

MONTECITO FIRE PROTECTION DISTRICT STANDARD 88-3

Water Supply for Fire Protection

It is the policy of this fire district and its Board of Directors to require adequate water supply as described within this standard to all proposed building construction within the fire district. Substantial reductions in the water supply required for effective fire protection are afforded to property owners within the district by means of automatic fire sprinkler installation (when required) and by the progressive application of firefighting foam technologies by the fire district in its fire ground operations.

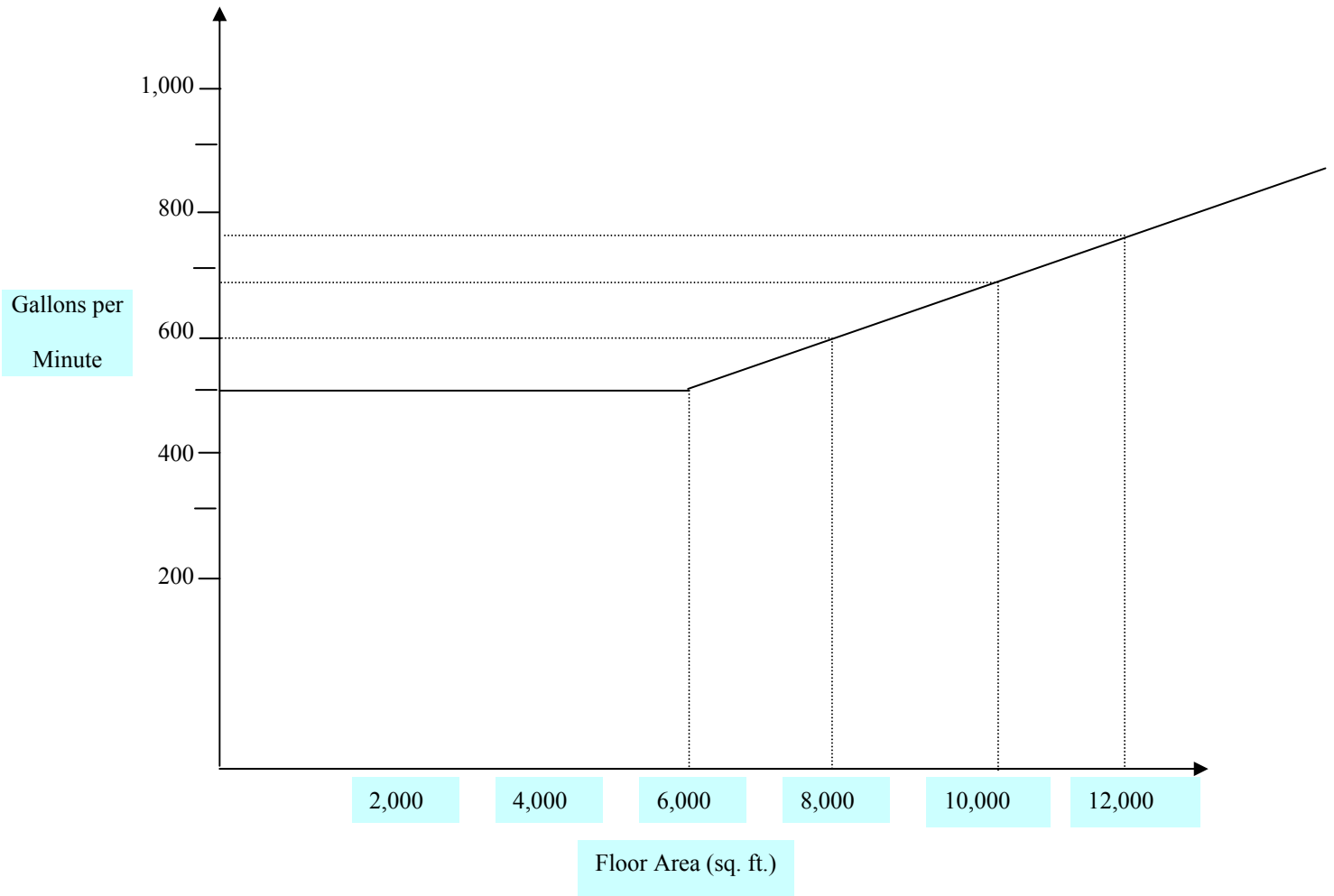
Water supply for fire protection is premised upon minimum available fire flows as stipulated in Appendix III-A of the 2001 California Fire Code as published by the International Fire Code Institute. Through the implementation of firefighting foams the fire district realizes the opportunity to effectively reduce such fire flows by fifty percent. Thus, required flow may be approximated by multiplying the square root of building's floor area by 13. Building floor area shall be defined as that area included within the surrounding exterior walls of a building exclusive of courtyards. Garages are to be considered as a part of the calculated building area. Detached buildings within thirty feet of one another which are upon the same parcel shall be considered a single building area. The fire district will accept a further reduction in required fire flow of fifty percent when the building is provided with a district approved automatic fire sprinkler system. However, in no case will the flow be less than 500 gallons per minute at twenty pounds per square inch residual pressure.

The required fire flows shall be from fire hydrants and water main extensions which meet all requirements of the water purveyor. Any proposed dwelling, residential addition, or structural replacement shall have sufficient hydrants to deliver the required fire flow within 500 feet fire apparatus travel distance of the principal entrance to the structure. This travel distance may be extended up to a maximum of 700 feet for sprinklered single family residential construction. For any non-residential occupancy the required fire flow shall be delivered from hydrants located within a 300 foot travel distance of the principal entrance. A minimum clearance of three feet in all directions shall be maintained around all required hydrants.

The fire district shall receive a letter from the water purveyor which verifies financial arrangements for hydrant and main installations when such improvements are required within fourteen days of fire protection certificate issuance. The work needed to provide this required water supply shall be installed, operational, and have fire district approval prior to structural framing.

Flow testing may be required by the fire district prior to the acceptance of required hydrants. Flow determinations will be developed by the water purveyor upon request of the project applicant. Resulting flows must be consistent with the flow criteria stipulated in this Standard. Upon the successful completion of this testing, or the waiver thereof by the fire district, the contractor may then proceed with structural framing.

3/03 rev.



Gallons per Minute (GPM)= 13 X Floor Area

c) 50% further flow reduction for fire sprinklers shown in graph above.
d) Minimum required flow of 500 GPM @20 psi residual

MONTECITO FIRE PROTECTION DISTRICT STANDARD 88-1

Water Storage for Private Protection

It is the policy of this fire district and its Board of Directors that tank storage of water for firefighting purposes shall be limited to those instances wherein the water purveyor is unable to provide adequate fire flow from its distribution system. All structures to be served from such stored water systems shall be fitted with automatic fire sprinkler systems which comply with the standards of the fire district.

Plans and specifications shall be submitted to the fire district for review and approval prior to installation of the storage system. These plans shall include valve and piping schedules, grade lines, tank specifications, pump curves and specifications, engineer’s certifications (where applicable) and scaled system drawings prior to installation of system components. All work shall be inspected prior to being covered up. The system shall be installed and operational prior to the onset of structural framing.

A minimum tank capacity to provide the required fire flow for a duration of one hour shall be provided. The tank system shall be configured such that the required fire flow of 20 psi residual pressure is provided at the system discharge outlets. The following table may be used as a guide in tank sizing:

<u>Building Size</u>	<u>Gallons</u>
Up to 2,500 sq. ft.....	15,000
Up to 3,000 sq. ft.....	20,000
Up to 4,000 sq. ft.....	25,000
Up to 5,500 sq. ft.....	30,000
Up to 7,500 sq. ft.....	35,000
Up to 10,000 sq. ft.....	40,000

Tanks should be from an ICBO recognized manufacturer and shall be installed in accordance with the manufacturer’s installation instructions. Appropriate permits shall be obtained from the Santa Barbara County Department of Zoning and Development when applicable. Any proposed deviation for this criteria shall be reviewed for structural integrity by and shall bear the stamp and signature of a California licensed structural engineer.

The tank discharge outlet shall have a minimum nominal size of four (4) inch mesh and be of brass No. 10 B.&S. gage wire.

Above ground piping shall be in compliance with NFPA Standard 20. Underground system piping installation shall conform with NFPA Standard 24.

A four inch class 150 full port shut off valve shall be installed in a locked open position at or near the tank outlet.

When required to achieve the necessary fireflow a centrifugal pump shall be installed and maintained as per NFPA Standard 20. Pump fittings and trim shall include isolation valving, a strainer, a check valve, a pressure relief valve, a pressure gauge, a mercoird type pressure switch, and adequate provisions for vibration isolation.

System discharge outlet shall be a hydrant by J. Jones all bronze No. 3700 (or district approved equal) with 2 ½ and 4 inch National Standard Thread outlets. Outlet caps shall be bronze. Hydrant shall be installed with a class 51 ductile iron bury and a break off spool. Prior to final acceptance this hydrant shall receive two coats of silver alkyd gloss paint.

It is to be understood that this system shall be maintained in an operative condition at all times by the owner or his agent for the duration of this occupancy. Th fire district shall be afforded the opportunity to conduct tests of the system when reasonable advance notice is provided. The fire district shall be notified immediately should the system become inoperative at any time. It shall be the contractor's responsibility to provide a written affidavit that the property owner has been informed of this stipulation before final occupancy clearance will be granted.