



Westford Fire Department

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Fire Prevention Office

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Fire Prevention Rules and Regulations Town of Westford

Construction Projects conducted within the Town of Westford shall follow the following Westford Fire Department Fire Prevention Rules and Regulations. The Westford Fire Department Fire Prevention Rules and Regulations are the minimum requirements; Contractors shall be required to meet all applicable codes and/or standards. Whenever there is a conflict between applicable codes and/or standards, the authority having jurisdiction shall prevail.

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Enclosures:

- Radio Box Information**
- Fire Alarm Permit**
- Sprinkler Permit**

1.0 Plan Submittal

Contractors shall submit to the Town of Westford Fire Department Fire Prevention Office 2 copies of the following information. Plans and specifications submitted shall meet all the requirements stated in 780 CMR section 110.

- (a) Plans and specifications submitted shall have original registered professional engineers and/or registered architects' seal.
- (b) Submittal of a complete set of architectural plans for the building
- (c) Submittal of fire protective systems with specifications on type of Fire Alarm panel and devices (minimum of 2 sets of drawings)
- (d) Submittal of Sprinkler plans when applicable (minimum of 2 sets of drawings) with specifications of type of sprinkler heads, riser details and components.
- (e) Narrative Report as required by 780 CMR 901.7.1.1 shall be submitted. A narrative report is a written summary description of all-applicable fire protection systems and related operational features. The narrative report is to explain the analogy and methodology used by the designers in the design of the systems for the protection of the building occupants and emergency response personnel for all required fire protection systems.

1.02 Preliminary Meetings

- (a) Preliminary meeting between the building contractor and/or electrical contractor with the Westford Fire Department is strongly suggested. To discuss guidelines for the installation of fire protective systems and other applicable fire department requirements and/or recommendations.

2.0 Permits

Contractors and their subcontractors shall obtain appropriate permits but not limited to the requirements set forth in 527 CMR and chapter 148 of the M.G.L. from the Westford Fire Department.

- (a) Installation, modification, repair or removal of any fire protective systems and components, sprinkler system, water main, fire hydrant, fire alarm system or any device used for fire protection shall require a permit from the Westford Fire Department.

- (b) List of other possible permits that could be required reference 527 CMR 1.04(8)

Permit	Reference
Blasting	527 CMR 13.03 MGL 148, S 19
Compressed Natural Gas (CNG)	527 CMR 26.08
Cutting and Welding	527 CMR 39.04
Fire Protection Equipment	527 CMR 1.06 MGL 148 27A
Fire Protection System	527 CMR 10.03(15)
Flammable and Combustible Liquids	527 CMR 14.03, 15.04 MGL 148, 23
Hazardous Substances, Left Unattended	527 CMR 25.08
LP-Gas	527 CMR 6.08
Oil Burning Equipment	527 CMR 4.03
Rubbish Containers	527 CMR 34.03
Salamanders	527 CMR 20.01
Storage, Combustible Material	527 CMR 10.03
Tanks and Containers	527 CMR 9.06,9.07; MGL 148 S 38A
Tar Kettles on Roofs	527 CMR 10.03
Torches and Heat Producing Devices	527 CMR 10.24

Note: This table is not a conclusive list of all permits required

3.0 Fire Protective Systems

Fire Protective Systems shall at a minimum be installed, modified, repaired or removed in accordance with applicable codes and standards; specifically 527 CMR, Chapter 148 of the M.G.L. and NFPA 72.

Fire protective Systems shall include at a minimum the following

- (a) Devices and equipment to detect fire
- (b) Actuate an alarm or suppress fire or any combination thereof
- (c) All fire alarm wiring shall be installed within conduit; or Red Armed cable.

3.01 Plan Submittal for Fire Alarm

- (a) In accordance with section 1.0 plan submittal cut sheets for fire alarm control panel and all other devices included in the signaling system must be submitted for approval prior to acceptance of any plans.
- (b) Fire Alarm systems including associated components and devices shall be wired Class A to a conventional Fire Alarm Control Panel.
- (c) The Fire Alarm Control Panel, pull stations and associated equipment shall be keyed alike and shall use either a Cat 30 or a “B” key lockset.

3.02 Manual Fire Alarm Boxes (pull stations)

- (a) Manual pull stations shall be of the double action type and installed in accordance with the requirements of 780 CMR 9 and the American Disabilities Act (ADA).

3.03 Audible / Visual Devices

- a) Combination devices will be used in all building as the primary protective-signaling device to notify the public to evacuate. The sound level of an installed signal should be adequate to perform the intended function and should meet the requirements of the authority having jurisdiction or other applicable standards.
- b) Devices shall be wired with split wired circuitry and installed by ADA requirements. *Modules may be used as an alternative to split wired circuitry upon approval of the authority having jurisdiction.*
 - i) Combination Devices require split wired circuitry to allow the Westford Fire Department to **silence the Audible alarm (fire alarm panel) allowing the visual device to signal until reset.**
- c) Out-of-sight smoke or heat detector shall require a high quality LED indicator specifically designed for use in fire alarm systems. A red LED shall be clearly visible when active to indicate the activation of an out-of-sight smoke or heat detector, location subject to approval of the authority having jurisdiction.
- d) A white strobe light or equivalent shall be installed on the outside of the building near the fire department connection wired to indicate water flow.

3.04 In-Duct Smoke Detectors

- (a) Where applicable (NFPA 90A)
- (b) In-Duct smoke detectors will be provided with a keyed remote showing both power and alarm (L.E.D.) modes and a key for testing and meeting every controlled unit
- (c) Installation location subject to approval of the authority having jurisdiction.
- (d) Each remote test station will be labeled with the unit numbered and if it is installed in a supply or return plenum.

3.05 Protective Signaling System Connection (Fire alarm system)

- (a) Required by the authority having jurisdiction fire alarm systems shall be capable of transmitting both alarm and trouble mode connected to the Westford Fire Department via a radio box, Digitize ® Intellitize AES or equivalent. Size of the radio box will be determined by the authority having jurisdiction (enclosure specification for radio box).
 - (1) Trouble and or Supervisory signals shall be self-restoring.
- (b) Radio Box application shall be completed and submitted to the Westford Fire Prevention Office for approval prior to purchasing a Radio-Box.
- (c) An external antenna as specified by Digitize shall be installed for all Radio Boxes that do not send an appropriate signal to Westford Fire Alarm, verification with the AHJ required.
- (d) Fire Alarm Contractor shall be responsible to schedule with R.B. Allen to tie-in the Radio Box to the Westford Fire Department. Fire Alarm Contractor shall be responsible to assure the Radio Box has been installed in accordance with manufactures and R.B. Allen requirements, failure shall result in the Radio Box not being accepted and will not be put into service.
- (e) The annual monitoring charge is One Hundred and Eighty Dollars (\$180). The annual charge is due every July 1 and will be prorated, all payments payable to the Westford Fire Department, Fire Alarm Account.
- (f) Any building or facility undergoing renovation or new construction currently connected to the WFD using reversed polarity (dedicated telephone line) shall convert the Fire Alarm signaling system connection to a radio box.

3.06 Secured Key Access (Knox Box)

- (a) Required by the authority having jurisdiction the contractor will be responsible to install a Knox Box as approved by the Westford Fire Department.
- (b) The Knox Box shall have a tamper switch to be wired to the protective signaling system as a trouble mode and shall be wired to reset upon securing the cover.
- (c) The key vault shall contain keys to the structure served by the fire alarm system and other keys necessary to operate fire protective systems and allow for building access.

4.0 Annunciator Panel

- (a) All buildings shall have an indicator at or near the transmitting device or at another location acceptable to the authority having jurisdiction. It shall be provided to show the location by building and floor of the operation of all alarm signal initiating devices (NFPA 72) including fire pumps and pressure tanks.

5.0 Sprinkler Protection

Sprinkler systems shall be installed in every building or addition containing 7,500 square feet of floor space (including basements) as defined in the Massachusetts General Laws chapter 148, section 26G. *The Town of Westford adopted this section at their annual town meeting in 1984 article 33.*

- (a) The sprinkler system shall be designed in accordance with NFPA standards and the Massachusetts Building Code.
- (b) Plans shall be submitted in accordance with section 1.0 and shall contain all of the information required in NFPA working plans Hydraulic calculation forms.
- (c) Three (3) copies of the design plans and hydraulic calculations, all with original Registered Fire Protection engineers seal shall be submitted to the Westford Fire Department for review.
- (d) A water main flow test shall be deemed valid if it has been conducted within six months of the date of submittal of the sprinkler system plans to the Westford Fire Department. Arrangements for a flow test shall be made with the Westford Water Department.
- (e) When a fire pump is required, the Westford Fire Department shall be notified one week prior to the test date and time. A Factory Mutual representative shall be present and upon completion of the said test provide the Westford Fire Department with a summary of the results of the fire pump performance test.
- (f) A complete set of as-built drawings, with original fire protection engineer's seal, shall be submitted to the Westford Fire Department prior to final approval of the sprinkler system.
- (g) A four inch Stortz connection is required for the fire department connection.
- (h) Permits shall be obtained as required in section 2.0.
- (i) Due to water pressure fluctuations in the town of Westford, Wet sprinkler systems shall have an alarm valve.

5.01 Water Flow Devices

- (a) All water flow devices shall be wired to the protective signaling system as alarm mode and shall be on each zone, floor, fire pumps and pressure tanks for fire protection (where required) for the protected building.
- (b) Post Indicator Valve's (P.I.V.) shall be wired to the protective signaling system in the open position.
- (c) A Water Gong or equivalent shall be used to indicate water flow
- (d) All Tamper Switches shall be wired to the protective signaling system as a trouble alarm. Trouble or Supervisory signals shall be self-restoring.
- (e) Standpipes when applicable shall have 2 ½ connection with National Standard Threads, and 1½ connection shall have National Pipe Threads.
- (f) Condominiums / Town Houses or similar residences requiring sprinkler systems shall have separate control valve for each unit. Flow switches shall be connected to a fire alarm control panel with unit indicator devices.

6.0 Elevators

- (a) Elevators installed within a building are required to meet the following requirements and the authority having jurisdiction.
- (b) Elevator code ASME A17.1, and NFPA 72.
- (c) A Heat Detector shall be installed at the top of the elevator shaft.
- (d) Contractor will be required to provide the Westford Fire Department with an 502 elevator key for the Knox Box.
- (e) Emergency Telephone shall be connected to the Westford Fire Department via dialing 978-692-6374.

7.0 Commercial Cooking Operations

Commercial cooking operations shall meet at a minimum the requirements set forth in 527 CMR 11.00 and by reference NFPA 96 to provide fire safety requirements related to the design, installation, operation, inspection, and maintenance of all public and private cooking operations.

8.0 Inspections

- a) The Westford Fire Department may conduct periodic inspections during the construction stage. Contractors are encouraged to schedule periodic walkthroughs during the rough stage.
- b) Scheduling for Final Inspection
 - 1) Contractors are encouraged to schedule final inspection five business days in advance. *Scheduled inspections are subject to change without advance notice from the Westford Fire Department due to but not limited to fire department emergencies.*
 - 2) Facility Fire Alarm shall be tied in with Westford Fire Department via a Radio Box prior to inspection. *Review section 3.05(c).*
 - 3) Responsible parties or contractors for Fire Alarm and Sprinkler Systems shall be on site at the time of inspection and will provide necessary documents e.g. Fire Alarm test report, Sprinkler certificate. Affidavits can be mail to the Fire Prevention Office.
 - 4) Acceptance of systems will be determined at the time of Final Test and Inspection.

9.0 Town of Westford Fire Department

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