



ESSEX FIRE DEPARTMENT

81 MAIN STREET • ESSEX JCT., VT • 05452
PHONE: (802) 878-5308 WWW.ESSEXFIRE.COM



The following specifications are provided to Applicants when designing commercial and or multi-family properties in the Town of Essex. All of the following requirements are in accordance with current State of Vermont Fire Regulations as reviewed by the Office of the State Fire Marshal and conform to NFPA Guidelines.

- **Building Plans and Designs:**
 - Complete set of plans must be provided to Essex Fire Department in PDF format of a clear and readable size to include all aspects of the building including, but not limited to, floor plans, electrical design, mechanical design, fire alarm system, sprinkler system, elevations, specialized equipment, hazardous functions and/or storage, etc...
 - A complete floor plan of all levels of the building including room names and numbers will be housed in the sprinkler room in a protective container for Essex Fire Department reference; plans will be updated annually for any changes during annual inspection.

- **Sprinkler System and Risers**
 - Sprinkler system must be inspected annually by technically qualified inspector
 - Properly dated inspection sticker with required notations must be attached to the sprinkler riser per State regulations
 - Sprinkler system must be labeled with current service provider's name and contact information at the same location as the inspection sticker. Contact information must be updated annually during sprinkler inspection.
 - Training for Essex Fire Department and site visit must be completed prior to issuance of the certificate of occupancy.
 - A complete floor plan of all levels of the building including room names and numbers will be housed in the sprinkler room in a protective container for Essex Fire Department reference; plans will be updated annually for any changes during annual inspection.
 - Stand pipe thread and pipe size standards and finished connector style:
 - Stand pipes of 1.5" must be "National Pipe Straight Hose" as designated by the symbols NPSH, SIPT, and IPT.
 - Stand pipes of 2.5" must be "National Standard Thread" as designated by the symbols NST, NH, NHT.
 - Connection mounted at a 30 degree angle downward as measured from the vertical standpipe section below the connection point.
 - Pipe cap will have a security chain.
 - FDC connection size and quantity
 - 5" STORZ connections at all FDC locations.



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- Exterior ground surface adjacent to FDC building penetrations must be level and provide clear access to adjacent roadways; no plantings, drainage swales, or other obstruction.
- **Hydrant System**
 - Hydrants installed shall conform to the Town of Essex standards and must be capped with a 5" STORZ connection and cover.
 - Hydrants will be located within 50' of the building mounted FDC.
 - Annual flushing and testing will be conducted as part of the annual sprinkler inspection.
- **Fire Alarm System**
 - Panel and/or annunciator to be at the street address front entrance; the same entrance housing the Supra key box.
 - Alarm panel must be inspected annually by technically qualified inspector
 - Properly dated inspection sticker with required notations must be attached to the panel per State regulations
 - Training for Essex Fire Department and site visit must be completed prior to issuance of the certificate of occupancy.
 - Alarm panel and annunciator must be labeled with current service provider's name and contact information.
 - Alarm System must be fully addressable for all devices and zones.
 - All zones and devices will have unique English descriptions that provide easy direction and identification of activated devices, i.e. 2nd floor cafeteria smoke, or room 101 mechanical heat, hallway 202 HVAC duct, etc...
 - Zones and descriptions must correlate with labeling and placards displayed within the building.
- **Building Labeling**
 - Reflective exterior placards denoting the location of gas service, FDC penetrations, sprinkler entry, and electrical service entry.
 - Placards to be mounted 10'-0" above finished grade and not blocked by landscaping or other building elements
 - Street address numbers to be building mounted and visible from legal street address face of the building as follows:
 - One and two story buildings to have 6" reflective street number ideally mounted near the entry.
 - Three story or higher buildings to have 12" reflective street number in the upper right corner and in the upper right corner of any other side of the building that faces a street.
 - Final locations of street numbers to be approved by Essex Fire Department prior to certificate of occupancy.



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- Nothing shall obstruct the street number affixed to the building including landscaping elements.
- Reflective building roof and floor design triangle to be mounted on the exterior above or below the Supra box.
- Label mechanical units with unique identifiers and ensure the fire panel descriptions match.
- Sprinkler entry room labeled with “sprinkler” placard on the door or adjacent wall.
- Control valves for sprinkler system located above ceilings require small placards hung from ceiling grid and shall read “control valve”.
- Equipment located above ceiling spaces, or hidden from view by other means, and that contains a fire alarm device must have a small placard hung from ceiling grid, or otherwise mounted at the location of the equipment and shall display the identical and unique English description as programmed into the fire alarm system.
- Electrical room(s) labeled as “electrical” with the room number on a placard mounted to the door or adjacent wall.
- Mechanical room(s) labeled as “mechanical” with the room number on a placard mounted to the door or adjacent wall.
- **Building Access**
 - Supra box
 - Minimum of 4” wall mounted – owner’s choice of mounting method and addition of other options.
 - Mounting location must be at main building entry with the fire alarm panel/annunciator on the legal street address side of the building.
 - Mounting height must be at approximately 60” above finished floor.
 - Red light above box visible from street with reflective marking.
 - Rotator/strobe/LED flashing – owner’s choice.
 - Light will be engaged by fire alarm activation and disengaged upon fire alarm reset.
 - Keys, access code, or proximity card
 - Master key, access code, elevator keys, proximity card, and other keys that provide complete access to the building rooms and devices must be contained within the Supra box.
 - The content of the Supra box will be labeled with unique English descriptions clearly identifying the device that it operates.
 - A universal elevator key (FE0k1) and any other elevator operator, control, or fire control key must be included in the Supra box and clearly labeled.
 - Fire alarm panel and annunciator panel keys must be included in the Supra box and clearly labeled.



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- Changes to any access mechanism will require immediate notification to Essex Fire for updating content of the Supra box and/or procedures used for accessing the building.
- Roadways and parking
 - Roadways, loading docks, and parking areas will be designed to allow easy access for fire apparatus engine and ladder companies including radius of curves, and driving surface widths and lengths.
 - Fire department requires access to all side of the building. While paved access is not reasonable, soil and building back fill must be structured as follows:
 - Non roadways may be grass covered but subsoil structure must support fire apparatus weight of a minimum 65,000 pounds allowing for drivable surface to properly position the fire apparatus.
 - Structured subsoil must extend the full length and sides of the building and extend 30'-0" from the finished edge of the building façade. The finished edge is defined as the last built element, which includes sidewalks and landscaping elements.
 - No trees or other elements can be located in this space that would prohibit the apparatus access along the full length and sides of the building.
 - Access to all side of the building will be maintained throughout the entire year including snow removal.
 - Winter snow stockpiles will be designated in a manner that maintains access for large fire apparatus.
 - Elevator
 - Elevator finished interior depth and width must accommodate a full size rolling stretcher in complete horizontal configuration accompanied by a minimum of three emergency professionals with full duty gear.
 - Stryker brand is a commonly used EMS stretcher. Clearances require a minimum depth of 84" from the interior most edge of the elevator wall (i.e. handrail) to the inner surface of the elevator door. Car width must accommodate the remaining EMS staff and equipment as described above.
 - Buildings offering more than one elevator must have elevator cars meeting these requirements and must be clearly marked with the EMS blue star on each floor the car services.
- **Evacuation Guidelines**
 - Designated meeting areas to be well away from building entrances and away from drive lanes and sidewalks.



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- Consult with the Fire Department to review the property when selecting a meeting location to ensure that the location will not prohibit Fire Department activity.
- Establish a hierarchy for accountability of building occupants. Choose a lead individual to meet with the responding Fire Department including providing attendance. The Fire Department strategy will be structured differently if there is a possibility of Staff still in the building.
 - It is very important the no one leaves the site or evacuates to a motor vehicle unless authorized and noted as part of the accountability strategy. Doing so could result in miscommunications of someone possibly unaccounted. This could place emergency services personnel in harm's way unnecessarily.

UPDATED: February 2013