



MIAMI-DADE FIRE RESCUE DEPARTMENT
FIRE PREVENTION DIVISION



FIRE SPRINKLER PRE-SUBMITTAL CHECKLIST

FIRE ENGINEERING BUREAU

Process #

Project Name:

	The Pre-Submittal checklist is intended to assist in submitting for review "code compliant" shop drawings. This document in no way details all of the requirements that may be necessary for plan approval. Note: Water-Based Systems shall be designed in accordance with the FFPC, NFPA Standards adopted in Florida Administrative Rule Chapter 69A-60 and Miami-Dade Local Ordinances	YES	NO	N/A	LOCATION/ COMMENTS
1	Show drawings indicate the scope of work is in accordance with the Florida Fire Prevention Code 2018 Edition and all applicable current NFPA standards used for the project such as NFPA 13 2016 for automatic fire sprinkler systems				
2	All penetrations through fire rated assemblies shall be protected with fire-stopping material, firestop system or devices in accordance with ASTM E 814 or ANSI/UL 1479				
3	Material specifications and equipment specifications for all listed sprinkler system components including type of sprinkler pipe(s), pipe fittings, control valves, check valves, dry pipe valves, test connections, pipe hangers, backflow preventers, fire department connections, and alarm bells. All materials used should be verified that the installation is in accordance with their listing				
4	Revision and rework to shop drawings shall identify the changes by adding the "delta" symbol with clouded areas to include a brief description on a company letterhead with an approved field copy attached				
5	In the general notes, a detailed description of the scope of work, occupancy classification and a detailed design criteria shall be provided on the plans or will be subject to disapproval				
6	All shop drawings shall be submitted from licensed fire protection contractors only. Conceptual drawings from architects or engineers will not be accepted as shop drawings Drawings shall illustrate a detailed fire protection system. The pipe and sprinklers shall be located in relation to the walls, columns and obstructions with dimensions or will be subject to disapproval The elevation of the sidewall sprinklers shall be clearly indicated on the shop drawing, an elevation range is not acceptable, and plans are reviewed for obstructions.				
7	Shop drawings shall show the hydraulic design information placard to include residual pressure and flow at the Base of Riser				
8	Where QR sprinklers are used, shop drawings shall provide the adjustment calculations for all design area percentage increases and/or decreases as defined by 13-11.2.3.2.3.1				
9	Hydraulic calculation reports shall be accompanied by a Miami-Dade Fire Rescue hydrant flow test dated no more than 12 months from the date the project is submitted for review.				
10	Shop drawings for new fire protection systems with 250 sprinklers or more and/or existing systems with modifications to 250 sprinklers or more shall be signed and sealed by a Florida P.E. Florida Statutes 633.102(e)				
11	Provide a symbol legend and a complete sprinkler schedule to include: make, type, model, k-factor, SIN and head totals per sheet and project totals				
12	The FDC shall be located no more than 150ft from a hydrant and no closer than 10ft from a building. If a wall mount FDC is to be used, it shall be located as close as possible to the corner of the building at a minimum of 10ft from any opening				
13	Site plan details illustrate the water supply pipe diameters, lengths, Point of Service (POS) and/or the Point of Connection (POC) including all appurtenances with node tags leading to the building or structure				
14	Shop drawings shall indicate ceiling heights, soffit elevations, light locations, structural member sizes, structural member elevations and locations of any duct that will interfere with the sprinkler spray. Drawings without this information will be subject to disapproval				
15	Show drawings shall identify occupancy classification and/or use of each room or area. Classify a room if the hazard is different than adjacent areas or rooms				
16	Sprinklers spacing shall be in accordance with the NFPA 13 standard or the manufacturer installation instructions. Attention shall be given to the obstruction rules required by NFPA 13-13R-13D or the manufacturer specifications				
17	The determination of sprinkler coverage shall be based on the SxL rule meeting the criteria for each type or style of sprinkler as defined by 13-8.5.2				
18	All sprinkler systems shall be provided with flushing connections. Branch lines in grid system shall be provided with flushing connections between the cross mains, preferably close to the secondary cross main				
19	The installation of HVLS fans in structures equipped with sprinklers, including ESFR sprinklers shall be interlocked to shut down immediately upon receiving a water-flow signal from the fire alarm system in accordance with the requirements of NFPA 72				
20	Sprinkler design for all storage use occupancies require a notarized owner certificate. The form can be found in NFPA 13 2016 edition pages 426-427				
21	If flex heads are proposed, manufacturer's cutsheet and hydraulic calculations may be required. The designer shall indicate on the drawing that the ceiling installation meets the criteria set forth in ASTM C635 and ASTM C636 and shall indicate the length of the flex connection and its equivalent length				
22	Where located, check valves and backflow prevention devices or assemblies are located a minimum 10 pipe diameters from the pump suction flange				
23	Shop drawings shall indicate all control valves shall be electronically supervised (by others) as required by NFPA 1 and 101 of the Florida Fire Prevention Code 2018 edition				



MIAMI-DADE FIRE RESCUE DEPARTMENT
FIRE PREVENTION DIVISION



FIRE SPRINKLER PRE-SUBMITTAL CHECKLIST

FIRE ENGINEERING BUREAU

		YES	NO	N/A	LOCATION/ COMMENTS
24	A local water flow alarm shall be provided for all sprinkler systems as required by NFPA 13. An audible device shall be located on the same side where the FDC is located				
25	When installing a pressure sustaining valve, pressure reducing valve or main check valve, an indicating valve shall be installed on both sides of the valve as required by NFPA 13-2016; 8.16.1.1.4. A pressure gauge shall be provided on both sides of the valve				
26	The minimum drawing size Miami-Dade Fire Rescue Department will accept for review is architectural size "D"; 24" x 36" and minimum scale shall be 1/8" = 1'-0"				
27	A pressure-reducing valve chart shall be incorporated in the shop drawing. The chart shall indicate the inlet and outlet static pressure, the inlet and outlet residual pressure and the residual flow.				
28	Dry pendent sprinklers shall be connected to straight tees as required by the manufacturer requirements				
29	Provide isometric diagram of the standpipe system along with hydraulic calculations that includes a summary sheet, detailed worksheet, a graph sheet, supply analysis and a node analysis based on providing 250gpm at the two most remote hose connections				
30	When drain connections located at each floor are tied into a common drain riser, the drain riser shall be one pipe size larger than the largest size drain				
31	Fire sprinklers required in ceiling pockets unless any of the exceptions set forth in NFPA 13-2016 can be met				
32	Fire department connection shall not be connected to the suction side of a fire pump				
33	Means shall be provided downstream of the backflow preventer valves for flow testing at system demand. A blind flange on the system side of the backflow preventer is not permitted				
34	If room design method is used, provide information of room rating, including self-closing doors and indicate all unprotected wall openings throughout that floor				
35	All sprinklers within a compartment shall be of the same thermal sensitivity in accordance with NFPA 13 2016				
36	Diesel fire pump fuel supply tank capacity calculations are provided and are at least 1 gallon per HP plus 5 percent volume for expansion and 5 percent volume for sump				
37	Standpipe system in accordance with NFPA 14 2016 edition is required for sprinkler buildings over three stories above grade and for non-sprinkler buildings over two stories above grade and buildings over 30ft of occupiable space as per FBC				
38	Trapeze hangers shall comply with NFPA 13-2016. A detail shall be provided in the shop drawing and all member sizes and lengths shall be indicated in the detail				
39	All pipes shall be supported from the top steel. If the contractor decides to support the pipe from the bottom of the structure, submit a letter from the structural engineer stating this method of supporting the pipe is acceptable in accordance with Chapter 9				
40	For general storage NFPA 13-2016, chapter 12 only applies to roof slope 2/12 (16.7%) or less. For non- storage applications, if the slope exceeds 2/12, (16.7%) the area shall be increased 30%				
41	The contractor shall identify the hazard classification and describe in detail how the design criteria was determined and it shall be incorporated in the general notes				
42	Where exterior occupiable areas exist under roofs referred as balconies, canopies, terraces or lanais that exceed 55sq. ft., sprinklers may be required. Consult with the AHJ.				
43	On a combined standpipe and sprinkler system, an individual control valve and check valve shall be provided as per NFPA 14 2016				
44	A listed indicating valve shall be provided at the Standpipe for controlling branch lines for remote hose stations				
45	The contractor shall submit fire pump manufacturer literature and it shall indicate clearly the rated capacity of the fire pump and the churn pressure				
46	When the relief valve discharges to the suction side of the fire pump, the contractor shall verify that all pipes, fittings, valves, backflow prevention devices, underground pipe and fittings are rated to the pressure that the relief valve will discharge				
47	Provide isometric diagram of the standpipe system along with hydraulic calculations that includes a summary sheet, detailed worksheet, a graph sheet, supply analysis and a node analysis based on providing 250gpm at the two most remote hose connections				
48	New fire sprinkler systems require air venting located near a high point in the system to allow air to be removed from that portion of the system by one of the following methods: (1) Manual valve, minimum 1/2 in. size (2) Automatic air vent (3) Other approved means				
49	Sprinkler piping shall be substantially supported from the building structure which must support the added load of the water filled pipe plus a minimum of 250lbs applied to the point of hanging				