



DEVELOPMENT STANDARD #4b WATER STORAGE REQUIREMENTS

WATER STORAGE FOR FIRE PROTECTION

It is the policy of the Montecito Fire District 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 as referenced in the National Fire Protection Association (NFPA) Standards 13D, 22, 24 and this Standard.

Plans and specifications drawn by a California Licensed Civil Engineer 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 beginning of structural framing.

The tank system shall be configured such that the required fire flow adequately provides necessary fire protection for a given sized structure as indicated on Figure 4a-1 of this Plan. The **minimum fire flow tank capacity is 5,000 gallons for up to a 2,500 square foot structure.** For every square foot increase in floor area, an increase of 2 gallons of fire flow capacity is required. The table below will be utilized to determine tank capacity for fire flow capacity. **A minimum pressure of 20 psi shall be provided at the system discharge outlets.** The following table may be used as a guide in tank sizing:

Building Size Gallons

Up to 2,500 sq. ft.....	5,000
Up to 3,000 sq. ft.....	6,000
Up to 4,000 sq. ft.....	8,000
Up to 5,500 sq. ft.....	11,000
Up to 7,500 sq. ft.....	15,000
Up to 10,000 sq. ft.....	20,000



Shared stored water systems may be utilized where the cumulative square footage of the structures meets requirements stated in the table above. This provision must be approved by the Fire Chief on a case by case basis.

The Fire District will permit property owners to utilize a single tank for supplying both required flows for fire protection and domestic use providing the minimum capacity for fire flow listed above is maintained in the water tank at all times.

Tanks should be from an ICBO (International Conference of Building Officials) recognized manufacturer and shall be installed in accordance with the manufacturer's installation instructions. Appropriate permits shall be obtained from the County as required. Any proposed deviation for these 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 screen mesh with a minimum nominal size of four (4) inch and be of brass No. 10 B&S (Brown and Sharpe) gage wire.

Above ground piping shall be in compliance with NFPA Standard 20. Underground system piping installation shall conform to 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 necessary fire flow, a centrifugal pump shall be installed and maintained as per NFPA Standard 20. Pump fittings and trim shall include isolation valves, strainer, check valve, pressure relief valve, pressure gauge, mercoid 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 yellow alkyd gloss paint.

It is to be understood that this system shall be maintained in an operative condition at all times by the property owner for the duration of any occupancy. The Fire District shall be afforded the opportunity to conduct tests of the system when reasonable advance notice is provided. Further, 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.