



BRIGHTON AREA FIRE AUTHORITY

615 W. Grand River Ave.
Brighton, MI 48116
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October 19, 2020

Fire Suppression Contractors

RE: Fire Suppression Credential & Submittal Requirements

To Whom it May Concern:

The following applies to all fire sprinkler projects in the City of Brighton, Brighton Township, and Genoa Township. The State of Michigan adopts the Michigan Building Code 2015 edition, which references NFPA 13, Standard for the Installation of Sprinkler Systems 2013 edition. Other standard may be referenced such as NFPA 13D, NFPA 13R, NFPA 20, International Fire Code; however, the system shall be designed and installed per these requirements.

All fire sprinkler contractors performing any alteration work on a fire sprinkler system, which is not regular maintenance, shall submit for plan review and apply for a mechanical permit. The submittal documents shall be prepared by a professional engineer or architect registered in the State of Michigan; or a person who has achieved NICET Level III certification (or higher) in fire sprinkler layout (information can be found at nicet.org. A Level II is acceptable if supervised by a Level III or higher, or a professional engineer. (See MBC section 107). Supporting documentation shall be included with all submittals and shall comply with Chapter 23 of NFPA 13.

Submittals:

Submittals shall be collated and assembled as complete sets. The sorting of **ALL** documents shall be completed by the submitting contractor, prior to submission. Plans shall be properly folded, not rolled. Special circumstances apply, regarding size of project. (Please make notification ahead of time). Additional administrative fees will apply to the review for lack of compliance. The title page shall contain the job name and address, whom the submittal is being sent to, and the name and address of the company submitting the information. All submittals shall include appropriate supporting information on the suppression system, including written scope of work, manufacturer installation instructions, clarifications and notes to support the design of the system.

Each submittal shall include one (1) electronic (.pdf) and three (3) paper copies of each drawing sheet and all specifications, cut sheets and details, etc. All submittals shall include an Owner's Certificate in accordance with Chapter 4.3

Sheet Requirements:

- Drawn to scale 23.1.3
- Graphic scale included 23.1.3(32)
- Location identified (including street address) 23.1.3(2)
- Name and address of contractor 23.1.3(33)
- Name of owner and occupant 23.1.3(1)
- North arrow (point of compass) included 23.1.3(3)
- NFPA 13 Edition used for design 23.1.3(46)
- Plan of each floor 23.1.3
- Sheet size is uniform 23.1.3



Full-height cross section or schematic diagram:

- Ceiling construction 23.1.3(4)
- Method of protection for non-metallic piping 23.1.3(4)
- Structural member information if required for clarity 23.1.3(4)

Architectural Items/Ceiling/Roofs:

- Heights (not shown in full-height cross section) 23.1.3(45)
- Slopes (not shown in full-height cross section) 23.1.3(45)

Concealed spaces, closets, attics, and bathrooms:

- Locations 23.1.3(8)
- Size of space 23.1.3(8)
- Enclosures (small) where no sprinklers are to be installed 23.1.3(9)
- Fire Wall locations 23.1.3(6)
- Occupancy class of each area or room 23.1.3(7)
- Partition locations 23.1.3(5)

Hydraulics - Design Criteria:

- Density, flow, or discharge pressure for application 23.1.3(35)
- Design area of water application 23.1.3(35)
- In-rack sprinkler demand 23.1.3(35)
- Relative elevation of junctions and supply or reference points 23.1.3(37)
- For Room Design Method, all wall opening protections 23.1.3(38)
- Quantity of water and pressure required at common point for each system 23.1.3(36)
- Water required for hose streams (inside and outside) 23.1.3(35)

Hydraulic Calculation Data:

- Information on Hydraulic Data Nameplate 23.1.3(31)
- Reference points shown on plan (matching calculations) 23.1.3(34)

Pipe, Fittings, & Support Pipe:

- Cut-lengths (or center-to-center dimensions, typical lines are acceptable) 23.1.3(19)
- Normal pipe diameters 23.1.3(19)
- Schedule of wall thickness 23.1.3(18)
- Types 23.1.3(18)

Fittings & Joints:

- Location of all welds and bends 23.1.3(21)
- Types 23.1.3(21)

Hangers, Sleeves, Braces, Methods:

- Locations 23.1.3(22)
- Methods of securing sprinklers 23.1.3(22)
- Types 23.1.3(22)

Riser Nipples:

- Location 23.1.3(20)



- Size 23.1.3(20)

Sway Bracing:

- Calculation of loads for sizing 23.1.3(39)
- Details of sway bracing 23.1.3(39)

Sprinklers:

- Location of High-Temperature Sprinklers 23.1.3(13)
- Make 23.1.3(12)
- Model 23.1.3(12)
- Nominal K-Factor 23.1.3(12)
- Relative elevation of sprinklers 23.1.3(37)
- Sprinkler Identification Number 23.1.3(12)
- Temperature Rating 23.1.3(13)
- Type 23.1.3(12)

System & Area Coverages:

- Approximate capacity in gallons of each dry pipe system 23.1.3(17)
- Number of sprinklers on each riser per floor 23.1.3(15)
- Total area protected by each system on each floor 23.1.3(14)
- Total number of sprinklers on each dry pipe system, preaction system, combined dry pipe-preaction system, or deluge system 23.1.3(16)

Valves & Equipment Alarm Bells:

- Location 23.1.3(26)
- Type 23.1.3(26)

Alarm, Dry Pipe Valves:

- Make 23.1.3(24)
- Model 23.1.3(24)
- Size 23.1.3(24)
- Type 23.1.3(24)

Antifreeze Systems:

- Solution Amount (noted as “listed” solution in 2013 & 2016 Editions) 23.1.3(42)
- Solution Type (noted as “listed” solution in 2013 & 2016 Editions) 23.1.3(42)

Backflow Preventers:

- Manufacturer 23.1.3(41)
- Size 23.1.3(41)
- Type 23.1.3(41)

Control Valves, Check Valves, Drain Pipe, Test Connections:

- Locations 23.1.3(23)
- Types 23.1.3(23)
- Equipment on existing system: sufficient detail of existing system to make conditions clear 23.1.3(30)



Fire Department Connection:

- Location 23.1.3(44)
- Piping Arrangement 23.1.3(44)
- Size 23.1.3(44)

Pre-Action, Deluge Valves:

- Make 23.1.3(25)
- Model 23.1.3(25)
- Size 23.1.3(25)
- Type 23.1.3(25)

Pressure Reducing Valves:

- Setting 23.1.3(40)

Standpipe Risers, Hose Outlets, Hand Hose, Monitor Nozzles & Equipment:

- Location 23.1.3(27)
- Size 23.1.3(27)

If any non-fire protection system connections:

- Auxiliary piping, pumps, heat exchangers, valves, strainers, showing piping runs from those of the sprinkler system 23.1.5.1
- Auxiliary equipment 23.1.5.2
- Model number 23.1.5.2
- Type 23.1.5.2
- Manufacturer’s Name 23.1.5.2

Water Supply Hydrants:

- Location 23.1.3(43)
- Number of outlets 23.1.3(43)
- Indication of independent gate valves on outlets 23.1.3(43)
- Indication of whether hose houses and equipment are to be provided 23.1.3(43)
- Indication of who to provide hose houses 23.1.3(43)
- Size 23.1.3(43)

Private Fire Service Mains & Equipment:

- Flushing provisions 23.1.3(29)
- Meters 23.1.3(28)
- Pipe Depth 23.1.3(28)
- Pipe Length 23.1.3(28)
- Pipe Location 23.1.3(28)
- Pipe Material 23.1.3(28)
- Pipe Size 23.1.3(28)
- Pipe Weight 23.1.3(28)
- Point of connection to city mains 23.1.3(28)
- Regulators 23.1.3(28)
- Valve sizes 23.1.3(28)
- Valve locations 23.1.3(28)



- Valve indicators 23.1.3(28)
- Valve pits 23.1.3(28)

Public Water Supply:

- City main size in street 23.1.3(10)
- City main test results and system elevation relative to test hydrants 23.1.3(10)
- Other sources of water supply (with pressure and elevation) 23.1.3(11)
- Whether main is dead end or circulating 23.1.3(10)
- If dead end, direction and distance to nearest circulating main 23.1.3(10)
- Indication of independent gate valves on outlets 23.1.3(43)
- Indication of whether hose houses and equipment are to be provided 23.1.3(43)
- Indication of who to provide hose houses 23.1.3(43)
- Size 23.1.3(43)

Water Supply Information:

- Date of test 23.2.1(16)
- Flow location 23.2.1(2)
- Flow (gpm) 23.2.1(5)

If you have any questions on these requirements, please do not hesitate to contact us at (810)229-6640.

Cordially,

A handwritten signature in black ink, appearing to read 'R. Boisvert'.

Richard Boisvert, FM, CFPS
Fire Marshal