

Fire Sprinkler Review Tips

- 1. Water Supply Flow Testing:** Indicate the water flow test results, the date and time taken, and who conducted the test. A small-scale drawing showing the locations of fire pumps, fire water tanks, test and flow hydrants and routing of underground pipe shall be included in submittals. Where a water flow test is performed for the purpose of a system design, the test shall be conducted no more than 12 months prior to working plan submittal. Test data must be adjusted to account for seasonal and daily pressure fluctuations, i.e., safety factors, etc.
- 2. Hazard and Commodity Classifications:** Sprinkler systems shall be designed to the correct hazard and commodity classification as specified within the provisions of NFPA 13 and through an engineering evaluation. An “owner’s information certificate” must be prepared by the A/E design team during schematic design and will be submitted by the project manager (PM) for schematic review. This approved document is to be included in shop drawing submission.
- 3. Sprinkler Spacing and Obstructions:** The layout and arrangement of sprinklers, dependent upon the Hazard and Commodity Classification and the type of sprinkler used, must provide adequate coverage and meet the design provisions of NFPA 13.
- 4. Hydraulic Calculations:** When calculations are required, calculate the most hydraulically demanding portion(s) of the fire system (which shall include fire hose demand) back to the water supply source (flow test, fire pump, fire water tank, etc.) and provide a reference piping schematic, or reference drawings, indicating pipe arrangement and hydraulic nodes back to the source.
- 5. Hanger Support:** Requirements for proper hanging of sprinkler piping shall meet the provisions of NFPA 13 and must be shown on the shop drawing submission.
- 6. Seismic Protection:** When required by the seismic design category of the building
 - Seismic protection (sway bracing, branch line restraint, flexible couplings, etc.) locations, details and calculations shall be provided.
- 7. Inspectors Test and Drains:** Location of all system drains, inspector’s test

station(s) and associated discharge/draining piping shall be shown on the working drawing shop submission.

8. **Drawing Submittals:** Each design phase; Schematic, Preliminary, and Construction Document, require a specific detail of scope in their submittal for OUBO review. The HECOM manual details each design phase's required submittal for "fire protection". In addition, NFPA 13 also has specific "plans and calculations" that shall be met as part of the "fire protection" submittals.