildings which are intended to be used for high-piled combustible storage are to be designed with a minimum density factor of **.33** GPM over a minimum of **3000** square feet of area.

2. Automatic fire sprinklers shall be installed throughout buildings undergoing a change of occupancy or change of use to a more hazardous classification as determined in the CBC or by the Fire Chief.

3. Additions greater than **1000 square feet** to commercial or residential buildings shall have fire sprinklers installed in the addition and throughout the existing structure.

EXCEPTIONS that may be authorized:

- Carports, storage sheds, and similar structures having less than 500 square feet of roof area (including overhangs), that are at least **5** feet from the property line and **10** feet from any adjacent structure on the same or adjoining property.
- Trash enclosures of non-combustible construction, including the roof cover, that are at least **5** feet from the property line and **10** feet from any adjacent structure on the same or adjoining property.

Calculations are to be submitted using a design pressure of **50**-PSI static at the street. As an alternative, calculations may be based on an actual **approved** fire hydrant flow test (permitted, witnessed, and approved by Development Services) minus 10 p.s.i. (not 10%). Contact Development Services at (805)385-7890 regarding existing fire hydrant flow test results.

The Fire Department Connection (FDC) for fire sprinkler systems is required to be accessible from a public right-of-way (normally the road to which the building is addressed). This connection shall face towards that street and be within 50 feet of a fire hydrant that is not separated by routes of vehicle travel.

FIRE PROTECTION SYSTEMS – Standpipe Systems

Wet and Dry Standpipe Systems

A Type I System may be required if, upon review of the project, firefighting operations would benefit. This could be any of the listed circumstances or a combination of:

- An access point to building for fire apparatus is too great.
- Limited number of points of entry or exterior building access.
- Distance to the most interior area of the building is excessive for firefighting hose.

Wet type II & III Systems are reserved for unique settings and will not store hose that is accessible to the public. Our department does not want untrained personnel using fire hose lines in confined areas.

The same requirements for a sprinkler FDC applies to the FDC for any standpipe system.

FIRE PROTECTION SYSTEMS – Specialized Systems

A separate submittal and permit is required for all specialized fire protection systems, with submittal to the City of Oxnard Service Center, 214 S. C. St., Oxnard CA 93030.

Kitchens
A Type I hood and exhaust system complying with the CA Mechanical Code (CMC) shall be installed at all commercial cooking appliances and all domestic cooking appliances used for commercial purposes that produce grease vapors. A UL300 kitchen hood fire extinguishing system is required for the protection of commercial type food processing equipment **except** where there are no grease-laden vapors created. These systems are required in all restaurants, food preparation facilities or other kitchens that are **not** in a residence. Examples include kitchens serving community rooms, and kitchens serving any A occupancy assembly.
Examples also include cooking equipment used in fixed, mobile, or temporary concessions, such as trucks, buses, trailers, pavilions, tents, or other roofed enclosures. (CMC sec. 507)

Type K fire extinguishers are required within 30 feet of cooking that produces grease vapors.

High-Rise and Mid-Rise
High-rise and mid-rise projects require special fire protection features which are found in Titles 19 and 24 of the California Code of Regulations. Generally, all of the code requirements that apply to high-rise buildings will also be applied to mid-rise.

A California licensed Fire Protection Engineering firm may be required to be hired, at the applicants expense, to provide the Oxnard Fire Department written certification that all of the required fire protection systems are properly designed, provided and installed. When the structure is complete, the Fire Protection Engineer shall demonstrate that all fire protection and life safety elements have been installed and function as required and provide written certification to the effect.

Fire Extinguishers
Fire extinguishers shall be provided in all commercial occupancies at a rate of one **2A-10BC** extinguisher per **3000** square feet or fraction thereof, with a 75 foot maximum travel distance, and in industrial occupancies at a rate of one **2A-20BC** (minimum) extinguisher with a maximum 50 foot travel distance.

FIRE PROTECTION SYSTEMS – Fire Alarm and Detection Systems

The Standard for Fire Alarm and Detection Systems is CFC Chapter 9, and 2016 NFPA 72. A separate submittal and permit is required, with submittal to the City of Oxnard Service Center, 214 S. C. St., Oxnard CA 93030.

Fire Sprinkler Monitoring and Alarm Systems
Fire sprinkler monitoring and alarm systems are required for all fire sprinkler systems with 20 sprinklers or more. Exceptions are found in CFC sec. 903.4. Systems are required to have an exterior strobe visible from the street or access drive aisle. Automatic fire extinguishing systems are required to be monitored by the monitoring and alarm system. Note that duct smoke detection required by CMC sec. 608 is not required to be monitored by a monitoring and alarm system that is not a fire alarm system.

Fire Alarm Systems
The requirement for Fire Alarm systems is determined by CFC and CBC requirements. Systems are required to have an exterior strobe visible from the street or access drive aisle.

The system design shall include full system monitoring and annunciation to allow the crucial detailed information of a system actuation to be transmitted, to best dispatch the available equipment to a call.

The use of full system annunciation will allow the Fire Battalion Chief and Emergency Fire Dispatch Division to properly send equipment that is best suited to any system call – trouble alarm, pull station call, water flow alarm or any other combination of device activations that will indicate the critical level of urgency.

A Fire Alarm System Certification and Description per NFPA 72 Chapter 1 – Figure 1-7.8.2 Certificate of Completion, shall accompany all plans submitted for approval.

All systems shall have the capability of annunciation and communicating the location of the device that is initiating and confirming the alarm. (E.G.: 1600 SOUTH ROSE AVENUE-SECOND FLOOR-SOUTH WING MANUAL PULL STATION EXIT CORRIDOR 3, SECOND FLOOR WATERFLOW, SECOND FLOOR SOUTH WING SMOKE DETECTOR EXIT CORRIDOR 3)

In this example, the Emergency Dispatcher would send out a full response, notifying the arriving crews of what they could expect upon arrival and allow the Incident Battalion Chief to receive the critical information necessary to send in additional crews well in advance of having to be on scene and discover an actual fire on the second floor of the building.

The annunciating information shall be displayed at the site at the annunciator panel, and the alarm system shall have the capability of transmitting this information to a 24-hour Central Station monitoring location or company that will relay the information to the Oxnard Fire Department.

The added benefit of sending the appropriate fire fighting equipment and personnel at the proper time interval is that it will greatly diminish the amount of fire loss, water, and property damage and provide the greatest amount of safety for the responding crews.

Acceptance tests are to be conducted upon the completion of an installation or alteration.

Satisfactory tests of the entire system shall be made in the presence of a representative of the Oxnard Fire Department. All functions of the system shall be tested, including operation of the system in various alarm and trouble modes for which it was designed per the requirements of NFPA 72.

All systems shall be under the supervision of qualified persons as described within NFPA 72E, Appendix A-71.2.2. These persons shall cause proper tests and inspections to be made at prescribed intervals.

Hazardous Materials

The Oxnard Fire Department has a separate Division, the Certified Unified Program Agency (CUPA) which specializes in administering the codes, laws and ordinances relating to hazardous materials, hazardous wastes.

The CUPA program consists of six (6) elements related to hazardous materials and hazardous wastes regulation:

1. Hazardous Materials Business Plan (Community Right-to-Know)
2. Hazardous Wastes (Hazardous Waste Control Laws)
3. Underground Storage Tanks (UST)
4. Aboveground Storage Tanks (AST)
5. California Accidental Release Prevention Program (CalARP)
6. Tiered Permit (Onsite Hazardous Waste Treatment)

A CUPA permit will be required if your business handles, stores, or uses any hazardous materials at or above 55 gallons, 500 pounds, or 200 cubic feet, or any amount of hazardous waste. There are lower reporting requirements for organic peroxides, poisons A and B, and explosives.

The State of California established an electronic information management system known as the California Environmental Reporting System (CERS). All businesses must now submit Unified Program-related information to CERS instead of on paper forms.

As of January 1, 2013, all CUPA regulated facilities are required to report the following information electronically into the CERS database:

- Hazardous Materials Business Plan (HMBP)
- Chemical inventory
- Underground Storage Tank data (UST)
- Aboveground Storage Tank data (AST)
- Hazardous Waste Generator data

For additional information about CERS, please visit the following the following website:

http://cers.calepa.ca.gov/business

Contact CUPA for regulatory requirements and for specific information on hazardous materials, and hazardous wastes at your business. Please call (805) 385-8364 or visit

http://fire.oxnard.org/divisions/certified-unified-program-agency-cupa

Federal, State and local requirements may change from time to time – a periodic review will keep you current.