BUILDING DEPARTMENT INSTRUCTIONS FOR RESIDENTIAL
FIRE SPRINKLER FLOW TEST (NC Administrative Code 106.2.1 & 106.2.2)

DATE ________________________________

REQUIREMENT: 21 NCAC 50 .0505 GENERAL SUPERVISION AND STANDARD OF COMPETENCE....
(h) At the time of completion of initial installation and upon any subsequent alteration, licensees who install
multipurpose residential fire sprinkler systems shall assure that the two most remote fire sprinkler heads, as
identified by the design professional who designed the system, undergo a water flow test at the water supply
delivery volume and delivery pressure and assure that the system flows the required amount of water through
each of the tested fire sprinkler heads. Failure to carry out the flow test or failure of a system to provide the
required volume or water when placed in operation due to fire or otherwise shall be considered evidence of
misconduct and incompetence on the part of the installing licensee.

RECORD KEEPING: A copy of this test result shall be sent to the Senior Plumbing Inspector with the
Winston-Salem/Forsyth County Inspection Office. This copy will be attached to the Plumbing Permit.
Another copy shall accompany the Owner’s Manual that is to be given to the Owner/Occupant required
by NFPA 13D section 12.1, NC Residential Building Code section P2904.7. It is recommended that the
installer keep a copy for their records.

QUALIFICATIONS: The layout, calculations, and installations of residential fire sprinkler systems installed
shall only be performed by people knowledgeable and trained in such systems.

CODE PROVISIONS:

NFPA 13D
12.1 General
The installed shall provide to the owner/occupant instructions on inspecting, testing, and maintaining the system.

NC Residential Building Code
P2904.7 Instructions and Signs
An owner’s manual for the fire sprinkler system shall be provided to the owner. A sign or valve tag shall be
installed at the main shutoff valve to the water distribution system stating the following: “Warning, the water
system for this home supplies fire sprinklers that require certain flows and pressures to fight a fire. Devices that
restrict the flow or decrease the pressure or automatically shut off the water to the fire sprinkler system, such as
water softeners, filtration systems and automatic shutoff valves, shall not be added to this system without a
review of the fire sprinkler system by a fire protection specialist. Do not remove this sign.”
STATEMENT OF COMPLIANCE
RESIDENTIAL FIRE SPRINKLER FLOW TEST

☐ APPROVED  ☐ DISAPPROVED

Project Name ____________________________________________
Project Address __________________________________________
Owner’s Name ____________________________________________
Owner’s Address __________________________________________

CONSTRUCTION
Residential Sprinkler (choose one):  NFPA 13D  Dwelling Unit Fire Sprinkler System P2904
Number of Stories __________________ Square Feet ______________
Permit Number(s) to be Referenced __________________________________________

Sprinkler System Type (Circle all that apply):  Antifreeze Sprinkler  Dry Pipe Sprinkler  Wet Pipe Sprinkler
Stand-Alone Sprinkler  Multipurpose Piping Sprinkler  Network Sprinkler  Passive Purge Sprinkler
Pre-Engineered Sprinkler  Preaction Sprinkler

Date of test: ___________  Time of test: ___________  AM  PM  Length of test: ___________ minutes
Municipal meter size: _______________  Flow rate recorded: ___________ GPM  Street pressure: ___________ PSI

Type of materials:  _______  UL listed PEX  _______  UL listed CPVC  _______  other (please list)

Elevation of house in relationship to elevation of test results: _______________________________  +  -  (circle one)
Distance from street water main to house in feet: _______________________________
Water service pipe size: _______________________________

Submitted By (if prepared by a registered professional provide a “wet Seal”)

Name ____________________________________________  Title ____________________________________________
Company Name ____________________________________________
Company Address ____________________________________________
Company Phone___________________________________________  License Number ___________________________