



# Redlands Fire Department Fire Protection Guideline

**Title:** Development Guidelines

**Number:** FG-100

**Revision:** A

**Date:** 09-30-15

**Scope:** To provide a general guideline of fire department standards and overall project development.

**Description:** General guidelines for project development with the City of Redlands Fire Department.

Case #: \_\_\_\_\_ Reviewed By: \_\_\_\_\_ Date: \_\_\_\_\_

**PROJECT SITE:** \_\_\_\_\_

## GENERAL REQUIREMENTS:

- The Fire Department plan review encompasses the Architectural plans only. Fire sprinkler system, fire alarm system, underground fire service main and hydrants, high-piled storage configuration or any other fire protection system or required fire department permits require a separate deferred plan submittal and are not encompassed in this plan review or approval.
- The developer shall provide for adequate fire flow. Minimum fire flow requirements shall be based on square footage, construction features, and exposure information supplied by the developer and **must** be available **prior** to placing combustible materials on site in accordance with the California Fire Code.
- Construction documents shall be in accordance with section 105.4 of the California Fire Code. Construction documents shall be submitted in such form and detail to ascertain by review whether the work indicated and described is in accordance with the requirements of the code. The City of Redlands Building and Safety Department provides a handout for tenant improvement plan check requirements. While this document shall serve as guidance, it is not the intent of this document to be all encompassing. It is incumbent upon the design professional to provide the needed information on the plans.

## HYDRANTS:

- Public fire hydrants are required along streets at intervals not to exceed 300 feet for the commercial and multi-residential areas and at intervals not to exceed 600 feet for residential areas.



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- Fire hydrant minimum flow rates of 1,500 gpm at a 20 psi minimum residual pressure are required for commercial and multi-residential areas. Minimum for hydrant flow rates of 1,000 gpm at a 20 psi minimum residual are required for residential areas.
- A hydrant shall be within 50 feet of all Fire Department Connections.
- Private fire hydrants shall be installed to protect each building located more than 150 feet from the curb line. No fire hydrants should be within 40 feet of any exterior wall.

### **FIRE DEPARTMENT ACCESS:**

- Provide two separate, dedicated routes of ingress/egress to the property entrance. The routes shall be paved, all weather.
- Provide an access road to each building for fire apparatus. Access roadway shall have an all-weather driving surface of or less than 20 feet of unobstructed width.
- Extend roadway to within 150 feet of all portions of the exterior wall of all single story buildings.
- Extend roadway to within 50 feet of the exterior wall of all multiple-story buildings.
- Access will not have an up or downgrade of more than 12%. Access will not be less than 20 feet in width, with approved turnouts or 20 feet without turnouts and will have vertical clearance of 15 feet. Access will be free of sharp confined turns and will be designed to withstand the weight of any type of emergency vehicle. Access will have a turning radius of 45 feet capable of accommodating fire apparatus.
- An approved turnaround shall be provided at all building sites on driveways over 300 feet in length, and shall be within 50 feet of the building.
- Turnouts shall be a minimum of 10 feet wide and 30 feet in length, with a minimum of 25 feet taper on each end.
- Driveways exceeding 100 feet in length, but less than 600 feet in length, shall provide a turnout near the midpoint of the driveway. Where the driveway exceeds 600 feet in length, turnouts shall be provided no more than 300 feet apart.
- Streets and cul-d-sacs serving commercial development shall be a minimum of 26 feet wide. Roadways serving buildings 30 feet and greater in height shall be a minimum of 30 feet wide to accommodate aerial truck operations.
- All proposed traffic calming elements shall be submitted to the fire department for review and approval prior to installation.

### **SITE:**

- All access roads and streets are to be constructed and usable prior to combustible construction and shall meet the requirements of the adopted ordinance.



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- Two points of connection are required for projects that require a total demand of 3000 gallons per minute for duration of three (3) hours at twenty (20) pounds per square inch.
- During the construction of this project the site address shall be clearly visible at the job site entrance. Clear and present addressing will enable emergency services equipment and inspectors to locate the job site from the public street. Address numbers shall be a minimum of 24 inches in height. Fire safety during construction shall be in accordance with the California Fire Code.
- The developer shall provide temporary turn-around for cut-off streets created by project phasing.

### **BUILDING:**

- Address numerals shall be installed on the building at the front and visible from interior access roadways.
- New residential buildings that contain two or less dwelling units shall have minimum four (4) inch high numbers with a minimum stroke width of one-half (1/2) inch, and shall be internally illuminated by means of a low voltage power source during the hours of darkness.
- Where setbacks exceed 100 feet from the street or road, additional non-illuminated four (4) inch numbers shall be displayed at the property entrance.
- Commercial buildings shall have a minimum of eight (8) inch high numbers, with a minimum stroke width of one (1) inch. Commercial buildings with a total floor area of 100,000 square feet or greater, shall have a minimum of twelve (12) inch high numbers, with a minimum stroke width of one and one half (1 ½) inch.
- A fire control room for fire department operations shall be provided on all Group M,F,S-1 or S-2 greater than 50,000 square feet.. The location and accessibility of the fire control room shall be approved by the fire code official.
- Fire extinguishers must be installed prior to the building being occupied. The minimum rating for any fire extinguisher is **2A 10B/C**. Minimum distribution of fire extinguishers must be such that no interior part of the building is over 75 feet travel distance from a fire extinguisher.
- All buildings, over 200 square feet, shall be equipped with an automatic fire sprinkler system designed to NFPA standards. This includes existing buildings with a 50% remodel, and any change in use over 5,000 square feet.
- Provide and show on plans; As a result of fire and ensuing demolition the project will require fire sprinklers to be installed throughout the building.
- Submit plans for the fire protection to the Fire Department prior to beginning construction of the system. Permit required.
- Tenant improvements in all sprinklered buildings are to be approved by the Fire Department prior to start of construction. Permit required.



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- Provide fire alarm (required throughout). Plans must be approved by the Fire Department prior to start of installation. Permits required.
- Fire Code Permit required contact (909) 307-7601.
- Fire Sprinkler monitoring required. Plans must be approved by the Fire Department prior to the start of construction. Permit required.
- Occupant load shall be approved by the Fire Department and shall be provided on all plans.
- Knox box is required. The proposed project requires the installation of a Fire Department Emergency Key Box to be installed on the exterior of the building at a location approved by the Fire Code Official. Applications may be obtained at the Fire Department Administrative offices.
- Knox- FDC Plugs. The proposed project required the installation of Fire Department Connection (FDC) locking caps to protect against vandalism. Applications for caps may be obtained at the Fire Department Administrative offices.
- An Underwriters Laboratory (UL) hood and duct fire extinguishing system shall be installed over the cooking equipment. Permit required.
- Provide and show on plans a complete and detailed landscaping plan that complies with the provisions of the Wildland-Urban Interface (WUI).
- Provide and show on plans a note indicating that this project is being constructed within the High Fire Severity Zone (HFSZ) and must meet all applicable fire and building codes.
- The Fire Department plan review encompasses general provisions only. The submittal of a high-piled combustible storage plan is required prior to the final acceptance of rack installation. Complete the fire department "High-Piled Combustible Storage (FP-212) worksheet for the proposed storage. The storage rack installation must support the proposed commodity in accordance with the California Fire Code as well as the National Fire Protection Association (NFPA) standard. The attached worksheet will help ensure that all information regarding the commodity, facility, and racks is provided.

Notes: The applicant must request, in writing, any changes to Fire Department requirements.

### ADDITIONAL INFORMATION:

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# Redlands Fire Department Fire Protection Guideline

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