



# COMMUNITY DEVELOPMENT AND SERVICES BUILDING AND FIRE SAFETY FIRE SAFETY ENGINEERING

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## NFPA 13D & Enhanced NFPA 13D Fire Sprinkler Plan Review Checklist

### GENERAL INFORMATION:

1. Plan Reviewer's Name: \_\_\_\_\_ Date: \_\_\_\_\_
  2. Date of Plan: \_\_\_\_\_ Last Revision: \_\_\_\_\_ Date of Revision: \_\_\_\_\_
  3. **NICET Level: II III IV or P.E.** Name: \_\_\_\_\_
  4. General Comments: \_\_\_\_\_
  5. City of Henderson Residential Fire Sprinkler General Notes: Y  N
- (Check an answer. Space is provided at the end of each section for written comments and explanations.)**

### WORKING PLANS:

- |   |  |
|---|--|
| 1.1 Name of owner:  | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.2 Location including street address:  | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.3 Point of compass:   | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.4 Building area in square feet (living + garage) used to determine system type:                 | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.5 Full height cross section or sheet number referenced from building permit drawings:           | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.6 Ceiling/roof heights and slopes not shown in the full height cross section:                   | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.7 Location of partitions, lintels and doorways or sheet no. ref. from bldg. permit dwgs.:       | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.8 Name and/or room label for each area:   | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.9 Size, length and type of underground pipe from the supply to the riser:                       | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.10 Pipe sizes and lengths:  | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.11 Location and size of riser nipples and/or drops:   | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.12 Type of fittings and joints:   | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.13 Type and location of hangers:  | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.14 Location and size of all valves and drains:  | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.15 Hydraulic data plate information block(s):   | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |
| 1.16 Relative elevations shown for hydrants, finished floor, Added elevation table w/ req. pres.: | N/A <input type="checkbox"/> Y <input type="checkbox"/> N <input type="checkbox"/> |

Residential Fire Sprinkler Checklist

- 1.17 Graphic scale provided: N/A  Y  N
- 1.18 Contractor's information including name, address, phone number and license number(s): N/A  Y  N
- 1.19 Nevada State Fire Marshal registration number: N/A  Y  N

COMMENTS / EXPLANATIONS: \_\_\_\_\_

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**Flush Multipurpose Systems:**

- 2.1 Flush multipurpose system design with supply from the loop to at least one remote toilet: N/A  Y  N
- 2.2 System is looped both vertically and horizontally: N/A  Y  N
- 2.3 Minimum domestic demand of 5 gpm added at the point of connection to common piping: N/A  Y  N
- 2.4 No backflow preventer, water treatment device, or pressure reducing valve in the supply line: N/A  Y  N
- 2.5 Dead-end supply lines to individual sprinklers do not exceed 50 feet in length: N/A  Y  N
- 2.6 Pressure gauge installed on the supply side of the check valve: N/A  Y  N

COMMENTS / EXPLANATIONS: \_\_\_\_\_

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**Network Multipurpose Systems:**

- 3.1 Network multipurpose system design supplying all cold-water domestic fixtures: N/A  Y  N
- 3.2 Minimum domestic demand of 5 gpm added at the point of domestic demand: N/A  Y  N
- 3.2 Dead-end supply lines only to domestic fixtures: N/A  Y  N
- 3.3 WARNING sign provided adjacent to the main shutoff valve with wording per section 6.6.6: N/A  Y  N
- 3.4 Water treatment device is taken into account hydraulically or automatically bypassed: N/A  Y  N
- 3.5 Pressure gauge installed on the supply side of the dwelling unit control valve: N/A  Y  N
- 3.6 If PRV is installed after the control valve, pressure gauge installed on discharge side of PRV: N/A  Y  N

COMMENTS / EXPLANATIONS: \_\_\_\_\_

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**SPRINKLER HEAD SPACING AND INFORMATION:**

- 4.1 Material data sheets provided for pipe, sprinklers, valves, etc. as required: N/A  Y  N
- 4.2 Sprinkler head spacing is acceptable: N/A  Y  N
- 4.3 Make, type, model, K-factor, temperature rating, and SIN are indicated for each sprinkler: N/A  Y  N
- 4.4 Sprinkler head counts are correct: N/A  Y  N
- 4.5 Special listed sprinkler information is shown, for example - extended coverage: N/A  Y  N

4.6 Sprinklers are shown in soffits exceeding more than 8": N/A  Y  N

4.7 Sprinklers are installed in attached garage with living space above: N/A  Y  N

COMMENTS / EXPLANATIONS: \_\_\_\_\_

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**HYDRAULIC CALCULATIONS:**

6.1 System design criteria, including density & minimum remote area size, is correct: N/A  Y  N

6.2 Remote area selected is acceptable: N/A  Y  N

6.3 Waterflow information used matches witnessed paperwork: N/A  Y  N

6.4 Waterflow information is current - no more than 6 months old: N/A  Y  N

6.5 Minimum 10 psi safety factor is provided in each calculation: N/A  Y  N

6.6 Sprinkler head K-factors match the drawings: N/A  Y  N

6.7 Equivalent K-factor calculations are acceptable: N/A  Y  N

6.8 Minimum required end head flow and pressure are acceptable: N/A  Y  N

6.9 Hydraulic reference nodes match the drawing: N/A  Y  N

6.10 Correct Hazen-Williams "C" values are used: N/A  Y  N

6.11 Elevations match the drawing: N/A  Y  N

6.12 Pipes inside diameters used match the drawing and cut sheets: N/A  Y  N

6.13 Fitting counts match the drawing: N/A  Y  N

6.14 Pipe lengths match the drawing: N/A  Y  N

6.15 Fixed pressure loss devices are properly included: N/A  Y  N

6.16 Maximum velocity does not exceed 32 feet per second: N/A  Y  N

6.17 Additional fixed flow(s) is (are) added at the proper location(s): N/A  Y  N

COMMENTS / EXPLANATIONS: \_\_\_\_\_

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