4.23 Combination Fire Services (2025)

Reference: 2025 San Francisco Fire Code Section 903; 2025 NFPA 13, 13R, and 13D; 2025 SFFD Administrative Bulletin 2.04.

Purpose: Combination fire services will be permitted only for limited area sprinkler systems and residential systems in accordance with 2025 CFC 903.3.5.2 and 903.3.8.

Scope: Combination fire services may be used only when the combined sprinkler system and domestic water demand through the meter will not exceed the manufacturer's listed maximum intermittent delivery rate. Combination fire services shall comply with San Francisco Public Utilities Commission (SFPUC) Rules and Regulations, Section A, Rule 5A. The following guidelines will be used in conjunction with this policy:

I. SPRINKLER SYSTEM DESIGN CRITERIA

1. **Hydraulically Designed.** Sprinkler systems supplied by the combination fire service must be hydraulically designed in accordance with 2025 NFPA 13D, 13R and/or 13 as required by the San Francisco Fire Code.

2. **Domestic Water Demand.** The domestic water demand must be included in the sprinkler flow at the domestic water system point of connection to the combination fire service line. One of the following shall apply:

   A. **Two Dwelling Units or Less.** Domestic water demand shall be at least 5 GPM per unit for two dwelling units or less.

   B. **Three Dwelling Units or More.** For three or more dwelling units, the domestic demand shall be as estimated using the Tables in 2025 NFPA 13R.

3. **Maximum Delivery Rates.** The maximum delivery rates for combination fire service are as follows:
   A. 1 inch service = 50 GPM
   B. 1-1/2 inch service = 100 GPM
   C. 2-inch service = 160 GPM

II. COMBINATION FIRE SERVICE PIPE

1. **Copper Service Line.** For all sizes, the service line must be copper (Type K with brazed joints) from the water main in the street to the sprinkler connection to minimize problems of tuberculation (deposits that develop on the walls of the service lines).

2. **Fire Service Size.** The fire service size shall be determined by the San Francisco Fire Department or other proper authority having fire jurisdiction.

3. **Domestic Service Size.** The domestic service shall be sized in accordance with Department Rules based on demand and/or fixture count for the building or premises involved.

4. **Up To 2 Meter Sizes Larger.** The combined Fire and domestic service can be sized up to two (2) meter sizes larger than the calculated meter size required for the domestic demand.

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5. **Equal or Greater Than Calculated Size.** Service size must be equal to or greater than the calculated combination meter size.
6. **Maximum Size.** Maximum size of a combined service shall be 2-inch.
7. **PUC Documentation.** Service size information and calculated domestic meter size documentation shall be obtained from the PUC prior to SFFD plan review.

The meter friction losses to be used in the hydraulic calculations are:

DELIVER RATE

Service Size	25 GPM	50 GPM	75 GPM	100 GPM	125 GPM	160 GPM
1-inch	5 psi	9 psi				
1½ -inch	1 psi	3 psi	7 psi	12 psi		
2 - i n c h	1psi	1psi	3 psi	5 psi	8 psi	12 psi