



AUTOMATIC FIRE SPRINKLER SUBMITTAL REQUIREMENTS

APPLICATION NO. _____

Mountain View Fire & Rescue – City of Black Diamond

Fire system permits are governed by the International Fire and Building Codes and must meet fire and life safety requirements. All applicable fees are paid at time of application and only complete applications will be accepted.

Complete Permit Submittal Shall Include:

1. Fire Division Master Application.
2. Certification and Transfer of Applicant Status Form.
3. Three (3) sets of fire sprinkler drawings which meet NFPA 13, Chapter 14, and current edition IFC Chapter 9 requirements.
 1. Name of owner and occupant
 2. Name and address of sprinkler contractor
 3. Location, including street address, point of compass and graphic scale
 4. Full height cross sections or schematic diagrams
 5. Location of partitions and/or fire walls
 6. Occupancy class of each area or room
 7. Location of any concealed spaces, closets, attics and bathrooms
 8. Any small enclosures in which no sprinklers will be installed
 9. Water supply source information, including location and size of water mains, pressures and flows required/available
 10. Make, type, model and nominal K-factor of sprinklers
 11. Temperature rating and location of high temperature sprinklers
 12. Total area protected by each system on each floor
 13. Number of sprinklers on each riser per floor
 14. Total number of sprinkler on each dry pipe system, preaction system, combined dry pipe-preaction system, or deluge system
 15. Approximate capacity in gallons of water of each dry pipe system
 16. Pipe type and schedule of wall thickness
 17. Nominal pipe size and cutting lengths of pipe (or center to center dimensions) *When typical branch lines prevail, only one line needs to be sized*
 18. Types of fittings and joints and location of welds and bends
 19. Type and location of hangers, sleeves, braches, and methods of securing sprinklers when applicable.
 20. All control valves, check valves, drain pipes, and test connections
 21. Make, type and size of alarm or dry pipe valve
 22. Make, type and size of preaction or deluge valve
 23. Kind and location of any alarm bells
 24. Kind and location of standpipe risers, hose outlets, hand hose, monitor nozzles, and related equipment
 25. Private fire service water mains sizes, lengths, locations, weights, materials, point of connection to the city water supply source, sizes, types and locations of valves, valve indicators, regulators, meters, and the location of any valve pits
 26. Provisions for flushing of piping
 27. For hydraulically designed systems, the information on the hydraulic date nameplate
 28. Hydraulic reference points shown on the plan that correspond to the reference points on the hydraulic calculation sheets

See Reverse Side

29. Minimum rate of water applications/density, the design area of water application, any in-rack sprinkler demand, and water flow requirements for hose streams, both inside and outside
30. The total quantity of water and pressure required noted at the common reference point for each system
31. Relative elevation of sprinklers, junction points, and supply or reference points
32. If the room design method is used, all unprotected wall openings throughout the floor being protected
33. Calculation of loads for sizing and details of sway bracing
34. The setting for any pressure reducing valves used
35. Manufacture, size and type of backflow prevention valves
36. Location of fire hydrants (note may be omitted if previously supplied with other plan sets)
37. Size, location and piping arrangements for fire department connections
4. Water supply capacity information is to be included (date of test, test location, flow, static and residual pressures, and who supplied the test data)
5. Hydraulic Calculation Forms:
 - a. Calculations must be provided on forms sheets and include a summary sheet, detailed worksheet(s) and graph sheet
 - b. Summary sheet must contain: date, location, name of owner and occupant, bldg. Identification, description of hazard, name and address of contractor or designer, system design requirements, total water requirements with allowances for inside and outside hose streams, in rack sprinkler allowances if present, limitations on extended coverage or any other special sprinklers
 - c. Detailed worksheets must include: sheet number, sprinkler descriptions and discharge constant (K factor), flow in gpm, pipe size, pipe lengths for fitting and devices, total friction loss between reference points, any in-rack sprinkler demand balanced to ceiling demand, elevation head in psi between reference points, velocity and normal pressures if used in calculations, indication of starting points or references to other sheets to clarify data shown, diagram to accompany gridded system calculations to indicate flow quantities and directions for lines with sprinklers operating in the remote area, and combined K-factor calculations for sprinklers on drops, armovers, or sprigs where calculations do not begin at the sprinkler
 - d. Graph Sheet shall include: a water supply curve, sprinkler system demand, hose (inside and outside) demands, and if required, in-rack sprinkler demands
6. Drawings must be developed by qualified individuals meeting NFPA 13 and Washington State requirements for experience and education in the field
7. A copy of contractor's registration, by issuance
8. A City of Black Diamond Business License, if applicable

With properly submitted fire alarm construction documents, plan review goals are to have the plans reviewed and returned to the submitter within 2 weeks. In some cases, do to alarm system complexity, questions that come up during review, or work load may extend approval times.

If you have any questions regarding the requirements for the fire alarm system, please feel free to contact the Fire Marshall at Mountain View Fire & Rescue.

Robert Young, Asst. Fire Chief/Fire Marshall
 Mountain View Fire & Rescue – City of Black Diamond Fire
 Ofc: 253-735-0284
 Email: pkramlich@kcfcd44.org