

The Massachusetts State Building Code 780CMR will govern the existing conditions and any future proposed work to this building or site. Specifically Chapter 34 Repair, Alteration, Addition and change of use of Existing Buildings will regulate code compliance for this existing historical building. Generally speaking an existing building that is not undergoing repair, alteration or addition is grand fathered from compliance from current codes. The assumption being that the building was built, repaired, altered or added onto in accordance with the prevalent codes at the time.

Notwithstanding consideration of the above the Building Code Chapter 34 does require and enforce, in the interest of public safety minimum provisions for means of egress and the elimination of hazards in the means of egress. RAI's review of the existing building conditions identified the following hazards to the existing means of egress.

- Snow and ice was not removed from exterior stair exit door at time of review. Exit door could not be opened. This item is an ongoing maintenance issue and not specifically a building deficiency.
- First floor multi-purpose room on exit door to fire escape has interior screen door that swings inward and not in the direction of egress travel as required.
- Fire escape structure is not secured at Second floor and the fire escape exhibits significant sway. Refer also to structural review for additional commentary. Fire escape was also observed to be partially blocked by fallen snow from the roof.
- An exceptional amount of snow was found stockpiled along North exterior wall of building. Snow appears to be from roof and adjacent road and parking area. This snow blocked access to the electrical meter and obstructed the boiler make-up air vent.
- Basement boiler room door is not self-closing.

Remaining building conditions appeared to be in general conformance to previous codes with the obvious exception of the Massachusetts Architectural access board (MAAB) rules and regulations, 521 CMR. These MAAB regulations provide for handicap accessibility in public buildings and spaces and are similar to the American with Disabilities Act (ADA) that provides for accessibility in areas of employment. RAI's review of the existing building conditions identified the following non-accessible conditions:

- Previous installed accessible water cooler was removed.
- Toilet room grab bars installed lower than 33" above floor.
- Toilet room sinks do not have minimum 29" clear below bottom of apron.
- Toilet room mirrors installed more than 40" above floor.
- Toilet room piping below sinks is not insulated or guarded.
- Toilet room baseboard convectors project into clear floor space for toilet.
- Men's toilet room sink projects into door pull-side clearance.
- Women's toilet room door does not have minimum door pull-side clearance.
- Men's toilet room door does not have minimum door push-side clearance.
- Stair door does not have lever type hardware.
- Many other doors do not have lever type hardware.
- Ramp at rear of building slightly exceeds 1:12 maximum slope requirements.
- No handicap designated parking and signage.

In regard to any proposed repair, alteration or addition to the existing 1835 Town Hall, an analysis of the current building statistics is required and is provided as follows:

Building Area:

Basement:	3053 GSF
First Floor:	3053 GSF
Second Floor:	3053 GSF
Second Floor Balcony (Mezzanine):	<u>898</u> GSF

Total Building Area: 9159 GSF

Note: Mezzanine areas do not contribute to building area

Building Classification: Mixed Use

- B – Business
- A – Assembly
- S2 – Storage, Low Hazard

Construction Classification: N/A

The equalized full and fair cash value of the 1835 Town Hall as listed with the Town's Assessors Office is approximately \$167,000. Therefore pursuant to MAAB any future addition, alterations or repairs to the building exceeding 30% or \$50,000, over a two (2) year period, will require the entire building to comply with current MAAB regulations; excluding roof, window, masonry and septic repairs/replacement, retrofitting for automatic sprinkler or hazardous material abatement costs.

Major compliance requirements and/or variances would include but not be limited to the following:

- Accessible front main entrance.
- Accessible Second Floor, if available for public use.
- Area of rescue assistance from all non-grade accessible levels, if automatic sprinklers not installed.

In regard to requirements for installation of automatic sprinklers, the Town has adopted MGL C148 §26G requiring sprinkler installations in existing buildings greater than 7500 GSF when substantially renovated or altered. Substantial renovations is further defined as work that is major in scope and expenditure when compared to the work and expenditure to install a fire protection system. The issue of fire protection should be discussed with Fire Department in planning any future addition or renovation.

Based upon the apparent historical nature of this 1835 Sterling Town Hall and its listings on the National Register of Historic Places the building qualifies as a partially preserved building under Massachusetts Building Code 780CMR 3409.0 which permits in-kind material repairs and replacement without compliance with most current codes including the Energy Conservation Code, 780CMR 13.

The Town of Sterling's own Protective by Laws identifies the 1835 Town Hall property with its Town Center District and as a municipal facility it is a permitted use in this district. Although a current property survey is not available it is believed the existing Building does not comply with dimensional controls for Town center properties requiring a 40 ft. front yard setback, 10 ft. and 25 ft. Side and rear yard setbacks respectively and therefore the 1835 Town Hall is probably a non-conforming structure.

The proposed handicap accessibility addition for a new elevator and stair would require a special permit from the Board of Appeals, and if the addition were to extend into an existing required setback then a variance would also need to be granted by the Board of Appeals. It should also be noted that a non-conforming structure, which has been abandoned, or not used for a period of 2 years, shall lose its protective status and be subject to all provisions of the current Zoning Bylaw.

The Sterling Protective Bylaws also designate minimum amount of off-street parking required for each Building use. Although Town center district parking requirements are reduced 50% the available parking is less than current zoning requirements but based on a continuing existing use, compliance with newer parking regulations would not be required.

The Building's existing sanitary system is presumed by the Town to be inadequate and is not in compliance with Title 5 regulations for sanitary systems. The Building occupancy and septic system flow rate based upon full occupancy, is as follows:

1st Floor meeting space @ 1,278 S.F./ 15 S.F. per Occupant = 86 Occupants

2nd Floor meeting space @ 2,380 S.F./ 15 S.F. per Occupant = 159 Occupants

Therefore 245 Occupants @ 3 gal. per day (GPD) = 735 GPD (assembly)

(2) offices of 609 Sq. Ft. total @ 75 GPD/ 1,00 S.F. = 46 GPD (office)

Total Estimate Flow = 781 GPD

Designated flow rate from combined Fire Station/ Old Town Hall sanitary facility is 610 GPD (see Ross Associates Meeting Minutes 5/9/00) and provides an insufficient capacity for full occupancy at above described densities.

In order to have a compliant flow capacity total assembly occupancy must be limited to 188 maximum Occupants, assuming office is left unchanged. This limitation need to be coordination with and approved by the Building Inspector and Fire Inspector.

Domestic Cold Water System:

The existing Domestic Cold Water Service is a three-quarter inch (3/4"), which enters through the basement foundation wall on the Southeast side of the building. A three-quarter inch (3/4") water meter and pressure regulating valve are installed on this cold water service line. The water service line is not equipped with a backflow prevention device. At the time of installation a backflow prevention device was not required.

The present Massachusetts Plumbing Code 248 CMR states "A portable water supply system shall be designed, installed and maintained in such manner as to prevent contamination from nonpotable liquids, solids, or gases from being introduced into the potable water supply through cross connections or any other piping connections to the system".

In order to insure the protection of the Town water from any cross connections, etc, the installation of a reduced pressure zone backflow prevention device is required.

The existing plumbing fixtures; water closets, lavatories, etc. which are "Grandfathered" do not meet the present plumbing code energy requirements. Energy requirements in regards to water usage. The existing water closets require three (3) gallons of water per flush, when the new code mandates one and one half (1-1/2) gallons per flush. Faucets sets on lavatories for public use require metering faucets, etc.

The domestic water distribution system presently is approximately fifty (50) percent insulated. The Massachusetts State Building Code 780 CMR, Chapter 13, requires one-inch (1") thick insulation provided for piping carrying fluid having a temperature of 140 degrees F or less.

Sanitary Waste & Vent System:

The existing sanitary waste & vent system as installed is in compliance with the Massachusetts State Plumbing Code that was current at the time of installation. The present Massachusetts State Plumbing Code has adapted more stringent requirements regarding environmental issues.

For example: The present plumbing code mandates that all floor drains be equipped with Trap Primers. Trap Primers are installed on floor drains that do not receive sufficient water to maintain a trap seal. Once the trap seal is lost, do to evaporation; sewer gases will escape to the spaces atmosphere. Trap Primers discharge water to the floor drain trap maintaining the trap seal.

Fire Suppression System:

The building presently does not have a fire suppression system. At the time the building was constructed there was no code requirement for one. Today Chapter 148 of the Massachusetts General Laws, effective May 1998, states "In any city or town which accepts the provisions of this section, every building of more than seventy-five hundred square feet in floor area or every addition of more than seventy-five hundred gross square feet in floor area shall be protected throughout with an adequate system of automatic sprinklers in accordance with the provisions of the state building code."

Depending on the square footage of any future additions, the above requirements mandated in Chapter 148 of the Massachusetts General Laws for automatic sprinklers will be reviewed.

Heating and Ventilating System:

The existing heating system which consists of two (2) Weil McLain Boilers, circulating pump, piping distribution system which has been segmented into five (5) heating zones, has been installed in compliance with the present codes.

The facility presently does not meet the present Mechanical Ventilation Codes, which mandates twenty (20) cubic feet per minute (cfm) of outside air per person to be mechanically introduced into the facility during occupied periods of operation.

The electrical life safety elements of the building are mostly in good order. The building has a complete working fire alarm system with pull stations at exits to each floor, adequate audio/visual signaling, and complete detector coverage. Some pull stations are of an older variety. The fire alarm system is conventional (non-addressable) with dedicated telephone jacks for alarm. There is a four-zone fire alarm annunciator in the main entrance vestibule. There are fire alarm strobes in the toilet rooms for ADA compliance. Much of the fire alarm wiring in unoccupied areas is run exposed and is secured to the building with staple clips.

The interior of the building has adequate exit and emergency lighting, except in the Basement. Except for one existing unlit exit sign, the Basement needs exit and emergency lighting. There is no emergency lighting in the boiler room or by the electrical service main distribution panel. There do not appear to be provisions for emergency lighting for egress at the exterior of the building.

There are about a dozen ungrounded outlets, which would only need to be replaced with grounded outlets under renovation.

Above the ceiling on the First and Second floors and along the ceiling in the Basement are many wires and cables which are unsupported, not tied together, and not run in an orderly fashion. In the Basement, there are many apparently abandoned cables, including telephone wiring, and cabling is often run with other piping through the same crevices and narrow holes in the building structure. In the Attic above the Second floor suspended ceiling are older fixtures concealed from view, which are mounted above retrofit support beams for the building. These fixtures along with very old knob and tube wiring in the attic spaces are still installed even though they have been abandoned. Abandoned equipment and wiring needs to be disconnected and removed if any renovation is to take place. Remaining wiring needs to be routed and supported in an orderly fashion.

Much of the data cabling and some data jacks once used in the First floor Meeting room when it served as a library has been concealed loose above the suspended ceiling. This cabling needs to be disconnected and removed under any renovation. This wiring and corresponding data jacks appear to be in excellent condition and perhaps they may be reused.