



Phoenix Fire Department

Plan Review of 13 Systems

REFERENCED FIRE CODES

NFPA 13, 2002 ed. and IFC Section 903, 2003 ed.

OBJECTIVE OF THIS CHECKLIST

This checklist is designed to guide the plan reviewer and contractor for the plan review of 13 systems. This checklist shall be used in conjunction with the appropriate NFPA, Phoenix Fire Code, and IBC code books. This checklist is merely a general guideline to assist in the plan submittal and reviewer.

SEQUENCED PLAN REVIEW

Reference to Phoenix Fire Code, Section 903 (Automatic Sprinkler Systems) and NFPA 13 along with the appropriate suppressant system manual.

REQUIRED PLAN REVIEW INFORMATION

REQUIREMENT	Section	Complete
<u>The following points need to be addressed when conducting a plan review for NFPA 13 systems:</u>		
<input type="checkbox"/> Verify plan has address.	903.1.2	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Verify installing contractor's information is provided on plan.	903.1.2	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Verify the plan being reviewed is a 13 system.	903.3.1.2	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check and verify the scale.	105.2.8.1	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check to ensure the appropriate sprinkler cut sheets are included.	903.1.2	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check to ensure hydraulic calculation sheets are provided.	901.2	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check to ensure that the number of sprinkler heads is in accordance with the appropriate hazard class (light, ordinary 1, ordinary 2, or extra hazard).		YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check areas being calculated are in fact the most demanding areas.	903.1.2	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check and verify K-factor, starting GPM, and PSI for type of sprinkler heads being calculated are correct per data sheet.	Plan Review	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check calculations against the plans for the following: fittings, pipe sizing/lengths.	Data Sheets	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Ensure an FDC (Fire Department Connection) is included on structures over 2,000 sq. ft.	IFC 912.1	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Verify 10 PSI has been deducted from static pressure (NOT 10%).	903.3.1.8.3	YES <input type="checkbox"/> NO <input type="checkbox"/>



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REQUIREMENT	Section	Complete
<input type="checkbox"/> Check spacing between sprinkler heads and spacing off walls.	Plan Review	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check coverage in areas with soffits to ensure adequate protection. (Use figure 8.10.6.1.2b in NFPA 13)	IFC 903.3.1.3.1	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Ensure garages, carports, and balconies below living spaces are covered with sprinklers.	IFC 903.3.1.9	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Ensure that any sprinklers that are exposed to the outside elements and subjected to freezing are insulated.	Flow Chart Cut Sheets	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> If a ceiling has beams and slopes, check attached flow chart and manufacturers cut sheets.	NFPA 13 Section 8.10	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check for any obstruction and reference accordingly.	Plan Review	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Ensure that a backflow device has been included in plans and a friction loss accounted for in hydraulic calculations.	IFC 912.1	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Ensure system is tapped into a commercial line (i.e. city main) and not a domestic water supply.	IFC 903.3.1.2.4	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check to ensure that combustible, concealed spaces including attics are sprinklered.	NFPA 8.13.4.1.2	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Ensure all 13 devices and materials are listed for fire service.	NFPA 13 6.1.1	YES <input type="checkbox"/> NO <input type="checkbox"/>
<input type="checkbox"/> Check that Fire line is adequate for system demand.		YES <input type="checkbox"/> NO <input type="checkbox"/>