



# RESIDENTIAL SPRINKLER SYSTEM FUNCTIONAL FLOW TEST PROCEDURES



Project Name/Tenant \_\_\_\_\_

Site Address \_\_\_\_\_

An IFC Fire Installation Permit is required to install a NFPA 13D sprinkler system in single family residences. Redmond Fire Department Standard 5.0, section 5.4.3 requires a functional flow test of the system to verify the proper flow and pressure is present in the remote area. The procedure and specific requirements for this system are as follows:

1. Locate the two hydraulically most remote heads in the system.
2. Close main sprinkler control valve.
3. Drain system piping.
4. Remove selected remote heads from the system.
5. Install "full flow" quarter-turn valves at each head location.
6. Remove the fusible element and deflector from selected sprinkler heads.
7. Install test heads in the ball valves and connect each assembly to the system.
8. Replace the next up-stream head with a 200 psi, calibrated water pressure gauge.
9. Open main control valve.
10. Place a 2" PVC pipe over the orifice of each of the test heads. Direct each discharge into its own calibrated 30 gallon container.
11. Flow the 2 most remote heads for 30 seconds. Record the static pressure prior to the flow and the residual pressure during the 30 second flow test.
12. Measure the volume of water in each container individually and multiply X 2. Record the results and empty the container.
13. Verify that flow rates and pressures conform to the hydraulic calculations and are within the manufacturers' specifications for the coverage area of the sprinklers.

COVERAGE AREA	REQUIRED MIN. PSI	REQUIRED MIN. FLOW	STATIC PRIOR	HEAD # 1		HEAD # 2	
				ACTUAL PSI	ACTUAL FLOW	ACTUAL PSI	ACTUAL FLOW

Manufacturer and model of fire sprinkler used: \_\_\_\_\_

Orifice size: \_\_\_\_\_ Inspector: \_\_\_\_\_

Inspection	Description	Date	Inspector #	Action	Calc Plate <input type="checkbox"/>	Head Box <input type="checkbox"/>
	Plan Review				<u>Notes:</u> <div style="border: 1px solid black; height: 100px; width: 100%;"></div>	
700	Hydro					
701	Cover					
715	Bucket					
731	Final					
776	Flush					
772	Back Flow					