



**North Lauderdale
Department of Fire and Rescue Services
Fire Prevention Bureau**

6151 Bailey Road
North Lauderdale, Florida 33068
954 720-4315 Main Number
954 979-5982 Fax Number

FIRE SPRINKLER SHOP DRAWING SUBMITTAL REQUIREMENTS

A **Fire Sprinkler System Shop Drawing** is required for review by the Fire Prevention Bureau for any modification(s) or change(s) to existing fire sprinkler systems and any new installations which include changes to the floor plan which may alter the sprinkler coverage areas that were designed for the original floor plan. The Fire Sprinkler System Shop Drawing(s) must include but not limited to all of the information listed below. ***If any portion does not apply, a note must be provided on the plan stating that it is not applicable.*** If any portion of the requested information is not provided or clarified, the plan will be returned for that provision or clarification to be made and a re-examination fee may apply. Should you have any questions, please contact the Fire Prevention Bureau with the information provided in the letterhead.

THE FIRE SPRINKLER SYSTEM SHOP DRAWINGS MUST INCLUDE BUT NOT LIMITED TO ALL OF THE FOLLOWING INFORMATION:

1. A detailed Scope of Work
2. A scaled plan with the scale indicated
3. North Directional Indicator
4. A total square footage of the work area or tenant space
5. Identify all of the following: Occupancy Classification, Commodity Classification (In accordance with NFPA 13.5.6.3), and Classification of Hazard (In accordance with NFPA 13:5.1 through 13:5.5)
6. A complete legend in accordance with the Fire Safety Symbols of N.F.P.A. 170, 2009 Edition (to include all symbols related to plan).
7. Product spec sheets for all sprinkler system components
8. The plans must be signed and sealed by the architect and/or engineer. If the job value is less than \$5,000.00 and the plan is not signed and sealed by the architect or engineer, provide a copy of the signed contract with the plan submittal.

9. A note on the plan indicating that all drawings and installations shall comply with N.F.P.A. 13, 13R, 13D, 2010 Edition for the applicable system installed and shall comply with all requirements of the Florida Fire Prevention Code, 5th Edition, The Broward County Amendments to the Florida Fire Prevention Code, N.F.P.A. 101 (Life Safety Code), 2012 Edition, and N.F.P.A. 1 (Uniform Fire Code), 2012 Edition and the applicable FS Uniform Fire Safety Standards 69A.

10. Piping material information, hangar detail and locations. In addition, provide a note on the plan indicating that hangar spacing is in accordance with NFPA 13, 2010 ed., Chapter 9, Table 9.2.2.1

11. Any methods of storage (Rack, Pallets, Palletized Rack Storage, Encapsulated, Storage of Idle Pallets, etc.) If no storage, indicate on the plan (**THE PLAN WILL BE REJECTED IF THE STORAGE METHOD OR LACK THEREOF IS NOT IDENTIFIED ON THE PLAN**)

12. The locations of any Rack Storage or Shelving and a scaled layout, elevations and type of racks or shelves being used

13. A sectional drawing for all areas with drop-down ceilings and/or concealed spaces

14. The location of, and identification of all Valves, Fire Department Connections (FDC's), Backflow Prevention Devices, Tamper Switches/Alarms, Water Flow Alarms, etc.

15. The location of the Fire Pump (where applicable) and other related information (size, capacity, etc.)

16. A note that spare sprinklers will be provided in accordance with NFPA 13:6.2.9

17. All information as listed on the hydraulic nameplate for the system. This must be demonstrated on the plan.

18. Hydraulic Calculations are required in accordance with the provisions set forth in NFPA 13

19. A PDF format copy of the **complete set of approved plans if available**. They can be sent via email to dsweet@nlauderdale.org (For Fire Department Pre-Fire Planning Use Only).

*****NOTE***NOTE***NOTE***NOTE***NOTE*****

A letter-format response is required for all corrections made to any portion(s) of the plan indicating the page or sheet numbers where the corrections can be found. Failure to provide this letter format response will result in the plan being rejected without review. Additional plan review fees shall be applied.

If any item(s) is overlooked in the plan review process and discovered during the field inspection it **MUST** be corrected to meet the actual code requirements.

BROWARD COUNTY AMENDMENTS TO THE FLORIDA FIRE PREVENTION CODE FLOW TESTING AND WATER SUPPLY

F-22 — Automatic Sprinklers Required:

F-22.1 --- Fire flow testing of the Water Supply for Automatic Fire Protection Systems (AFPS) and Automatic Standpipe Systems (ASS) using water as an extinguishing agent for new buildings and structures and existing buildings and structures where the AFPS and ASS are altered by more than seventy-five (75) percent of their value shall be as follows:

a) Fire flow test of the water supply for AFPS and ASS shall be in accordance with NFPA 291, Recommended Practice for Fire Flow Testing and Marking of Hydrants, Florida Administrative Code (FAC) 69A-60.005(2).

b) Design for AFPS and/or ASS shall be calculated using a maximum of fifty (50) pounds per square inch (PSI) as the static pressure to allow for drought conditions.

EXAMPLE: If the result of a Fire Flow Test has a static pressure of eighty (80) PSI, a residual pressure of seventy-two (72) PSI and a flow of 1,300 gallons per minute (GPM), the design water supply for an AFPS and/or ASS would be a static pressure of fifty (50) PSI, a residual pressure of forty-two (42) PSI and a flow of 1,300 GPM.

c) Design for AFPS and/or ASS at or below a static pressure of 55.56 PSI shall be calculated using a ten (10) percent reduction in the static pressure from the fire flow test to allow for drought conditions.

EXAMPLE: If the result of a Fire Flow Test has a static pressure of fifty-three (53) PSI, a residual pressure of forty-five (45) PSI and a flow of 925 GPM, the design water supply for an AFPS and/or ASS would be a static pressure of 47.70 PSI, a residual pressure of 39.70 PSI and a flow of 925 GPM. 4

d) Design for AFPS and/or ASS for the residual pressure shall be equal to the difference between the static and residual pressures as obtained from the fire flow test to allow for drought conditions.

EXAMPLE: If the result of a Fire Flow Test has a static pressure of eighty-five (85) PSI, a residual pressure of seventy-seven (77) PSI the difference in the static and residual pressures would be eight (8) PSI which would be utilized for the drought condition water supply design criteria. If the result of a Fire Flow Test has a static pressure of forty (40) PSI, and a residual pressure of thirty (30) PSI, the difference in the static and residual

pressures would be ten (10) PSI which would be utilized for the drought condition water supply design criteria.

e) Design of the water flow for the AFPS and/or ASS shall be the same as that obtained from the fire flow test.

f) The residual pressure at the required water flow at the connection to the water main for an AFPS and/or ASS shall not be less than 20 PSI.

g) The static pressure at the water main shall be determined by a recorded method for a minimum twenty-four (24) hour period.

h) Fire flow test data shall not be more than one (1) year prior to the plans, hydraulic calculations and submittals for the AFPS and/or ASS being submitted to the Authority(ies) Having Jurisdiction (AHJ) for their review and acceptance. The results of the fire flow test shall be provided to the AHJ at the time of the submittal of the plans, hydraulic calculations and submittals for the water based AFPS and/or ASS.