

Fire Protection Systems Submittal Guidelines

The Thornton Fire Department's Fire Prevention Division provides the following information to assist in understanding the plan submittal and inspection policies for fire protection systems. To expedite the plan review and inspection processes, please adhere to the following guidelines.

The Thornton Fire Department enforces the 2009 International Fire Code and the standards referenced in Chapter 47 of that code. In addition, the City of Thornton has specifically adopted the following:

2010 NFPA 13	Installation of Sprinkler Systems
2010 NFPA 13D	Installation of Sprinkler Systems in One- and Two-Family Dwellings and Manufactured Homes
2010 NFPA 13R	Installation of Sprinkler Systems in Residential Occupancies up to and Including Four Stories in Height
2010 NFPA 72	National Fire Alarm and Signaling Code

All fire protection submittals must be made to the City of Thornton Building Inspections Division at the following address. Permits may be picked up and paid for at the same location.

**9500 Civic Center Drive, 1st Floor (north side of building)
Thornton, CO 80229**

- To schedule an inspection, call the Fire Prevention Engineer that performed the plan review of your system. Their name and number will be on the comment letter accompanying the approved plans. The inspection request should be scheduled at least two (2) days prior to the desired inspection date.
- All installations shall be in accordance with the approved plans. Any deviations from the plans should be discussed with the engineer for your project prior to making changes. Some changes will require a re-submittal to the Fire Prevention Division for re-approval.
- Plans approved by the City of Thornton Fire Prevention Division give permission for installation of the fire protection system. Installation shall not begin without a permit. Final approvals are subject to field inspections. Any approval issued by the Fire Prevention Division does not release the contractor or property owner from the responsibility of full compliance with applicable codes.
- All submittals must include a Permit Application from the Thornton Fire Department. A copy of the application can be obtained by contacting the Fire Prevention Division at 303-538-7602.

Submit at least two (2) complete sets of the fire protection submittal. One set of documents will be retained for Fire Department files. A set of documents approved by the Fire Department shall be available on-site at all times during installation. If desired, additional sets of plans will be stamped and returned to the applicant when provided.

Sprinkler System Submittals:

- The sprinkler submittal shall include hydraulic calculations, manufacturer's data sheets, and any other documents needed to be in compliance with Chapter 8 of NFPA 13.
- The plans, calculations, specifications, and other required information shall be reviewed and signed by a design professional certified as a NICET Level III or Level IV, as defined by the National Institute for Certification in Engineering Technologies, or a Professional Engineer.

- Drawings need to be clear and understandable. Drawings should be of a sprinkler system design only, not combination drawings with plumbing, mechanical, etc., unless those systems are critical to the sprinkler system design.
- Drawings shall be scaled.

Fire Alarm System Submittals:

- The fire alarm submittal shall include battery calculations, sequence of operations, voltage drop calculations, a riser diagram, a symbol legend, and, if utilizing ceiling mounted strobes, the appropriate ceiling heights, as required in Chapter 10 of NFPA 72.
- The plans, calculations, specifications, and other required information shall be reviewed and signed by a design professional certified as a NICET Level III or Level IV, as defined by the National Institute for Certification in Engineering Technologies, or a Professional Engineer.
- Drawings need to be clear and understandable. Drawings should be of a fire alarm system design only, not combination drawings using reflected ceiling plans, electrical, mechanical, etc.
- Drawings shall be scaled.

Kitchen Hood Suppression System Submittals:

- The suppression system submittal shall include a design manual or summary sheet of nozzle applications for the specific pre-engineered system to be installed. Also include the flow point calculations, dimensions of the appliances, nozzle specifications for each appliance, duct, or plenum protected, and the number of flow points protected by each bottle.
- The plans, calculations, specifications, and other required information shall be reviewed and signed by a design professional certified by the system manufacturer, a Professional Engineer, or other approved certification or equivalent training.
- Drawings need to be clear and understandable. Drawings should be of a suppression system design only.

Other Fire Suppression System Submittals (clean agents, carbon dioxide, etc.):

- The suppression system submittal shall include a design manual or summary sheet of nozzle applications for the specific pre-engineered system to be installed. Also include the flow point calculations, nozzle application specifications, and the area protected by each bottle.
- The plans, calculations, specifications, and other required information shall be reviewed and signed by a design professional certified as a NICET Level III or Level IV, as defined by the National Institute for Certification in Engineering Technologies, a Professional Engineer, or other approved certification or equivalent training.
- Drawings need to be clear and understandable. Drawings should be of a suppression system design only.