

780 CMR: MASSACHUSETTS AMENDMENTS TO THE *INTERNATIONAL BUILDING CODE 2009***CHAPTER 34: EXISTING STRUCTURES**

Note: This replaces all Chapter 34 amendments and includes many changes since last issued.

3401.1 Replace as follows:

3401.1 Scope. Delete Chapter 34 in its entirety and replace it with the *International Existing Building Code 2009* (IEBC 2009, including its appendices) with Massachusetts amendments as follows:

101.1 Replace as follows:

101.1 Title. These regulations shall be known as the *Existing Building Code* of Massachusetts, hereinafter referred to as "this code."

101.2 Replace as follows:

101.2 Scope. The provisions of this code shall apply to the *repair, alteration, change of occupancy, addition, and relocation of existing buildings*. See Table 101.2 below which includes, but is not limited to, applicable laws and specific use of other regulations.

TABLE 101.2 APPLICABLE LAWS AND REGULATIONS

Unless directed otherwise in this code, reference to:	Shall mean to use the requirements found in:
<i>International Plumbing Code</i>	248 CMR: <i>Board of Plumbers and Gas Fitters Regulations</i>
<i>International Property Maintenance Code</i>	780 CMR 1.00: <i>Scope and Administration</i>
<i>International Fire Code (IFC)</i>	Reference to sections of the <i>International Fire Code (IFC)</i> for fire prevention requirements shall be considered reference to 527 CMR: <i>Board of Fire Prevention Regulations</i> . The fire official enforces the provisions of 527 CMR. Reference to sections of the <i>International Fire Code (IFC) 2009 Edition</i> for building code requirements are adopted, except that retroactive requirements of the IFC are not adopted. The <i>building official</i> enforces 780 CMR and all adopted IFC requirements. Also see MGL c. 148, § 9.
<i>International Electrical Code</i>	527 CMR 12.00: <i>Massachusetts Electrical Code (Amendments)</i>
<i>International Energy Conservation Code (IECC)</i>	780 CMR 13 and 51 (IECC with MA amendments)
<i>International Mechanical Code (IMC)</i>	Reference to the IMC shall apply to all mechanical systems except for that which is defined as sheet metal work by M.G.L. c. 112, § 237. The provisions of 271 CMR shall apply to all sheet metal work as defined by M.G.L. c.112, § 237. Note: 527 CMR may cover certain fire protection requirements of the IMC.
<i>International Fuel Gas Code</i>	248 CMR: <i>Board of Plumbers and Gas Fitters Regulations</i>
<i>International Residential Code (IRC)</i>	780 CMR 51.00: Residential Volume (IRC 2009 Edition with MA amendments).
<i>International Building Code (IBC)</i> or 780 CMR	780 CMR Base Volume a.k.a. IBC with MA amendments.
Construction in flood areas	780 CMR: <i>Appendix G: Flood-resistant Construction</i>
Accessibility	521 CMR: <i>Architectural Access Board Regulations</i>
Elevators and lifts	524 CMR: <i>Board of Elevator Regulations</i>
Sprinkler Systems	This code (780 CMR 34.00) or if applicable M.G.L. c. 148, § 26A, 26A½, 26G, 26G½, 26H or 26I, or M.G.L. c. 272 §§ 86 through 86d
Other requirements	Refer to:
for Carbon Monoxide Protection in all R-Uses	780 CMR 9.00: <i>Fire Protection Systems</i>
for A-2 Nightclubs Use	780 CMR 1.00, 3.00, 9.00 and 10.00

34.00: continued

101.5.0 Add subsections:

101.5.0 Compliance Alternatives. Where compliance with the provisions of the code for new construction, required by this code, is impractical because of construction difficulties or regulatory conflicts, *compliance alternatives* may be accepted by the *building official*. The building official may accept these compliance alternatives, archaic materials and assemblies in Resource A of this code, or others proposed. If the *compliance alternative* involves fire protection systems the *building official* shall consult with the fire official.

101.5.0.1 Submittals. The application for a permit shall be in accordance with 780 CMR 1.00: *Scope and Administration* and identify all items of non- or partial compliance with the requirements of this code, and compliance alternatives, if any are proposed, for approval by the *building official*. The *building official* shall respond to the acceptability of any proposed compliance alternatives within 30 days of the filing of the permit application. Where proposed compliance alternatives are, in the opinion of the *building official*, unacceptable, or where issues of non-compliance remain, the permit applicant shall have the remedies prescribed by 780 CMR, section 113.

101.5.4.0 Add subsection:

101.5.4.0 Investigation and Evaluation. For any proposed work regulated by this code and subject to 780 CMR, section 107, as a condition of the issuance of a permit the building owner shall cause the *existing building* (or portion thereof) to be investigated and evaluated in accordance with the provisions of this code. The investigation and evaluation shall be in sufficient detail to ascertain the effects of the proposed work on at least these systems: structural, means of egress, fire protection, energy conservation, lighting, hazardous materials, and ventilation for the space under consideration and, where necessary, the entire building or structure and its foundation if impacted by the proposed work. The results of the investigation and evaluation, along with any proposed *compliance alternatives*, shall be submitted to the *building official* in written report form.

101.5.4.1 - Item 1 Replace Item 1 text as shown and add Table 101.5.4.1.0

1. 780 CMR using 100% of the prescribed forces. For existing buildings with seismic force resisting systems found in Table 101.5.4.1.0, the values of R , Ω_0 , and C_d from this table shall be used in the analysis. For seismic force resisting systems not found in Table 101.5.4.1.0, the values of R , Ω_0 , and C_d used for analysis in accordance with 780 CMR 16.00: *Structural Design* shall be those specified for structural systems classified as "Ordinary" in accordance with Table 12.2-1 of ASCE 7, unless it can be demonstrated that the structural system satisfies the proportioning and detailing requirements for systems classified as "Intermediate" or "Special".

TABLE 101.5.4.1.0

BASIC SEISMIC-FORCE-RESISTING SYSTEM	R	Ω_0	C_d
Bearing Wall Systems			
Steel concentrically braced frame (CBF) with diagonal ³ or X-bracing			
CBF per 6 th Edition SBC ² except for section 9.5 of 1992 AISC Seismic Provisions	3.5	2	3.5
Otherwise ⁴	3	3	3
Steel CBF with V, Inverted V or K bracing			
V or Inverted V bracing per 6 th Edition SBC ²	3	3	3
V or Inverted V bracing, otherwise ⁴	3	3	3
K bracing	1.25	1.25	1.25
Reinforced concrete shear walls with boundary elements and without coupling beams, in accordance with 780 CMR 1113.5.1.4a, 5 th Edition	5	2.5	5
Reinforced concrete shear walls with reinforcing steel less than required by, or with spacing greater than permitted by Section 11.9.9 of ACI 318-08	1.5	1.5	1.5
Unreinforced concrete shear walls	1.25	1.25	1.25
Reinforced masonry shear walls			
Class A ⁵	4.5	2.5	3.5
Class B ⁶	2.25	2.25	2.25
Class C ⁷	1.25	1.25	1.25
Unreinforced masonry shear walls	1.25	1.25	1.25

34.00: continued

Table 101.5.4.1.0 - continued

Light-framed walls sheathed with wood structural panels or diagonal sheathing	4	2.5	3
Other light-framed walls ¹⁰	2	2	2
Building Frame Systems			
Steel concentrically braced frame (CBF) with diagonal ³ or X-bracing			
CBF per 6 th Edition SBC ² except for section 9.5 of 1992 AISC Seismic Provisions	4	2	3.5
Otherwise ⁴	3	3	3
Steel CBF with V, Inverted V or K bracing			
V or Inverted V bracing per 6 th Edition SBC ²	3	3	3
V or Inverted V bracing, otherwise ⁴	3	3	3
K bracing	1.5	1.5	1.5
Reinforced concrete shear walls with boundary elements and without coupling beams, in accordance with 780 CMR 1113.5.1.4a, 5 th Edition	6	2.5	5
Reinforced concrete shear walls with reinforcing steel less than required by, or with spacing greater than permitted by section 11.9.9 of ACI 318-08	1.5	1.5	1.5
Unreinforced concrete shear walls	1.5	1.5	1.5
Reinforced masonry shear walls			
Class A ⁵	5	2.5	4
Class B ⁶	2.25	2.25	2.25
Class C ⁷	1.5	1.5	1.5
Unreinforced masonry shear walls	1.5	1.5	1.5
Light-framed walls sheathed with wood structural panels or diagonal sheathing	4	2.5	3
Other light-framed walls ¹⁰	2.5	2.5	2.5
Moment Resisting Frame Systems			
Steel moment frames			
Special Moment Frame per 6 th Edition SBC ²	8	3	5.5
Ordinary Moment Frame per 6 th Edition SBC ²	3.5	3.5	3.5
Moment frame, otherwise ⁴	3	3	3
Reinforced concrete moment frames			
Class A ⁸	5	3	4.5
Class B ⁹	2.5	2.5	2.5
Dual Systems (See ASCE 7, Section 12.2.5.1)			
Steel concentrically braced frame (CBF) with steel moment frames (MF)			
CBF and Special Moment Frame, per 6 th Edition SBC ²	5	2.5	4.5
CBF and Moment Frame per 1 st through 5 th Editions SBC ² , except V, Inverted V or K Braced Frames	3.5	2.5	3.5
CBF and Moment Frame per 1 st through 5 th Editions SBC ² , with V, Inverted V or K Braced Frames	3	2.5	3
Otherwise	1.5	1.5	1.5
Reinforced concrete shear walls with boundary elements and without coupling beams, in accordance with 780 CMR 1113.5.1.4a, 5 th Edition, with reinforced concrete moment frames, Class A ⁸	6	2.5	5
Ordinary reinforced concrete shear walls, as defined in 8 th Edition SBC, with reinforced concrete moment frames, Class A ⁸	5.5	2.5	4.5

34.00: continued

Table 101.5.4.1.0 - continued

Notes:

1. Systems of previous editions of the State Building Code that meet the ductility requirements of the 8th Edition of the Code are not included in this table.
2. SBC refers to 780 CMR Commonwealth of Massachusetts State Building Code.
3. A diagonal brace is one that frames from a beam-to-column connection diagonally to another beam-to-column connection or to a column at its base plate.
4. The seismic resistance of the frame shall be based on its seismic connections being subject to two times the computed forces and moments resulting from seismic load.
5. Class A reinforced masonry shear walls have a minimum total area of reinforcement in the vertical and horizontal direction at least 0.0020 times the gross cross-sectional area of the wall, with a minimum area in each direction at least 0.0007 times the gross cross-sectional area of the wall. Maximum spacing of reinforcing steel bars in grouted cells or bond courses is 6'-0" in one direction and 4'-0" in the other direction, but not more than 1/3 of the length or height of the wall, whichever is less, in each direction. Class A walls satisfy other requirements for reinforced masonry of the base code.
6. Class B reinforced masonry shear walls satisfy all requirements for Class A walls, except that spacing limits for reinforcing steel bars are exceeded.
7. Class C reinforced masonry shear walls satisfy all requirements for reinforced masonry of the base code.
8. Class A reinforced concrete moment frames satisfy requirements of Sections 1113.5.1, 1113.5.1.1, 1113.5.1.2 and 1113.5.1.3 of 780 CMR 5th Edition and Sections 11.12.1.1 and 11.12.1.2 of ACI 318-83 for reinforcing of beam to column joints.
9. Class B reinforced concrete moment frames do not satisfy requirements for Class A reinforced concrete moment frames.
10. Wood siding over horizontal or diagonal boards, plaster on wood or metal lath, and stucco on metal lath may be used to resist in-plane shear, where the walls are anchored to floors and to the floor or roof construction above such that they can transfer the shear between floors and to the foundation. Gypsum sheathing, lath, wall board, drywall, fiberboard and particle board are not permitted to resist in-plane shear unless originally designed in accordance with 780 CMR for that purpose.

101.5.4.2 Add these exceptions to Item 1.**Exceptions:**

1. 780 CMR using 50% of prescribed forces when directed here by section 807.4.3
2. 780 CMR using either
 - a. 50 % of prescribed forces when directed here by section 1003.3.1 and when the vertical addition increases the building area less than or equal to 30% or,
 - b. 75% of prescribed forces when directed here by section 1003.3.1 and when the vertical addition increases the building area more than 30% but less than 50%.

101.9 Add subsection:

101.9 Cumulative Effects of Alterations, Additions, or Changes of Occupancy on Structural Elements. As noted in several sections of this code, evaluation of structural elements and their connections shall consider the cumulative effects of alterations, additions, or changes of occupancy since original construction.

Exception. When structural work:

1. does not involve more than 2% of the total tributary area of horizontal framing members of any existing framed floor or roof and,
2. does not alter shear walls above the foundation and,
3. does not alter columns or diagonal braces and,
4. does not create an opening in any framed floor or roof that has an area more than 2% of the framed floor or roof and,
5. does not alter any floor or roof diaphragm and its connections such that in-plane shear resistance is reduced by more than 5% and,
6. does not remove or reconfigure lateral load resisting frames, or foundations supporting them.

34.00: continued

102.2 Replace as follows:

102.2 Other Laws and Specialty Codes. See 780 CMR 1.00: *Scope and Administration*.

PART 2 - ADMINISTRATION AND ENFORCEMENT and all sections contained within it, replace with:

PART 2 - ADMINISTRATION AND ENFORCEMENT. For administration and enforcement provisions refer to 780 CMR 1.

202 Replace two and add two definitions as follows:

CODE OFFICIAL. See **BUILDING OFFICIAL** in 780 CMR 2.00: *Definitions*.

COMPLIANCE ALTERNATIVE. An alternative life-safety construction feature which meets or exceeds the requirements or intent of a specific provision of 780 CMR. The *building official* is authorized to approve or disapprove compliance alternatives. Compliance alternatives are allowed only for existing buildings.

HOUSE MUSEUM. A *house museum* is an *historic building* or structure. The principal use of such must be as an exhibit of the building or the structure itself which is open to the public not less than 12 days per year, although additional uses, original and/or ancillary to the principal use shall be permitted within the same building up to maximum of 40% of the gross floor area. All entries into the *house museum* list shall be certified by the Massachusetts Historical Commission. The list can be found at <http://www.sec.state.ma.us/mhc/>.

REGISTERED DESIGN PROFESSIONAL IN RESPONSIBLE CHARGE. See **REGISTERED DESIGN PROFESSIONAL** in 780 CMR 2.00: *Definitions*.

301.1.1 Add a last sentence as follows:

Addition or replacement of roofing or replacement of equipment shall comply with section 606.2 and 606.3 as applicable.

302.3 After the first sentence, add this sentence:

The cumulative effect of the load increase since original construction shall be considered.

303.3 After the first sentence, add this sentence:

The cumulative effect of the load increase since original construction shall be considered.

303.7 Add Section:

303.7 Seismic Hazards. Compliance with this section is required where the *work area* exceeds 50% of the aggregate area of the building.

303.7.1 Wall Anchors for Concrete and Masonry Buildings. For any building assigned to Seismic Design Category B, C, D, E or F with a structural system consisting of concrete or reinforced masonry walls with flexible roof or floor diaphragms or unreinforced masonry walls with any type of roof or floor diaphragm, the alteration work shall include installation of wall anchors at the roof and floor levels to resist the reduced IBC-level seismic forces specified in section 101.5.4.2, unless an evaluation demonstrates compliance of existing wall anchorage.

303.7.2 Bracing for Unreinforced Masonry Parapets. Parapets constructed of unreinforced masonry in buildings assigned to Seismic Design Category B, C, D, E or F shall have bracing installed as needed to resist the reduced IBC-level seismic forces specified in section 101.5.4.2, unless an evaluation demonstrates compliance of such items. Parapet corrective work shall be performed in conjunction with the installation of tension roof anchors. The minimum height of a parapet above any wall anchor shall be 12 inches.

Exception: If the maximum height of an unbraced unreinforced masonry parapet above the lower of either the level of tension anchors or the roof sheathing does not exceed a height-to-thickness ratio of 2.5, then bracing is not required.

34.00: continued

606.2 To exceptions 1 and 2, add a second sentence as follows:

The cumulative effect of the load increase since original construction shall be considered.

606.3.1 Add this exception:

Exception: If the maximum height of an unbraced unreinforced masonry parapet above the lower of either the level of tension anchors or the roof sheathing does not exceed a height-to-thickness ratio of 2.5, then bracing is not required.

606.3.2 Modify as follows:

606.3.2 Roof Diaphragms Resisting Wind Loads in High Wind Regions. Where roofing materials are removed from the entire roof diaphragm of a building located where the basic wind speed is 115 mph or greater and the occupancy category is type IV as defined in Table 1604.5 of 780 CMR, roof diaphragms and connections that are part of the main wind-force resisting system shall be evaluated for the wind loads specified in 780 CMR, including wind uplift. If the diaphragms and connections in their current condition do not comply with those wind provisions, they shall be replaced or strengthened in accordance with the loads specified in 780 CMR.

701.1 Replace the exception as follows:

Exception. Buildings in which the reconfiguration is exclusively the result of compliance with the accessibility requirements of the Architectural Access Board at 521 CMR.

704.2.2 Add this exception:

Exception. R-2 structures of three units, undergoing Level 2 renovations, are exempt from the requirements of this section provided that:

1. The work area is on a single unit and,
2. No other permits for Level 2 work have been issued for the building in the previous two years.

704.2.2 Item 3., 704.2.3, and 704.2.4 Item 2. Delete the word 'municipal'

704.2.5 Replace as follows:

704.2.5 Supervision. Fire sprinkler systems required by this section shall be supervised in accordance with 780 CMR 9.00: *Fire Protection Systems*.

704.4.1.1 through 704.4.1.7, and 704.4.3 Replace *International Fire Code* with 780 CMR 9.00: *Fire Protection Systems*.

705.2 Delete Exception 1.

705.4.4 Insert after the '100' text as follows:

'and Nightclubs with an occupant load of 50 or greater'

707.4 Add this as a second sentence to Exception 1:

The cumulative effect of the stress increase since original construction shall be considered for the purposes of this exception.

707.5.1 Add subsection:

707.5.1 Irregularities. Where the alteration results in a structural irregularity as defined in ASCE 7, the lateral load-resisting structural elements shall comply with the structural requirements specified in section 807.4.

34.00: continued

802.1 Replace this section as follows:

802.1 High-rise Buildings. High-rise buildings as defined by 780 CMR 2.00: *Definitions* shall comply with the requirements of section 802.1.1.

804.1.1 Delete the word 'municipal' which occurs in two locations.

804.2.1 Delete Exception 2.

807.4.3 At the end of this section add these two sentences:

For the purposes of calculating demand-capacity ratios, the demand shall consider applicable load combinations with design lateral loads or forces in accordance with 780 CMR, sections 1609 and 1613. For purposes of this section, comparisons of demand-capacity ratios and calculation of design lateral loads, forces, and capacities shall account for the cumulative effects of *additions* and *alterations* since original construction.

807.5 Add sections:

807.5 Seismic Hazards. Compliance with this section is required only when the work area exceeds 50% of the aggregate area of the building.

807.5.1 Wall Anchors for Concrete and Masonry Buildings. For any building assigned to Seismic Design Category B, C, D, E or F with a structural system consisting of concrete or reinforced masonry walls with flexible roof or floor diaphragms or unreinforced masonry walls with any type of roof or floor diaphragm, the alteration work shall include installation of wall anchors at the roof and floor levels to resist the reduced IBC-level seismic forces specified in section 101.5.4.2, unless an evaluation demonstrates compliance of existing wall anchorage.

807.5.2 Bracing for Unreinforced Masonry Parapets. Parapets constructed of unreinforced masonry in buildings assigned to Seismic Design Category B, C, D, E or F shall have bracing installed as needed to resist the reduced IBC-level seismic forces specified in section 101.5.4.2, unless an evaluation demonstrates compliance of such items. Parapet corrective work shall be performed in conjunction with the installation of tension roof anchors. The minimum height of a parapet above any wall anchor shall be 12 inches.

Exception: If the maximum height of an unbraced unreinforced masonry parapet above the lower of either the level of tension anchors or the roof sheathing does not exceed a height-to-thickness ratio of 2.5, then bracing is not required.

902.1 Add items 10. and 11. and the note as follows:

10. Day care. (*see* 780 CMR for classification)

11. Group homes.

Note. Also *see* section 912 when change of occupancy classification occurs

907.1 Add this as a second sentence to the exception:

The cumulative effect of the stress increase since original construction shall be considered for the purpose of this exception.

907.3.1 Replace first paragraph and Exception 1 as follows:

907.3.1 Compliance with the International Building Code Level Seismic Forces. Where a building or portion thereof is subject to a *change of occupancy* that results in the building being assigned to a higher occupancy category based on 780 CMR Table 1604.5, the building shall comply with seismic forces as specified in section 101.5.4.1 for the new occupancy category.

Exceptions:

1. Any occupancy being changed to Group A, E, I-1, R-1, R-2 or R-4 occupancies for buildings less than six stories in height and in Seismic Design Category A, B or C.

1002.3 Delete

34.00: continued

1003.2 To exception 1 add a second sentence as follows:

The cumulative effect of the stress increase since original construction shall be considered for the purpose of this exception.

1003.3.1 Add a second sentence as follows:

Where the addition increases the building area less than 50%, the evaluation and analysis shall demonstrate compliance with reduced seismic force levels as specified in section 101.5.4.2.

1003.4 To exception 1 add a second sentence as follows:

The cumulative effect of the stress increase since original construction shall be considered for the purpose of this exception.

1101.1 Replace this section as follows:

1101.1 Scope. It is the intent of this chapter to provide means for the preservation of *historic buildings* as certified by the Massachusetts Historical Commission. There is no obligation for owners of *historic buildings* to use the provisions of this chapter. This chapter shall preempt all other regulations of 780 CMR governing the reconstruction, renovation, alteration, change of use and occupancy, repair, maintenance and additions for the conformity of *historic buildings* and structures to 780 CMR, with the exception of 780 CMR, section 113 for appeals, or unless otherwise specified. In case of fire or other casualty to a *historic building*, said building may be rebuilt, in total or in part, using such techniques and materials as are necessary to restore it to its original condition and use group. If a building or structure as a result of proposed work would become eligible for certification as a *historic building* and the Massachusetts Historical Commission so certifies by affidavit, and such affidavit is submitted to the *building official* with the permit application, then the *building official* shall have the authority to allow the work to proceed under the provisions of this chapter.

1101.3 Replace all references to 'museum' with '*house museum*'

1103.3 Add a second paragraph as follows:

Where one or more floors of a *house museum* are limited to one means of egress, the occupancy load shall be computed as follows:

1. **Floors below the First Story.** Not more than one occupant per 100 square feet of gross floor area with a maximum occupancy of 49.
2. **First Story.** Not more than one occupant per 50 square feet of gross floor area.
3. **Second Story and Above.** Not more than one occupant per 100 square feet of gross floor area, or 30 occupants per 22 inch unit of egress width, whichever condition results in the lesser occupancy load.

1103.12 Replace as follows:

1103.12 Fire Protection Equipment. Fire protection equipment shall be provided for *house museums* according to the following requirements:

1. **Manual Fire Extinguishing Equipment.** All use groups, other than R-3 and R-4, shall have approved manual fire extinguishing equipment, as determined by the head of the local fire department.
2. **Fire Alarm Systems.** Use groups R-1, R-2 and R-3 shall conform to the requirements of 780 CMR 907, as applicable. All other use groups shall comply with section 1103.12 items 2.(a) and (b).
 - (a) **Locations.** Provide smoke detectors in accordance with manufacturers listing and spacing requirements, but not less than one, for every 1200 square feet of floor area per level. In addition, all lobbies, common corridors, hallways and exitway access and discharge routes shall be provided with approved smoke detectors installed in accordance with the manufacturers listing and spacing requirements but not more than 30 feet spacing between detectors. All required smoke detectors shall have an alarm audible throughout the structure or building.
 - (b) **Single Station and Multiple Station Smoke Detection Devices.** As required by 780 CMR 9.00: *Fire Protection Systems*.

34.00: continued

3. **Manual Pull Stations.** A manual fire alarm pull station shall be provided in the natural path of egress in all use groups except R-3 and R-4. Manual pull stations shall be connected to the building fire warning system in conformance with NFPA 72.

Exception. *House museums* which are provided with an approved automatic fire-extinguishing system throughout shall not be required to be provided with manual fire extinguishing equipment. Smoke detection devices shall not be required in occupancies other than Use Groups R-1, R-2, and R-3.

1103.12.1 Supervision. Fire alarm systems required by this section shall be supervised in accordance with the requirements 780 CMR 9.00: *Fire Protection Systems*.

Exception. Residential single and multiple station smoke detectors.

1106.1 Add a second exception as follows:

Exceptions

2. *House museums* need not comply with the wind load and seismic load requirements of this code.

1301.2 Delete the first sentence of this section.

1301.3.4 Add section:

1301.3.4 Peer Review. At the discretion of the *building official*, the owner shall engage a *registered design professional* to review the performance compliance evaluation and methodologies proposed to determine compliance with this section. The *registered design professional* shall prepare a written report to the building official summarizing the results of their review. Items identified by the *registered design professional* as needing modification in order to be in compliance with this section shall be addressed to the satisfaction of the *building official* prior to the issuance of a building permit.

1301.6.17 Add note as follows:

Note. Automatic sprinklers required by M.G.L. c. 148 § 26G need not be considered "Required sprinklers" for the purposes of this section.

1401.1 Add two notes at the end of this section:

Note 1. As applicable, Department of Environmental Protection (DEP) Regulations, 310 CMR 7.09: U: *Dust, Odor, Construction and Demolition*, and the requirements of M.G.L. c. 111 § 150A, addressing disposal of demolition debris, must be satisfied.

Note 2. As applicable, 527 CMR, in conjunction with M.G.L. c. 148 § 27A must be satisfied if fire protection systems are to be dismantled, shut-off, or modified.

1401.4.1 Add section:

1401.4.1 Removal of Waste Material. Material shall not be dropped by gravity or thrown outside the exterior walls of a building during demolition or erection, chutes shall be provided for the removal of such materials. Where the removal of any material will cause an excessive amount of dust, such material shall be wet down to prevent the creation of a nuisance.

Exception. The requirements of this section may be waived based on site conditions if approved by the *building official*.

1401.5 Replace 'the *International Plumbing Code*' with 'the requirements of the Department of Public Health and 248 CMR, as applicable'.

1407.1 Replace 'section 110.3' with 780 CMR 1.00: *Scope and Administration*.

1409 Delete this section.

34.00: continued

Appendix A106.2 Add subsection 4 as follows:

4. The values contained in Table A106.2 shall be used as material property values of the existing material listed therein, unless values are specified by other provisions in this chapter, or values are used, based on available historical information for a particular type of masonry construction, prevailing codes, and assessment of existing conditions.

A106.2 Insert TABLE A106.2 MATERIAL PROPERTY VALUES**TABLE A106.2 MATERIAL PROPERTY VALUES**

Symbol/Notation	Description	Maximum Value	Notes
f_m	See section A104	300 psi	Per section A108.3
E_m	Elastic Modulus in Compression	550,000 psi	Based on $f_m = 1,000$ psi
f_{sp}	See section A104	0 psi	-
v_m	Masonry with running bond lay-up	20 psi	-
v_m	Masonry, fully grouted, with a lay-up other than running bond	20 psi	-
v_m	Masonry, partially grouted or ungrouted, with a lay-up other than running bond	10 psi	-

(PAGES 143 THROUGH 146 ARE RESERVED FOR FUTURE USE.)