

FIRE HYDRANT SPACING AND FLOW RATES

Development Standard #2

I. FLOW RATES

A. Individual hydrant flow rates for one- and two-family dwellings having a fire area which does not exceed 3,600 sq ft shall be determined according to Table I, below, of this standard. Flow rates for all other structures shall be determined according to fire flow requirements found in Appendix III-A of the California Fire Code.

B. All flows are measured at 20 p.s.i. residual pressure.

TABLE I. One- and Two-Family Dwellings¹

Area Type / Acres	Hydrant Spacing	Hydrant Flow Rate
Extreme High Fire Hazard Area ²	500 feet	500 gpm ³
Urban & Rural Developed Neighborhood	500 feet	500 gpm ³
Rural 5 to 10 Acres	600 feet	500 gpm ³
Rural over 10 Acres	600 feet	500 gpm ³
40 Acres and Over	See Development Standard #3 for Stored Water	See Development Standard #3 for Stored Water

- ¹ Stored water systems should not be used when a water purveyor is available unless augmenting the system and approved by the Fire Chief.
- ² As designated by California State Board of Forestry
- ³ Buildings provided with a rated automatic sprinkler system

II. SPACING POLICY

A. Spacing for one-family and two-family dwellings shall be according to Table I (above) of this standard. Spacing for other than one-family and two-family dwellings shall be according to Appendix III-B of the California Fire Code.

B. Spacing is based on the distance between hydrants along an approved access road. Specific locations will be determined by the Fire District prior to project approval.

C. Irrespective of distances provided in the referenced tables, additional hydrants may be required at intersections and near driveways serving buildings at risk.

D. Regardless of the hydrant spacing, fire hydrants shall be located such that all points on streets and access roads adjacent to a structure are within the distances listed in Table 1, above.

E. Fire hydrants shall be required on both sides of the roadway whenever:

1. Roadway easement widths are greater than 60 ft.
2. A center median strip exists.
3. The roadway is a major highway or thoroughfare as identified by the County Department of Public Works, Road Division.
4. In the opinion of the Fire Chief, the use of fire hydrants on the opposite side of the roadway may prove operationally difficult, or may create unsafe working conditions.

III. PRIVATE ON-SITE HYDRANT REQUIREMENTS

A. When required, a fire hydrant shall be installed no closer than 50 ft and no further than 150 ft traveled path distance to the dwelling. Specific location shall be determined by the Fire District.

B. Water mains for on-site fire hydrants shall be installed in accordance with the water purveyor standards or National Fire Code (NFPA Standard 24) and shall be a minimum of 4 in. diameter.

C. All on-site fire hydrants shall be equipped with a shut-off (street) valve.

D. Curb faces shall be painted red to 10 ft on both sides of the hydrant.

E. Maintenance of on-site hydrants is the responsibility of the property owner. The Fire District shall have unrestricted access to on-site fire hydrants for inspection and testing purposes.

IV. GENERAL REQUIREMENTS

A. Fire Hydrant Discharge Outlet Configuration

1. One- and Two-Family Dwellings

a. One 4 in. discharge outlet and one 2-1/2 in. discharge outlet.

EXCEPTION: Onsite hydrants, serving a single one- or two-family dwelling, and encumbered by back flow prevention and/or metering devices, may be limited to a single discharge outlet of 4 inches.

2. Other than One- and Two-Family Dwellings

a. Minimum one 4 in. discharge outlet and two 2-1/2 in. outlets.

B. All outlets shall have national standard threads and metal caps to protect threads.

C. The center of the lowest outlet shall be a minimum of 18 in. above grade and a maximum of 24 in. above grade.

D. The fire hydrant shall have pentagonal operating nuts.

E. Hydrant barrel shall be painted yellow.

F. Hydrants shall be installed, made serviceable and approved prior to the erection of combustible materials.

G. Hydrant locations shall be identified by the installation of approved blue reflective markers located in the roadway 90 degrees to the hydrant. Location should be near the roadway center, but not likely to be obscured by subsequent striping.

H. No barricades, walls, fences, landscaping, etc., shall be installed, planted or maintained within a 3 foot radius of a fire hydrant.

I. Hydrant flows may be increased and spacing decreased in high fire hazard areas, consistent with nationally recognized standards and industry good practice.